BID PROPOSAL INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals are potential bidding proposals. Each proposal contains all certifications and affidavits, a proposal signature sheet and a proposal bid bond.

PREQUALIFICATION

Any contractor who desires to become pre-qualified to bid on work advertised by IDOT must submit the properly completed pre-qualification forms to the Bureau of Construction no later than 4:30 p.m. prevailing time twenty-one days prior to the letting of interest. This pre-qualification requirement applies to first time contractors, contractors renewing expired ratings, contractors maintaining continuous pre-qualification or contractors requesting revised ratings. To be eligible to bid, existing pre-qualification ratings must be effective through the date of letting.

WHO CAN BID ?

Bids will be accepted from only those companies that request and receive written Authorization to Bid from IDOT's Central Bureau of Construction.

REQUESTS FOR AUTHORIZATION TO BID

Contractors wanting to bid on items included in a particular letting must submit the properly completed "Request for Authorization to Bid/or Not For Bid Status" (BDE 124) and the ORIGINAL "Affidavit of Availability" (BC 57) to the proper office no later than 4:30 p.m. prevailing time, three (3) days prior to the letting date.

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?

When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status"(BDE 124) he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued an **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction and the Chief Procurement Officer that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** will indicate the reason for denial.

ABOUT AUTHORIZATION TO BID

Firms that have not received an Authorization to Bid or Not For Bid Report within a reasonable time of complete and correct original document submittal should contact the Department as to the status. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions.

ADDENDA AND REVISIONS

It is the bidder's responsibility to determine which, if any, addenda or revisions pertain to any project they may be bidding. Failure to incorporate all relevant addenda or revisions may cause the bid to be declared unacceptable.

Each addendum or revision will be included with the Electronic Plans and Proposals. Addenda and revisions will also be placed on the Addendum/Revision Checklist and each subscription service subscriber will be notified by e-mail of each addendum and revision issued.

The Internet is the Department's primary way of doing business. The subscription service emails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at http://www.dot.il.gov/desenv/delett.html before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

Addenda questions may be directed to the Contracts Office at (217)782-7806 or DOT.D&Econtracts@illlinois.gov

Technical questions about downloading these files may be directed to Tim Garman at (217)524-1642 or Timothy.Garman@illinois.gov.

STANDARD GUIDELINES FOR SUBMITTING BIDS

- All pages should be single sided.
- Use the Cover Page that is provided in the Bid Proposal (posted on the IDOT Web Site) as the first page of your submitted bid. It has the item number in large bold type in the upper left-hand corner and lines provided for your company name and address in the upper right-hand corner.
- Do not use report covers, presentation folders or special bindings and do not staple multiple times on left side like a book. Use only 1 staple in the upper left hand corner. Make suer all elements of your bid are stapled together including the bid bond or guaranty check (if required).
- Do not include any certificates of eligibility, your authorization to bid, Addendum Letters or affidavit of availability.
- Do not include the Subcontractor Documentation with your bid (pages i – iii and pages a – g). This documentation is required only if you are awarded the project.
- Use the envelope cover sheet (provided with the proposal) as the cover for the proposal envelope.
- Do not rely on overnight services to deliver your proposal prior to 10 AM on letting day. It will not be read if it is delivered after 10 AM.
- Do not submit your Substance Abuse Prevention Program (SAPP) with your bid. If you are awarded the contract this form is to be submitted to the district engineer at the pre-construction conference.

BID SUBMITTAL CHECKLIST

☐ **Cover page** (the sheet that has the item number on it) **–** This should be the first page of your bid proposal, **followed by your bid (the Schedule of Prices/Pay Items).** If you are using special software or CBID to generate your schedule of prices, do not include the blank pages of the schedule of prices that came with the proposal package.

☐ **Page 4 (Item 9)** – Check "YES" if you will use a subcontractor(s) with an annual value over $50,000. Include the subcontractor(s) name, address, general type of work to be performed and the dollar amount. If you will use subcontractor(s) but are uncertain who or the dollar amount; check "YES" but leave the lines blank.

☐ **After page 4 –** Insert the following documents: The I**llinois Office Affidavit** (Not applicable to federally funded projects) followed by Cost Adjustments for Steel, Bituminous and Fuel (if applicable) and the Contractor Letter of Assent (if applicable). The general rule should be, if you don't know where it goes, put it after page 4.

☐ **Page 10 (Paragraph J)** – Check "YES" or "NO" whether your company has any business in Iran.

☐ **Page 10 (Paragraph K)** – (Not applicable to federally funded projects) List the name of the apprenticeship and training program sponsor holding the certificate of registration from the US Department of Labor. If no applicable program exists, please indicate the work/job category **Your bid will not be read if this is not completed.** Do not include certificates with your bid. Keep the certificates in your office in case they are requested by IDOT.

☐ **Page 11 (Paragraph L)** – A copy of your State Board of Elections certificate of registration is no longer required with your bid.

☐ **Page 11 (Paragraph M)** – Indicate if your company has hired a lobbyist in connection with the job for which you are submitting the bid proposal.

☐ **Page 12 (Paragraph C)** – This is a work sheet to determine if a completed Form A is required. It is not part of the form and you do not need to make copies for each completed Form A.

☐ **Pages 14-17 (Form A)** – One Form A (4 pages) is required for each applicable person in your company. Copies of the forms can be used and only need to be changed when the information changes. The certification signature and date must be original for each letting. **Do not staple the forms together**. If you answered "NO" to all of the questions in Paragraph C (page 12), complete the first section (page 14) with your company information and then sign and date the Not Applicable statement on page 17.

☐ **Page 18 (Form B)** - If you check "YES" to having other current or pending contracts it is acceptable to use the phrase, "See Affidavit of Availability on file". **Ownership Certification** (at the bottom of the page) - Check N/A if the Form A(s) you submitted accounts for 100 percent of the company ownership. Check YES if any percentage of ownership falls outside of the parameters that require reporting on the Form A. Checking NO indicates that the Form A(s) you submitted is not correct and you will be required to submit a revised Form A.

☐ **Page 20 (Workforce Projection)** – Be sure to include the Duration of the Project. It is acceptable to use the phrase "Per Contract Specifications".

☐ **Proposal Bid Bond –** (Insert after the proposal signature page) Submit your proposal Proposal Bid Bond (if applicable) using the current Proposal Bid Bond form provided in the proposal package. The Power of Attorney page should be stapled to the Proposal Bid Bond. If you are using an electronic bond, include your bid bond number on the Proposal Bid Bond and attach the Proof of Insurance printed from the Surety's Web Site.

☐ **Disadvantaged Business Utilization Plan and/or Good Faith Effort –** The last items in your bid should be the DBE Utilization Plan (SBE 2026), followed by the DBE Participation Statement (SBE 2025) and supporting paperwork. If you have documentation of a Good Faith Effort, it is to follow the SBE Forms.

The Bid Letting is now available in streaming Audio/Video from the IDOT Web Site. A link to the stream will be placed on the main page of the current letting on the day of the Letting. The stream will not begin until 10 AM. The actual reading of the bids does not begin until approximately 10:30 AM.

Following the Letting, the As-Read Tabulation of Bids will be posted by the end of the day. You will find the link on the main Web page for the current letting.

QUESTIONS: pre-letting up to execution of the contract

Contractor pre-qualification	217-782-3413
Small Business, Disadvantaged Business Enterprise (DBE)	217-785-4611
Contracts, Bids, Letting process or Internet downloads	217-782-7806
Estimates Unit	217-785-3483
Aeronautics	217-785-8515
IDNR (Land Reclamation, Water Resources, Natural Resources)	217-782-6302

QUESTIONS: following contract execution

Subcontractor documentation, payments	217-782-3413
Railroad Insurance	217-785-0275

RETURN WITH BID

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Proposal Submitted By
Name
Address
City

Letting February 28, 2014

NOTICE TO PROSPECTIVE BIDDERS
This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction.
BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL

Notice to Bidders, Specifications, Proposal, Contract and Contract Bond

Illinois Department of Transportation

Springfield, Illinois 62764

Contract No. 60V72
MCHENRY County
Section 18 W&RS-5 (12)
Route FAU 3887
Project ACHPP-ACM-3887(009)
District 1 Construction Funds

PLEASE MARK THE APPROPRIATE BOX BELOW:

☐ A Bid Bond is included.

☐ A Cashier's Check or a Certified Check is included

☐ An Annual Bid Bond is included or is on file with IDOT.

Prepared by

Checked by F

(Printed by authority of the State of Illinois)

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RETURN WITH BID

Illinois Department of Transportation

PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

   _____

Taxpayer Identification Number (Mandatory) _____

For the improvement identified and advertised for bids in the Invitation for Bids as:

Contract No. 60V72
MCHENRY County
Section 18 W&RS-5 (12)
Project ACHPP-ACM-3887(009)
Route FAU 3887
District 1 Construction Funds

0.88 miles of additional lanes, retaining wall construction and other associated work on IL 31 from Trinity Dr. to Rakow Rd. in Cary, Lake in the Hills and Crystal Lake.

2. The undersigned bidder will furnish all labor, material and equipment to complete the above described project in a good and workmanlike manner as provided in the contract documents provided by the Department of Transportation. This proposal will become part of the contract and the terms and conditions contained in the contract documents will govern performance and payments.

3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned bidder further declares that he/she has carefully examined the proposal, plans, specifications, addenda form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this bid proposal he/she waives all right to plead any misunderstanding regarding the same.

4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned bidder further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, or as specified in the special provisions, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

5. **PROPOSAL GUARANTY.** Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

Amount of Bid			Proposal Guaranty	Amount of Bid			Proposal Guaranty
Up to		$5,000	$150	$2,000,000	to	$3,000,000	$100,000
$5,000	to	$10,000	$300	$3,000,000	to	$5,000,000	$150,000
$10,000	to	$50,000	$1,000	$5,000,000	to	$7,500,000	$250,000
$50,000	to	$100,000	$3,000	$7,500,000	to	$10,000,000	$400,000
$100,000	to	$150,000	$5,000	$10,000,000	to	$15,000,000	$500,000
$150,000	to	$250,000	$7,500	$15,000,000	to	$20,000,000	$600,000
$250,000	to	$500,000	$12,500	$20,000,000	to	$25,000,000	$700,000
$500,000	to	$1,000,000	$25,000	$25,000,000	to	$30,000,000	$800,000
$1,000,000	to	$1,500,000	$50,000	$30,000,000	to	$35,000,000	$900,000
$1,500,000	to	$2,000,000	$75,000	over		$35,000,000	$1,000,000

Bank cashier's checks or properly certified checks accompanying bid proposals will be made payable to the Treasurer, State of Illinois.

If a combination bid is submitted, the proposal guaranties which accompany the individual bid proposals making up the combination will be considered as also covering the combination bid.

The amount of the proposal guaranty check is _____ $( ). If this proposal is accepted and the undersigned will fail to execute a contract bond as required herein, it is hereby agreed that the amount of the proposal guaranty will become the property of the State of Illinois, and shall be considered as payment of damages due to delay and other causes suffered by the State because of the failure to execute said contract and contract bond; otherwise, the bid bond will become void or the proposal guaranty check will be returned to the undersigned.

Attach Cashier's Check or Certified Check Here

In the event that one proposal guaranty check is intended to cover two or more bid proposals, the amount must be equal to the sum of the proposal guaranties which would be required for each individual bid proposal. If the guaranty check is placed in another bid proposal, state below where it may be found.

The proposal guaranty check will be found in the bid proposal for:

Item _____

Section No. _____

County _____

Mark the proposal cover sheet as to the type of proposal guaranty submitted.

6. **COMBINATION BIDS.** The undersigned bidder further agrees that if awarded the contract for the sections contained in the following combination, he/she will perform the work in accordance with the requirements of each individual contract comprising the combination bid specified in the schedule below, and that the combination bid shall be prorated against each section in proportion to the bid submitted for the same. If an error is found to exist in the gross sum bid for one or more of the individual sections included in a combination, the combination bid shall be corrected as provided in the specifications.

When a combination bid is submitted, the schedule below must be completed in each proposal comprising the combination.

If alternate bids are submitted for one or more of the sections comprising the combination, a combination bid must be submitted for each alternate.

Schedule of Combination Bids

Combination No.	Sections Included in Combination	Combination Bid Dollars	Cents

7. **SCHEDULE OF PRICES.** The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices will govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.

8. **AUTHORITY TO DO BUSINESS IN ILLINOIS.** Section 20-43 of the Illinois Procurement Code (the Code) (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to do business in the State of Illinois prior to submitting the bid.

9. **EXECUTION OF CONTRACT**: The Department of Transportation will, in accordance with the rules governing Department procurements, execute the contract and shall be the sole entity having the authority to accept performance and make payments under the contract. Execution of the contract by the Chief Procurement Officer (CPO) or the State Purchasing Officer (SPO) is for approval of the procurement process and execution of the contract by the Department. Neither the CPO nor the SPO shall be responsible for administration of the contract or determinations respecting performance or payment there under except as otherwise permitted in the Code.

10. **The services of a subcontractor will be used.**

Check box Yes ☐
Check box No ☐

For known subcontractors with subcontracts with an annual value of more than $50,000, the contract shall include their name, address, general type of work to be performed, and the dollar allocation for each subcontractor. (30 ILCS 500/20-120)

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 60V72

State Job # - C-91-062-13

Project Number ACHPP-ACM-3887/009/

Route FAU 3887

County Name - MCHENRY- -
Code - 111 - -
District - 1 - -
Section Number - 18W&RS-5 (12)

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
A2000120	T-ACERX FREM AB 2-1/2	EACH	6.000				
A2002376	T-BETULA NIGRA CL 12'	EACH	6.000				
A2006270	T-POPUL TREM CL 8'	EACH	6.000				
A2006516	T-QUERCUS BICOL 2	EACH	1.000				
A2008416	T-TILIA TOM STR 2	EACH	2.000				
B0001720	T-AMEL X GF AP SF 12'	EACH	5.000				
B2000123	T-A TATRM JFS-KW2 2TF	EACH	14.000				
B2001168	T-CERCIS CAN CL 7'	EACH	6.000				
B2003416	T-MALUS FLOR TF 2	EACH	11.000				
B2006126	T-SYRG P ZHING 2-1/2	EACH	9.000				
C2C09624	S-SAMBUCUS CANAD 2'C	EACH	90.000				
C2002948	S-FORSYTH X INT 4'	EACH	11.000				
C2011748	S-VIBURN DENT 4'	EACH	44.000				
D2C00424	E-JUNIP CH PFITZ 2'C	EACH	9.000				
XX004913	REMOV FOC FR CONDUIT	FOOT	4,100.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 60V72

State Job # - C-91-062-13

	Project Number	Route
County Name - MCHENRY- -	ACHPP-ACM-3887/009/	FAU 3887

Code - 111 - -
District - 1 - -
Section Number - 18W&RS-5 (12)

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
XX006821	CONC TRUCK WASHOUT	L SUM	1.000				
XZ127900	RETAINING WALL REMOV	FOOT	65.000				
X0320239	CONC WALL REMOV	FOOT	302.000				
X0322936	REMOV EX FLAR END SEC	EACH	12.000				
X0323360	WOOD POLE REMOVAL	EACH	1.000				
X0323443	PREC MOD RET WALL	SQ FT	847.000				
X0325034	MH TA 6D W/2 T1FOL RP	EACH	8.000				
X0325938	TEMP WIR INTERCON COM	L SUM	1.000				
X0326864	BRICK SIDEWALK REM	SQ FT	114.000				
X0327009	REMOVE SIGN SPECIAL	EACH	3.000				
X0327032	TEMP VIDEO DETECTION	EACH	1.000				
X0327037	SPECIAL GRATE NO. 1	EACH	1.000				
X0327301	RELOCATE EX MAILBOX	EACH	9.000				
X2130010	EXPLOR TRENCH SPL	FOOT	200.000				
X4021000	TEMP ACCESS- PRIV ENT	EACH	2.000				

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Code - 111 - -
District - 1 - -
Section Number - 18W&RS-5 (12)

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X4022000	TEMP ACCESS- COM ENT	EACH	11.000				
X6640300	CH LK FENCE REMOV	FOOT	34.000				
X7010216	TRAF CONT & PROT SPL	L SUM	1.000				
X7030025	WET REF TEM TP T3 L&S	SQ FT	255.000				
X7030030	WET REF TEM TAPE T3 4	FOOT	33,929.000				
X7030040	WET REF TEM TAPE T3 6	FOOT	1,358.000				
X7030050	WET REF TEM TPE T3 12	FOOT	1,514.000				
X7030055	WET REF TEM TPE T3 24	FOOT	109.000				
X8710024	FOCC62.5/125 MM12SM24	FOOT	7,476.000				
Z0004530	HMA DRIVEWAY PAVT 8	SQ YD	214.000				
Z0004538	HMA DRIVEWAY PAVT 10	SQ YD	1,035.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0019600	DUST CONTROL WATERING	UNIT	2,880.000				
Z0022800	FENCE REMOVAL	FOOT	245.000				
Z0030850	TEMP INFO SIGNING	SQ FT	75.000				

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County Name - MCHENRY- -
Code - 111 - -
District - 1 - -
Section Number - 18W&RS-5 (12)

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
Z0046304	P UNDR FOR STRUCT 4	FOOT	160.000				
Z0062456	TEMP PAVEMENT	SQ YD	1,085.000				
Z0073510	TEMP TR SIGNAL TIMING	EACH	1.000				
Z0076600	TRAINEES	HOUR	1,500.000		0.800		1,200.000
Z0076604	TRAINEES TPG	HOUR	1,500.000		15.000		22,500.000
20100110	TREE REMOV 6-15	UNIT	1,315.000				
20100210	TREE REMOV OVER 15	UNIT	307.000				
20100500	TREE REMOV ACRES	ACRE	0.700				
20101700	SUPPLE WATERING	UNIT	3.000				
20200100	EARTH EXCAVATION	CU YD	11,625.000				
20201200	REM & DISP UNS MATL	CU YD	865.000				
20400800	FURNISHED EXCAVATION	CU YD	32,425.000				
20800150	TRENCH BACKFILL	CU YD	3,605.000				
21001000	GEOTECH FAB F/GR STAB	SQ YD	6,311.000				
21101615	TOPSOIL F & P 4	SQ YD	28,606.000				

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County Name - MCHENRY- -
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District - 1 - -
Section Number - 18W&RS-5 (12)

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
21101685	TOPSOIL F & P 24	SQ YD	3,918.000				
25000210	SEEDING CL 2A	ACRE	5.500				
25000310	SEEDING CL 4	ACRE	0.250				
25000400	NITROGEN FERT NUTR	POUND	415.000				
25000500	PHOSPHORUS FERT NUTR	POUND	415.000				
25000600	POTASSIUM FERT NUTR	POUND	415.000				
25100630	EROSION CONTR BLANKET	SQ YD	28,008.000				
25200110	SODDING SALT TOLERANT	SQ YD	5,700.000				
28000250	TEMP EROS CONTR SEED	POUND	580.000				
28000305	TEMP DITCH CHECKS	FOOT	934.000				
28000400	PERIMETER EROS BAR	FOOT	5,578.000				
28000510	INLET FILTERS	EACH	82.000				
30300001	AGG SUBGRADE IMPROVE	CU YD	6,083.000				
30300112	AGG SUBGRADE IMPR 12	SQ YD	32,334.000				
31101400	SUB GRAN MAT B 6	SQ YD	5,243.000				

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Section Number - 18W&RS-5 (12)

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
40600300	AGG PR CT	TON	7.500				
40603335	HMA SC "D" N50	TON	380.000				
42000501	PCC PVT 10 JOINTED	SQ YD	26,474.000				
42001300	PROTECTIVE COAT	SQ YD	32,036.000				
44000100	PAVEMENT REM	SQ YD	17,259.000				
44000200	DRIVE PAVEMENT REM	SQ YD	1,157.000				
44000300	CURB REM	FOOT	411.000				
44000500	COMB CURB GUTTER REM	FOOT	268.000				
44000600	SIDEWALK REM	SQ FT	601.000				
44003100	MEDIAN REMOVAL	SQ FT	1,809.000				
44004250	PAVED SHLD REMOVAL	SQ YD	8,373.000				
44201769	CL D PATCH T3 10	SQ YD	46.000				
44201771	CL D PATCH T4 10	SQ YD	338.000				
50105220	PIPE CULVERT REMOV	FOOT	344.000				
542A0220	P CUL CL A 1 15	FOOT	337.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 60V72

State Job # - C-91-062-13

	Project Number	Route
County Name - MCHENRY- -	ACHPP-ACM-3887/009/	FAU 3887

Code - 111 - -
District - 1 - -
Section Number - 18W&RS-5 (12)

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
542A0223	P CUL CL A 1 18	FOOT	47.000				
542A0229	P CUL CL A 1 24	FOOT	145.000				
542A1909	P CUL CL A 3 24	FOOT	194.000				
54213657	PRC FLAR END SEC 12	EACH	2.000				
54213660	PRC FLAR END SEC 15	EACH	20.000				
54213663	PRC FLAR END SEC 18	EACH	6.000				
54213666	PRC FLAR END SEC 21	EACH	2.000				
54213669	PRC FLAR END SEC 24	EACH	6.000				
550A0050	STORM SEW CL A 1 12	FOOT	1,415.000				
550A0070	STORM SEW CL A 1 15	FOOT	634.000				
550A0090	STORM SEW CL A 1 18	FOOT	101.000				
550A0110	STORM SEW CL A 1 21	FOOT	56.000				
550A0120	STORM SEW CL A 1 24	FOOT	289.000				
550A0160	STORM SEW CL A 1 36	FOOT	112.000				
550A0340	STORM SEW CL A 2 12	FOOT	321.000				

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Code - 111 - -
District - 1 - -
Section Number - 18W&RS-5 (12)

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
550A0380	STORM SEW CL A 2 18	FOOT	300.000				
550A0410	STORM SEW CL A 2 24	FOOT	201.000				
550A0450	STORM SEW CL A 2 36	FOOT	1,318.000				
550A4300	SS CL A 1 EQRS 30	FOOT	457.000				
550A5100	SS CL A 2 EQRS 30	FOOT	274.000				
550B0330	STORM SEW CL B 2 10	FOOT	36.000				
55100900	STORM SEWER REM 18	FOOT	310.000				
55101100	STORM SEWER REM 21	FOOT	154.000				
55101200	STORM SEWER REM 24	FOOT	77.000				
60107600	PIPE UNDERDRAINS 4	FOOT	948.000				
60201340	CB TA 4 DIA T24F&G	EACH	37.000				
60205040	CB TA 5 DIA T24F&G	EACH	1.000				
60208240	CB TC T24F&G	EACH	32.000				
60218400	MAN TA 4 DIA T1F CL	EACH	13.000				
60219540	MAN TA 4 DIA T24F&G	EACH	1.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 60V72

State Job # - C-91-062-13

	Project Number	Route
County Name - MCHENRY- -	ACHPP-ACM-3887/009/	FAU 3887

Code - 111 - -
District - 1 - -
Section Number - 18W&RS-5 (12)

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60221100	MAN TA 5 DIA T1F CL	EACH	15.000				
60222240	MAN TA 5 DIA T24F&G	EACH	1.000				
60224446	MAN TA 7 DIA T1F CL	EACH	2.000				
60240328	INLETS TB T24F&G	EACH	7.000				
60500050	REMOV CATCH BAS	EACH	2.000				
60600605	CONC CURB TB	FOOT	210.000				
60605000	COMB CC&G TB6.24	FOOT	12,736.000				
60618300	CONC MEDIAN SURF 4	SQ FT	1,251.000				
60619600	CONC MED TSB6.12	SQ FT	10,476.000				
66700305	PERM SURV MKRS T2	EACH	1.000				
66900200	NON SPL WASTE DISPOSL	CU YD	7,200.000				
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				
66900530	SOIL DISPOSAL ANALY	EACH	5.000				
67000400	ENGR FIELD OFFICE A	CAL MO	12.000				
67100100	MOBILIZATION	L SUM	1.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 60V72

State Job # - C-91-062-13

Project Number ACHPP-ACM-3887/009/

Route FAU 3887

County Name - MCHENRY- -
Code - 111 - -
District - 1 - -
Section Number - 18W&RS-5 (12)

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70100450	TRAF CONT-PROT 701201	L SUM	1.000				
70102635	TR CONT & PROT 701701	L SUM	1.000				
70106800	CHANGEABLE MESSAGE SN	CAL MO	20.000				
70300220	TEMP PVT MK LINE 4	FOOT	13,714.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	10,131.000				
70400100	TEMP CONC BARRIER	FOOT	4,604.000				
70600250	IMP ATTN TEMP NRD TL3	EACH	2.000				
70600260	IMP ATTN TEMP FRN TL3	EACH	1.000				
72000100	SIGN PANEL T1	SQ FT	125.000				
72400100	REMOV SIN PAN ASSY TA	EACH	15.000				
72400500	RELOC SIN PAN ASSY TA	EACH	4.000				
72400600	RELOC SIN PAN ASSY TB	EACH	1.000				
72800100	TELES STL SIN SUPPORT	FOOT	418.000				
78008200	POLYUREA PM T1 LTR-SY	SQ FT	633.000				
78008210	POLYUREA PM T1 LN 4	FOOT	2,507.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 60V72

State Job # - C-91-062-13

	Project Number	Route
County Name - MCHENRY- -	ACHPP-ACM-3887/009/	FAU 3887

Code - 111 - -
District - 1 - -
Section Number - 18W&RS-5 (12)

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78008230	POLYUREA PM T1 LN 6	FOOT	4,550.000				
78008250	POLYUREA PM T1 LN 12	FOOT	729.000				
78008270	POLYUREA PM T1 LN 24	FOOT	39.000				
78100100	RAISED REFL PAVT MKR	EACH	305.000				
78300100	PAVT MARKING REMOVAL	SQ FT	5,413.000				
81028200	UNDRGRD C GALVS 2	FOOT	3,434.000				
81400100	HANDHOLE	EACH	8.000				
81400200	HD HANDHOLE	EACH	1.000				
85000200	MAIN EX TR SIG INSTAL	EACH	2.000				
87300925	ELCBL C TRACER 14 1C	FOOT	7,453.000				
87301305	ELCBL C LEAD 14 1PR	FOOT	139.000				
87900200	DRILL EX HANDHOLE	EACH	3.000				
88600100	DET LOOP T1	FOOT	52.000				
89502300	REM ELCBL FR CON	FOOT	4,077.000				
89502380	REMOV EX HANDHOLE	EACH	7.000				

CONTRACT NUMBER **60V72**

THIS IS THE TOTAL BID **$** _____

NOTES:

1. **Each PAY ITEM should have a UNIT PRICE and a TOTAL PRICE.**
2. **The UNIT PRICE shall govern if no TOTAL PRICE is shown or if there is a discrepancy between the product of the UNIT PRICE multiplied by the QUANTITY.**
3. **If a UNIT PRICE is omitted, the TOTAL PRICE will be divided by the QUANTITY in order to establish a UNIT PRICE.**
4. **A bid may be declared UNACCEPTABLE if neither a unit price nor a total price is shown.**

RETURN WITH BID

STATE REQUIRED ETHICAL STANDARDS GOVERNING CONTRACT PROCUREMENT: ASSURANCES, CERTIFICATIONS AND DISCLOSURES

I. GENERAL

A. Article 50 of the Code establishes the duty of all State CPOs, SPOs, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

B. In order to comply with the provisions of Article 50 and to carry out the duty established therein, all bidders are to adhere to ethical standards established for the procurement process, and to make such assurances, disclosures and certifications required by law. Except as otherwise required in subsection III, paragraphs J-M, by execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances have been read and understood, that each certification is made and understood, and that each disclosure requirement has been understood and completed.

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for the CPO to void the contract, and may result in the suspension or debarment of the bidder or subcontractor. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

☐ I acknowledge, understand and accept these terms and conditions.

II. ASSURANCES

The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

A. Conflicts of Interest

Section 50-13. Conflicts of Interest.

(a) Prohibition. It is unlawful for any person holding an elective office in this State, holding a seat in the General Assembly, or appointed to or employed in any of the offices or agencies of state government and who receives compensation for such employment in excess of 60% of the salary of the Governor of the State of Illinois, or who is an officer or employee of the Capital Development Board or the Illinois State Toll Highway Authority, or who is the spouse or minor child of any such person to have or acquire any contract, or any direct pecuniary interest in any contract therein, whether for stationery, printing, paper, or any services, materials, or supplies, that will be wholly or partially satisfied by the payment of funds appropriated by the General Assembly of the State of Illinois or in any contract of the Capital Development Board or the Illinois State Toll Highway Authority.

(b) Interests. It is unlawful for any firm, partnership, association or corporation, in which any person listed in subsection (a) is entitled to receive (i) more than 7 1/2% of the total distributable income or (ii) an amount in excess of the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(c) Combined interests. It is unlawful for any firm, partnership, association, or corporation, in which any person listed in subsection (a) together with his or her spouse or minor children is entitled to receive (i) more than 15%, in the aggregate, of the total distributable income or (ii) an amount in excess of 2 times the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(d) Securities. Nothing in this Section invalidates the provisions of any bond or other security previously offered or to be offered for sale or sold by or for the State of Illinois.

(e) Prior interests. This Section does not affect the validity of any contract made between the State and an officer or employee of the State or member of the General Assembly, his or her spouse, minor child or any combination of those persons if that contract was in existence before his or her election or employment as an officer, member, or employee. The contract is voidable, however, if it cannot be completed within 365 days after the officer, member, or employee takes office or is employed.

The current salary of the Governor is $177,412.00. Sixty percent of the salary is $106,447.20.

The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-13, or that an effective exemption has been issued by the Board of Ethics to any individual subject to the Section 50-13 prohibitions pursuant to the provisions of Section 50-20 of the Code. Information concerning the exemption process is available from the Department upon request.

B. Negotiations

Section 50-15. Negotiations.

It is unlawful for any person employed in or on a continual contractual relationship with any of the offices or agencies of State government to participate in contract negotiations on behalf of that office or agency with any firm, partnership, association, or corporation with whom that person has a contract for future employment or is negotiating concerning possible future employment.

The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-15, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

C. Inducements

Section 50-25. Inducement.

Any person who offers or pays any money or other valuable thing to any person to induce him or her not to bid for a State contract or as recompense for not having bid on a State contract is guilty of a Class 4 felony. Any person who accepts any money or other valuable thing for not bidding for a State contract or who withholds a bid in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-25, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

D. Revolving Door Prohibition

Section 50-30. Revolving door prohibition.

CPOs, SPOs, procurement compliance monitors, their designees whose principal duties are directly related to State procurement, and executive officers confirmed by the Senate are expressly prohibited for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the State agency most recently employing them in an affected position for a period of at least 6 months. The prohibition includes, but is not limited to: lobbying the procurement process; specifying; bidding; proposing bid, proposal, or contract documents; on their own behalf or on behalf of any firm, partnership, association, or corporation. This Section applies only to persons who terminate an affected position on or after January 15, 1999.

The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-30, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

E. Reporting Anticompetitive Practices

Section 50-40. Reporting anticompetitive practices.

When, for any reason, any vendor, bidder, contractor, CPO, SPO, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offerors, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the CPO.

The bidder assures the Department that it has not failed to report any relevant facts concerning the practices addressed in Section 50-40 which may involve the contract for which the bid is submitted.

F. Confidentiality

Section 50-45. Confidentiality.

Any CPO, SPO, designee, or executive officer who willfully uses or allows the use of specifications, competitive bid documents, proprietary competitive information, proposals, contracts, or selection information to compromise the fairness or integrity of the procurement, bidding, or contract process shall be subject to immediate dismissal, regardless of the Personnel code, any contract, or any collective bargaining agreement, and may in addition be subject to criminal prosecution.

The bidder assures the Department that it has no knowledge of any fact relevant to the practices addressed in Section 50-45 which may involve the contract for which the bid is submitted.

G. Insider Information

Section 50-50. Insider information.

It is unlawful for any current or former elected or appointed State official or State employee to knowingly use confidential information available only by virtue of that office or employment for actual or anticipated gain for themselves or another person.

The bidder assures the Department that it has no knowledge of any facts relevant to the practices addressed in Section 50-50 which may involve the contract for which the bid is submitted.

☐ I acknowledge, understand and accept these terms and conditions for the above assurances.

III. CERTIFICATIONS

The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

A. Bribery

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business shall be barred from contracting with any unit of State or local government, or subcontracting under such a contract, as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50.5.

B. Felons

Section 50-10. Felons.

(a) Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

(b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

C. Debt Delinquency

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

D. Prohibited Bidders, Contractors and Subcontractors

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

F. Educational Loan

Section 3 of the Educational Loan Default Act provides no State agency shall contract with an individual for goods or services if that individual is in default, as defined in Section 2 of this Act, on an educational loan. Any contract used by any State agency shall include a statement certifying that the individual is not in default on an educational loan as provided in this Section.

The bidder, if an individual as opposed to a corporation, partnership or other form of business organization, certifies that the bidder is not in default on an educational loan as provided in Section 3 of the Act.

G. Bid-Rigging/Bid Rotating

Section 33E-11 of the Criminal Code of 2012 provides:

(a) Every bid submitted to and public contract executed pursuant to such bid by the State or a unit of local government shall contain a certification by the prime contractor that the prime contractor is not barred from contracting with any unit of State or local government as a result of a violation of either Section 33E-3 or 33E-4 of this Article.

(b) A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

The bidder certifies that it is not barred from contracting with the Department by reason of a violation of either Section 33E-3 or Section 33E-4.

H. International Anti-Boycott

Section 5 of the International Anti-Boycott Certification Act provides every contract entered into by the State of Illinois for the manufacture, furnishing, or purchasing of supplies, material, or equipment or for the furnishing of work, labor, or services, in an amount exceeding the threshold for small purchases according to the purchasing laws of this State or $10,000.00, whichever is less, shall contain certification, as a material condition of the contract, by which the contractor agrees that neither the contractor nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act.

The bidder makes the certification set forth in Section 5 of the Act.

I. Drug Free Workplace

The Illinois “Drug Free Workplace Act” applies to this contract and it is necessary to comply with the provisions of the “Act” if the contractor is a corporation, partnership, or other entity (including a sole proprietorship) which has 25 or more employees.

The bidder certifies that if awarded a contract in excess of $5,000 it will provide a drug free workplace in compliance with the provisions of the Act.

J. Disclosure of Business Operations in Iran

Section 50-36 of the Code, 30ILCS 500/50-36 provides that each bid, offer, or proposal submitted for a State contract shall include a disclosure of whether or not the Company acting as the bidder, offeror, or proposing entity, or any of its corporate parents or subsidiaries, within the 24 months before submission of the bid, offer, or proposal had business operations that involved contracts with or provision of supplies or services to the Government of Iran, companies in which the Government of Iran has any direct or indirect equity share, consortiums or projects commissioned by the Government of Iran, or companies involved in consortiums or projects commissioned by the Government of Iran and either of the following conditions apply:

(1) More than 10% of the Company's revenues produced in or assets located in Iran involve oil-related activities or mineral-extraction activities; less than 75% of the Company's revenues produced in or assets located in Iran involve contracts with or provision of oil-related or mineral-extraction products or services to the Government of Iran or a project or consortium created exclusively by that government; and the Company has failed to take substantial action.

(2) The Company has, on or after August 5, 1996, made an investment of $20 million or more, or any combination of investments of at least $10 million each that in the aggregate equals or exceeds $20 million in any 12-month period, which directly or significantly contributes to the enhancement of Iran's ability to develop petroleum resources of Iran.

The terms “Business operations”, “Company”, “Mineral-extraction activities”, “Oil-related activities”, “Petroleum resources”, and “Substantial action” are all defined in the Code.

Failure to make the disclosure required by the Code shall cause the bid, offer or proposal to be considered not responsive. The disclosure will be considered when evaluating the bid or awarding the contract. The name of each Company disclosed as doing business or having done business in Iran will be provided to the State Comptroller.

Check the appropriate statement:

/___/ Company has no business operations in Iran to disclose.

/___/ Company has business operations in Iran as disclosed the attached document.

K. Apprenticeship and Training Certification (Does not apply to federal aid projects)

In accordance with the provisions of Section 30-22 (6) of the Code, the bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Department, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. **The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project as reported on the Construction Employee Workforce Projection (Form BC-1256) and returned with the bid is accounted for and listed.**

NA-FEDERAL

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract.

L. Political Contributions and Registration with the State Board of Elections

Sections 20-160 and 50-37 of the Code regulate political contributions from business entities and any affiliated entities or affiliated persons bidding on or contracting with the state. Generally under Section 50-37, any business entity, and any affiliated entity or affiliated person of the business entity, whose current year contracts with all state agencies exceed an awarded value of $50,000, are prohibited from making any contributions to any political committees established to promote the candidacy of the officeholder responsible for the awarding of the contracts or any other declared candidate for that office for the duration of the term of office of the incumbent officeholder or a period 2 years after the termination of the contract, whichever is longer. Any business entity and affiliated entities or affiliated persons whose state contracts in the current year do not exceed an awarded value of $50,000, but whose aggregate pending bids and proposals on state contracts exceed $50,000, either alone or in combination with contracts not exceeding $50,000, are prohibited from making any political contributions to any political committee established to promote the candidacy of the officeholder responsible for awarding the pending contract during the period beginning on the date the invitation for bids or request for proposals is issued and ending on the day after the date of award or selection if the entity was not awarded or selected. Section 20-160 requires certification of registration of affected business entities in accordance with procedures found in Section 9-35 of The Election Code.

By submission of a bid, the contractor business entity acknowledges and agrees that it has read and understands Sections 20-160 and 50-37 of the Code, and that it makes the following certification:

The undersigned bidder certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. If the business entity is required to register, the CPO shall verify that it is in compliance on the date the bid or proposal is due. The CPO shall not accept a bid or proposal if the business entity is not in compliance with the registration requirements.

These requirements and compliance with the above referenced statutory sections are a material part of the contract, and any breach thereof shall be cause to void the contract under Section 50-60 of the Code. This provision does not apply to Federal-aid contracts.

M. Lobbyist Disclosure

Section 50-38 of the Code requires that any bidder or offeror on a State contract that hires a person required to register under the Lobbyist Registration Act to assist in obtaining a contract shall:

(i) Disclose all costs, fees, compensation, reimbursements, and other remunerations paid or to be paid to the lobbyist related to the contract,
(ii) Not bill or otherwise cause the State of Illinois to pay for any of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration, and
(iii) Sign a verification certifying that none of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration were billed to the State.

This information, along with all supporting documents, shall be filed with the agency awarding the contract and with the Secretary of State. The CPO shall post this information, together with the contract award notice, in the online Procurement Bulletin.

Pursuant to Subsection (c) of this Section, no person or entity shall retain a person or entity to attempt to influence the outcome of a procurement decision made under the Code for compensation contingent in whole or in part upon the decision or procurement. Any person who violates this subsection is guilty of a business offense and shall be fined not more than $10,000.

Bidder acknowledges that it is required to disclose the hiring of any person required to register pursuant to the Illinois Lobbyist Registration Act (25 ILCS 170) in connection with this contract.

☐ Bidder has not hired any person required to register pursuant to the Illinois Lobbyist Registration Act in connection with this contract.

Or

☐ Bidder has hired the following persons required to register pursuant to the Illinois Lobbyist Registration Act in connection with the contract:

Name and address of person: _____
All costs, fees, compensation, reimbursements and other remuneration paid to said person: _____
_____
_____
_____

☐ I acknowledge, understand and accept these terms and conditions for the above certifications.

IV. DISCLOSURES

A. The disclosures hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The bidder further certifies that the Department has received the disclosure forms for each bid.

The CPO may void the bid, or contract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all bids of more than $25,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the Code or the existence of a conflict of interest as provided in subsections (b) and (d) of Section 50-35.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.
The current annual salary of the Governor is $177,412.00.

In addition, all disclosures shall indicate any other current or pending contracts, proposals, leases, or other ongoing procurement relationships the bidding entity has with any other unit of state government and shall clearly identify the unit and the contract, proposal, lease, or other relationship.

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.**

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES ___ NO___
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the bidding entity's or parent entity's distributive income? YES ___ NO __
4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES ___ NO __

   (Note: Only one set of forms needs to be completed per person per bid even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or the bidding entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable**. The person signing can be, but does not have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each bid submitted by the bidding entity. *Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be completed, checked, and dated or the bidder may be considered nonresponsive and the bid will not be accepted.*

The Bidder shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:

Option I: If the bidder did not submit an Affidavit of Availability to obtain authorization to bid, the bidder must list all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included. Bidders who submit Affidavits of Availability are suggested to use Option II.

Option II: If the bidder is required and has submitted an Affidavit of Availability in order to obtain authorization to bid, the bidder may write or type "See Affidavit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the Affidavit of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.

RETURN WITH BID

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A
Financial Information & Potential Conflicts of Interest Disclosure

Contractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of $25,000, and for all open-ended contracts. **A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.**

The current annual salary of the Governor is $177,412.00.

DISCLOSURE OF FINANCIAL INFORMATION

1. **Disclosure of Financial Information.** The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 60% of the annual salary of the Governor. **(Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)**

FOR INDIVIDUAL (type or print information)

NAME: _____

ADDRESS _____

_____

Type of ownership/distributable income share:

stock _____ sole proprietorship _____ Partnership _____ other: (explain on separate sheet):

% or $ value of ownership/distributable income share: _____

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services.
Yes ___No __

If your answer is yes, please answer each of the following questions.

1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ___No __

2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor provide the name the State agency for which you are employed and your annual salary. _____
_____

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor? Yes ___ No __

4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15% in aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes ___ No __

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment for services in the previous 2 years.

Yes ___No __

If your answer is yes, please answer each of the following questions.

1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ___No __

2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of the spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____
_____

3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 71/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess 100% of the annual salary of the Governor? Yes ___ No __

4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or any minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income from your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor?

Yes ___ No __

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years. Yes ___No __

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___No __

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United State of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statues of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes ___No __

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___No __

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government. Yes ___No __

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___No __

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.
Yes ___ No __

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.
Yes ___ No __

---

3. Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who is has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): _____

_____

_____

_____

RETURN WITH BID

4. Debarment Disclosure. For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

Name of person(s): _____

Nature of disclosure: _____
_____
_____
_____

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.

Completed by: ☐ _____ _____
Signature of Individual or Authorized Representative Date

NOT APPLICABLE STATEMENT

Under penalty of perjury, I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page.

☐ _____ _____
Signature of Authorized Representative Date

The bidder has a continuing obligation to supplement these disclosures under Sec. 50-35 of the Code.

RETURN WITH BID

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B
Other Contracts & Financial Related Information Disclosure

Contractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of $25,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The BIDDER shall identify whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ___ No __
If "No" is checked, the bidder only needs to complete the signature box on the bottom of this page.

2. If "Yes" is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE CHECKED

☐ _____ _____
Signature of Authorized Representative Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership.

Any remaining ownership interest is held by individuals receiving less than $106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

☐ Yes ☐ No ☐ N/A (Form A disclosure(s) established 100% ownership)

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

The following requirements of the Illinois Department of Human Rights' Rules and Regulations are applicable to bidders on all construction contracts advertised by the Illinois Department of Transportation:

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

(a) All bidders on construction contracts shall complete and submit, along with and as part of their bids, a Bidder's Employee Utilization Form (Form BC-1256) setting forth a projection and breakdown of the total workforce intended to be hired and/or allocated to such contract work by the bidder including a projection of minority and female employee utilization in all job classifications on the contract project.

(b) The Department of Transportation shall review the Employee Utilization Form, and workforce projections contained therein, of the contract awardee to determine if such projections reflect an underutilization of minority persons and/or women in any job classification in accordance with the Equal Employment Opportunity Clause and Section 7.2 of the Illinois Department of Human Rights' Rules and Regulations for Public Contracts adopted as amended on September 17, 1980. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.

(c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.

RETURN WITH BID

Illinois Department of Transportation

Contract No. 60V72
MCHENRY County
Section 18 W&RS-5 (12)
Project ACHPP-ACM-3887(009)
Route FAU 3887
District 1 Construction Funds

PART I. IDENTIFICATION

Dept. Human Rights # _____ Duration of Project: _____

Name of Bidder: _____

PART II. WORKFORCE PROJECTION

A. The undersigned bidder has analyzed minority group and female populations, unemployment rates and availability of workers for the location in which this contract work is to be performed, and for the locations from which the bidder recruits employees, and hereby submits the following workforce projection including a projection for minority and female employee utilization in all job categories in the workforce to be allocated to this contract:

TABLE A

TOTAL Workforce Projection for Contract													TABLE B: CURRENT EMPLOYEES TO BE ASSIGNED TO CONTRACT			
			MINORITY EMPLOYEES						TRAINEES				TOTAL EMPLOYEES		MINORITY EMPLOYEES	
JOB CATEGORIES	TOTAL EMPLOYEES		BLACK		HISPANIC		*OTHER MINOR.		APPREN-TICES		ON THE JOB TRAINEES					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
OFFICIALS (MANAGERS)																
SUPERVISORS																
FOREMEN																
CLERICAL																
EQUIPMENT OPERATORS																
MECHANICS																
TRUCK DRIVERS																
IRONWORKERS																
CARPENTERS																
CEMENT MASONS																
ELECTRICIANS																
PIPEFITTERS, PLUMBERS																
PAINTERS																
LABORERS, SEMI-SKILLED																
LABORERS, UNSKILLED																
TOTAL																

TABLE C

TOTAL Training Projection for Contract								
EMPLOYEES IN TRAINING	TOTAL EMPLOYEES		BLACK		HISPANIC		*OTHER MINOR.	
	M	F	M	F	M	F	M	F
APPRENTICES								
ON THE JOB TRAINEES								

*Other minorities are defined as Asians (A) or Native Americans (N).
Please specify race of each employee shown in Other Minorities column.

FOR DEPARTMENT USE ONLY

BC 1256 (Rev. 12/11/07)

Note: See instructions on page 2

RETURN WITH BID

Contract No. 60V72
MCHENRY County
Section 18 W&RS-5 (12)
Project ACHPP-ACM-3887(009)
Route FAU 3887
District 1 Construction Funds

PART II. WORKFORCE PROJECTION - continued

B. Included in "Total Employees" under Table A is the total number of **new hires** that would be employed in the event the undersigned bidder is awarded this contract.

The undersigned bidder projects that: (number) _____ new hires would be recruited from the area in which the contract project is located; and/or (number) _____ new hires would be recruited from the area in which the bidder's principal office or base of operation is located.

C. Included in "Total Employees" under Table A is a projection of numbers of persons to be employed directly by the undersigned bidder as well as a projection of numbers of persons to be employed by subcontractors.

The undersigned bidder estimates that (number) _____ persons will be directly employed by the prime contractor and that (number) _____ persons will be employed by subcontractors.

PART III. AFFIRMATIVE ACTION PLAN

A. The undersigned bidder understands and agrees that in the event the foregoing minority and female employee utilization projection included under **PART II** is determined to be an underutilization of minority persons or women in any job category, and in the event that the undersigned bidder is awarded this contract, he/she will, prior to commencement of work, develop and submit a written Affirmative Action Plan including a specific timetable (geared to the completion stages of the contract) whereby deficiencies in minority and/or female employee utilization are corrected. Such Affirmative Action Plan will be subject to approval by the contracting agency and the **Department of Human Rights**.

B. The undersigned bidder understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specifications.

Company _____ Telephone Number _____

_____

Address _____

NOTICE REGARDING SIGNATURE

The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature block needs to be completed only if revisions are required.

Signature: ☐ _____ Title: _____ Date: _____

Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.

Table A - Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.

Table B - Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.

Table C - Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

RETURN WITH BID

ADDITIONAL FEDERAL REQUIREMENTS

In addition to the Required Contract Provisions for Federal-Aid Construction Contracts (FHWA 1273), all bidders make the following certifications.

A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.

B. CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY:

1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES _____ NO _____

2. If answer to #1 is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? YES _____ NO _____

RETURN WITH BID

Contract No. 60V72
MCHENRY County
Section 18 W&RS-5 (12)
Project ACHPP-ACM-3887(009)
Route FAU 3887
District 1 Construction Funds

PROPOSAL SIGNATURE SHEET

The undersigned bidder hereby makes and submits this bid on the subject Proposal, thereby assuring the Department that all requirements of the Invitation for Bids and rules of the Department have been met, that there is no misunderstanding of the requirements of paragraph 3 of this Proposal, and that the contract will be executed in accordance with the rules of the Department if an award is made on this bid.

Firm Name _____

(IF AN INDIVIDUAL) Signature of Owner _____

Business Address _____

_____

Firm Name _____

By _____

(IF A CO-PARTNERSHIP) Business Address _____

_____
Name and Address of All Members of the Firm:

_____ _____

Corporate Name _____

By _____
Signature of Authorized Representative

(IF A CORPORATION)

_____
Typed or printed name and title of Authorized Representative

Attest _____
Signature

(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) Business Address _____

Corporate Name _____

By _____
Signature of Authorized Representative

(IF A JOINT VENTURE)

_____
Typed or printed name and title of Authorized Representative

Attest _____
Signature

Business Address _____

_____

If more than two parties are in the joint venture, please attach an additional signature sheet.

Illinois Department of Transportation

Return with Bid

Division of Highways
Annual Proposal Bid Bond

This Annual Proposal Bid Bond shall become effective at 12:01 AM (CDST) on _____ and shall be valid until _____ 11:59 PM (CDST).

KNOW ALL PERSONS BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

as SURETY, and held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in the bid proposal under "Proposal Guaranty" in effect on the date of the Invitation for Bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that whereas, the PRINCIPAL may submit bid proposal(s) to the STATE OF ILLINOIS, acting through the Department of Transportation, for various improvements published in the Transportation Bulletin during the effective term indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal(s) of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents; and if, after award by the Department, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to enter into such contract and to give the specified bond, the PRINCIPAL pays to the Department the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the Department may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the Department determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then Surety shall pay the penal sum to the Department within fifteen (15) days of written demand therefor. If Surety does not make full payment within such period of time, the Department may bring an action to collect the amount owed. Surety is liable to the Department for all its expenses, including attorney's fees, incurred in any litigation in which it prevails either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL has caused this instrument to be signed by its officer
_____ day of _____ A.D., _____.

_____
(Company Name)

By _____
(Signature and Title)

Notary for PRINCIPAL

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)

by _____
(Name of Notary Public)

(Seal)

_____
(Signature of Notary Public)

_____
(Date Commission Expires)

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer
_____ day of _____ A.D., _____.

_____
(Company Name)

By _____
(Signature of Attorney-in-Fact)

Notary for SURETY

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)

by _____
(Name of Notary Public)

(Seal)

_____
(Signature of Notary Public)

_____
(Date Commission Expires)

In lieu of completing the above section of the Annual Proposal Bid Bond form, the Principal may file an Electronic Bid Bond. By signing the proposal(s) the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID #	Company/Bidder Name	Signature and Title

This bond may be terminated, at Surety's request, upon giving not less than thirty (30) days prior written notice of the cancellation/termination of the bond. Said written notice shall be issued to the Illinois Department of Transportation, Chief Contracts Official, 2300 South Dirksen Parkway, Springfield, Illinois, 62764, and shall be served in person, by receipted courier delivery or certified or registered mail, return receipt requested. Said notice period shall commence on the first calendar day following the Department's receipt of written cancellation/termination notice. Surety shall remain firmly bound to all obligations herein for proposals submitted prior to the cancellation/termination. Surety shall be released and discharged from any obligation(s) for proposals submitted for any letting or date after the effective date of cancellation/termination.

Illinois Department of Transportation

Return with Bid

Division of Highways
Proposal Bid Bond

Item No. _____

Letting Date _____

KNOW ALL PERSONS BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

as SURETY, and held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in the bid proposal under "Proposal Guaranty" in effect on the date of the Invitation for Bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that whereas, the PRINCIPAL has submitted a bid proposal to the STATE OF ILLINOIS, acting through the Department of Transportation, for the improvement designated by the Transportation Bulletin Item Number and Letting Date indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents; and if, after award by the Department, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to enter into such contract and to give the specified bond, the PRINCIPAL pays to the Department the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the Department may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the Department determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then Surety shall pay the penal sum to the Department within fifteen (15) days of written demand therefor. If Surety does not make full payment within such period of time, the Department may bring an action to collect the amount owed. Surety is liable to the Department for all its expenses, including attorney's fees, incurred in any litigation in which it prevails either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL has caused this instrument to be signed by its officer
_____ day of _____ A.D., _____.

_____
(Company Name)

By _____
(Signature and Title)

Notary for PRINCIPAL

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)
by _____
(Name of Notary Publid)

(Seal)

_____
(Signature of Notary Public)

_____
(Date Commission Expires)

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer
_____ day of _____ A.D., _____.

_____
(Company Name)

By _____
(Signature of Attorney-in-Fact)

Notary for SURETY

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)
by _____
(Name of Notary Public)

(Seal)

_____
(Signature of Notary Public)

_____
(Date Commission Expires)

In lieu of completing the above section of the Proposal Bid Bond form, the Principal may file an Electronic Bid Bond. By signing the proposal the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID #	Company/Bidder Name	Signature and Title

Illinois Department of Transportation

DBE Utilization Plan

(1) Policy

It is public policy that disadvantaged businesses as defined in 49 CFR Part 26 and the Special Provision shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal or State funds. Consequently the requirements of 49 CFR Part 26 apply to this contract.

(2) Obligation

The contractor agrees to ensure that disadvantaged businesses as defined in 49 CFR Part 26 and the Special Provision have the maximum opportunity to participate in the performance of contracts or subcontracts financed in whole or in part with Federal or State funds. The contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 and the Special Provision to ensure that said businesses have the maximum opportunity to compete for and perform under this contract. The contractor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of contracts.

(3) Project and Bid Identification

Complete the following information concerning the project and bid:

Route _____ Total Bid _____

Section _____ Contract DBE Goal _____ (Percent) _____ (Dollar Amount)

Project _____

County _____

Letting Date _____

Contract No. _____

Letting Item No. _____

(4) Assurance

I, acting in my capacity as an officer of the undersigned bidder (or bidders if a joint venture), hereby assure the Department that on this project my company : (check one)

☐ Meets or exceeds contract award goals and has provided documented participation as follows:
Disadvantaged Business Participation _____ percent

Attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

☐ Failed to meet contract award goals and has included good faith effort documentation to meet the goals and that my company has provided participation as follows:

Disadvantaged Business Participation _____ percent

The contract goals should be accordingly modified or waived. Attached is all information required by the Special Provision in support of this request including good faith effort. Also attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

_____
Company

By _____

Title _____

Date _____

The "as read" Low Bidder is required to comply with the Special Provision.

Submit only one utilization plan for each project. The utilization plan shall be submitted in accordance with the special provision.

Bureau of Small Business Enterprises
2300 South Dirksen Parkway
Springfield, Illinois 62764

Local Let Projects
Submit forms to the
Local Agency

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the purpose as outlined under State and Federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Manager Center.

Illinois Department of Transportation

DBE Participation Statement

Subcontractor Registration _____ Letting _____

Participation Statement Item No. _____

(1) Instructions Contract _____

This form must be completed for each disadvantaged business participating in the Utilization Plan. This form shall be submitted in accordance with the special provision and will be attached to the Utilization Plan form.. If additional space is needed complete an additional form for the firm.

(2) Work

Pay Item No.	Description	Quantity	Unit Price	Total
			Total	

(3) Partial Payment Items

For any of the above items which are partial pay items, specifically describe the work and subcontract dollar amount:

(4) Commitment

The undersigned certify that the information included herein is true and correct, and that the DBE firm listed below has agreed to perform a commercially useful function in the work of the contract item(s) listed above and to execute a contract with the prime contractor. The undersigned further understand that no changes to this statement may be made without prior approval from the Department's Bureau of Small Business Enterprises and that complete and accurate information regarding actual work performed on this project and the payment therefore must be provided to the Department.

_____ _____

Signature for Prime Contractor Signature for DBE Firm

Title _____ Title _____

Date _____ Date _____

Contact _____ Contact Person _____

Phone _____ Phone _____

Firm Name _____ Firm Name _____

Address _____ Address _____

City/State/Zip _____ City/State/Zip _____

E _____

WC _____

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under the state and federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Management Center.

PROPOSAL ENVELOPE

Illinois Department of Transportation

PROPOSALS

for construction work advertised for bids by the
Illinois Department of Transportation

Item No.	Item No.	Item No.

Submitted By:

Name:
Address:
Phone No.

Bidders should use an IDOT proposal envelope or affix this form to the front of a 10” x 13” envelope for the submittal of bids. If proposals are mailed, they should be enclosed in a second or outer envelope addressed to:

Engineer of Design and Environment - Room 326
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

NOTICE

Individual bids, including Bid Bond and/or supplemental information if required, should be securely stapled.

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

None of the following material needs to be returned with the bid package unless the special provisions require documentation and/or other information to be submitted.

Contract No. 60V72
MCHENRY County
Section 18 W&RS-5 (12)
Project ACHPP-ACM-3887(009)
Route FAU 3887
District 1 Construction Funds

Illinois Department of Transportation

SUBCONTRACTOR DOCUMENTATION

Public Acts 96-0795, 96-0920, and 97-0895 enacted substantial changes to the provisions of the Code (30 ILCS 500). Among the changes are provisions affecting subcontractors. The Contractor awarded this contract will be required as a material condition of the contract to implement and enforce the contract requirements applicable to subcontractors that entered into a contractual agreement with a total value of $50,000 or more with a person or entity who has a contract subject to the Code and approved in accordance with article 108.01 of the Standard Specifications for Road and Bridge Construction.

If the Contractor seeks approval of subcontractors to perform a portion of the work, and approval is granted by the Department, the Contractor shall provide a copy of the subcontract to the Illinois Department of Transportation's CPO upon request within 15 calendar days after execution of the subcontract.

Financial disclosures required pursuant to Sec. 50-35 of the Code must be submitted for all applicable subcontractors. The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Code. This Notice to Bidders includes a document incorporating all required subcontractor certifications and disclosures for use by the Contractor in compliance with this mandate. The document is entitled State Required Ethical Standards Governing Subcontractors.

RETURN WITH SUBCONTRACT

STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

Article 50 of the Code establishes the duty of all State CPOs, SPOs, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

The certifications hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed should the Department approve the subcontractor. The CPO may terminate or void the contract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

A. Bribery

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business shall be barred from contracting with any unit of State or local government, or subcontracting under such a contract, as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract to which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50.5.

B. Felons

Section 50-10. Felons.

(a) Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

(b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

RETURN WITH SUBCONTRACT

C. Debt Delinquency

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

D. Prohibited Bidders, Contractors and Subcontractors

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

The undersigned, on behalf of the subcontracting company, has read and understands the above certifications and makes the certifications as required by law.

_____
Name of Subcontracting Company

_____ _____
Authorized Officer Date

RETURN WITH SUBCONTRACT

SUBCONTRACTOR DISCLOSURES

I. DISCLOSURES

A. The disclosures hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed. The subcontractor further certifies that the Department has received the disclosure forms for each subcontract.

The CPO may void the bid, contract, or subcontract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all subcontracts with a total value of $50,000 or more, from subcontractors identified in Section 20-120 of the Code, shall be accompanied by disclosure of the financial interests of the subcontractor. This disclosed information for the subcontractor, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the Prime Contractor's contract. Furthermore, pursuant to this Section, the Procurement Policy Board may recommend to allow or void a contract or subcontract based on a potential conflict of interest.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the subcontracting entity or its parent entity, whichever is less, unless the subcontractor is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.
The current annual salary of the Governor is $177,412.00.

In addition, all disclosures shall indicate any other current or pending contracts, subcontracts, proposals, leases, or other ongoing procurement relationships the subcontracting entity has with any other unit of state government and shall clearly identify the unit and the contract, subcontract, proposal, lease, or other relationship.

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.**

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the subcontractor is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the subcontracting company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES ___ NO___
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the subcontracting entity's or parent entity's distributive income? YES ___ NO __

   (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.)
4. Does anyone in your organization receive greater than 5% of the subcontracting entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES ___ NO __

   (Note: Only one set of forms needs to be completed per person per subcontract even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The subcontractor must determine each individual in the subcontracting entity or the subcontracting entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable**. The person signing can be, but does not have to be, the person for which the form is being completed. The subcontractor is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT on page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

RETURN WITH SUBCONTRACT

Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each subcontract submitted by the subcontracting entity. *Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the subcontractor to ignore Form B. Form B must be completed, checked, and dated or the subcontract will not be approved.*

The Subcontractor shall identify, by checking Yes or No on Form B, whether it has any pending contracts, subcontracts, leases, bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the subcontractor only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the subcontractor must list all non-IDOT State of Illinois agency pending contracts, subcontracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts or subcontracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included.

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Subcontractor: Financial Information & Potential Conflicts of Interest Disclosure

Subcontractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). Subcontractors desiring to enter into a subcontract of a State of Illinois contract must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for subcontracts with a total value of $50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all open-ended contracts. **A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.**

The current annual salary of the Governor is $177,412.00.

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the SUBCONTRACTOR (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 60% of the annual salary of the Governor. **(Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)**

FOR INDIVIDUAL (type or print information)

NAME: _____

ADDRESS _____

_____

Type of ownership/distributable income share:

stock _____ sole proprietorship _____ Partnership _____ other: (explain on separate sheet):

% or $ value of ownership/distributable income share: _____

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services.
Yes ___No __

If your answer is yes, please answer each of the following questions.

1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ___No __

2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, provide the name the State agency for which you are employed and your annual salary. _____
_____

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?
Yes ___No __

4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes ___No __

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years.
Yes ___No __

If your answer is yes, please answer each of the following questions.

1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ___No __

2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____
_____

3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 71/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of of 100% of the annual salary of the Governor? Yes ___No __

4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor?
Yes ___No __

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years. Yes ___No __

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___No __

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes ___No __

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___No __

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government.
Yes ___No __

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No __

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.
Yes ___ No __

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.
Yes ___ No __

---

3 Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who is has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): _____

_____

_____

_____

RETURN WITH SUBCONTRACT

4. Debarment Disclosure. For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

Name of person(s): _____

Nature of disclosure: _____

_____

_____

_____

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.

Completed by: ☐ _____ _____

Signature of Individual or Authorized Officer — Date

NOT APPLICABLE STATEMENT

Under penalty of perjury, I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the SUBCONTRACTOR listed on the previous page.

☐ _____ _____

Signature of Authorized Officer — Date

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B
Subcontractor: Other Contracts & Financial Related Information Disclosure

Subcontractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for subcontracts with a total value of $50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The SUBCONTRACTOR shall identify whether it has any pending contracts, subcontracts, including leases, bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ___ No __
If "No" is checked, the subcontractor only needs to complete the signature box on the bottom of this page.

2. If "Yes" is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE CHECKED

☐ _____ _____
Signature of Authorized Officer Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership

Any remaining ownership interest is held by individuals receiving less than $106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

☐ Yes ☐ No ☐ N/A (Form A disclosure(s) established 100% ownership)

Illinois Department of Transportation

NOTICE TO BIDDERS

1. **TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation. Electronic bids are to be submitted to the electronic bidding system (ics-Integrated Contractors Exchange). Paper-based bids are to be submitted to the Chief Procurement Officer for the Department of Transportation in care of the Chief Contracts Official at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.mFebruary 28, 2014. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.

2. **DESCRIPTION OF WORK**. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

   Contract No. 60V72
   MCHENRY County
   Section 18 W&RS-5 (12)
   Project ACHPP-ACM-3887(009)
   Route FAU 3887
   District 1 Construction Funds

0.88 miles of additional lanes, retaining wall construction and other associated work on IL 31 from Trinity Dr. to Rakow Rd. in Cary, Lake in the Hills and Crystal Lake.

3. **INSTRUCTIONS TO BIDDERS**. (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

   (b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.

4. **AWARD CRITERIA AND REJECTION OF BIDS**. This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Ann L. Schneider,
Secretary

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2014

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-12) (Revised 1-1-14)

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

TABLE OF CONTENTS

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2012; the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways"; the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids; and the "Supplemental Specifications and Recurring Special Provisions", indicated on the Check Sheet included herein; all of which apply to and govern the construction of FAU Route 3887 (IL 31), Project ACHPP-ACM-3887(009) Section 18W&RS-5 (12), in McHenry County, Contract 60V72 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

FAU 3887 (IL Route 31)
Project No. ACHPP-ACM-3887(009)
Section: 18W&RS-5 (12)
McHenry County, Illinois
Contract No. 60V72

LOCATION OF PROJECT

This project is located along IL Route 31 in the Village of Lake in the Hills, the Village of Cary, and the City of Crystal Lake in McHenry County. The limits of the project on IL Route 31 are from approximately 1,200 feet north of Trinity Drive to approximately 80 feet south of James R. Rakow Road, a total distance of approximately 4,660 feet. The project has a total length of 4,659.52 feet (0.88 miles).

DESCRIPTION OF PROJECT

The improvement includes reconstruction with P.C. concrete pavement from approximately 1,200 feet north of Trinity Drive to approximately 80 feet south of James R. Rakow Road. The cross section will consist of two 12-foot lanes in each direction. Drainage will be a combination of open ditches and a closed storm sewer system. A new traffic signal interconnect will be installed between the Virginia Road and James R. Rakow Road intersections. Work also includes combination concrete curb and gutter, an asphalt bike path, pavement markings, and collateral work necessary to complete the project as shown on the plans and as described within the project specifications.

WORK RESTRICTIONS

Daily lane closures of single through lanes will be allowed on this project, as shown on the Maintenance of Traffic Plans. Daily lane closures shall be limited to working days between the hours of 9 a.m. and 3 p.m, or as directed by the Engineer. The Contractor shall notify the Engineer prior to closing any lanes.

CONTRACTOR COOPERATION

The intent of this provision is to inform the Contractor that the Department of Transportation has an adjacent contract that is currently scheduled for construction during the same time period as this contract.

Illinois Route 31 (N. Jct.) to Illinois Route 31 (S. Jct.) (Algonquin Bypass) – Contract No. 60F72
Illinois Route 31 at Klasen Road & Virginia Road– Contract No. 63553

The Contractor is required to cooperate with these adjacent contracts in accordance with Section 105.08 of the Standard Specifications and may be required to modify his staging operations in order to meet these requirements.

MAINTENANCE OF ROADWAYS
Effective: September 30, 1985
Revised: November 1, 1996

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the “Standard Specifications”.

STATUS OF UTILITIES TO BE ADJUSTED
Effective: January 30, 1987
Revised: January 24, 2013

Utility companies involved in this project have provided the following estimated dates:

Name of Utility	Type	Location	Estimated Dates for Start and Completion of Relocation or Adjustments
NICOR Gas Constance Lane 1844 Ferry Road Naperville, IL 60583 (630)388-3830	Underground Lines	West side of IL 31 from Sta. 279+00 to 282+75 (Approx)	This work is scheduled to be completed prior to construction
Commonwealth Edison Robert Hauser 123 Energy Avenue Rockford, IL 61109 (815) 490-2231	Poles & Overhead Lines	West side of IL 31	Existing overhead lines will be relocated to new pole locations. This work is scheduled to start prior to construction.
Comcast Thomas Munar 688 Industrial Drive Elmhurst, IL 60126 (630)600-6316	Overhead Lines	West side of IL 31 (all lines are on ComEd poles)	Existing overhead lines will be relocated to new pole locations. This work is scheduled to start prior to construction.
AT&T David Saint Germain 255 East Chicago St. Elgin, IL 60120 (815)394-7297	Underground Lines, Ducts and Vaults	West side of IL 31	Main ducts are scheduled to be installed prior to construction. Vaults are scheduled during construction.

The above represents the best information available to the Department and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

In accordance with 605 ILCS 5/9-113 of the Illinois Compiled Statutes, utility companies have 90 days to complete the relocation of their facilities after receipt of written notice from the Department. The 90-day written notice will be sent to the utility companies after the following occurs:

Proposed right of way is clear for contract award.
Final plans have been sent to and received by the utility company.
Utility permit is received by the Department and the Department is ready to issue said permit.
If a permit has not been submitted, a 15 day letter is sent to the utility company notifying them they have 15 days to provide their permit application. After allowing 15 days for submission of the permit the 90 day notice is sent to the utility company.
Any time within the 90 day relocation period the utility company may request a waiver for additional time to complete their relocation. The Department has 10 days to review and respond to a waiver request.

COMPLETION DATE PLUS WORKING DAYS
Effective: September 30, 1985
Revised: January 1, 2007

Revise Article 108.05 (b) of the Standard Specifications as follows:

"When a completion date plus working days is specified, the Contractor shall complete all contract items and safely open all roadways to traffic by 11:59 PM on October 15, 2014 except as specified herein.

The Contractor will be allowed to complete all clean-up work and punch list items within _10_ working days after the completion date for opening the roadway to traffic. Under extenuating circumstances the Engineer may direct that certain items of work, not affecting the safe opening of the roadway to traffic, may be completed within the working days allowed for clean up work and punch list items. Temporary lane closures for this work may be allowed at the discretion of the Engineer.

Article 108.09 or the Special Provision for "Failure to Complete the Work on Time", if included in this contract, shall apply to both the completion date and the number of working days.

EMBANKMENT I
Effective: March 1, 2011

Description. This work shall be according to Section 205 of the Standard Specifications except for the following.

Material. All material shall be approved by the District Geotechnical Engineer. The proposed material must meet the following requirements.

a) The laboratory Standard Dry Density shall be a minimum of 90 lb/cu ft (1450 kg/cu m) when determined according to AASHTO T 99 (Method C).

b) The organic content shall be less than ten percent determined according to AASHTO T 194 (Wet Combustion).

c) Soils which demonstrate the following properties shall be restricted to the interior of the embankment and shall be covered on both the sides and top of the embankment by a minimum of 3 ft (900 mm) of soil not considered detrimental in terms of erosion potential or excess volume change.

1) A grain size distribution with less than 35 percent passing the number 75 um (#200) sieve.

2) A plasticity index (PI) of less than 12.

3) A liquid limit (LL) in excess of 50.

d) Reclaimed asphalt shall not be used within the ground water table or as a fill if ground water is present.

CONSTRUCTION REQUIREMENTS

Samples. Embankment material shall be sampled, tested, and approved before use. The contractor shall identify embankment sources, and provide equipment as the Engineer requires, for the collection of samples from those sources. Samples will be furnished to the Geotechnical Engineer a minimum of three weeks prior to use in order that laboratory tests for approval and compaction can be performed. Embankment material placement cannot begin until tests are completed and approval given.

Placing Material. In addition to Article 202.03, broken concrete, reclaimed asphalt with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities shall be placed in 6 inches (150 mm) lifts and disked with the underlying lift until a uniform homogenous material is formed. This process also applies to the overlaying lifts. The disk must have a minimum blade diameter of 24 inches (600 mm).

When embankments are to be constructed on hillsides or existing slopes that are steeper than 3H:1V, steps shall be keyed into the existing slope by stepping and benching as shown in the plans or as directed by the engineer.

Compaction. Soils classification for moisture content control will be determined by the Soils Inspector using visual field examination techniques and the IDH Textural Classification Chart.

When tested for density in place each lift shall have a maximum moisture content as follows.

a) A maximum of 110 percent of the optimum moisture for all forms of clay soils.

b) A maximum of 105 percent of the optimum moisture for all forms of clay loam soils.

Stability. The requirement for embankment stability in Article 205.04 will be measured with a Dynamic Cone Penetrometer (DCP) according to the test method in the IDOT Geotechnical Manual. The penetration rate must be equal or less than 1.5 inches (38 mm) per blow.

Basis of Payment. This work will not be paid separately but will be considered as included in the various items of excavation.

TRAFFIC CONTROL AND PROTECTION (ARTERIALS)
Effective: February 1, 1996
Revised: March 1, 2011

Specific traffic control plan details and Special Provisions have been prepared for this contract. This work shall include all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices required as indicated in the plans and as approved by the Engineer.

When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

Method of Measurement: All traffic control (except Traffic Control and Protection (Expressways)) and temporary pavement markings) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis.

Basis of Payment: All traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL).

Temporary pavement markings will be paid for separately unless shown on a Standard.

RECLAIMED ASPHALT PAVEMENT FOR NON-POROUS EMBANKMENT AND BACKFILL
Effective: April 1, 2001
Revised: January 1, 2007

Add the following sentence to Article 1004.05 (a) of the Standard Specifications:

"Reclaimed Asphalt Pavement (RAP) may be used as aggregate in Non-porous Granular Embankment and Backfill. The Rap material shall be reclaimed asphalt pavement material resulting from the cold milling or crushing of an existing hot-mix bituminous concrete pavement structure, including shoulders. RAP containing contaminants such as earth, brick, concrete, sheet asphalt, sand, or other materials identified by the Department will be unacceptable until the contaminants are thoroughly removed.

Add the following sentence to Article 1004.05 (c)(2) of the Standard Specifications:

"One hundred percent of the RAP when used shall pass the 3 inch (75 mm) sieve. The RAP shall be well graded from coarse to fine. RAP that is gap-graded or single-sized will not be accepted."

TEMPORARY PAVEMENT
Effective: March 1, 2003
Revised: April 10, 2008

Description. This work shall consist of constructing a temporary pavement at the locations shown on the plans or as directed by the engineer.

The contractor shall use either Portland cement concrete according to Sections 353 and 354 of the Standard Specifications or HMA according to Sections 355, 356, 406 of the Standard Specifications, and other applicable HMA special provisions as contained herein. The HMA mixtures to be used shall be specified in the plans. The thickness of the Temporary Pavement shall be as described in the plans. The contractor shall have the option of constructing either material type if both Portland cement concrete and HMA are shown in the plans.

Articles 355.08 and 406.11 of the Standard Specifications shall not apply.

The removal of the Temporary Pavement, if required, shall conform to Section 440 of the Standard Specification.

Method of Measurement. Temporary pavement will be measured in place and the area computed in square yards (square meters).

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for TEMPORARY PAVEMENT and TEMPORARY PAVEMENT (INTERSTATE).

Removal of temporary pavement will be paid for at the contract unit price per square yard (square meter) for PAVEMENT REMOVAL.

TRAFFIC CONTROL PLAN
Effective: September 30, 1985
Revised: January 1, 2007

Traffic Control shall be according to the applicable sections of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highway Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

The Contractor shall contact the District One Traffic Control Supervisor at (847) 705-4470 a minimum of 72 hours in advance of beginning work.

STANDARDS

635011-02 Reflector Marker And Mounting Details
701201-04 Lane Closure, 2L, 2W Day Only, for Speeds ≥ 45MPH
701422-05 Lane Closure, Multilane, for Speeds ≥ 45 MPH to 55 MPH
701701-08 Urban Lane Closure, Multilane Intersection
701901-02 Traffic Control Devices
704001-07 Temporary Concrete Barrier

DETAILS

Maintenance of Traffic Plan
District Details
Traffic Control and Protection for Side Roads, Intersections & Driveways (TC-10)
Traffic Applications Raised Reflective Pavement Markers (Snow-Plow Resistant) (TC-11)
District One Typical Pavement Markings (TC-13)
Traffic Control and Protection at Turn Bays (TC-14)
Pavement Marking Letters and Symbols for Traffic Staging (TC-16)
Arterial Road Information Sign (TC-22)
Driveway Entrance Signing (TC-26)

SPECIAL PROVISIONS

"Contractor Cooperation"
"Maintenance of Roadways"
"Public Convenience and Safety (Dist 1)"
"Traffic Control and Protection (Arterials)"
"Traffic Control Plan"
"Temporary Information Signing"
"Type III Tape for Wet Conditions"

BDE SPECIAL PROVISIONS

"Pavement Patching"

TEMPORARY INFORMATION SIGNING
Effective: November 13, 1996
Revised: January 2, 2007

Description.
This work shall consist of furnishing, installing, maintaining, relocating for various states of construction and eventually removing temporary informational signs. Included in this item may be ground mount signs, skid mount signs, truss mount signs, bridge mount signs, and overlay sign panels which cover portions of existing signs.

Materials.
Materials shall be according to the following Articles of Section 1000 - Materials:

	Item	Article/Section
a.)	Sign Base (Notes 1 & 2)	1090
b.)	Sign Face (Note 3)	1091
c.)	Sign Legends	1092
d.)	Sign Supports	1093
e.)	Overlay Panels (Note 4)	1090.02

Note 1. The Contractor may use 5/8 inch (16 mm) instead of 3/4 inch (19 mm) thick plywood.
Note 2. Type A sheeting can be used on the plywood base.
Note 3. All sign faces shall be Type A except all orange signs shall meet the requirements of Article 1106.01.
Note 4. The overlay panels shall be 0.08 inch (2 mm) thick.

GENERAL CONSTRUCTION REQUIRMENTS

Installation.
The sign sizes and legend sizes shall be verified by the Contractor prior to fabrication.

Signs which are placed along the roadway and/or within the construction zone shall be installed according to the requirements of Article 701.14 and Article 720.04. The signs shall be 7 ft (2.1 m) above the near edge of the pavement and shall be a minimum of 2 ft (600 mm) beyond the edge of the paved shoulder. A minimum of two (2) posts shall be used.

The attachment of temporary signs to existing sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense.

Signs which are placed on overhead bridge structures shall be fastened to the handrail with stainless steel bands. These signs shall rest on the concrete parapet where possible. The Contractor shall furnish mounting details for approval by the Engineer.

Method Of Measurement.
This work shall be measured for payment in square feet (square meters) edge to edge (horizontally and vertically).

All hardware, posts or skids, supports, bases for ground mounted signs, connections, which are required for mounting these signs will be included as part of this pay item.

Basis Of Payment.
This work shall be paid for at the contract unit price per square foot (square meter) for TEMPORARY INFORMATION SIGNING.

TYPE III TEMPORARY TAPE FOR WET CONDITIONS
Effective: February 1, 2007
Revised: February 1, 2011

Description. This work shall consist of furnishing, installing, and maintaining Type III Temporary Pavement Marking Tape for Wet Conditions.

Materials. Materials shall be according to the following.

Item	Article/Section
(a) Pavement Marking Tape	1095.06

Initial minimum reflectance values under dry and wet conditions shall be as specified in Article 1095.06. The marking tape shall maintain its reflective properties when submerged in water. The wet reflective properties will be verified by a visual inspection method performed by the Department. The surface of the material shall provide an average skid resistance of 45 BPN when tested according to ASTM E 303.

CONSTRUCTION REQUIREMENTS

Type III Temporary Tape for Wet Conditions shall meet the requirements of Article 703.03 and 703.05. Application shall follow manufacturer's recommendations.

Method of Measurement. This work will be measured for payment in place, in feet (meters).

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for WET REFLECTIVE TEMPORARY TAPE TYPE III of the line width specified, and at the contract unit price per square foot (square meter) for WET REFLECTIVE TEMPORARY TAPE TYPE III, LETTERS AND SYMBOLS.

PROTECTION OF EXISTING DRAINAGE FACILITIES DURING CONSTRUCTION

Unless otherwise noted on the plans, the existing drainage facilities shall remain in use during the period of construction. Locations of existing drainage structures and sewers as shown on the plans are approximate. Prior to commencing work the Contractor, at his own expense, shall determine the exact locations of existing structures which are within the proposed construction limit

All existing drainage structures are to be kept free of any debris resulting from the Contractor's construction operations. All work and material necessary to prevent accumulation of debris in the drainage structures will be considered as incidental to the contract. Any debris in the drainage structures resulting from construction operations shall be removed at the Contractor's expense, and no extra compensation will be allowed.

The Contractor shall take the necessary precautions when working near or above existing sewers in order to protect these pipes during construction from any damage resulting from his operations. All work and material necessary to replace existing sewers damaged because of noncompliance with this provision shall be as directed by the Engineer in accordance with Section 550 of the "Standard Specifications" and at the Contractor's own expense, and no additional compensation will be allowed.

During construction, if the Contractor encounters or otherwise becomes aware of any sewers, underdrains or field drains within the right-of-way other than those shown on the plans, he shall inform the Engineer, who shall direct the work necessary to maintain or replace the facilities in service and to protect them from damage during construction if maintained. Existing facilities to be maintained that are damaged because of the non-compliance with this provision shall be replaced at the Contractor's own expense. Should the Engineer have directed the replacement of a facility, the necessary work and payment shall be in accordance with Sections 550 and 601, and Article 104.02 of the "Standard Specifications."

DISPOSAL OF SURPLUS MATERIAL

The Contractor is prohibited from burning any material within or adjacent to the project limits.

All excess or waste material shall be either hauled away from the project site by the Contractor and deposited at locations provided by him, or disposed of within the right-of-way in a manner other than burning, subject to the approval of the Engineer.

No extra compensation will be allowed the Contractor for any expense incurred by complying with the requirements of this Special Provision.

TEMPORARY DITCH CHECKS

This Special Provision revises Section 280 of the Standard Specifications for Road and Bridge Construction to eliminate the use of Aggregate Ditch Checks and Hay or Straw Bales for Temporary Ditch Checks.

Delete Paragraphs 2 and 3 of Article 280.04(a) Temporary Ditch Checks.

Add to Article 280.04 (a), Temporary Ditch Checks: Temporary Ditch Checks shall be at least 3.66 meters (12 feet) or longer in length.

ADJUSTMENTS AND RECONSTRUCTIONS
Effective: March 15, 2011

Revise the first paragraph of Article 602.04 to read:

"**602.04 Concrete.** Cast-in-place concrete for structures shall be constructed of Class SI concrete according to the applicable portions of Section 503. Cast-in-place concrete for pavement patching around adjustments and reconstructions shall be constructed of Class PP-1 concrete, unless otherwise noted in the plans, according to the applicable portions of Section 1020."

Revise the third, fourth and fifth sentences of the second paragraph of Article 602.11(c) to read:

"Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.05 to read:

"**603.05 Replacement of Existing Flexible Pavement.** After the castings have been adjusted, the surrounding space shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.06 to read:

"**603.06 Replacement of Existing Rigid Pavement.** After the castings have been adjusted, the pavement and HMA that was removed, shall be replaced with Class PP-1 concrete, unless otherwise noted in the plans, not less than 9 in. (225 mm) thick. The pavement may be opened to traffic according to Article 701.17(e)(3)b.

The surface of the Class PP concrete shall be constructed flush with the adjacent surface."

Revise the first sentence of Article 603.07 to read:

"**603.07 Protection Under Traffic.** After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b."

CONCRETE WALL REMOVAL

Description. This work shall consist of removing the existing concrete block wall where shown on the plans. This work shall conform to Section 202 of the Standard Specifications.

Method of Measurement. This work will be measured per foot along the base of wall removed.

Basis of Payment. This work will be paid for at the contract unit price per foot for CONCRETE WALL REMOVAL, which price shall include all labor, equipment, and materials necessary for the removal of the concrete blocks and appurtenances.

REMOVE EXISTING FLARED END SECTION

Description. This work shall consist of removing existing flared end sections along with any grating where shown on the plans or as directed by the Engineer. The removed sections shall be disposed of off-site.

Method of Measurement. This work will be measured for payment per each.

Basis of Payment. This work shall be paid for at the contract unit price per each for REMOVE EXISTING FLARED END SECTION, regardless of size. This price shall include all labor and equipment necessary to perform the work as specified herein, including disposal of the end section and grating.

WOODEN POLE REMOVAL

Description. This work shall consist of removing existing wooden pole where shown on the plans or as directed by the Engineer. The wooden poles shall be disposed of off-site. Holes remaining within embankment areas shall be filled and compacted as required in Section 205.

Method of Measurement. This work shall be measured for payment per each.

Basis of Payment. This work will be paid for at the contract unit price per each for WOODEN POLE REMOVAL, which price shall include all labor, equipment, and materials necessary for the specified work herein.

MANHOLES TYPE A WITH RESTRICTOR PLATE

Description. This work shall consist of constructing precast reinforced concrete manholes with a restrictor plate at the locations shown in the plans and in accordance with the applicable portions of Sections 503 and 602 of the Standard Specifications and the plan details. This item shall include Type 1 frames with an open lid. The Contractor shall submit shop drawings to the Engineer for approval prior to starting this work.

Method of Measurement. This work shall be measured for payment per each.

Basis of Payment. This work will be paid for at the contract unit price per each for MANHOLES, TYPE A, 6'-DIAMETER, WITH 2 TYPE 1 FRAME, OPEN LIDS, RESTRICTOR PLATE, or MANHOLES, TYPE A, 7'-DIAMETER, WITH 2 TYPE 1 FRAME, OPEN LIDS, RESTRICTOR PLATE, which price shall include all frames, lids, restrictor plates, concrete and reinforcement, and all excavation and backfilling required to complete the work.

BRICK SIDEWALK REMOVAL

Description. This work shall consist of removing existing brick sidewalks and pavers as shown on the plans and as directed by the engineer. The removed bricks shall be disposed of off-site.

Method of Measurement. This work shall be measured for payment per square foot.

Basis of Payment. This work will be paid for at the contract unit price per square foot for BRICK SIDEWALK REMOVAL, and shall include all labor, equipment, and materials necessary for the specified work herein.

REMOVE SIGN (SPECIAL)

Description. This work shall consist of removing existing business and billboard sign structures where shown on the plans or as directed by the Engineer. This work will be in accordance with the applicable portions of Section 737 of the Standard Specifications.

Construction Requirements. Electrical services shall be removed to the right-of-way line in accordance with current National Electrical Code and local requirements. Holes remaining within embankment areas shall be filled and compacted as required in Section 205.

Method of Measurement. This work shall be measured for payment per each.

Basis of Payment. This work will be paid for at the contract unit price per each for REMOVE SIGN (SPECIAL), which price shall include all labor, equipment, and materials necessary for the removal and disposal of the sign structure and appurtenances.

RELOCATE EXISTING MAILBOX

Description. This work shall consist of removing existing mailboxes throughout the project in accordance with Section 107.20 and as directed by the engineer. Mailboxes that interfere with construction operation shall be erected at temporary locations. This work includes reinstalling the mailboxes to their final locations. Holes remaining within embankment areas shall be filled and compacted as required in Section 205.

Method of Measurement. This work shall be measured for payment per each installation removed and reinstalled.

Basis of Payment. This work will be paid for at the contract unit price per each for RELOCATE EXISTING MAILBOX, and shall include all labor, equipment, and materials necessary to complete the work specified herein.

EXPLORATION TRENCH, SPECIAL

Description. This item shall consist of excavating a trench at locations designated by the Engineer for the purpose of locating existing tile lines or other underground facilities within the limits of the proposed improvement. The trench shall be deep enough to expose the line but not more than one foot deeper than the line, and the width of the trench shall be sufficient to allow proper investigation to determine if the line needs to be relocated or replaced.

The exploration trench shall be backfilled with gradation CA 6 stone, the cost of which shall be included in the item of EXPLORATION TRENCH, SPECIAL.

Basis of Payment. This work will be paid for at the contract unit price per foot for EXPLORATION TRENCH, SPECIAL, regardless of the depth required, and no extra compensation will be allowed for any delays, inconveniences or damages sustained by the Contractor in performing the work.

CHAIN LINK FENCE REMOVAL

Description. This work shall consist of removing existing chain link fence where shown on the plans or as directed by the Engineer. This work will be in accordance with the applicable portions of Section 664 of the Standard Specifications. Holes remaining within embankment areas shall be filled and compacted as required in Section 205.

Method of Measurement. This work shall be measured for payment per foot.

Basis of Payment. This work will be paid for at the contract unit price per foot for CHAIN LINK FENCE REMOVAL, which price shall include all labor, equipment, and materials necessary for the removal and disposal of the fence, fence posts, and all fence appurtenances.

CONCRETE TRUCK WASHOUT

Description. The Contractor shall take sufficient precautions to prevent pollution of streams, lakes, reservoirs, and wetlands with fuels, oils, bitumens, calcium chloride, or other harmful materials according to Article 107.23 of the “Standard Specifications”.

General. To prevent pollution by residual concrete and/or the by-product of washing out the concrete trucks, concrete washout facilities shall be constructed and maintained on any project which includes cast-in-place concrete items. The concrete washout shall be constructed, maintained, and removed according to this special provision.

The concrete washout facility shall be constructed on the job site in accordance with Illinois Urban Manual practice standard for Temporary Concrete Washout Facility. The Contractor may elect to use a pre-fabricated portable concrete washout structure. The Contractor shall submit a plan for the concrete washout facility, to the Engineer for approval, a minimum of 10 calendar days before the first concrete pour. The working concrete washout facility shall be in place before any delivery of concrete to the site. The Contractor shall ensure that all concrete washout activities are limited to the designated area.

The concrete washout facility shall be located no closer than 50 feet from any environmentally sensitive areas, such as water bodies, wetlands, and/or other areas indicated on the plans. Adequate signage shall be placed at the washout facility and elsewhere as necessary to clearly indicate the location of the concrete washout facility to the operators of concrete trucks.

The concrete washout facility shall be adequately sized to fully contain the concrete washout needs of the project. The contents of the concrete washout facility shall not exceed 75% of the facility capacity. Once the 75% capacity is reached, concrete placement shall be discontinued until the facility is cleaned out. Hardened concrete shall be removed and properly disposed of outside the right-of-way. Slurry shall be allowed to evaporate, or shall be removed and properly disposed of outside the right-of-way. The Contractor shall immediately replace damaged basin liners or other washout facility components to prevent leakage of concrete waste from the washout facility. Concrete washout facilities shall be inspected by the Contractor after each use. Any and all spills shall be reported to the Engineer and cleaned up immediately. The Contractor shall remove the concrete washout facility when it is no longer needed.

Basis of Payment. This work will be paid for at the contract lump sum for CONCRETE TRUCK WASHOUT.

RETAINING WALL REMOVAL

Description. This work shall consist of removing and disposing the existing retaining wall as shown on the plans and directed by the engineer. This work shall conform to Section 202 of the Standard Specifications.

Method of Measurement. This work will be measured per foot along the base of wall removed.

Basis of Payment. This work will be paid for at the contract unit price per linear foot for RETAINING WALL REMOVAL, which price shall include removing, disposing, and all equipment, labor and materials necessary to complete the work specified herein.

HOT-MIX ASPHALT DRIVEWAY PAVEMENT

Description. This work shall consist of furnishing, placing, shaping, and compacting hot-mix asphalt driveway pavement to the thicknesses as indicated on the plans or as directed by the Engineer. The driveways shall have a minimum 2" thick surface course (HMA Surface Course, Mix "D", N50) with the balance constructed using hot mix asphalt base course. This work shall be in accordance with Section 406 of the Standard Specifications, District Standard BD-01 or BD-02, and as directed by the Engineer.

Method of Measurement. This work will be measured in place and the area computed in square yards.

Basis of Payment. This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 8" or HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 10". These prices shall include all labor, materials and equipment necessary to complete the work.

DUST CONTROL WATERING

This work shall be performed in accordance with Section 107 of the Standard Specifications with the following alterations.

107.36 Dust Control. Delete paragraph 5 and add the following**:** Dust shall be controlled by the uniform application of sprinkled water and shall be applied only when directed and in a manner approved by the Engineer. All equipment used for this work shall meet with the Engineer's approval and shall be equipped with adequate measuring devices for determining the exact amount of water discharged. All water used shall be properly documented by ticket or other approved means.

Method of Measurement. This work will be measured in units of gallons of water applied. One unit is equivalent to 1,000 gallons of water applied. The Contractor's attention is called to Article 107.18 of the Special Provisions.

Basis of Payment. This work will be paid for at the contract unit price per unit for DUST CONTROL WATERING, which price shall include all labor, water and equipment for controlling dust as herein specified.

FENCE REMOVAL

Description. This work shall consist of complete removal and proper disposal of existing fencing where shown on the plans or directed by the Engineer. The removal shall include post foundations, fittings, gates, posts and accessories. All holes left by the removal of the fence posts and post foundations shall be filled with excavated earth material.

Method of Measurement. Fence Removal will be measured per foot along the top of the fence.

Basis of Payment. This work will be paid for at the contract unit price per foot for FENCE REMOVAL. This price shall include all equipment, labor and materials necessary to complete the work specified herein.

PIPE UNDERDRAINS FOR STRUCTURES
Effective: May 17, 2000
Revised: January 22, 2010

Description. This work shall consist of furnishing and installing a pipe underdrain system as shown on the plans, as specified herein, and as directed by the Engineer.

Materials. Materials shall meet the requirements as set forth below:

The perforated pipe underdrain shall be according to Article 601.02 of the Standard Specifications. Outlet pipes or pipes connecting to a separate storm sewer system shall not be perforated.

The drainage aggregate shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 16, according to Sections 1003 and 1004 of the Standard Specifications.

The fabric surrounding the drainage aggregate shall be Geotechnical Fabric for French Drains according to Article 1080.05 of the Standard Specifications.

Construction Requirements. All work shall be according to the applicable requirements of Section 601 of the Standard Specifications except as modified below.

The pipe underdrains shall consist of a perforated pipe drain situated at the bottom of an area of drainage aggregate wrapped completely in geotechnical fabric and shall be installed to the lines and gradients as shown on the plans.

Method of Measurement. Pipe Underdrains for Structures shall be measured for payment in feet (meters), in place. Measurement shall be along the centerline of the pipe underdrains. All connectors, outlet pipes, elbows, and all other miscellaneous items shall be included in the measurement. Concrete headwalls shall be included in the cost of Pipe Underdrains for Structures, but shall not be included in the measurement for payment.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for PIPE UNDERDRAINS FOR STRUCTURES of the diameter specified. Furnishing and installation of the drainage aggregate, geotechnical fabric, forming holes in structural elements and any excavation required, will not be paid for separately, but shall be included in the cost of the pipe underdrains for structures.

SEGMENTAL CONCRETE BLOCK WALL
Effective: January 7, 1999
Revised: October 30, 2012

Description. This work shall consist of furnishing the design computations, shop plans, materials, equipment and labor to construct a Segmental Concrete Block Retaining Wall to the limits shown on the plans.

General. The wall shall consist of a leveling pad, precast concrete blocks (either dry-cast or wet cast), select fill and, if required by the design, soil reinforcement. The wall shall be designed and constructed according to the lines, grades, and dimensions shown on the contract plans and approved shop plans.

Submittals. The wall supplier shall submit design computations and shop plans to the Engineer according to Article 1042.03(b) of the Standard Specifications. No work or ordering of materials for the structure shall be done by the Contractor until the submittal has been approved in writing by the Engineer. The shop plans shall be sealed by an Illinois Licensed Structural Engineer and shall include all details, dimensions, quantities, and cross sections necessary to construct the wall and shall include, but not be limited to, the following items:

(a) Plan, elevation, and cross section sheet(s) for each wall showing the following:

(1) A plan view of the wall indicating the offsets from the construction centerline to the first course of blocks at all changes in horizontal alignment. These shall be calculated using the offsets to the front face of the block shown on the contract plans and the suppliers proposed wall batter. The plan view shall indicate bottom (and top course of block when battered), the excavation and select fill limits as well as any soil reinforcing required by the design. The centerline of any drainage structure or pipe behind or passing through/under the wall shall also be shown.

(2) An elevation view of the wall, indicating the elevation and all steps in the top course of blocks along the length of the wall. The top of these blocks shall be at or above the theoretical top of block line shown on the contract plans. This view shall also show the steps and proposed top of leveling pad elevations as well as the finished grade line at the wall face specified on the contract plans. These leveling pad elevations shall be located at or below the theoretical top of leveling line shown on the contract plans. The location, size, and length of any soil reinforcing connected to the blocks shall be indicated.

(3) Typical cross section(s) showing the limits of the select fill, soil reinforcement if used in the design. The right-of-way limits shall be indicated as well as the proposed excavation, cut slopes, and the elevation relationship between existing ground conditions and proposed grades.

(4) All general notes required for constructing the wall.

(b) All details for the leveling pads, including the steps, shall be shown. The theoretical top of the leveling pad shall either be below the anticipated frost depth or 1.5 ft. (450 mm) below the finished grade line at the wall face, whichever is greater; unless otherwise shown on the plans. The minimum leveling pad thickness shall be 6 in. (152 mm)

(c) Cap blocks shall be used to cover the top of the standard block units. The top course of blocks and cap blocks shall be stepped to satisfy the top of block line shown on the contract plans.

(d) All details of the block and/or soil reinforcement placement around all appurtenances located behind, on top of, or passing through the wall shall be clearly indicated. Any modifications to the design of these appurtenances to accommodate a particular design arrangement shall also be submitted.

(e) All details of the blocks, including color and texture shall be shown. The exterior face shall preferably be straight, textured with a “split rock face” pattern, and dark gray in color unless otherwise stated on the plans.

(f) All block types (standard, cap, corner, and radius turning blocks) shall be detailed showing all dimensions.

(g) All blocks shall have alignment/connection devices such as shear keys, leading/trailing lips, or pins. The details for the connection devices between adjacent blocks and the block to soil reinforcement shall be shown. The block set back or face batter shall be limited to 20 degrees from vertical, unless otherwise shown by the plans.

Materials. The materials shall meet the following requirements:

Dry-Cast Concrete Block: Dry-cast concrete block proposed for use shall be pre-cast and produced according Article 1042.02 and the requirements of ASTM C1372 except as follows:

Fly ash shall be according to Articles 1010.01 and 1010.02(b).

Ground granulated blast-furnace slag shall be according to Articles 1010.01 and 1010.05.

Aggregate shall be according to Articles 1003.02 and 1004.02, with the exception of gradation.

Water shall be according to Section 1002.

Testing for freeze-thaw durability will not be required. However, unsatisfactory field performance as determined by the Department will be cause to prohibit the use of the block on Department projects.

(b) Wet-cast Concrete Block: Wet-cast concrete block proposed for use shall be pre-cast and produced according to Section 1020 and Article 1042.02. The concrete shall be Class PC with a minimum compressive strength of at least 3000 psi (31 MPa) at 28 days.

(c) Select fill: The select fill, defined as the material placed in the reinforced volume behind the wall, shall be according to Sections 1003 and 1004 of the Standard Specifications and the following:

Select Fill Gradation. Either a coarse aggregate or a fine aggregate may be used. For coarse aggregate, gradations CA 6 thru CA 16 may be used. For fine aggregate, gradations FA 1, FA 2, or FA 20 may be used.

Select Fill Quality. The coarse or fine aggregate shall have a maximum sodium sulfate (Na_2SO_4) loss of 15 percent according to Illinois Modified AASHTO T 104.

Select Fill Internal Friction Angle. The effective internal friction angle for the coarse or fine aggregate shall be a minimum 34 degrees according to AASHTO T 236 on samples compacted to 95 percent density according to Illinois Modified AASHTO T 99. The AASHTO T 296 test with pore pressure measurement may be used in lieu of AASHTO T 236. If the vendor's design uses a friction angle higher than 34 degrees, as indicated on the approved shop drawings, this higher value shall be taken as the minimum required.

Select Fill and Geosynthetic Reinforcing. When geosynthetic reinforcing is used, the select fill pH shall be 4.5 to 9.0 according to Illinois Modified AASHTO T 289.

Test Frequency. Prior to start of construction, the Contractor shall provide internal friction angle and pH test results to show the select fill material meets the specification requirements. However, the pH will be required only when geosynthetic reinforcing is used. All test results shall not be older than 12 months. In addition, a sample of select fill material will be obtained for testing and approval by the Department. Thereafter, the minimum frequency of sampling and testing at the jobsite will be one per 40,000 tons (36,300 metric tons) of select fill material. Testing to verify the internal friction angle will only be required when the wall design utilizes a minimum effective internal friction angle greater than 34 degrees, or when crushed coarse aggregate is not used.

When a fine aggregate is selected, the rear of all block joints shall be covered by a non-woven needle punch geotextile filter material according to Article 1080.05 of the Standard Specifications and shall have a minimum permeability according to ASTM D4491 of 0.008 cm/sec. All fabric overlaps shall be 6 in. (150 mm) and non-sewn. As an alternative to the geotextile, a coarse aggregate shall be placed against the back face of the blocks to create a minimum 12 in. (300 mm) wide continuous gradation filter to prevent the select fill material from passing through the block joints.

(d) Leveling pad: The material shall be either Class SI concrete according to Article 1020.04 or compacted coarse aggregate according to Articles 1004.04, (a) and (b). The compacted coarse aggregate gradation shall be CA 6 or CA 10.

(e) Soil Reinforcement: If soil reinforcement is required by the approved design, the Contractor shall submit a manufacturer's certification for the soil reinforcement properties which equals or exceeds those required in the design computations. The soil reinforcement shall be manufactured from high density polyethylene (HDPE) uniaxial or polypropylene biaxial resins or high tenacity polyester fibers with a PVC coating, stored between -20 and 140° F (-29 and 60° C). The following standards shall be used in determining and demonstrating the soil reinforcement capacities:

ASTM D638 Test Method for Tensile Properties of Plastic
ASTM D1248 Specification for Polyethylene Plastics Molding and Extrusion Materials
ASTM D4218 Test Method for Carbon Black Content in Polyethylene Compounds
ASTM D5262 Test Method for Evaluating the Unconfined Tension Creep Behavior of Geosynthetics
GG1-Standard Test Method for Geogrid Rib Tensile Strength
GG2-Standard Test Method for Geogrid Junction Strength
GG4-Standard Practice for Determination of the Long Term Design Strength of Geogrid
GG5-Standard Practice for Evaluating Geogrid Pullout Behavior

Design Criteria. The design shall be according to AASHTO Specifications and commentaries for Earth Retaining Walls or FHWA Publication No. HI-95-038, SA-96-071 and SA-96-072. The wall supplier shall be responsible for all internal stability aspects of the wall design.

Internal stability design shall insure that adequate factors of safety against overturning and sliding are present at each level of block. If required by design, soil reinforcement shall be utilized and the loading at the block/soil reinforcement connection as well as the failure surface must be indicated. The calculations to determine the allowable load of the soil reinforcement and the factor of safety against pullout shall also be included. The analysis of settlement, bearing capacity, and overall slope stability are the responsibility of the Department.

External loads such as those applied through structure foundations, from traffic or railroads, slope surcharge etc., shall be accounted for in the internal stability design. The presence of all appurtenances behind, in front of, mounted upon, or passing through the wall volume such as drainage structures, utilities, structure foundation elements, or other items shall be accounted for in the internal stability design of the wall.

Construction Requirements. The Contractor shall obtain technical assistance from the supplier during wall erection to demonstrate proper construction procedures and shall include all costs related to this technical assistance in the unit price bid for this item.

The foundation material for the leveling pad and select fill volume shall be graded to the design elevation and compacted according to Article 205.05, except the minimum required compaction shall be 95 percent of the standard laboratory density. The Engineer will perform one density test per 1500 ft (450 m) of the entire length of foundation material through both cut and fill areas. Any foundation soils found to be unsuitable shall be removed and replaced as directed by the Engineer and shall be paid for according to Article 109.04.

The select fill lift placement shall closely follow the erection of each course of blocks. All aggregate shall be swept from the top of the block prior to placing the next block lift. If soil reinforcement is used, the select fill material shall be leveled and compacted before placing and attaching the soil reinforcement to the blocks. The soil reinforcement shall be pulled taut, staked in place, and select fill placed from the rear face of the blocks outward. The lift thickness shall be the lesser of 10 in. (255 mm) loose measurement or the proposed block height.

The select fill shall be compacted according to Article 205.05, except the minimum required compaction shall be 95 percent of the standard laboratory density. Compaction shall be achieved using a minimum of 3 passes of a lightweight mechanical tamper, roller, or vibratory system. The Engineer will perform one density test per 5000 cu yd (3800 cu m) and not less than one test per 2 ft (0.6m) of lift. The top 12 in. (300 mm) of backfill shall be a cohesive, impervious material capable of supporting vegetation, unless other details are specified on the plans.

The blocks shall be maintained in position as successive lifts are compacted along the rear face of the block. Vertical, horizontal, and rotational alignment tolerances shall not exceed 0.5 in. (12 mm) when measured along a 10 ft. (3 m) straight edge.

Method of Measurement. Segmental Concrete Block Wall will be measured by the square foot (square meter) of wall face from the top of block line to the theoretical top of the leveling pad for the length of the wall in a vertical plane, as shown on the contract plans.

Basis of Payment. This work will be paid for at the contract unit price per square foot (square meter) for SEGMENTAL CONCRETE BLOCK WALL.

SPECIAL GRATE

Description. This work shall consist of providing and installing grating for pipe bells where shown on the plans and as directed by the Engineer. This work will be in accordance with the applicable portions of Section 604 of the Standard Specifications and the plan details.

Materials. Materials shall be Neenah Foundry Grate Product No. R4350-A or East Jordan Iron Works Grate Product No. 6108N or equivalent.

Submittals. The Contractor shall submit shop drawings showing material details and specifications when proposing an equivalent grate type.

Method of Measurement. This work will be measured per each location, complete in place.

Basis of Payment. This work will be paid for at the contract unit price per each for SPECIAL GRATE NO. 1 of the type specified. This price shall include all equipment, labor and materials necessary to complete the work specified herein.

GRATING FOR CONCRETE FLARED END SECTIONS

Description. This work shall consist of providing and installing grating for concrete flared end sections where shown on the plans and as directed by the Engineer. This work will be in accordance with the applicable portions of Section 542 of the Standard Specifications and the plan details.

Method of Measurement. This work will not be measured separately, but will be included with the concrete flared end section.

Basis of Payment. This work will not be paid for separately, but will be included in the cost of the concrete flared end section.

AGGREGATE SUBGRADE IMPROVEMENT (DISTRICT 1)
Effective: February 22, 2012
Revised: January 1, 2013

Add the following Section to the Standard Specifications:

"SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement.

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.06
(b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2)	1031

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradations CS 01 or CS 02 but shall not exceed 40 percent of the total product. The top size of the Coarse RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. RAP having 100 percent passing the 1 1/2 in. (37.5 mm) sieve and being well graded, may be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradations CS 01 or CS 02 are used in lower lifts. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders.

303.03 Equipment. The vibratory machine shall be according to Article 1101.01, or as approved by the Engineer.

303.04 Soil Preparation. The stability of the soil shall be according to the Department's Subgrade Stability Manual for the aggregate thickness specified.

303.05 Placing Aggregate. The maximum nominal lift thickness of aggregate gradations CS 01 or CS 02 shall be 24 in. (600 mm).

303.06 Capping Aggregate. The top surface of the aggregate subgrade shall consist of a minimum 3 in. (75 mm) of aggregate gradations CA 06 or CA 10. When Reclaimed Asphalt Pavement (RAP) is used, it shall be crushed and screened where 100 percent is passing the 1 1/2 in. (37.5 mm) sieve and being well graded. RAP that has been fractionated to size will not be permitted for use in capping. Capping aggregate will not be required when the aggregate subgrade improvement is used as a cubic yard pay item for undercut applications. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders.

303.07 Compaction. All aggregate lifts shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

303.08 Finishing and Maintenance of Aggregate Subgrade Improvement. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.09 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.10 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified.

Add the following to Section 1004 of the Standard Specifications:

" **1004.06 Coarse Aggregate for Aggregate Subgrade Improvement.** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete.

(b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.

(c) Gradation.

(1) The coarse aggregate gradation for total subgrade thickness less than or equal to 12 in. (300 mm) shall be CS 01.

The coarse aggregate gradation for total subgrade thickness more than 12 in. (300 mm) shall be CS 01 or CS 02.

Grad No.	COARSE AGGREGATE SUBGRADE GRADATIONS Sieve Size and Percent Passing				
	8”	6”	4”	2”	#4
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

Grad No.	COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)				
	Sieve Size and Percent Passing				
	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

(2) The 3 in. (75 mm) capping aggregate shall be gradation CA 6 or CA 10.”

AGGREGATE SURFACE COURSE FOR TEMPORARY ACCESS
Effective: April 1, 2001
Revised: January 2, 2007

Revise Article 402.10 of the Standard Specifications to read:

“**402.10 For Temporary Access.** The contractor shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances and roads according to Article 402.07 and as directed by the Engineer.

The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer.

Private Entrance. The minimum width shall be 12 ft (3.6 m). The minimum compacted thickness shall be 6 in. (150 mm). The maximum grade shall be eight percent, except as required to match the existing grade.

Commercial Entrance. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The maximum grade shall be six percent, except as required to match the existing grade.

Road. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The grade and elevation shall be the same as the removed pavement, except as required to meet the grade of any new pavement constructed.

Maintaining the temporary access shall include relocating and/or regrading the aggregate surface coarse for any operation that may disturb or remove the temporary access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

When use of the temporary access is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03."

Add the following to Article 402.12 of the Standard Specifications:

"Aggregate surface course for temporary access will be measured for payment as each for every private entrance, commercial entrance or road constructed for the purpose of temporary access. If a residential drive, commercial entrance, or road is to be constructed under multiple stages, the aggregate needed to construct the second or subsequent stages will not be measured for payment but shall be included in the cost per each of the type specified."

Revise the second paragraph of Article 402.13 of the Standard Specifications to read:

"Aggregate surface course for temporary access will be paid for at the contract unit price per each for TEMPORARY ACCESS (PRIVATE ENTRANCE), TEMPORARY ACCESS (COMMERCIAL ENTRANCE) or TEMPORARY ACCESS (ROAD).

Partial payment of the each amount bid for temporary access, of the type specified, will be paid according to the following schedule:

Upon construction of the temporary access, sixty percent of the contract unit price per each, of the type constructed, will be paid.

Subject to the approval of the Engineer for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal of the temporary access."

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-1)

Effective: November 1, 2012
Revise: January 2, 2013

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

(a) Reclaimed Asphalt Pavement (RAP). RAP is the material resulting by cold milling or crushing an existing hot-mix asphalt (HMA) pavement. RAP will be considered processed FRAP after completion of both crushing and screening to size. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

(b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 90 percent passing the #4 (4.75 mm) sieve . RAS shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.

(1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.

(2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including unprocessed RAP and Processed FRAP) shall be identified by signs indicating the type as listed below (i.e. "Non- Quality, FRAP -#4 or Type 2 RAS", etc…).

(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, Superpave HMA (High and Low ESAL) or equivalent mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be processed prior to testing sized into fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP in the coarse fraction shall pass the maximum sieve size specified for the mix the RAP will be used in.

(2) Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, Superpave (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 inch single combined pass of surface/binder milling will be classified as B quality. All millings from this application will be processed into FRAP as described previously.

(3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, Superpave HMA (High and Low ESAL) or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from HMA shoulders, bituminous stabilized subbases or Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP/FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, plant cleanout etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

RAS Stockpiles. The Contractor shall construct individual, sealed RAS stockpiles meeting one of the following definitions. No additional RAS shall be added to the pile after the pile has been sealed. Type 1 and Type 2 RAS shall be stockpiled separately and shall be sufficiently separated to prevent intermingling at the base. Each stockpile shall be signed indicating what type of RAS is present.

However, a RAS source may submit a written request to the Department for approval to blend mechanically a specified ratio of type 1 RAS with type 2 RAS. The source will not be permitted to change the ratio of the blend without the Department prior written approval.Unless otherwise approved by the Engineer, mechanically blending manufactured sand (FM 20 or FM 22) up to an equal weight of RAS with the processed RAS will be permitted to improve workability. The Engineer's written approval will be required, to mechanically blend RAS with any fine aggregate produced under the AGCS, up to an equal weight of RAS, to improve workability. The fine aggregate shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The fine aggregate shall be one that is approved for use in the HMA mixture and accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of three years.

1031.03 Testing. RAP/FRAP and RAS testing shall be according to the following.

RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during processing or after stockpiling.

During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Before extraction, each field sample whether RAP or FRAP, shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

RAS Testing. RAS shall be sampled and tested either during or after stockpiling.

During stockpiling, washed extraction, and testing for unacceptable materials shall be run at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 1000 tons (900 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

extraction, each field sample shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

1031.04 Evaluation of Tests. Evaluation of tests results shall be according to the following.

Evaluation of RAP/FRAP Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable (for slag) G_{mm}. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	FRAP/RAP or FRAP	Conglomerate "D" Quality RAP
1 in. (25 mm)		± 5 %
1/2 in. (12.5 mm)	± 8 %	± 15 %
No. 4 (4.75 mm)	± 6 %	± 13 %
No. 8 (2.36 mm)	± 5 %	
No. 16 (1.18 mm)		± 15 %
No. 30 (600 μm)	± 5 %	
No. 200 (75 μm)	± 2.0 %	± 4.0 %
Asphalt Binder	± 0.4 % 1/	± 0.5 %
G_{mm}	± 0.03 2/	

1/ The tolerance for FRAP shall be ± 0.3 %.
2/ For slag and steel slag

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the RAP/FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

Evaluation of RAS Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 μm)	± 4 %
No. 200 (75 μm)	± 2.0 %
Asphalt Binder Content	± 1.5 %

and/or asphalt binder content tests are out of the above tolerances, the RAS shall not be used in Department projects unless the RAS, RAP or FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

1031.05 Quality Designation of Aggregate in RAP/FRAP.

(a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

(1) RAP from Class I, Superpave (High ESAL)/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.

(2) RAP from Superpave (High ESAL)/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.

(3) RAP from Class I, Superpave (High ESAL)/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.

(4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

(b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Fractionated RAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications. The fine aggregate portion of the fractionated RAP shall not be used in any HMA mixtures that require a minimum of "B" quality aggregate or better, until the coarse aggregate fraction has been determined to be acceptable thru a MicroDeval Testing.

1031.06 Use of RAS, RAP or FRAP in HMA. The use of RAS, RAP or FRAP shall be a Contractor's option when constructing HMA in all contracts.

(a) RAP/FRAP. The use of RAP/FRAP in HMA shall be as follows.

(1) Coarse Aggregate Size (after extraction). The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.

(2) Steel Slag Stockpiles. RAP/FRAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) mixtures regardless of lift or mix type.

3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall have coarse aggregate that is Class B quality or better. RAP/FRAP shall be considered equivalent to limestone for frictional considerations unless produced/screened to minus 3/8 inch.

in which the coarse aggregate is Class C quality or better.

(5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be RAP, Restricted FRAP, conglomerate, or conglomerate DQ.

RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.

RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with RAP or FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.

(6When the Contractor chooses the RAP option, the percentage of the percentage of virgin asphalt binder replaced by the asphalt binder from the RAP shall not exceed the percentages indicated in the table below for a given N Design:

Max Asphalt Binder Replacement RAP Only
Table 1

HMA Mixtures [1/, 2/]	Maximum % Asphalt Binder replacement (ABR)		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30L	25	15	10
50	25	15	10
70	15	10	10
90	10	10	10
105	10	10	10
4.75 mm N-50			15
SMA N-80			10

1/ For HMA “All Other” (shoulder and stabilized subbase) N-30, the percent asphalt binder replacement shall not exceed 50% of the total asphalt binder in the mixture.

2/ When the asphalt binder replacement exceeds 15 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). When constructing full depth HMA and the ABR is less than 15 percent, the required virgin asphalt binder grade shall be PG64-28.

RAP shall not exceed the amounts indicated in

When the Contractor chooses either the RAS or FRAP option, the percent binder replacement shall not exceed the amounts indicated in the tables below for a given N Design.

Max Asphalt Binder Replacement RAS or FRAP
Table 2

HMA Mixtures [1/, 2/]	Maximum % ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer [3/, 4/] Modified
30L	35	30	15
50	30	25	15
70	30	20	15
90	20	15	15
105	20	15	15
4.75 mm N-50			25
SMA N-80			15

1/ For HMA “All Other” (shoulder and stabilized subbase) N-30, the percent asphalt bider replacement shall not exceed 50% of the total asphalt binder in the mixture.

2/ When the asphalt binder replacement exceeds 15 percent for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement will require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). When constructing full depth HMA and the ABR is less than 15 percent, the required virgin asphalt binder grade shall be PG64-28.

3/ When the ABR for SMA is 15 percent or less, the required virgin asphalt binder grade shall be SBS PG76-22.

4/ When the ABR for IL-4.75 mix is 15 percent or less, the required virgin asphalt binder grade shall be SBS PG76-22. When the ABR for the IL-4.75 mix exceeds 15 percent, the virgin asphalt binder grade shall be SBS PG70-28.

When the Contractor chooses the RAS with FRAP combination, the percent asphalt binder replacement shall split equally between the RAS and the FRAP, and the total replacement shall not exceed the amounts indicated in the tables below for a given N Design.

Max Asphalt Binder Replacement RAS and FRAP Combination
Table 3

HMA Mixtures [1/, 2/]	Maximum % ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified [3/, 4/]
30L	50	40	30
50	40	35	30
70	40	30	30
90	40	30	30
105	40	30	30
4.75 mm N-50			40
SMA N-80			30

1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the percent asphalt binder replacement shall not exceed 50% of the total asphalt binder in the mixture.

2/ When the binder replacement exceeds 15 percent for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement will require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

3/ When the ABR for SMA is 15 percent or less, the required virgin asphalt binder shall be SBS PG76-22. When the ABR for SMA exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28.

4/ When the ABR for IL-4.75 mix is 15 percent or less, the required virgin asphalt binder grade shall be SBS PG76-22. When the ABR for the IL-4.75 mix exceeds 15 percent, the virgin asphalt binder grade shall be SBS PG70-28.4/ For IL-4.75 mix the FRAP/RAS ABR shall not exceed 30 percent.

1031.07 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the above detailed requirements.

All HMA mixtures will be required to be tested, prior to submittal for Department verification, according to Illinois Modified AASHTO T324 (Hamburg Wheel) and shall meet the following requirements:

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG76-XX	20,000	12.5
PG70-XX	20,000	12.5
PG64-XX	10,000	12.5
PG58-XX	10,000	12.5
PG52-XX	10,000	12.5
PG46-XX	10,000	12.5

Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions.
For IL 4.75 mm Designs (N-50) the maximum rut depth is 9.0 mm at 15,000 repetitions.

1031.08 HMA Production. All HMA mixtures shall be sampled within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAS, RAP and FRAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAS, RAP and FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAS, RAP or FRAP and either switch to the virgin aggregate design or submit a new RAS, RAP or FRAP design.

RAP/FRAP. The coarse aggregate in all RAP/FRAP used shall be equal to or less than the maximum size requirement for the HMA mixture being produced.

RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

RAS, RAP and FRAP. HMA plants utilizing RAS, RAP and FRAP shall be capable of automatically recording and printing the following information.

(1) Dryer Drum Plants.

a. Date, month, year, and time to the nearest minute for each print.

b. HMA mix number assigned by the Department.

c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

d. Accumulated dry weight of RAS, RAP and FRAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.

f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

g. Residual asphalt binder in the RAS, RAP and FRAP material as a percent of the total mix to the nearest 0.1 percent.

h. Aggregate RAS, RAP and FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS, RAP and FRAP are printed in wet condition.)

i. When producing mixtures with FRAP and/or RAS, a positive dust control system shall be utilized.

j. Accumulated mixture tonnage.

k. Dust Removed (accumulated to the nearest 0.1 ton)

(2) Batch Plants.

a. Date, month, year, and time to the nearest minute for each print.

b. HMA mix number assigned by the Department.

c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).

d. Mineral filler weight to the nearest pound (kilogram).

f. RAS, RAP and FRAP weight to the nearest pound (kilogram).

g. Virgin asphalt binder weight to the nearest pound (kilogram).

h. Residual asphalt binder in the RAS, RAP and FRAP material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.09 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP or FRAP in aggregate surface course and aggregate shoulders shall be as follows.

(a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply.

(b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded, FRAP, or single sized will not be accepted for use as Aggregate Surface Course and Aggregate Shoulders."

GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1)
Effective: June 26, 2006
Revised: January 1, 2013

Add the following to the end of article 1032.05 of the Standard Specifications:

"(c) Ground Tire Rubber (GTR) Modified Asphalt Binder. A quantity of 10.0 to 14.0 percent GTR (Note 1) shall be blended by dry unit weight with a PG 64-28 to make a GTR 70-28 or a PG 58-28 to make a GTR 64-28. The base PG 64-28 and PG 58-28 asphalt binders shall meet the requirements of Article 1032.05(a). Compatible polymers may be added during production. The GTR modified asphalt binder shall meet the requirements of the following table.

Test	Asphalt Grade GTR 70-28	Asphalt Grade GTR 64-28
Flash Point (C.O.C.), AASHTO T 48, °F (°C), min.	450 (232)	450 (232)
Rotational Viscosity, AASHTO T 316 @ 275 °F (135 °C), Poises, Pa·s, max.	30 (3)	30 (3)
Softening Point, AASHTO T 53, °F (°C), min.	135 (57)	130 (54)
Elastic Recovery, ASTM D 6084, Procedure A (sieve waived) @ 77 °F, (25 °C), aged, ss, 100 mm elongation, 5 cm/min., cut immediately, %, min.	65	65

Note 1. GTR shall be produced from processing automobile and/or light truck tires by the ambient grinding method. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall contain no free metal particles or other materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois modified AASHTO T 27, a 50 g sample of the GTR shall conform to the following gradation requirements:

Sieve Size	Percent Passing
No. 16 (1.18 mm)	100
No. 30 (600 μm)	95 ± 5
No. 50 (300 μm)	> 20

Add the following to the end of Note 1. of article 1030.03 of the Standard Specifications:

"A dedicated storage tank for the Ground Tire Rubber (GTR) modified asphalt binder shall be provided. This tank must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ± 0.40 percent."

Revise 1030.02(c) of the Standard Specifications to read:

"(c) RAP Materials (Note 3) ……..…..1031"

Add the following note to 1030.02 of the Standard Specifications:

Note 3. When using reclaimed asphalt pavement and/or reclaimed asphalt shingles, the maximum asphalt binder replacement percentage shall be according to the most recent special provision for recycled materials.

FINE AGGREGATE FOR HOT-MIX ASPHALT (HMA) (DISTRICT 1)
Revised: January 1, 2012

Revise Article 1003.03 (c) of the Standard Specifications to read:

" (c) Gradation. The fine aggregate gradation for all HMA shall be FA1, FA 2, FA 20, FA 21 or FA 22. When Reclaimed Asphalt Pavement (RAP) is incorporated in the HMA design, the use of FA 21 Gradation will not be permitted.

FRICTION SURFACE AGGREGATE (D1)

Effective: January 1, 2011
Revised: February 26, 2013

Revise Article 1004.01(a)(4) of the Standard Specifications to read:

" (4) Crushed Stone. Crushed stone shall be the angular fragments resulting from crushing undisturbed, consolidated deposits of rock by mechanical means. Crushed stone shall be divided into the following, when specified.

a. Carbonate Crushed Stone. Carbonate crushed stone shall be either dolomite or limestone. Dolomite shall contain 11.0 percent or more magnesium oxide (MgO). Limestone shall contain less than 11.0 percent magnesium oxide (MgO).

b. Crystalline Crushed Stone. Crystalline crushed stone shall be either metamorphic or igneous stone, including but is not limited to, quartzite, granite, rhyolite and diabase."

Revise Article 1004.03(a) of the Standard Specifications to read:

"1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA). The aggregate shall be according to Article 1004.01 and the following revisions.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

<table>
<tr><th>Use</th><th>Mixture</th><th>Aggregates Allowed</th></tr>
<tr><td>Class A</td><td>Seal or Cover</td><td>Allowed Alone or in Combination:
Gravel
Crushed Gravel
Carbonate Crushed Stone
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag
Crushed Concrete</td></tr>
<tr><td>HMA
All Other</td><td>Shoulders</td><td>Allowed Alone or in Combination:
Gravel
Crushed Gravel
Carbonate Crushed Stone
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF) 1/
Crushed Steel Slag1/
Crushed Concrete</td></tr>
<tr><td>HMA
High ESAL
Low ESAL</td><td>C Surface
IL-12.5,IL-9.5,
or IL-9.5L</td><td>Allowed Alone or in Combination:
Crushed Gravel
Carbonate Crushed Stone
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF) 1/
Crushed Steel Slag1/
Crushed Concrete</td></tr>
<tr><td rowspan="4">HMA
High ESAL</td><td rowspan="4">D Surface
IL-12.5 or
IL-9.5</td><td>Allowed Alone or in Combination:
Crushed Gravel
Carbonate Crushed Stone (other than Limestone)
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF) 1/
Crushed Steel Slag1/
Crushed Concrete</td></tr>
<tr><td>Other Combinations Allowed:
<table><tr><th>Up to...</th><th>With...</th></tr><tr><td>25% Limestone</td><td>Dolomite</td></tr><tr><td>50% Limestone</td><td>Any Mixture D aggregate other than Dolomite</td></tr></table></td></tr>
</table>

<table>
<tr><td>Use</td><td>Mixture</td><td colspan="2">Aggregates Allowed</td></tr>
<tr><td></td><td></td><td>75% Limestone</td><td>Crushed Slag (ACBF)1/ or Crushed Sandstone</td></tr>
<tr><td rowspan="4">HMA
High ESAL</td><td rowspan="4">F Surface
IL-12.5 or
IL-9.5</td><td colspan="2">Allowed Alone or in Combination:

Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)1/
Crushed Steel Slag1/

No Limestone or no Crushed Gravel alone.</td></tr>
<tr><td colspan="2">Other Combinations Allowed:</td></tr>
<tr><td>Up to...</td><td>With...</td></tr>
<tr><td>50% Crushed Gravel, or Dolomite</td><td>Crushed Sandstone, Crushed Slag (ACBF)1/, Crushed Steel Slag1/, or Crystalline Crushed Stone</td></tr>
<tr><td>HMA
High ESAL</td><td>SMA
Ndesign 80
Surface</td><td colspan="2">Crystalline Crushed Stone
Crushed Sandstone
Crushed Steel Slag</td></tr>
</table>

When either slag is used, the blend percentages listed shall be by volume.

Add to Article 1004.03 (b) of the Standard Specifications to read:

“ When using Crushed Concrete, the quality shall be determined as follows. The Contractor shall obtain a representative sample from the stockpile, witnessed by the Engineer, at a frequency of 2500 tons (2300 metric tons). The sample shall be a minimum of 50 lb (25 kg). The Contractor shall submit the sample to the District Office. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent by weight will be applied for acceptance. The stockpile shall be sealed until test results are complete and found to meet the specifications above.”

HEAT OF HYDRATION CONTROL FOR CONCRETE STRUCTURES (D-1)
Effective: November 1, 2013

Article 1020.15 shall not apply.

HMA MIXTURE DESIGN REQUIREMENTS (DISTRICT 1)
Effective: January 1, 2013.
Revised: January 16, 2013

1) Design Composition and Volumetric Requirements

Revise Article 1030.04(a)(1) of the Standard Specifications to read.

"(1)High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

High ESAL, MIXTURE COMPOSITION (% PASSING) [1/]										
Sieve Size	IL-25.0 mm		IL-19.0 mm		IL-12.5 mm		IL-9.5 mm		IL-4.75 mm	
	min	max	min	max	min	max	min	max	min	max
1 1/2 in (37.5 mm)		100								
1 in. (25 mm)	90	100		100						
3/4 in. (19 mm)		90	82	100		100				
1/2 in. (12.5 mm)	45	75	50	85	90	100		100		100
3/8 in. (9.5 mm)						89	90	100		100
#4 (4.75 mm)	24	42 [2/]	24	50 [2/]	28	65	28	65	90	100
#8 (2.36 mm)	16	31	20	36	28	48 [3/]	32	52 [3/]	70	90
#16 (1.18 mm)	10	22	10	25	10	32	10	32	50	65
#50 (300 μm)	4	12	4	12	4	15	4	15	15	30
#100 (150 μm)	3	9	3	9	3	10	3	10	10	18
#200 (75 μm)	3	6	3	6	4	6	4	6	7	9
Ratio Dust/Asphalt Binder		1.0		1.0		1.0		1.0		1.0 [/4]

1/ Based on percent of total aggregate weight.

2/ The mixture composition shall not exceed 40 percent passing the #4 (4.75 mm) sieve for binder courses with Ndesign ≥ 90.

3/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign ≥ 90.

4/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer."

Delete Article 1030.04(a)(4) of the Standard Specifications.

Revise Article 1030.04(b)(1) of the Standard Specifications to read.

"(1)High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent and for IL-4.75 it shall be 3.5 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix, and shall conform to the following requirements.

<table>
<tr><td colspan="7">VOLUMETRIC REQUIREMENTS
High ESAL</td></tr>
<tr><td></td><td colspan="5">Voids in the Mineral Aggregate (VMA),
% minimum</td><td rowspan="2">Voids Filled with Asphalt Binder (VFA),
%</td></tr>
<tr><td>Ndesign</td><td>IL-25.0</td><td>IL-19.0</td><td>IL-12.5</td><td>IL-9.5</td><td>IL-4.75[1/]</td></tr>
<tr><td>50</td><td rowspan="4">12.0</td><td rowspan="4">13.0</td><td rowspan="4">14.0</td><td rowspan="4">15</td><td>18.5</td><td>65 – 78 [2/]</td></tr>
<tr><td>70</td><td rowspan="3"></td><td rowspan="3">65 - 75</td></tr>
<tr><td>90</td></tr>
<tr><td>105</td></tr>
</table>

1/ Maximum Draindown for IL-4.75 shall be 0.3%
2/ VFA for IL-4.75 shall be 72-85%"

Delete Article 1030.04(b)(4) of the Standard Specifications.

Revise the Control Limits Table in Article 1030.05(d)(4) of the Standard Specifications to read.

"CONTROL LIMITS					
Parameter	High ESAL Low ESAL Individual Test	High ESAL Low ESAL Moving Avg. of 4	All Other Individual Test	IL-4.75 Individual Test	IL-4.75 Moving Avg. of 4
% Passing: 1/					
1/2 in. (12.5 mm)	± 6 %	± 4 %	± 15 %		
No. 4 (4.75 mm)	± 5 %	± 4 %	± 10 %		
No. 8 (2.36 mm)	± 5 %	± 3 %			
No. 16 (1.18 mm)				± 4 %	± 3 %
No. 30 (600 μm)	± 4 %	± 2.5 %			
Total Dust Content No. 200 (75 μm)	± 1.5 %	± 1.0 %	± 2.5 %	± 1.5 %	± 1.0 %
Asphalt Binder Content	± 0.3 %	± 0.2 %	± 0.5 %	± 0.3 %	± 0.2 %
Voids	± 1.2 %	± 1.0 %	± 1.2 %	± 1.2 %	± 1.0 %
VMA	-0.7 % 2/	-0.5 % 2/		-0.7 % 2/	-0.5 % 2/

1/ Based on washed ignition oven
2/ Allowable limit below minimum design VMA requirement"

2) Design Verification and Production

Description. The following states the requirements for Hamburg Wheel and Tensile Strength testing for High ESAL, IL-4.75, and SMA hot mix asphalt (HMA) mixes during mix design verification and production.

When the options of Warm Mix Asphalt, Reclaimed Asphalt Shingles, or Reclaimed Asphalt Pavement are used by the Contractor, the Hamburg Wheel and tensile strength requirements in this special provision will be superseded by the special provisions for Warm Mix Asphalt, Reclaimed Asphalt Shingles, or Reclaimed Asphalt Pavement as applicable.

Mix Design Testing. Add the following to Article 1030.04 of the Standard Specifications:

" (d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (IL mod AASHTO T-324) and the Tensile Strength Test (IL mod AASHTO T-283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make the necessary changes to the mix and resubmit compacted specimens to the Department for verification. If the mix fails again, the mix design will be rejected.

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification meeting the following requirements:

(1)Hamburg Wheel Test criteria.

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG 70 -XX (or higher)	20,000	12.5
PG 64 -XX (or lower)	10,000	12.5

Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions.
For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 415 kPa (60 psi) for non-polymer modified performance graded (PG) asphalt binder and 550 kPa (80 psi) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 1380 kPa (200 psi)."

Production Testing. Add the following to Article 1030.06 of the Standard Specifications:

" (c) Hamburg Wheel Test. All HMA mixtures shall be sampled within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract.

The Department may conduct additional Hamburg Wheel Tests on production material as determined by the Engineer. If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria"

Basis of Payment. Revise the seventh paragraph of Article 406.14 of the Standard Specifications to read:

"For all mixes designed and verified under the Hamburg Wheel criteria, the cost of furnishing and introducing anti-stripping additives in the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

No additional compensation will be awarded to the Contractor because of reduced production rates associated with the addition of the anti-stripping additive."

DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (DISTRICT 1)
Effective: April 1, 2011
Revised: April 2, 2011

Add the following to Article 603.02 of the Standard Specifications:

"(i) Temporary Hot-Mix Asphalt (HMA) Ramp (Note 1) …….1030
(j) Temporary Rubber Ramps (Note 2)

Note 1. The HMA shall have maximum aggregate size of 3/8 in. (95 mm).

Note 2. The rubber material shall be according to the following.

Property	Test Method	Requirement
Durometer Hardness, Shore A	ASTM D 2240	75 ±15
Tensile Strength, psi (kPa)	ASTM D 412	300 (2000) min
Elongation, percent	ASTM D 412	90 min
Specific Gravity	ASTM D 792	1.0 - 1.3
Brittleness, °F (°C)	ASTM D 746	-40 (-40)"

Revise Article 603.07 of the Standard Specifications to read:

"**603.07 Protection Under Traffic.** After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.

When castings are under traffic before the final surfacing operation has been started, properly sized temporary ramps shall be placed around the drainage and/or utility castings according to the following methods.

(a) Temporary Asphalt Ramps. Temporary hot-mix asphalt ramps shall be placed around the casting, flush with its surface and decreasing to a featheredge in a distance of 2 ft (600 mm) around the entire surface of the casting.

(b) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 40 mph or less and when the height of the casting to be protected meets the proper sizing requirements for the rubber ramps as shown below.

Dimension	Requirement
Inside Opening	Outside dimensions of casting + 1 in. (25 mm)
Thickness at inside edge	Height of casting ± 1/4 in. (6 mm)
Thickness at outside edge	1/4 in. (6 mm) max.
Width, measured from inside opening to outside edge	8 1/2 in. (215 mm) min

Placement shall be according to the manufacturer's specifications.

Temporary ramps for castings shall remain in place until surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary ramp shall be removed. Excess material shall be disposed of according to Article 202.03."

COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING (DISTRICT 1)
Effective: November 1, 2011

This work shall be according to Section 1004.05 of the Standard Specifications except for the following:

Reclaimed Asphalt Pavement (RAP) maybe blended with gravel, crushed gravel, crushed stone crushed concrete, crushed slag, chats, crushed sand stone or wet bottom boiler slag. The RAP materials shall be crushed and screened. Unprocessed RAP grindings will not be permitted. The RAP shall be uniformly graded and shall pass the 1.0 in. (25 mm) screen. When RAP is blended with any of the coarse aggregate listed above, the blending shall be done mechanically with calibrated feeders. The feeders shall have an accuracy of ± 2.0 percent of the actual quantity of material delivered. The final blended product shall not contain more than 40 percent by weight RAP.

The coarse aggregate listed above shall meet CA 6 and CA 10 gradations prior to being blended with the processed and uniformly graded RAP.

PUBLIC CONVENIENCE AND SAFETY (DIST 1)
Effective: May 1, 2012
Revised: July 15, 2012

Add the following to the end of the fourth paragraph of Article 107.09:

"If the holiday is on a Saturday or Sunday, and is legally observed on a Friday or Monday, the length of Holiday Period for Monday or Friday shall apply."

Add the following sentence after the Holiday Period table in the fourth paragraph of Article 107.09:

"The Length of Holiday Period for Thanksgiving shall be from 5:00 AM the Wednesday prior to 11:59 PM the Sunday After"

Delete the fifth paragraph of Article 107.09 of the Standard Specifications:

"On weekends, excluding holidays, roadways with Average Daily Traffic of 25,000 or greater, all lanes shall be open to traffic from 3:00 P.M. Friday to midnight Sunday except where structure construction or major rehabilitation makes it impractical."

SIGN SHOP DRAWING SUBMITTAL
Effective: January 22, 2013

Add the following paragraph to Article 720.03:

"Shop drawings will be required, according to Article 105.04, for all Arterials/Expressway signs except standards/highway signs covered in the MUTCD. Shop drawings shall be submitted to the Engineer for review and approval prior to fabrication. The shop drawings shall include dimensions, letter sizing, font type, colors and materials."

TRAFFIC SIGNAL SPECIFICATIONS

Effective: May 22, 2002
Revised: January 1, 2012

These Traffic Signal Special Provisions and the "District One Standard Traffic Signal Design Details" supplement the requirements of the State of Illinois "Standard Specifications for Road and Bridge Construction." The intent of these Special Provisions is to prescribe the materials and construction methods commonly used for traffic signal installations. All material furnished shall be new. The locations and the details of all installations shall be as indicated on the Plans or as directed by the Engineer. Traffic signal construction and maintenance work shall be performed by personnel holding IMSA Traffic Signal Technician Level II certification. The work to be done under this contract consists of furnishing and installing all traffic signal work as specified in the Plans and as specified herein in a manner acceptable and approved by the Engineer.

SECTION 720 SIGNING

MAST ARM SIGN PANELS

Add the following to Article 720.02 of the Standard Specifications:

Signs attached to poles or posts (such as mast arm signs) shall have mounting brackets and sign channels which are equal to and completely interchangeable with those used by the District Sign Shops. Signfix Aluminum Channel Framing System is currently recommended, but other brands of mounting hardware are acceptable based upon the Department's approval.

DIVISION 800 ELECTRICAL

SUBMITTALS

Revise Article 801.05 of the Standard Specifications to read:

All material approval requests shall be submitted in accordance with the District's current Electrical Product Data and Documentation Submittal Guidelines. General requirements include:

Material approval requests shall be made at the preconstruction meeting, including major traffic signal items listed in the table in Article 801.05. Material or equipment which is similar or identical shall be the product of the same manufacturer, unless necessary for system continuity. Traffic signal materials and equipment shall bear the U.L. label whenever such labeling is available.

Product data and shop drawings shall be assembled by pay item and separated from of other pay item submittals. Only the top sheet of each pay item submittal will be stamped by the Department with the review status, except shop drawings for mast arm pole assemblies and the like will be stamped with the review status on each sheet.

Partial or incomplete submittals will be returned without review.

Certain non-standard mast arm poles and structures will require additional review from IDOT's Central Office. Examples include ornamental/decorative and non-standard length mast arm pole assemblies. The Contractor shall account for the additional review time in his schedule.

The contract number or permit number, project location/limits and corresponding pay code number must be on each sheet of correspondence,, catalog cuts and mast arm poles and assemblies drawings.

Where certifications and/or warranties are specified, the information submitted for approval shall include certifications and warranties. Certifications involving inspections, and/or tests of material shall be complete with all test data, dates, and times.

After the Engineer reviews the submittals for conformance with the design concept of the project, the Engineer will stamp the drawings indicating their status as 'Approved', 'Approved-As-Noted', 'Disapproved', or 'Incomplete'. Since the Engineer's review is for conformance with the design concept only, it is the Contractor's responsibility to coordinate the various items into a working system as specified. The Contractor shall not be relieved from responsibility for errors or omissions in the shop, working, layout drawings, or other documents by the Department's approval thereof. The Contractor must still be in full compliance with contract and specification requirements.

All submitted items reviewed and marked 'APPROVED AS NOTED', 'DISAPPROVED', or 'INCOMPLETE' are to be resubmitted in their entirety, unless otherwise indicated within the submittal comments, with a disposition of previous comments to verify contract compliance at no additional cost to the contract.
Exceptions to and deviations from the requirements of the Contract Documents will not be allowed. It is the Contractor's responsibility to note any deviations from Contract requirements at the time of submittal and to make any requests for deviations in writing to the Engineer. In general, substitutions will not be acceptable. Requests for substitutions must demonstrate that the proposed substitution is superior to the material or equipment required by the Contract Documents. No exceptions, deviations or substitutions will be permitted without the approval of the Engineer.

INSPECTION OF ELECTRICAL SYSTEMS

Add the following to Article 801.10 of the Standard Specifications:

(c) All cabinets including temporary traffic signal cabinets shall be assembled by an approved equipment supplier in District One. The Department reserves the right to request any controller and cabinet to be tested at the equipment supplier facilities prior to field installation, at no extra cost to this contract.

MAINTENANCE AND RESPONSIBILITY

Revise Article 801.11 of the Standard Specifications to read:

Existing traffic signal installations and/or any electrical facilities at all or various locations may be altered or reconstructed totally or partially as part of the work on this Contract. The Contractor is hereby advised that all traffic control equipment, presently installed at these locations, may be the property of the State of Illinois, Department of Transportation, Division of Highways, County, Private Developer, or the Municipality in which they are located. Once the Contractor has begun any work on any portion of the project, all traffic signals within the limits of this contract or those which have the item "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," shall become the full responsibility of the Contractor. Automatic Traffic Enforcement equipment is not owned by the State and the Contractor shall not be responsible for maintaining it during construction. The Contractor shall supply the Engineer, Area Traffic Signal Maintenance and Operations Engineer, IDOT ComCenter and the Department's Electrical Maintenance Contractor with two 24-hour emergency contact names and telephone numbers.

When the project has a pay item for "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," the Contractor must notify both the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 and the Department's Electrical Maintenance Contractor, of their intent to begin any physical construction work on the Contract or any portion thereof. This notification must be made a minimum of seven (7) working days prior to the start of construction to allow sufficient time for inspection of the existing traffic signal installation(s) and transfer of maintenance to the Contractor. If work is started prior to an inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection. The Contractor will become responsible for repairing or replacing all equipment that is not operating properly or is damaged at no cost to the owner of the traffic signal. Final repairs or replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted.

Contracts such as pavement grinding or patching which result in the destruction of traffic signal loops do not require maintenance transfer, but require a notification of intent to work and an inspection. A minimum of seven (7) working days prior to the loop removal, the Contractor shall notify the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 and the Department's Electrical Maintenance Contractor, at which time arrangements will be made to adjust the traffic controller timing to compensate for the absence of detection. Damaged Automatic Traffic Enforcement equipment, including cameras, detectors, or other peripheral equipment, shall be replaced by others, per Permit agreement, at no cost to the contract. See additional requirements in these specifications under Inductive Loop Detector.

The Contractor is advised that the existing and/or temporary traffic signal installation must remain in operation during all construction stages, except for the most essential down time. Any shutdown of the traffic signal installation, which exceeds fifteen (15) minutes, must have prior approval of the Engineer. Approval to shutdown the traffic signal installation will only be granted during the period extending from 10:00 a.m. to 3:00 p.m. on weekdays. Shutdowns shall not be allowed during inclement weather or holiday periods.

The Contractor shall be fully responsible for the safe and efficient operation of the traffic signals. Any inquiry, complaint or request by the Department, the Department's Electrical Maintenance Contractor or the public, shall be investigated and repairs begun within one hour. Failure to provide this service will result in liquidated damages of $500 per day per occurrence. In addition, the Department reserves the right to assign any work not completed within this timeframe to the Electrical Maintenance Contractor. All costs associated to repair this uncompleted work shall be the responsibility of the Contractor. Failure to pay these costs to the Electrical Maintenance Contractor within one month after the incident will result in additional liquidated damages of $500 per month per occurrence. Unpaid bills will be deducted from the cost of the Contract. The District's Electrical Maintenance Contractor may inspect any signalizing device on the Department's highway system at any time without notification.

Any proposed activity in the vicinity of a highway-rail grade crossing must adhere to the guidelines set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) regarding work in temporary traffic control zones in the vicinity of highway-rail grade crossings which states that lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the railroad tracks. If the queuing of vehicles across the tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.

DAMAGE TO TRAFFIC SIGNAL SYSTEM

Add the following to Article 801.12(b) of the Standard Specifications to read:

Any traffic signal control equipment damaged or not operating properly from any cause whatsoever shall be replaced with new equipment meeting current District One traffic signal specifications and provided by the Contractor at no additional cost to the Contract and/or owner of the traffic signal system, all as approved by the Engineer. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted. Cable splices outside the controller cabinet shall not be allowed.

Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, and peripheral equipment, damaged or not operating properly from any cause whatsoever, shall be the responsibility of the municipality or the Automatic Traffic Enforcement company per Permit agreement.

TRAFFIC SIGNAL INSPECTION (TURN-ON)

Revise Article 801.15(b) of the Standard Specifications to read:

It is the intent to have all electric work completed and equipment field tested by the vendor prior to the Department's "turn-on" field inspection. If in the event the Engineer determines work is not complete and the inspection will require more than two (2) hours to complete, the inspection shall be canceled and the Contractor will be required to reschedule at another date. The maintenance of the traffic signals will not be accepted until all punch list work is corrected and re-inspected.

When the road is open to traffic, except as otherwise provided in Section 850 of the Standard Specifications, the Contractor may request a turn-on and inspection of the completed traffic signal installation at each separate location. This request must be made to the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 a minimum of seven (7) working days prior to the time of the requested inspection. The Department will not grant a field inspection until notification is provided from the Contractor that the equipment has been field tested and the intersection is operating according to Contract requirements. The Department's facsimile number is (847) 705-4089. The Contractor must invite local fire department personnel to the turn-on when Emergency Vehicle Preemption (EVP) is included in the project. When the contract includes the item RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, OPTIMIZE TRAFFIC SIGNAL SYSTEM, or TEMPORARY TRAFFIC SIGNAL TIMINGS, the Contractor must notify the SCAT Consultant of the turn-on/detour implementation schedule, as well as stage changes and phase changes during construction.

The Contractor must have all traffic signal work completed and the electrical service installation connected by the utility company prior to requesting an inspection and turn-on of the traffic signal installation. The Contractor shall be responsible to provide a police officer to direct traffic at the time of testing.

The Contractor shall provide a representative from the control equipment vendor’s office to attend the traffic signal inspection for both permanent and temporary traffic signal turn-ons. Upon demonstration that the signals are operating and all work is completed in accordance with the Contract and to the satisfaction of the Engineer, the Engineer will then allow the signals to be placed in continuous operation. The Agency that is responsible for the maintenance of each traffic signal installation will assume the maintenance upon successful completion of this inspection.

The District requires the following from the Contractor at traffic signal turn-ons.
One set of signal plans of record with field revisions marked in red ink.
Written notification from the Contractor and the equipment vendor of satisfactory field testing.
A knowledgeable representative of the controller equipment supplier shall be required at the traffic signal turn-on. The representative shall be knowledgeable of the cabinet design and controller functions.
A copy of the approved material letter.
One (1) copy of the operation and service manuals of the signal controller and associated control equipment.
Five (5) copies 11” x 17" (280 mm X 430 mm) of the cabinet wiring diagrams.
The controller manufacturer shall supply a printed form, not to exceed 11” x 17” (280 mm X 430 mm) for recording the traffic signal controller’s timings; backup timings; coordination splits, offsets, and cycles; TBC Time of Day, Week and Year Programs; Traffic Responsive Program, Detector Phase Assignment, Type and Detector Switching; and any other functions programmable from the keyboard. The form shall include a location, date, manufacturer’s name, controller model and software version. The form shall be approved by the Engineer and a minimum of three (3) copies must be furnished at each turn-on. The manufacturer must provide all programming information used within the controller at the time of turn-on.
All manufacturer and contractor warrantees and guarantees required by Article 801.14.

Acceptance of the traffic signal equipment by the Department shall be based upon inspection results at the traffic signal "turn on." If approved, traffic signal acceptance shall be verbal at the "turn on" inspection followed by written correspondence from the Engineer. The Contractor shall be responsible for all traffic signal equipment and associated maintenance thereof until Departmental acceptance is granted.

All equipment and/or parts to keep the traffic signal installation operating shall be furnished by the Contractor. No spare traffic signal equipment is available from the Department.

All punch list work shall be completed within two (2) weeks after the final inspection. The Contractor shall notify the Electrical Maintenance Contractor to inspect all punch list work. Failure to meet these time constraints shall result in liquidated damage charges of $500 per month per incident.

All cost of work and materials required to comply with the above requirements shall be included in the pay item bid prices, under which the subject materials and signal equipment are paid, and no additional compensation will be allowed. Materials and signal equipment not complying with the above requirements shall be subject to removal and disposal at the Contractor's expense.

RECORD DRAWINGS

The requirements listed for Electrical Installation shall apply for Traffic Signal Installations in Article 801.16. Revise the 2nd paragraph of Article 801.16 of the Standard Specifications to read:

> "When the work is complete, and seven days before the request for a final inspection, the full-size set of contract drawings. Stamped "RECORD DRAWINGS", shall be submitted to the Engineer for review and approval and shall be stamped with the date and the signature of the Contractor's supervising Engineer or electrician. The record drawings shall be submitted in PDF format on CDROM as well as hardcopy for review and approval.
>
> In addition to the record drawings, copies of the final catalog cuts which have been Approved or Approved as Noted shall be submitted in PDF format along with the record drawings. The PDF files shall clearly indicate the pay item either by filename or PDF Table of Contents referencing the respective pay item number for multi-item PDF files. Specific part or model numbers of items which have been selected shall be clearly visible."
>
> Additional requirements are listed in the District's Electrical Product Data and Documentation Guidelines.

Add the following to Article 801.16 of the Standard Specifications:

"In addition to the specified record drawings, the Contactor shall record GPS coordinates of the following traffic signal components being installed, modified or being affected in other ways by this contract:

All Mast Arm Poles and Posts
Handholes
Conduit roadway crossings
Controller Cabinets
Communication Cabinets
Electric Service Disconnect locations
CCTV Camera installations
Fiber Optic Splice Locations

Datum to be used shall be North American 1983.

Data shall be provided electronically and in print form. The electronic format shall be compatible with MS Excel. Latitude and Longitude shall be in decimal degrees with a minimum of 6 decimal places. Each coordinate shall have the following information:

Description of item
Designation or approximate station if the item is undesignated
Latitude
Longitude

Examples:

Description	Designation	Latitude	Longitude
Mast Arm Pole Assembly (dual, combo, etc)	MP (SW, NW, SE or NE corner)	41.580493	-87.793378
FO mainline splice handhole	HHL-ST31	41.558532	-87.792571
Handhole	HH	41.765532	-87.543571
Electric Service	Elec Srv	41.602248	-87.794053
Conduit crossing	SB IL83 to EB I290 ramp SIDE A	41.584593	-87.793378
PTZ Camera	PTZ	41.584600	-87.793432
Signal Post	Post	41.558532	-87.792571
Controller Cabinet	CC	41.651848	-87.762053
Master Controller Cabinet	MCC	41.580493	-87.793378
Communication Cabinet	ComC	41.558532	-87.789771
Fiber splice connection	Toll Plaza34	41.606928	-87.794053

Prior to the collection of data, the contractor shall provide a sample data collection of at least six data points of known locations to be reviewed and verified by the Engineer to be accurate within 100 feet. Upon verification, data collection can begin. Data collection can be made as construction progresses, or can be collected after all items are installed. If the data is unacceptable the contractor shall make corrections to the data collection equipment and or process and submit the data for review and approval as specified.

Accuracy. Data collected is to be mapping grade. A handheld mapping grade GPS device shall be used for the data collection. The receiver shall support differential correction and data shall have a minimum 5 meter accuracy after post processing.

GPS receivers integrated into cellular communication devices, recreational and automotive GPS devices are not acceptable.

The GPS shall be the product of an established major GPS manufacturer having been in the business for a minimum of 6 years."

Delete the last sentence of the 3rd paragraph of Article 801.16.

LOCATING UNDERGROUND FACILITIES

Revise Section 803 to the Standard Specifications to read:

If this Contract requires the services of an Electrical Contractor, the Contractor shall be responsible at his/her own expense for locating existing IDOT electrical facilities prior to performing any work. If this Contract does not require the services of an Electrical Contractor, the Contractor may request one free locate for existing IDOT electrical facilities from the District One Electrical Maintenance Contractor prior to the start of any work. Additional requests may be at the expense of the Contractor. The location of underground traffic facilities does not relieve the Contractor of their responsibility to repair any facilities damaged during construction at their expense.

The exact location of all utilities shall be field verified by the Contractor before the installation of any components of the traffic signal system. For locations of utilities, locally owned equipment, and leased enforcement camera system facilities, the local Counties or Municipalities may need to be contacted: in the City of Chicago contact Digger at (312) 744-7000 and for all other locations contact J.U.L.I.E. at 1-800-892-0123 or 811.

RESTORATION OF WORK AREA

Add the following article to Section 801 of the Standard Specifications:

801.17 Restoration of work area. Restoration of the traffic signal work area shall be included in the related pay items such as foundation, conduit, handhole, trench and backfill, underground raceways, etc. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded. All brick pavers disturbed in the work area shall be restored to their original configuration as directed by the Engineer. All damaged brick pavers shall be replaced with a comparable material approved by the Engineer. Restoration of the work area shall be included in the contract without any extra compensation allowed to the Contractor.

ELECTRIC SERVICE INSTALLATION
Revise Section 805 of the Standard Specifications to read:

Description.
This work shall consist of all materials and labor required to install, modify, or extend the electric service installation. All installations shall meet the requirements of the details in the “District One Standard Traffic Signal Design Details” and applicable portions of the Specifications.

General.
The electric service installation shall be the electric service disconnecting means and it shall be identified as suitable for use as service equipment.

The electric utility contact information is noted on the plans and represents the current information at the time of contract preparation. The Contractor must request in writing for service and/or service modification within 10 days of contract award and must follow-up with the electric utility to assure all necessary documents and payment are received by the utility. The Contractor shall forward copies of all correspondence between the contractor and utility company to the Engineer and Area Traffic Signal Maintenance and Operations Engineer. The service agreement and sketch shall be submitted for signature to the IDOT's Traffic Operations Programs Engineer.

Materials.
General. The completed control panel shall be constructed in accordance with UL Std. 508A, Industrial Control Panel, and carry the UL label. Wire terminations shall be UL listed.

Enclosures.
Pole Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 4X, unfinished single door design, fabricated from minimum 0.080-inch (2.03 mm) thick Type 5052 H-32 aluminum. Seams shall be continuous welded and ground smooth. Stainless steel screws and clamps shall secure the cover and assure a watertight seal. The cover shall be removable by pulling the continuous stainless steel hinge pin. The cabinet shall have an oil-resistant gasket and a lock kit shall be provided with an internal O-ring in the locking mechanism assuring a watertight and dust-tight seal. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 14-inches (350 mm) high, 9-inches (225 mm) wide and 8-inches (200 mm) in depth is required. The cabinet shall be channel mounted to a wooden utility pole using assemblies recommended by the manufacturer.

Ground Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 3R unfinished single door design with back panel. The cabinet shall be fabricated from Type 5052 H-32 aluminum with the frame and door 0.125-inch (3.175 mm) thick, the top 0.250-inch (6.350 mm) thick and the bottom 0.500-inch (12.70 mm) thick. Seams shall be continuous welded and ground smooth. The door and door opening shall be double flanged. The door shall be approximately 80% of the front surface, with a full length tamperproof stainless steel .075-inch (1.91 mm) thick hinge bolted to the cabinet with stainless steel carriage bolts and nylocks nuts. The locking mechanism shall be slam-latch type with a keyhole cover. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 40-inches (1000 mm) high, 16-inches (400 mm) wide and 15-inches (375 mm) in depth is required. The cabinet shall be mounted upon a square Type A concrete foundation as indicated on the plans. The foundation is paid for separately.

Surge Protector. Overvoltage protection, with LED indicator, shall be provided for the 120 volt load circuit by the means MOV and thermal fusing technology. The response time shall be <5n seconds and operate within a range of –40C to +85C. The surge protector shall be UL 1449 Listed.

Circuit Breakers. Circuit breakers shall be standard UL listed molded case, thermal-magnetic bolt-on type circuit breakers with trip free indicating handles. 120 volt circuit breakers shall have an interrupting rating of not less than 65,000 rms symmetrical amperes. Unless otherwise indicated, the main disconnect circuit breaker for the traffic signal controller shall be rated 60 amperes, 120 V and the auxiliary circuit breakers shall be rated 10 amperes, 120 V.

Fuses, Fuseholders and Power Indicating Light. Fuses shall be small-dimensional cylindrical fuses of the dual element time-delay type. The fuses shall be rated for 600 V AC and shall have a UL listed interrupting rating of not less than 10,000 rms symmetrical amperes at rated voltage. The power indicating light shall be LED type with a green colored lens and shall be energized when electric utility power is present.

Ground and Neutral Bus Bars. A single copper ground and neutral bus bar, mounted on the equipment panel shall be provided. Ground and neutral conductors shall be separated on the bus bar. Compression lugs, plus 2 spare lugs, shall be sized to accommodate the cables with the heads of the connector screws painted green for ground connections and white for neutral connections.

Utility Services Connection. The Contractor shall notify the Utility Company marketing representative a minimum of 30 working days prior to the anticipated date of hook-up. This 30 day advance notification will begin only after the Utility Company marketing representative has received service charge payments from the Contractor. Prior to contacting the Utility Company marketing representative for service connection, the service installation controller cabinet and cable must be installed for inspection by the Utility Company.

Ground Rod. Ground rods shall be copper-clad steel, a minimum of 10 feet (3.0m) in length, and 3/4 inch (20mm) in diameter. Ground rod resistance measurements to ground shall be 25 ohms or less. If necessary additional rods shall be installed to meet resistance requirements at no additional cost to the contract.

Installation.

General. The Contractor shall confirm the orientation of the traffic service installation and its door side with the engineer, prior to installation. All conduit entrances into the service installation shall be sealed with a pliable waterproof material.

Pole Mounted. Brackets designed for pole mounting shall be used. All mounting hardware shall be stainless steel. Mounting height shall be as noted on the plans or as directed by the Engineer.

Ground Mounted. The service installation shall be mounted plumb and level on the foundation and fastened to the anchor bolts with hot-dipped galvanized or stainless steel nuts and washers. The space between the bottom of the enclosure and the top of the foundation shall be caulked at the base with silicone.

Basis of Payment.
The service installation shall be paid for at the contract unit price each for SERVICE INSTALLATION of the type specified which shall be payment in full for furnishing and installing the service installation complete. The CONCRETE FOUNDATION, TYPE A, which includes the ground rod, shall be paid for separately. SERVICE INSTALLATION, POLE MOUNTED shall include the 3/4 inch (20mm) grounding conduit, ground rod, and pole mount assembly. Any charges by the utility companies shall be approved by the engineer and paid for as an addition to the contract according to Article 109.05 of the Standard Specifications.

GROUNDING OF TRAFFIC SIGNAL SYSTEMS

Revise Section 806 of the Standard Specifications to read:

General.
All traffic signal systems, equipment and appurtenances shall be properly grounded in strict conformance with the NEC. See IDOT District One Traffic Signal detail plan sheets for additional information.

The grounding electrode system shall include a ground rod installed with each traffic signal controller concrete foundation and all mast arm and post concrete foundations. An additional ground rod will be required at locations were measured resistance exceeds 25 ohms. Ground rods are included in the applicable concrete foundation or service installation pay item and will not be paid for separately.

Testing shall be according to Article 801.13 (a) (4) and (5).

The grounded conductor (neutral conductor) shall be white color coded. This conductor shall be bonded to the equipment grounding conductor only at the Electric Service Installation. All power cables shall include one neutral conductor of the same size.

The equipment grounding conductor shall be green color coded. The following is in addition to Article 801.04 of the Standard Specifications.

Equipment grounding conductors shall be bonded to the grounded conductor (neutral conductor) only at the Electric Service Installation. The equipment grounding conductor is paid for separately and shall be continuous. The Earth shall not be used as the equipment grounding conductor.

Equipment grounding conductors shall be bonded, using a Listed grounding connector, to all traffic signal mast arm poles, traffic signal posts, pedestrian posts, pull boxes, handhole frames and covers, conduits, and other metallic enclosures throughout the traffic signal wiring system, except where noted herein. Bonding shall be made with a splice and pigtail connection, using a sized compression type copper sleeve, sealant tape, and heat-shrinkable cap. A Listed electrical joint compound shall be applied to all conductors' terminations, connector threads and contact points. Conduit grounding bushings shall be installed at all conduit terminations.

All metallic and non-metallic raceways containing traffic signal circuit runs shall have a continuous equipment grounding conductor, except raceways containing only detector loop lead-in circuits, circuits under 50 volts and/or fiber optic cable will not be required to include an equipment grounding conductor.

4. Individual conductor splices in handholes shall be soldered and sealed with heat shrink. When necessary to maintain effective equipment grounding, a full cable heat shrink shall be provided over individual conductor heat shrinks.

The grounding electrode conductor shall be similar to the equipment grounding conductor in color coding (green) and size. The grounding electrode conductor is used to connect the ground rod to the equipment grounding conductor and is bonded to ground rods via exothermic welding, listed pressure connectors, listed clamps or other approved listed means.

GROUNDING EXISTING HANDHOLE FRAME AND COVER

Description.
This work shall consist of all materials and labor required to bond the equipment grounding conductor to the existing handhole frame and handhole cover. All installations shall meet the requirements of the details in the "District One Standard Traffic Signal Design Details," and applicable portions of the Standard Specifications and these specifications.

The equipment grounding conductor shall be bonded to the handhole frame and to the handhole cover. Two (2) ½-inch diameter x 1 ¼-inch long hex-head stainless steel bolts, spaced 1.75-inches apart center-to-center shall be fully welded to the frame and to the cover to accommodate a heavy duty Listed grounding compression terminal (Burndy type YGHA or approved equal). The grounding compression terminal shall be secured to the bolts with stainless steel split-lock washers and nylon-insert locknuts.

Welding preparation for the stainless steel bolt hex-head to the frame and to the cover shall include thoroughly cleaning the contact and weldment area of all rust, dirt and contaminates. The Contractor shall assure a solid strong weld. The welds shall be smooth and thoroughly cleaned of flux and spatter. The grounding installation shall not affect the proper seating of the cover when closed.

The grounding cable shall be paid for separately.

Method of Measurement.
Units measured for payment will be counted on a per handhole basis, regardless of the type of handhole and its location.

Basis of Payment.
This work shall be paid for at the contract unit price each for GROUNDING EXISTING HANDHOLE FRAME AND COVER which shall be payment in full for grounding the handhole complete.

COILABLE NON-METALLIC CONDUIT

Description.
This work shall consist of furnishing and installing empty coilable non-metallic conduit (CNC) for detector loop raceways.

General.
The CNC installation shall be in accordance with Sections 810 and 811 of the Standard Specifications except for the following:

Add the following to Article 810.03 of the Standard Specifications:

CNC meeting the requirements of NEC Article 353 shall be used for detector loop raceways to the handholes.

Add the following to Article 811.03 of the Standard Specifications:

On temporary traffic signal installations with detector loops, CNC meeting the requirements of NEC Article 353 shall be used for detector loop raceways from the saw-cut to 10 feet (3m) up the wood pole, unless otherwise shown on the plans

Basis of Payment.
All installations of CNC for loop detection shall be included in the contract and not paid for separately.

HANDHOLES

Add the following to Section 814 of the Standard Specifications:

All handholes shall be concrete, poured in place, with inside dimensions of 21-1/2 inches (549mm) minimum. Frames and lid openings shall match this dimension. The cover of the handhole frame shall be labeled “Traffic Signals" with legible raised letters.

For grounding purposes the handhole frame shall have provisions for a 7/16 inch (15.875mm) diameter stainless bolt cast into the frame. The covers shall have a stainless steel threaded stint extended from the eye hook assembly for the purpose of attaching the grounding conductor to the handhole cover.

The minimum wall thickness for heavy duty hand holes shall be 12 inches (300mm).

All conduits shall enter the handhole at a depth of 30 inches (760mm) except for the conduits for detector loops when the handhole is less than 5 feet (1.52 m) from the detector loop. All conduit ends should be sealed with a waterproof sealant to prevent the entrance of contaminants into the handhole.

Steel cable hooks shall be coated with hot-dipped galvanization in accordance with AASHTO Specification M111. Hooks shall be a minimum of 1/2 inch (12.7 mm) diameter with two 90 degree bends and extend into the handhole at least 6 inches (150 mm). Hooks shall be placed a minimum of 12 inches (300 mm) below the lid or lower if additional space is required.

GROUNDING CABLE

The cable shall meet the requirements of Section 817 of the "Standard Specifications," except for the following:

Add the following to Article 817.02 (b) of the Standard Specifications:

Unless otherwise noted on the Plans, traffic signal grounding conductor shall be one conductor, #6 gauge copper, with a green color coded XLP jacket.

The traffic signal grounding conductor shall be bonded, using a Listed grounding connector (Burndy type KC/K2C, as applicable, or approved equal), to all proposed and existing traffic signal mast arm poles and traffic/pedestrian signal posts, including push button posts. The grounding conductor shall be bonded to all proposed and existing pull boxes, handhole frames and covers and other metallic enclosures throughout the traffic signal wiring system and noted herein and detailed on the plans. The grounding conductor shall be bonded to conduit terminations using rated grounding bushings. Bonding to existing handhole frames and covers shall be paid for separately.

Add the following to Article 817.05 of the Standard Specifications:

Basis of Payment.
Grounding cable shall be measured in place for payment in foot (meter). Payment shall be at the contract unit price for ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6, 1C, which price includes all associated labor and material including grounding clamps, splicing, exothermic welds, grounding connectors, conduit grounding bushings, and other hardware.

RAILROAD INTERCONNECT CABLE

The cable shall meet the requirements of Section 873 of the Standard Specifications, except for the following:

Add to Article 873.02 of the Standard Specifications:

The railroad interconnect cable shall be three conductor stranded #14 copper cable in a clear polyester binder, shielded with #36 AWG tinned copper braid with 85% coverage, and insulated with .016” polyethylene (black, blue, red). The jacket shall be black 0.045 PVC or polyethylene.

Add the following to Article 873.05 of the Standard Specifications:

Basis of Payment.
This work shall be paid for at the contract unit price per foot (meter) for ELECTRIC CABLE IN CONDUIT, RAILROAD, NO. 14 3C, which price shall be payment in full for furnishing, installing, and making all electrical connections in the traffic signal controller cabinet. Connections in the railroad controller cabinet shall be performed by railroad personnel.

FIBER OPTIC TRACER CABLE

The cable shall meet the requirements of Section 817 of the "Standard Specifications," except for the following:

Add the following to Article 817.03 of the Standard Specifications:

In order to trace the fiber optic cable after installation, the tracer cable shall be installed in the same conduit as the fiber optic cable in locations shown on the plans. The tracer cable shall be continuous, extended into the controller cabinet and terminated on a barrier type terminal strip mounted on the side wall of the controller cabinet. The barrier type terminal strip and tracer cable shall be clearly marked and identified. All tracer cable splices shall be kept to a minimum and shall incorporate maximum lengths of cable supplied by the manufacturer. The tracer cable will be allowed to be spliced at handholes only. The tracer cable splice shall use a Western Union Splice soldered with resin core flux and shall be soldered using a soldering iron. Blow torches or other devices which oxidize copper cable shall not be allowed for soldering operations. All exposed surfaces of the solder shall be smooth. The splice shall be covered with a black shrink tube meeting UL 224 guidelines, Type V and rated 600v, minimum length 4 inches (100 mm) and with a minimum 1 inch (25 mm) coverage over the XLP insulation, underwater grade.

Add the following to Article 817.05 of the Standard Specifications:

Basis of Payment.
The tracer cable shall be paid for separately as ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C per foot (meter), which price shall include all associated labor and material for installation.

MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION

Revise Articles 850.02 and 850.03 of the Standard Specifications to read:

Procedure.
The energy charges for the operation of the traffic signal installation shall be paid for by others. Full maintenance responsibility shall start as soon as the Contractor begins any physical work on the Contract or any portion thereof.

The Contractor shall have electricians with IMSA Level II certification on staff to provide signal maintenance.

This item shall include maintenance of all traffic signal equipment at the intersection, including emergency vehicle pre-emption equipment, master controllers, uninterruptible power supply (UPS and batteries), telephone service installations, communication cables, conduits to adjacent intersections, and other traffic signal equipment, but shall not include Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, or peripheral equipment, not owned by the State.

Maintenance.
The maintenance shall be according to MAINTENANCE AND RESPONSIBILITY in Division 800 of these specifications and the following:.

The Contractor shall check all controllers every two (2) weeks, which will include visually inspecting all timing intervals, relays, detectors, and pre-emption equipment to ensure that they are functioning properly. This item includes, as routine maintenance, all portions of emergency vehicle pre-emption equipment. The Contractor shall maintain in stock at all times a sufficient amount of materials and equipment to provide effective temporary and permanent repairs.

The Contractor shall provide immediate corrective action when any part or parts of the system fail to function properly. Two far side heads facing each approach shall be considered the minimum acceptable signal operation pending permanent repairs. When repairs at a signalized intersection require that the controller be disconnected or otherwise removed from normal operation, and power is available, the Contractor shall place the traffic signal installation on flashing operation. The signals shall flash RED for all directions unless a different indication has been specified by the Engineer. The Contractor shall be required to place stop signs (R1-1-36) at each approach of the intersection as a temporary means of regulating traffic. When the signals operate in flash, the Contractor shall furnish and equip all their vehicles assigned to the maintenance of traffic signal installations with a sufficient number of stop signs as specified herein. The Contractor shall maintain a sufficient number of spare stop signs in stock at all times to replace stop signs which may be damaged or stolen.

The Contractor shall provide the Engineer with a 24 hour telephone number for the maintenance of the traffic signal installation and for emergency calls by the Engineer.

Traffic signal equipment which is lost or not returned to the Department for any reason shall be replaced with new equipment meeting the requirements of the Standard Specifications and these special provisions.

The Contractor shall respond to all emergency calls from the Department or others within one hour after notification and provide immediate corrective action. When equipment has been damaged or becomes faulty beyond repair, the Contractor shall replace it with new and identical equipment. The cost of furnishing and installing the replaced equipment shall be borne by the Contractor at no additional charge to the contract. The Contractor may institute action to recover damages from a responsible third party. If at any time the Contractor fails to perform all work as specified herein to keep the traffic signal installation in proper operating condition or if the Engineer cannot contact the Contractor's designated personnel, the Engineer shall have the State's Electrical Maintenance Contractor perform the maintenance work required. The State's Electrical Maintenance Contractor shall bill the Contractor for the total cost of the work. The Contractor shall pay this bill within thirty (30) days of the date of receipt of the invoice or the cost of such work will be deducted from the amount due the Contractor. The Contractor shall allow the Electrical Maintenance Contractor to make reviews of the Existing Traffic Signal Installation that has been transferred to the Contractor for Maintenance.

TRAFFIC ACTUATED CONTROLLER

Add the following to Article 857.02 of the Standard Specifications:

Controllers shall be NTCIP compliant NEMA TS2 Type 1, Econolite ASC/3S-1000 or Eagle/Siemens M50 unless specified otherwise on the plans or elsewhere on these specifications. Only controllers supplied by one of the District One approved closed loop equipment manufacturers will be allowed. The controller shall be the most recent model and software version supplied by the manufacturer at the time of the approval and include the standard data key. The traffic signal controller shall provide features to inhibit simultaneous display of a circular yellow ball and a yellow arrow display. Individual load switches shall be provided for each vehicle, pedestrian, and right turn over lap phase. The controller shall prevent phases from being skipped during program changes and after all preemption events.

Add the following to Article 857.03 of the Standard Specifications:

The Contractor shall arrange to install a standard voice-grade dial-up telephone line to the RAILROAD, FULL-ACTUATED CONTROLLER AND CABINET as called for on the traffic signal installation plans. If the traffic signal installation is part of a traffic signal system, a telephone line is usually not required, unless a telephone line is called for on the traffic signal plans. The Contractor shall follow the requirements for the telephone service installation as contained in the current District One Traffic Signal Special Provisions under Master Controller.

MASTER CONTROLLER

Revise Articles 860.02 - Materials and 860.03 - Installation of the Standard Specifications to read:

Only controllers supplied by one of the District approved closed loop equipment manufacturers will be allowed. Only NEMA TS 2 Type 1 Eagle/Siemens and Econolite closed loop systems shall be supplied. The latest model and software version of master controller shall be supplied.

Functional requirements in addition to those in Section 863 of the Standard Specifications include:

The system commands shall consist of, as a minimum, six (6) cycle lengths, five (5) offsets, three (3) splits, and four (4) special functions. The system commands shall also include commands for free or coordinated operation.

Traffic Responsive operation shall consist of the real time acquisition of system detector data, data validation, and the scaling of acquired volumes and occupancies in a deterministic fashion so as to cause the selection and implementation of the most suitable traffic plan.

Upon request by the Engineer, each master shall be delivered with up to three (3) complete sets of the latest edition of registered remote monitoring software with full manufacture's support. Each set shall consist of software on CD, DVD, or other suitable media approved by the Engineer, and a bound set of manuals containing loading and operating instruction. One copy of the software and support data shall be delivered to the Agency in charge of system operation, if other than IDOT. One of these two sets will be provided to the Agency Signal Maintenance Contractor for use in monitoring the system.

The approved manufacturer of equipment shall loan the District one master controller and two intersection controllers of the most recent models and the newest software version to be used for instructional purposes in addition to the equipment to be supplied for the Contract.

The Contractor shall arrange to install a standard voice-grade dial-up telephone line to the master controller. This shall be accomplished through the following process utilizing District One staff. This telephone line may be coupled with a DSL line and a phone filter to isolate the dial-up line. An E911 address is required.

The cabinet shall be provided with an Outdoor Network Interface for termination of the telephone service. It shall be mounted to the inside of the cabinet in a location suitable to provide access for termination of the telephone service at a later date.

Full duplex communication between the master and its local controllers is recommended, but at this time not required. The data rate shall be 1200 baud minimum and shall be capable of speeds to 38,400 or above as technology allows. The controller, when installed in an Ethernet topology, may operate non-serial communications.

The cabinet shall be equipped with a 9600 baud, auto dial/auto answer modem. It shall be a US robotics 33.6K baud rate or equal.

As soon as practical or within one week after the contract has been awarded, the Contractor shall contact (via phone) the Administrative Support Manager in the District One Business Services Section at (847) 705-4011 to request a phone line installation.

A follow-up fax transmittal to the Administrative Support Manager (847-705-4712) with all required information pertaining to the phone installation is required from the Contractor as soon as possible or within one week after the initial request has been made. A copy of this fax transmittal must also be faxed by the Contractor to the Traffic Signal Systems Engineer at (847) 705-4089. The required information to be supplied on the fax shall include (but not limited to): A street address for the new traffic signal controller (or nearby address); a nearby existing telephone number; what type of telephone service is needed; the name and number of the Contractor's employee for the telephone company to contact regarding site work and questions.

The usual time frame for the activation of the phone line is 4-6 weeks after the Business Services Section has received the Contractor supplied fax. It is, therefore, imperative that the phone line conduit and pull-string be installed by the Contractor in anticipation of this time frame. On jobs which include roadway widening in which the conduit cannot be installed until this widening is completed, the Contractor will be allowed to delay the phone line installation request to the Business Services Section until a point in time that is 4-6 weeks prior to the anticipated completion of the traffic signal work. The contractor shall provide the Administrative Support Manager with an expected installation date considering the 4-6 week processing time.

The telephone line shall be installed and activated one month before the system final inspection.

All costs associated with the telephone line installation and activation (not including the Contract specified conduit installation between the point of telephone service and the traffic signal controller cabinet) shall be paid for by the District One Business Services Section (i.e., this will be an IDOT phone number not a Contractor phone number).

UNINTERRUPTIBLE POWER SUPPLY

Add the following to Article 862.01 of the Standard Specifications:

The UPS shall have the power capacity to provide normal operation of a signalized intersection that utilizes all LED type signal head optics, for a minimum of six hours.

Add the following to Article 862.02 of the Standard Specifications:

Materials shall be according to Article 1074.04 as modified in UNINTERRUPTIBLE POWER SUPPLY in Division 1000 of these specifications.

Add the following to Article 862.03 of the Standard Specifications:

The UPS shall additionally include, but not be limited to, a battery cabinet. The UPS shall provide reliable emergency power to the traffic signals in the event of a power failure or interruption.

Revise Article 862.04 of the Standard Specifications to read:

Installation.
When a UPS is installed at an existing traffic signal cabinet, the UPS cabinet shall partially rest on the lip of the existing controller cabinet foundation and be secured to the existing controller cabinet by means of at least four (4) stainless steel bolts. The UPS cabinet shall be completely enclosed with the bottom and back constructed of the same material as the cabinet.

When a UPS is installed at a new signal cabinet and foundation, it shall be mounted as shown on the plans.

At locations where UPS is installed and Emergency Vehicle Priority System is in use, any existing incandescent confirmation beacons shall be replaced with LED lamps in accordance with the District One Emergency Vehicle Priority System specification at no additional cost to the contract. A concrete apron 67 in. x 50 in. x 5 in. (1702mm x 1270mm x 130mm) shall be provided on the side of the existing Type D Foundation, where the UPS cabinet is located. The concrete apron shall follow the District 1 Standard Traffic Signal Design Detail, Type D for Ground Mounted Controller Cabinet and UPS Battery Cabinet. The concrete apron shall follow Articles 424 and 202 of the Standard Specifications.

This item shall include any required modifications to an existing traffic signal controller as a result of the addition of the UPS.

Revise Article 862.05 of the Standard Specifications to read:

Basis of Payment.
This work will be paid for at the contract unit price per each for UNINTERRUPTIBLE POWER SUPPLY SPECIAL. Replacement of Emergency Vehicle Priority System confirmation beacons and any required modifications to the traffic signal controller shall be included in the cost of the UNINTERRUPTIBLE POWER SUPPLY SPECIAL item. The concrete apron and earth excavation required shall be included in the cast of the UNINTERRUPTIBLE POWER SUPPLY SPECIAL item.

FIBER OPTIC CABLE

Add the following to Article 871.01 of the Standard Specifications:

The Fiber Optic cable shall be installed in conduit or as specified on the plans.

Add the following to Article 872.02 of the Standard Specifications:

The control cabinet distribution enclosure shall be CSC FTWO12KST-W/O 12 Port Fiber Wall Enclosure or an approved equivalent. The fiber optic cable shall provide six fibers per tube for the amount of fibers called for in the Fiber Optic Cable pay item in the Contract. Fiber Optic cable may be gel filled or have an approved water blocking tape.

Add the following to Article 871.04 of the Standard Specifications:

A minimum of six multimode fibers from each cable shall be terminated with approved mechanical connectors at the distribution enclosure. Fibers not being used shall be labeled “spare." Fibers not attached to the distribution enclosure shall be capped and sealed. A minimum of 13.0 feet (4m) of extra cable length shall be provided for controller cabinets. The controller cabinet extra cable length shall be stored as directed by the Engineer.

Add the following to Article 871.06 of the Standard Specifications:

The distribution enclosure and all connectors will be included in the cost of the fiber optic cable.

MAST ARM ASSEMBLY AND POLE

Revise Article 877.01 of the Standard Specifications to read:

Description.
This work shall consist of furnishing and installing a steel mast arm assembly and pole and a galvanized steel or extruded aluminum shroud for protection of the base plate.

Revise Article 877.03 of the Standard Specifications:

Mast arm assembly and pole shall be as follows.

(a) Steel Mast Arm Assembly and Pole and Steel Combination Mast Arm Assembly and Pole. The steel mast arm assembly and pole and steel combination mast arm assembly and pole shall consist of a traffic signal mast arm, a luminaire mast arm or davit (for combination pole only), a pole, and a base, together with anchor rods and other appurtenances. The configuration of the mast arm assembly, pole, and base shall be according to the details shown on the plans.

(1) Loading. The mast arm assembly and pole, and combination mast arm assembly and pole shall be designed for the loading shown on the Highway Standards or elsewhere on the plans, whichever is greater. The design shall be according to AASHTO "Standard Specification for Structural Supports for Highway Signs, Luminaries and Traffic Signals" 1994 Edition for 80 mph (130 km/hr) wind velocity. However, the arm-to-pole connection for tapered signal and luminaire arms shall be according to the "ring plate" detail as shown in Figure 11-1(f) of the 2002 Interim, to the AASHTO "Standard Specification for Structural Supports for Highway Signs, Luminaries and Traffic Signals" 2001 4th Edition.

Structural Steel Grade. The mast arm and pole shall be fabricated according to ASTM A 595, Grade A or B, ASTM A 572 Grade 55, or ASTM A 1011 Grade 55 HSLAS Class 2. The base and flange plates shall be of structural steel according to AASHTO M 270 Grade 50 (M 270M Grade 345). Luminaire arms and trussed arms 15 ft (4.5 m) or less shall be fabricated from one steel pipe or tube size according to ASTM A 53 Grade B or ASTM A 500 Grade B or C. All mast arm assemblies, poles, and bases shall be galvanized according to AASHTO M 111.

Fabrication. The design and fabrication of the mast arm assembly, pole, and base shall be according to the requirements of the Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals published by AASHTO. The mast arm and pole may be of single length or sectional design. If section design is used, the overlap shall be at least 150 percent of the maximum diameter of the overlapping section and shall be assembled in the factory.

The manufacturer will be allowed to slot the base plate in which other bolt circles may fit, providing that these slots do not offset the integrity of the pole. Circumferential welds of tapered arms and poles to base plates shall be full penetration welds.

(4) Shop Drawing Approval. The Contractor shall submit detailed drawings showing design materials, thickness of sections, weld sizes, and anchor rods to the Engineer for approval prior to fabrication. These drawings shall be at least 11 x 17 in. (275 x 425 mm) in size and of adequate quality for microfilming. All product data and shop drawings shall be submitted in electronic form on CD-ROM

(b) Anchor Rods. The anchor rods shall be ASTM F 1554 Grade 105, coated by the hot-dip galvanizing process according to AASHTO M 232, and shall be threaded a minimum of 7 1/2 in. (185 mm) at one end and have a bend at the other end. The first 12 in. (300 mm) at the threaded end shall be galvanized. Two nuts, one lock washer, and one flat washer shall be furnished with each anchor rod. All nuts and washers shall be galvanized.

(c) The galvanized steel or extruded aluminum shroud shall have dimensions similar to those detailed in the "District One Standard Traffic Signal Design Details." The shroud shall be installed such that it allow air to circulate throughout the mast arm but not allow infestation of insects or other animals, and such that it is not hazardous to probing fingers and feet.

Add the following to Article 877.04 of the Standard Specifications:

The shroud shall not be paid for separately but shall be included in the cost of the mast arm assembly and pole.

CONCRETE FOUNDATIONS

Add the following to Article 878.03 of the Standard Specifications:

All anchor bolts shall be according to Article 1006.09, with all anchor bolts hot dipped galvanized a minimum of 12 in. (300 mm) from the threaded end.

Concrete Foundations, Type “A” for Traffic Signal Posts shall provide anchor bolts with the bolt pattern specified within the “District One Standard Traffic Signal Design Details.” All Type “A” foundations shall be a minimum depth of 48 inches (1220 mm).

Concrete Foundations, Type “C” for Traffic Signal Cabinets with Uninterruptible Power Supply (UPS) cabinet installations shall be a minimum of 72 inches (1830 mm) long and 31 inches (790 mm) wide. All Type “C” foundations shall be a minimum depth of 48 inches (1220 mm). The concrete apron in front of the Type IV or V cabinet shall be 36 in. x 48 in. x 5 in. (915 mm X 1220 mm X 130 mm). The concrete apron in front of the UPS cabinet shall be 36 in. x 67 in. x 5 in. (915 mm X 1700 mm X 130 mm). Anchor bolts shall provide bolt spacing as required by the manufacturer.

Concrete Foundations, Type “D” for Traffic Signal Cabinets shall be a minimum of 48 inches (1220 mm) long and 31 inches (790 mm) wide. All Type “D” foundations shall be a minimum depth of 48 inches (1220 mm). The concrete apron shall be 36 in. x 48 in. x 5 in. (910 mm X 1220 mm X 130 mm). Anchor bolts shall provide bolt spacing as required by the manufacturer.

Concrete Foundations, Type “E” for Mast Arm and Combination Mast Arm Poles shall meet the current requirements listed in the Highway Standards.

Foundations used for Combination Mast Arm Poles shall provide an extra 2-1/2 inch (65 mm) raceway.

No foundation is to be poured until the Resident Engineer gives his/her approval as to the depth of the foundation.

LIGHT EMITTING DIODE (LED) SIGNAL HEAD AND OPTICALLY PROGRAMMED LED SIGNAL HEAD

Add the following to the first paragraph of Article 880.04 of the Standard Specifications:

Basis of Payment.
The price shall include furnishing the equipment described above, all mounting hardware and installing them in satisfactory operating condition.

LIGHT EMITING DIODE (LED), SIGNAL HEAD, RETROFIT

Description.
This work shall consist of retrofitting an existing polycarbonate traffic signal head with a traffic signal module, pedestrian signal module, and pedestrian countdown signal module, with light emitting diodes (LEDs) as specified in the plans.

Materials.
Materials shall be according to LIGHT EMITTING DIODE (LED) AND OPTICALLY PROGRAMMED LED SIGNAL HEAD, AND LIGHT EMITTING DIODE (LED) PEDESTRIAN SIGNAL HEAD in Divisions 880, 881 and 1000 of these specifications.

Add the following to Article 880.04 of the Standard Specifications:

Basis of Payment.
This item shall be paid for at the contract unit price each for SIGNAL HEAD, LED, RETROFIT, or PEDESTRIAN SIGNAL HEAD, LED, RETROFIT, for the type and number of polycarbonate signal heads, faces, and sections specified, which price shall be payment in full for furnishing the equipment described above including LED modules, all mounting hardware, and installing them in satisfactory operating condition. The type specified will indicate the number of faces and the method of mounting.

LIGHT EMITTING DIODE (LED) PEDESTRIAN SIGNAL HEAD

Add the following to the third paragraph of Article 881.03 of the Standard Specifications:

No mixing of different types of pedestrian traffic signals or displays will be permitted.

Add the following to Article 881.03 of the Standard Specifications:

(a) Pedestrian Countdown Signal Heads.

(1) Pedestrian Countdown Signal Heads shall not be installed at signalized intersections where traffic signals and railroad warning devices are interconnected.

(2) Pedestrian Countdown Signal Heads shall be 16 inch (406mm) x 18 inch (457mm), for single units with the housings glossy black polycarbonate. Connecting hardware and mounting brackets shall be polycarbonate (black). A corrosion resistant anti-seize lubricant shall be applied to all metallic mounting bracket joints, and shall be visible to the inspector at the signal turn-on.

(3) Each pedestrian signal LED module shall be fully MUTCD compliant and shall consist of double overlay message combining full LED symbols of an Upraised Hand and a Walking Person. “Egg Crate” type sun shields are not permitted. Numerals shall measure 9 inches (229mm) in height and easily identified from a distance of 120 feet (36.6m).

Add the following to Article 881.04 of the Standard Specifications:

Basis of Payment.
The price shall include furnishing the equipment described above, all mounting hardwire and installing them in satisfactory operating condition.

DETECTOR LOOP

Revise Section 886 of the Standard Specifications to read:

Description.
This work shall consist of furnishing and installing a detector loop in the pavement.

Procedure.
A minimum of seven (7) working days prior to the Contractor cutting loops, the Contractor shall have the proposed loop locations marked and contact the Area Traffic Signal Maintenance and Operations Engineer (847) 705-4424 to inspect and approve the layout. When preformed detector loops are installed, the Contractor shall have them inspected and approved prior to the pouring of the Portland cement concrete surface, using the same notification process as above.

Installation.
Loop detectors shall be installed according to the requirements of the "District One Standard Traffic Signal Design Details." Saw-cuts (homeruns on preformed detector loops) from the loop to the edge of pavement shall be made perpendicular to the edge of pavement when possible in order to minimize the length of the saw-cut (homerun on preformed detector loops) unless directed otherwise by the Engineer or as shown on the plan.

The detector loop cable insulation shall be labeled with the cable specifications.

Each loop detector lead-in wire shall be labeled in the handhole using a Panduit PLFIM water proof tag, or an approved equal, secured to each wire with nylon ties.

Resistance to ground shall be a minimum of 100 mega-ohms under any conditions of weather or moisture. Inductance shall be more than 50 and less than 700 microhenries. Quality readings shall be more than 5.

Type I. All loops installed in new asphalt pavement shall be installed in the binder course and not in the surface course. The edge of pavement, curb and handhole shall be cut with a 1/4 inch (6.3 mm) deep x 4 inches (100 mm) saw cut to mark location of each loop lead-in.

Loop sealant shall be a two-component thixotropic chemically cured polyurethane either Chemque Q-Seal 295, Percol Elastic Cement AC Grade or an approved equal. The sealant shall be installed 1/8 inch (3 mm) below the pavement surface, if installed above the surface the overlap shall be removed immediately.

Detector loop measurements shall include the saw cut and the length of the loop lead-in to the edge of pavement. The lead-in wire, including all necessary connections for proper operations, from the edge of pavement to the handhole, shall be included in the price of the detector loop. Unit duct, trench and backfill, and drilling of pavement or handholes shall be included in detector loop quantities.

Preformed. This work shall consist of furnishing and installing a rubberized or crosslinked polyethylene heat resistant preformed traffic signal loop in accordance with the Standard Specifications, except for the following:

Preformed detector loops shall be installed in new pavement constructed of Portland cement concrete using mounting chairs or tied to re-bar or the preformed detector loops may be placed in the sub-base. Loop lead-ins shall be extended to a temporary protective enclosure near the proposed handhole location. The protective enclosure shall provide sufficient protection from other construction activities and may be buried for additional protection.

Handholes shall be placed next to the shoulder or back of curb when preformed detector loops enter the handhole. Non-metallic coilable duct, included in this pay item, shall be used to protect the preformed lead-ins from back of curb to the handhole.

Preformed detector loops shall be factory assembled with ends capped and sealed against moisture and other contaminants. Homeruns and interconnects shall be pre-wired and shall be an integral part of the loop assembly. The loop configurations and homerun lengths shall be assembled for the specific application. The loop and homerun shall be constructed using 11/16 inch (17.2 mm) outside diameter (minimum), 3/8 inch (9.5 mm) inside diameter (minimum) Class A oil resistant synthetic cord reinforced hydraulic hose with 250 psi (1,720 kPa) internal pressure rating or a similarly sized XLPE cable jacket. Hose for the loop and homerun assembly shall be one continuous piece. No joints or splices shall be allowed in the hose except where necessary to connect homeruns or interconnects to the loops. This will provide maximum wire protection and loop system strength. Hose tee connections shall be heavy duty high temperature synthetic rubber. The tee shall be of proper size to attach directly to the hose, minimizing glue joints. The tee shall have the same flexible properties as the hose to insure that the whole assembly can conform to pavement movement and shifting without cracking or breaking. For XLPE jacketed preformed loops, all splice connections shall be soldered, sealed, and tested before being sealed in a high impact glass impregnated plastic splice enclosure. The wire used shall be #16 THWN stranded copper. The number of turns in the loop shall be application specific. Homerun wire pairs shall be twisted a minimum of four turns per foot. No wire splices will be allowed in the preformed loop assembly. The loop and homeruns shall be filled and sealed with a flexible sealant to insure complete moisture blockage and further protect the wire. The preformed loops shall be constructed to allow a minimum of 6.5 feet of extra cable in the handhole.

Method of Measurement.
This work will be measured for payment in feet (meters) in place. Type I detector loop will be measured along the sawed slot in the pavement containing the loop and lead-in, rather than the actual length of the wire. Preformed detector loops will be measured along the detector loop and lead-in embedded in the pavement, rather than the actual length of the wire.

Basis of Payment.
This work shall be paid for at the contract unit price per foot (meter) for DETECTOR LOOP, TYPE I or PREFORMED DETECTOR LOOP as specified in the plans, which price shall be payment in full for furnishing and installing the detector loop and all related connections for proper operation.

EMERGENCY VEHICLE PRIORITY SYSTEM

Revise Section 887 of the Standard Specifications to read:

It shall be the Contractor's responsibility to contact the municipality or fire district to verify the brand of emergency vehicle pre-emption equipment to be installed prior to the contract bidding. The equipment must be completely compatible with all components of the equipment currently in use by the Agency.

All new installations shall be equipped with Confirmation Beacons as shown on the "District One Standard Traffic Signal Design Details." The Confirmation Beacon shall consist of a 6 watt Par 38 LED flood lamp with a 30 degree light spread, maximum 6 watt energy consumption at 120V, and a 2,000 hour warranty for each direction of pre-emption. The lamp shall have an adjustable mount with a weatherproof enclosure for cable splicing. All hardware shall be cast aluminum or stainless steel. Holes drilled into signal poles, mast arms, or posts shall require rubber grommets. In order to maintain uniformity between communities, the confirmation beacons shall indicate when the control equipment receives the pre-emption signal. The pre-emption movement shall be signalized by a flashing indication at the rate specified by Section 4L.01 of the "Manual on Uniform Traffic Control Devices," and other applicable sections of future editions. The stopped pre-empted movements shall be signalized by a continuous indication.

All light operated systems shall include security and transit preemption software and operate at a uniform rate of 14.035 Hz ±0.002, or as otherwise required by the Engineer, and provide compatible operation with other light systems currently being operated in the District.

This item shall include any required modifications to an existing traffic signal controller as a result of the addition of the EMERGENCY VEHICLE PRIORITY SYSTEM.

Basis of Payment.
The work shall be paid for at the contract unit price each for furnishing and installing LIGHT DETECTOR and LIGHT DETECTOR AMPLIFIER. Furnishing and installing the confirmation beacon shall be included in the cost of the Light Detector. Any required modifications to the traffic signal controller shall be included in the cost of the LIGHT DETECTOR AMPLIFIER. The preemption detector amplifier shall be paid for on a basis of (1) one each per intersection controller and shall provide operation for all movements required in the pre-emption phase sequence.

TEMPORARY TRAFFIC SIGNAL INSTALLATION

Revise Section 890 of the Standard Specifications to read:

Description.
This work shall consist of furnishing, installing, maintaining, and removing a temporary traffic signal installation as shown on the plans, including but not limited to temporary signal heads, emergency vehicle priority systems, interconnect, vehicle detectors, uninterruptible power supply, and signing. Temporary traffic signal controllers and cabinets interconnected to railroad traffic control devices shall be new. When temporary traffic signals will be operating within a county or local agency Traffic Management System, the equipment must be NTCIP compliant and compatible with the current operating requirements of the Traffic Management System.

General.
Only an approved equipment vendor will be allowed to assemble the temporary traffic signal cabinet. Also, an approved equipment vendor shall assemble and test a temporary railroad traffic signal cabinet. (Refer to the "Inspection of Controller and Cabinet" specification). A representative of the approved control equipment vendor shall be present at the temporary traffic signal turn-on inspection.

Construction Requirements.
(a) Controllers.

1. Only controllers supplied by one of the District approved closed loop equipment manufacturers will be approved for use at temporary signal locations. All controllers used for temporary traffic signals shall be fully actuated NEMA microprocessor based with RS232 data entry ports compatible with existing monitoring software approved by IDOT District 1, installed in NEMA TS2 cabinets with 8 phase back panels, capable of supplying 255 seconds of cycle length and individual phase length settings up to 99 seconds. On projects with one lane open and two way traffic flow, such as bridge deck repairs, the temporary signal controller shall be capable of providing an adjustable all red clearance setting of up to 30 seconds in length. All controllers used for temporary traffic signals shall meet or exceed the requirements of Section 857 of the Standard Specifications with regards to internal time base coordination and preemption. All railroad interconnected temporary controllers and cabinets shall be new and shall satisfy the requirements of Article 857.02 of the Standard Specifications as modified herein.

2. Only control equipment, including controller cabinet and peripheral equipment, supplied by one of the District approved closed loop equipment manufacturers will be approved for use at temporary traffic signal locations. All control equipment for the temporary traffic signal(s) shall be furnished by the Contractor unless otherwise stated in the plans. On projects with multiple temporary traffic signal installations, all controllers shall be the same manufacturer brand and model number with current software installed.

(b) Cabinets. All temporary traffic signal cabinets shall have a closed bottom made of aluminum alloy. The bottom shall be sealed along the entire perimeter of the cabinet base to ensure a water, dust and insect-proof seal. The bottom shall provide a minimum of two (2) 4 inch (100 mm) diameter holes to run the electric cables through. The 4 inch (100 mm) diameter holes shall have a bushing installed to protect the electric cables and shall be sealed after the electric cables are installed.

(c) Grounding. Grounding shall be provided for the temporary traffic signal cabinet meeting or exceeding the applicable portions of the National Electrical Code, Section 806 of the Standard Specifications and shall meet the requirements of the District 1 Traffic Signal Specifications for "Grounding of Traffic Signal Systems."

(d) Traffic Signal Heads. All traffic signal sections and pedestrian signal sections shall be 12 inches (300 mm). Traffic signal sections shall be LED with expandable view, unless otherwise approved by the Engineer. Pedestrian signal heads shall be Light Emitting Diode (LED) Pedestrian Countdown Signal Heads except when a temporary traffic signal is installed at an intersection interconnected with a railroad grade crossing. When a temporary traffic signal is installed at an intersection interconnected with a railroad grade crossing, Light Emitting Diode (LED) Pedestrian Signal Heads shall be furnished. The temporary traffic signal heads shall be placed as indicated on the temporary traffic signal plan or as directed by the Engineer. The Contractor shall furnish enough extra cable length to relocate heads to any position on the span wire or at locations illustrated on the plans for construction staging. The temporary traffic signal shall remain in operation during all signal head relocations. Each temporary traffic signal head shall have its own cable from the controller cabinet to the signal head.

(e) Interconnect.

1. Temporary traffic signal interconnect shall be provided using fiber optic cable or wireless interconnect technology as specified in the plans. The Contractor may request, in writing, to substitute the fiber optic temporary interconnect indicated in the contract documents with a wireless interconnect. The Contractor must provide assurances that the radio device will operate properly at all times and during all construction staging. If approved for use by the Engineer, the Contractor shall submit marked-up traffic signal plans indicating locations of radios and antennas and installation details. If wireless interconnect is used, and in the opinion of the engineer, it is not viable, or if it fails during testing or operations, the Contractor shall be responsible for installing all necessary poles, fiber optic cable, and other infrastructure for providing temporary fiber optic interconnect at no cost to the contract.

2. The existing system interconnect and phone lines are to be maintained as part of the Temporary Traffic Signal Installation specified for on the plan. The interconnect shall be installed into the temporary controller cabinet as per the notes or details on the plans. All labor and equipment required to install and maintain the existing interconnect as part of the Temporary Traffic Signal Installation shall be included in the item Temporary Traffic Signal Installation. When shown in the plans, temporary traffic signal interconnect equipment shall be furnished and installed. The temporary traffic signal interconnect shall maintain interconnect communications throughout the entire signal system for the duration of the project.

3. Temporary wireless interconnect, complete. The radio interconnect system shall be compatible with Eagle or Econolite controller closed loop systems. This item shall include all temporary wireless interconnect components, complete, at the adjacent existing traffic signal(s) to provide a completely operational closed loop system. This item shall include all materials, labor and testing to provide the completely operational closed loop system as shown on the plans. The radio interconnect system shall include the following components:

a. Rack or Shelf Mounted RS-232 Frequency Hopping Spread Spectrum (FHSS) Radio
b. Software for Radio Configuration (Configure Frequency and Hopping Patterns)
c. Antennas (Omni Directional or Yagi Directional)
d. Antenna Cables, LMR400, Low Loss. Max. 100-ft from controller cabinet to antenna
e. Brackets, Mounting Hardware, and Accessories Required for Installation
f. RS232 Data Cable for Connection from the radio to the local or master controller
g. All other components required for a fully functional radio interconnect system

All controller cabinet modifications and other modifications to existing equipment that are required for the installation of the radio interconnect system components shall be included in this item.

The radio interconnect system may operate at 900Mhz (902-928) or 2.4 Ghz depending on the results of a site survey. The telemetry shall have an acceptable rate of transmission errors, time outs, etc. comparable to that of a hardwire system.

The proposed master controller and telemetry module shall be configured for use with the radio interconnect at a minimum rate of 9600 baud.

The radio interconnect system shall include all other components required for a complete and fully functional telemetry system and shall be installed in accordance to the manufacturers recommendations.

The following radio equipment is currently approved for use in Region One/District One: Encom Model 5100 and Intuicom Communicator II.

(f) Emergency Vehicle Pre-Emption. All emergency vehicle preemption equipment (light detectors, light detector amplifiers, confirmation beacons, etc.) as shown on the temporary traffic signal plans shall be provided by the Contractor. It shall be the Contractor's responsibility to contact the municipality or fire district to verify the brand of emergency vehicle preemption equipment to be installed prior to the contract bidding. The equipment must be completely compatible with all components of the equipment currently in use by the Agency. All light operated systems shall operate at a uniform rate of 14.035 hz ±0.002, or as otherwise required by the Engineer, and provide compatible operation with other light systems currently being operated in the District. All labor and material required to install and maintain the Emergency Vehicle Preemption installation shall be included in the item Temporary Traffic Signal Installation.

(g) Vehicle Detection. All temporary traffic signal installations shall have vehicular detection installed as shown on the plans or as directed by the Engineer. Pedestrian push buttons shall be provided for all pedestrian signal heads/phases as shown on the plans or as directed by the Engineer. All approaches shall have vehicular detection provided by vehicle detection system as shown on the plans or as directed by the Engineer. Microwave vehicle sensors or video vehicle detection system shall be approved by IDOT prior to Contractor furnishing and installing. The Contractor shall install, wire, and adjust the alignment of the microwave vehicle sensor or video vehicle detection system in accordance to the manufacturer's recommendations and requirements. The Contractor shall be responsible for adjusting the alignment of the microwave vehicle sensor or video vehicle detection system for all construction staging changes and for maintaining proper alignment throughout the project. A representative of the approved control equipment vendor shall be present and assist the contractor in setting up and maintaining the microwave vehicle sensor or video vehicle detection system. An in-cabinet video monitor shall be provided with all video vehicle detection systems and shall be included in the item Temporary Traffic Signal Installation.

(h) Uninterruptible Power Supply. All temporary traffic signal installations shall have Uninterruptible Power Supply (UPS). The UPS cabinet shall be mounted to the temporary traffic signal cabinet and meet the requirements of Uninterruptible Power Supply in Divisions 800 and 1000 of these specifications.

(i) Signs. All existing street name and intersection regulatory signs shall be removed from existing poles and relocated to the temporary signal span wire. If new mast arm assembly and pole(s) and posts are specified for the permanent signals, the signs shall be relocated to the new equipment at no extra cost. Any intersection regulatory signs that are required for the temporary traffic signal shall be provided as shown on the plans or as directed by the Engineer. Relocation, removing, bagging and installing the regulatory signs for the various construction stages shall be provided as shown on the plans or as directed by the Engineer.

(j) Energy Charges. The electrical utility energy charges for the operation of the temporary traffic signal installation shall be paid for by others if the installation replaces an existing signal. Otherwise charges shall be paid for under 109.05 of the Standard Specifications.

(k) Maintenance. Maintenance shall meet the requirements of the Standard Specifications and MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION in Division 800 of these specifications. Maintenance of temporary signals and of the existing signals shall be included in the cost of the TEMPORARY TRAFFIC SIGNAL INSTALLATION pay item. When temporary traffic signals are to be installed at locations where existing signals are presently operating, the Contractor shall be fully responsible for the maintenance of the existing signal installation as soon as he begins any physical work on the Contract or any portion thereof. In addition, a minimum of seven (7) days prior to assuming maintenance of the existing traffic signal installation(s) under this Contract, the Contractor shall request that the Resident Engineer contact the Bureau of Traffic Operations (847) 705-4424 for an inspection of the installation(s).

(l) Temporary Traffic Signals for Bridge Projects. Temporary Traffic Signals for bridge projects shall follow the State Standards, Standard Specifications, District One Traffic Signal Specifications and any plans for Bridge Temporary Traffic Signals included in the plans. The installation shall meet the Standard Specifications and all other requirements in this TEMPORARY TRAFFIC SIGNAL INSTALLATION specification. In addition all electric cable shall be aerially suspended, at a minimum height of 18 feet (5.5m) on temporary wood poles (Class 5 or better) of 45 feet (13.7 m) minimum height. The signal heads shall be span wire mounted or bracket mounted to the wood pole or as directed by the Engineer. The Controller cabinet shall be mounted to the wood pole as shown in the plans, or as directed by the Engineer. Microwave vehicle sensors or video vehicle detection system may be used in place of detector loops as approved by the Engineer.

(m) Temporary Portable Traffic Signal for Bridge Projects.

1. Unless otherwise directed by the Engineer, temporary portable traffic signals shall be restricted to use on roadways of less than 8000 ADT that have limited access to electric utility service, shall not be installed on projects where the estimated need exceeds ten (10) weeks, and shall not be in operation during the period of November through March. The Contractor shall replace the temporary portable traffic signals with temporary span wire traffic signals noted herein at no cost to the contract if the bridge project or Engineer requires temporary traffic signals to remain in operation into any part of period of November through March. If, in the opinion of the engineer, the reliability and safety of the temporary portable traffic signal is not similar to that of a temporary span wire traffic signal installation, the Contractor shall replace the temporary portable traffic signals with temporary span wire traffic signals noted herein at no cost to the contract.

2. The controller and LED signal displays shall meet the Standard Specifications and all other requirements in this TEMPORARY TRAFFIC SIGNAL INSTALLATION specification.

3. Work shall be according to Article 701.18(b) of the Standard Specifications except as noted herein.

4. General.

a. The temporary portable bridge traffic signals shall be trailer-mounted units. The trailer-mounted units shall be set up securely and level. Each unit shall be self-contained and consist of two signal heads. The left signal head shall be mounted on a mast arm capable of extending over the travel lane. Each unit shall contain a solar cell system to facilitate battery charging. There shall be a minimum of 12 days backup reserve battery supply and the units shall be capable of operating with a 120 V power supply from a generator or electrical service.

b. All signal heads located over the travel lane shall be mounted at a minimum height of 17 feet (5m) from the bottom of the signal back plate to the top of the road surface. All far right signal heads located outside the travel lane shall be mounted at a minimum height of 8 feet (2.5m) from the bottom of the signal back plate to the top of the adjacent travel lane surface.

c. The long all red intervals for the traffic signal controller shall be adjustable up to 250 seconds in one-second increments.

d. As an alternative to detector loops, temporary portable bridge traffic signals may be equipped with microwave sensors or other approved methods of vehicle detection and traffic actuation.

e. All portable traffic signal units shall be interconnected using hardwire communication cable. Radio communication equipment may be used only with the approval of the Engineer. If radio communication is used, a site analysis shall be completed to ensure that there is no interference present that would affect the traffic signal operation. The radio equipment shall meet all applicable FCC requirements.

f. The temporary portable bridge traffic signal system shall meet the physical display and operational requirements of conventional traffic signals as specified in Part IV and other applicable portions of the currently adopted version of the Manual on Uniform Traffic Control Devices (MUTCD) and the Illinois MUTCD. The signal system shall be designed to continuously operate over an ambient temperature range between -30 ºF (-34 ºC) and 120 ºF (48 ºC). When not being utilized to inform and direct traffic, portable signals shall be treated as nonoperating equipment according to Article 701.11.

g. Basis of Payment. This work will be paid for according to Article 701.20(c).

Basis of Payment.
This work shall be paid for at the contract unit price each for TEMPORARY TRAFFIC SIGNAL INSTALLATION, TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION, or TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNAL INSTALLATION, the price of which shall include all costs for the modifications required for traffic staging, changes in signal phasing as required in the Contract plans, microwave vehicle sensors, video vehicle detection system, any maintenance or adjustment to the microwave vehicle sensors/video vehicle detection system, the temporary wireless interconnect system complete, temporary fiber optic interconnect system complete, all material required, the installation and complete removal of the temporary traffic signal. Each intersection will be paid for separately.

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

Add the following to Article 895.05 of the Standard Specifications:

The traffic signal equipment which is to be removed and is to become the property of the Contractor shall be disposed of outside the right-of-way at the Contractor’s expense.

All equipment to be returned to the State shall be delivered by the Contractor to the State's Traffic Signal Maintenance Contractor's main facility. The Contractor shall contact the State's Electrical Maintenance Contractor to schedule an appointment to deliver the equipment. No equipment will be accepted without a prior appointment. All equipment shall be delivered within 30 days of removing it from the traffic signal installation. The Contractor shall provide 5 copies of a list of equipment that is to remain the property of the State, including model and serial numbers, where applicable. The Contractor shall also provide a copy of the Contract plan or special provision showing the quantities and type of equipment. Controllers and peripheral equipment from the same location shall be boxed together (equipment from different locations may not be mixed) and all boxes and controller cabinets shall be clearly marked or labeled with the location from which they were removed. If equipment is not returned with these requirements, it will be rejected by the State's Electrical Maintenance Contractor. The Contractor shall be responsible for the condition of the traffic signal equipment from the time Contractor takes maintenance of the signal installation until the acceptance of a receipt drawn by the State's Electrical Maintenance Contractor indicating the items have been returned in good condition.

The Contractor shall safely store and arrange for pick up or delivery of all equipment to be returned to agencies other than the State. The Contractor shall package the equipment and provide all necessary documentation as stated above.

Traffic signal equipment which is lost or not returned to the Department for any reason shall be replaced with new equipment meeting the requirements of these Specifications at no cost to the contract.

TRAFFIC SIGNAL PAINTING

Description.
This work shall include surface preparation, powder type painted finish application and packaging of new galvanized steel traffic signal mast arm poles and posts assemblies. All work associated with applying the painted finish shall be performed at the manufacturing facility for the pole assembly or post or at a painting facility approved by the Engineer. Traffic signal mast arm shrouds and post bases shall also be painted the same color as the pole assemblies and posts.

Surface Preparation.
All weld flux and other contaminates shall be mechanically removed. The traffic mast arms and post assemblies shall be degreased, cleaned, and air dried to assure all moisture is removed.

Painted Finish.
All galvanized exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a dry film thickness of 2.0 mils. Prior to application, the surface shall be mechanically etched by brush blasting (Ref. SSPC-SP7) and the zinc coated substrate preheated to 450 ºF for a minimum one (1) hour. The coating shall be electrostatically applied and cured by elevating the zinc-coated substrate temperature to a minimum of 400 ºF.

The finish paint color shall be one of the manufacturer's standard colors and shall be as selected by the local agency responsible for paint costs. The Contractor shall confirm, in writing, the color selection with the local responsible agency and provide a copy of the approval to the Engineer and a copy of the approval shall be included in the material catalog submittal.

Painting of traffic signal heads, pedestrian signal heads and controller cabinets is not included in this pay item.

Any damage to the finish after leaving the manufacturer's facility shall be repaired to the satisfaction of the Engineer using a method recommended by the manufacturer and approved by the Engineer. If while at the manufacturer's facility the finish is damaged, the finish shall be re-applied at no cost to the contract.

Warranty.
The Contractor shall furnish in writing to the Engineer, the paint manufacturer's standard warranty and certification that the paint system has been properly applied.

Packaging.
Prior to shipping, the poles and posts shall be wrapped in ultraviolet-inhibiting plastic foam or rubberized foam.

Basis of Payment.
This work shall be paid for at the contract unit price each for PAINT NEW MAST ARM AND POLE, UNDER 40 FEET (12.19 METER), PAINT NEW MAST ARM AND POLE, 40 FEET (12.19 METER) AND OVER, PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FEET (12.19 METER), PAINT NEW COMBINATION MAST ARM AND POLE, 40 FEET (12.19 METER) AND OVER, or PAINT NEW TRAFFIC SIGNAL POST of the length specified, which shall be payment in full for painting and packaging the traffic signal mast arm poles and posts described above including all shrouds, bases and appurtenances.

ILLUMINATED STREET NAME SIGN

Description.
This work shall consist of furnishing and installing a LED internally illuminated street name sign.

Materials.
Materials shall be in accordance with ILLUMINATED STREET NAME SIGN in Division 1000 of these specifications.

Installation.
The sign can be mounted on most steel mast arm poles. Mounting on aluminum mast arm pole requires supporting structural calculations. Some older or special designed steel mast arm poles may require structural evaluation to assure that construction of the mast arm pole is adequate for the proposed additional loading. Structural calculations and other supporting documentation as determined by the Engineer shall be provided by the contractor for review by the Department.

The sign shall be located on a steel traffic signal mast arm no further than 8-feet from the center of the pole to the center of the sign at a height of between 16 to 18-feet above traveled pavement. Mounting hardware shall be Pelco model SE-5015, or approved equal, utilizing stainless steel components.

Signs shall be installed such that they are not energized when traffic signals are powered by an alternate energy source such as a generator or uninterruptible power supply (UPS). The signs shall be connected to the generator or UPS bypass circuitry.

Basis of Payment.
This work will be paid for at the contract unit price each for ILLUMINATED STREET NAME SIGN, of the length specified which shall be payment in full for furnishing and installing the LED internally illuminated street sign, complete with circuitry and mounting hardware including photo cell, circuit breaker, fusing, relay, connections and cabling as shown on the plans for proper operation and installation.

RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM

Description.
This work shall consist of re-optimizing a closed loop traffic signal system according to the following Levels of work.

LEVEL I applies when improvements are made to an existing signalized intersection within an existing closed loop traffic signal system. The purpose of this work is to integrate the improvements to the subject intersection into the signal system while minimizing the impacts to the existing system operation. This type of work would be commonly associated with the addition of signal phases, pedestrian phases, or improvements that do not affect the capacity at an intersection.

LEVEL II applies when improvements are made to an existing signalized intersection within an existing closed loop traffic signal system and detailed analysis of the intersection operation is desired by the engineer, or when a new signalized or existing signalized intersection is being added to an existing system, but optimization of the entire system is not required. The purpose of this work is to optimize the subject intersection, while integrating it into the existing signal system with limited impact to the system operations. This item also includes an evaluation of the overall system operation, including the traffic responsive program.

For the purposes of re-optimization work, an intersection shall include all traffic movements operated by the subject controller and cabinet.

After the signal improvements are completed, the signal shall be re-optimized as specified by an approved Consultant who has previous experience in optimizing Closed Loop Traffic Signal Systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 for a listing of approved Consultants. Traffic signal system optimization work, including fine-tuning adjustments of the optimized system, shall follow the requirements stated in the most recent IDOT District 1 SCAT Guidelines, except as note herein.

A listing of existing signal equipment, interconnect information, phasing data, and timing patterns may be obtained from the Department, if available and as appropriate. The existing SCAT Report is available for review at the District One office and if the Consultant provides blank computer disks, copies of computer simulation files for the existing optimized system and a timing database that includes intersection displays will be made for the Consultant. The Consultant shall confer with the Traffic Signal Engineer prior to optimizing the system to determine if any extraordinary conditions exist that would affect traffic flows in the vicinity of the system, in which case, the Consultant may be instructed to wait until the conditions return to normal or to follow specific instructions regarding the optimization.

(a) LEVEL I Re-Optimization

1. The following tasks are associated with LEVEL I Re-Optimization.
a. Appropriate signal timings shall be developed for the subject intersection and existing timings shall be utilized for the rest of the intersections in the system.
b. Proposed signal timing plan for the new or modified intersection(s) shall be forwarded to IDOT for review prior to implementation.
c. Consultant shall conduct on-site implementation of the timings at the turn-on and make fine-tuning adjustments to the timings of the subject intersection in the field to alleviate observed adverse operating conditions and to enhance operations.

2. The following deliverables shall be provided for LEVEL I Re-Optimization.
a. Consultant shall furnish to IDOT a cover letter describing the extent of the re-optimization work performed.
b. Consultant shall furnish an updated intersection graphic display for the subject intersection to IDOT and to IDOT's Traffic Signal Maintenance Contractor.

(b) LEVEL II Re-Optimization

1. In addition to the requirements described in the LEVEL I Re-Optimization above, the following tasks are associated with LEVEL II Re-Optimization.
a. Traffic counts shall be taken at the subject intersection after the traffic signals are approved for operation by the Area Traffic Signal Operations Engineer. Manual turning movement counts shall be conducted from 6:30 a.m. to 9:30 a.m., 11:00 a.m. to 1:00 p.m., and 3:30 p.m. to 6:30 p.m. on a typical weekday from midday Monday to midday Friday. The turning movement counts shall identify cars, and single-unit, multi-unit heavy vehicles, and transit buses.
b. As necessary, the intersections shall be re-addressed and all system detectors reassigned in the master controller according to the current standard of District One.
c. Traffic responsive program operation shall be evaluated to verify proper pattern selection and lack of oscillation and a report of the operation shall be provided to IDOT.

2. The following deliverables shall be provided for LEVEL II Re-Optimization.
a. Consultant shall furnish to IDOT one (1) copy of a technical memorandum for the optimized system. The technical memorandum shall include the following elements:
(1) Brief description of the project

(2) Printed copies of the analysis output from Synchro (or other appropriate, approved optimization software file)
(3) Printed copies of the traffic counts conducted at the subject intersection
b. Consultant shall furnish to IDOT two (2) CDs for the optimized system. The CDs shall include the following elements:
(1) Electronic copy of the technical memorandum in PDF format
(2) Revised Synchro files (or other appropriate, approved optimization software file) including the new signal and the rest of the signals in the closed loop system
(3) Traffic counts conducted at the subject intersection
(4) New or updated intersection graphic display file for the subject intersection
(5) The CD shall be labeled with the IDOT system number and master location, as well as the submittal date and the consultant logo. The CD case shall include a clearly readable label displaying the same information securely affixed to the side and front.

Basis of Payment.
This work shall be paid for at the contract unit price each for RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM – LEVEL I or RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM – LEVEL II, which price shall be payment in full for performing all work described herein per intersection. Following completion of the timings and submittal of specified deliverables, 100 percent of the bid price will be paid. Each intersection will be paid for separately.

OPTIMIZE TRAFFIC SIGNAL SYSTEM

Description.
This work shall consist of optimizing a closed loop traffic signal system.

OPTIMIZE TRAFFIC SIGNAL SYSTEM applies when a new or existing closed loop traffic signal system is to be optimized and a formal Signal Coordination and Timing (SCAT) Report is to be prepared. The purpose of this work is to improve system performance by optimizing traffic signal timings, developing a time of day program and a traffic responsive program.

After the signal improvements are completed, the signal system shall be optimized as specified by an approved Consultant who has previous experience in optimizing Closed Loop Traffic Signal Systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 for a listing of approved Consultants. Traffic signal system optimization work, including fine-tuning adjustments of the optimized system, shall follow the requirements stated in the most recent IDOT District 1 SCAT Guidelines, except as note herein.

A listing of existing signal equipment, interconnect information, phasing data, and timing patterns may be obtained from the Department, if available and as appropriate. The existing SCAT Report is available for review at the District One office and if the Consultant provides blank computer disks, copies of computer simulation files for the existing optimized system and a timing database that includes intersection displays will be made for the Consultant. The Consultant shall confer with the Traffic Signal Engineer prior to optimizing the system to determine if any extraordinary conditions exist that would affect traffic flows in the vicinity of the system, in which case, the Consultant may be instructed to wait until the conditions return to normal or to follow specific instructions regarding the optimization.

(a) The following tasks are associated with OPTIMIZE TRAFFIC SIGNAL SYSTEM.
1. Appropriate signal timings and offsets shall be developed for each intersection and appropriate cycle lengths shall be developed for the closed loop signal system.

2. Traffic counts shall be taken at all intersections after the permanent traffic signals are approved for operation by the Area Traffic Signal Operations Engineer. Manual turning movement counts shall be conducted from 6:30 a.m. to 9:30 a.m., 11:00 a.m. to 1:00 p.m., and 3:30 p.m. to 6:30 p.m. on a typical weekday from midday Monday to midday Friday. The turning movement counts shall identify cars, and single-unit and multi-unit heavy vehicles.

3. As necessary, the intersections shall be re-addressed and all system detectors reassigned in the master controller according to the current standard of District One.

4. A traffic responsive program shall be developed, which considers both volume and occupancy. A time-of-day program shall be developed for used as a back-up system.

5. Proposed signal timing plan for the new or modified intersection shall be forwarded to IDOT for review prior to implementation.

6. Consultant shall conduct on-site implementation of the timings and make fine-tuning adjustments to the timings in the field to alleviate observed adverse operating conditions and to enhance operations.

7. Speed and delay studies shall be conducted during each of the count periods along the system corridor in the field before and after implementation of the proposed timing plans for comparative evaluations. These studies should utilize specialized electronic timing and measuring devices.

(b) The following deliverables shall be provided for OPTIMIZE TRAFFIC SIGNAL SYSTEM.
1. Consultant shall furnish to IDOT one (1) copy of a SCAT Report for the optimized system. The SCAT Report shall include the following elements:

Cover Page in color showing a System Map
Figures 1. System overview map – showing system number, system schematic map with numbered system detectors, oversaturated movements, master location, system phone number, cycle lengths, and date of completion. 2. General location map in color – showing signal system location in the metropolitan area. 3. Detail system location map in color – showing cross street names and local controller addresses. 4. Controller sequence – showing controller phase sequence diagrams.
Table of Contents
Tab 1: Final Report 1. Project Overview 2. System and Location Description (Project specific) 3. Methodology 4. Data Collection 5. Data Analysis and Timing Plan Development 6. Implementation a. Traffic Responsive Programming (Table of TRP vs. TOD Operation) 7. Evaluation a. Speed and Delay runs
Tab 2. Turning Movement Counts 1. Turning Movement Counts (Showing turning movement counts in the intersection diagram for each period, including truck percentage)
Tab 3. Synchro Analysis 1. AM: Time-Space diagram in color, followed by intersection Synchro report (Timing report) summarizing the implemented timings. 2. Midday: same as AM 3. PM: same as AM
Tab 4: Speed, Delay Studies 1. Summary of before and after runs results in two (2) tables showing travel time and delay time. 2. Plot of the before and after runs diagram for each direction and time period.
Tab 5: Environmental Report
1. Environmental impact report including gas consumption, NO2, HCCO, improvements.
Tab 6: Electronic Files 1. Two (2) CDs for the optimized system. The CDs shall include the following elements: a. Electronic copy of the SCAT Report in PDF format b. Copies of the Synchro files for the optimized system c. Traffic counts for the optimized system d. New or updated intersection graphic display files for each of the system intersections and the system graphic display file including system detector locations and addresses.

Basis of Payment.
The work shall be paid for at the contract unit each for OPTIMIZE TRAFFIC SIGNAL SYSTEM, which price shall be payment in full for performing all work described herein for the entire traffic signal system. Following the completion of traffic counts, 25 percent of the bid price will be paid. Following the completion of the Synchro analysis, 25 percent of the bid price will be paid. Following the setup and fine tuning of the timings, the speed-delay study, and the TRP programming, 25 percent of the bid price will be paid. The remaining 25 percent will be paid when the system is working to the satisfaction of the engineer and the report and CD have been submitted.

TEMPORARY TRAFFIC SIGNAL TIMINGS

Description.
This work shall consist of developing and maintaining appropriate traffic signal timings for the specified intersection for the duration of the temporary signalized condition, as well as impact to existing traffic signal timings caused by detours or other temporary conditions.

All timings and adjustments necessary for this work shall be performed by an approved Consultant who has previous experience in optimizing Closed Loop Traffic signal Systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 for a listing of approved Consultants.

The following tasks are associated with TEMPORARY TRAFFIC SIGNAL TIMINGS.
(a) Consultant shall attend temporary traffic signal inspection (turn-on) and/or detour meeting and conduct on-site implementation of the traffic signal timings. Make fine-turning adjustments to the timings in the field to alleviate observed adverse operating conditions and to enhance operations.

(b) Consultant shall provide monthly observation of traffic signal operations in the field.

(c) Consultant shall provide on-site consultation and adjust timings as necessary for construction stage changes, temporary traffic signal phase changes, and any other conditions affecting timing and phasing, including lane closures, detours, and other construction activities.

(d) Consultant shall make timing adjustments and prepare comment responses as directed by the Area Traffic Signal Operations Engineer.

Basis of Payment.
The work shall be paid for at the contract unit price each for TEMPORARY TRAFFIC SIGNAL TIMINGS, which price shall be payment in full for performing all work described herein per intersection. When the temporary traffic signal installation is turned on and/or detour implemented, 50 percent of the bid price will be paid. The remaining 50 percent of the bid price will be paid following the removal of the temporary traffic signal installation and/or detour.

MODIFYING EXISTING CONTROLLER CABINET

The work shall consist of modifying an existing controller cabinet as follows:

(a) Uninterruptible Power Supply (UPS). The addition of uninterruptible power supply (UPS) to an existing controller cabinet could require the relocation of the existing controller cabinet items to allow for the installation of the uninterruptible power supply (UPS) components inside the existing controller cabinet as outlined under Sections 862 and 1074.04 of the Standard Specifications.

(b) Light Emitting Diode (LED) Signal Heads, Light Emitting Diode (LED) Optically Programmed Signal Heads and Light Emitting Diode (LED) Pedestrian Signal Heads. The contractor shall verify that the existing load switches meet the requirements of Section 1074.03(5)(b)(2) of the Standard Specifications and the recommended load requirements of the light emitting diode (LED) signal heads that are being installed at the existing traffic signal. If any of the existing load switches do not meet these requirements, they shall be replaced, as directed by the Engineer.

(c) Light Emitting Diode (LED), Signal Head, Retrofit. The contractor shall verify that the existing load switches meet the requirements of Section 1074.03(2) of the Standard Specifications and the recommended load requirements of light emitting diode (LED) traffic signal modules, pedestrian signal modules, and pedestrian countdown signal modules as specified in the plans. If any of the existing load switches do not meet these requirements, they shall be replaced, as directed by the Engineer.

Basis of Payment.
Modifying an existing controller cabinet will be paid for at the contract unit price per each for MODIFY EXISTING CONTROLLER CABINET. This shall include all material and labor required to complete the work as described above, the removal and disposal of all items removed from the controller cabinet, as directed by the Engineer. The equipment for the Uninterruptible Power Supply (UPS) and labor to install it in the existing controller cabinet shall be included in the pay item Uninterruptible Power Supply. Modifying an existing controller will be paid for at the contract unit price per each for MODIFY EXISTING CONTROLLER, per Sections 895.04 and 895.08 of the Standard Specifications.

DIVISION 1000 MATERIALS

PEDESTRIAN PUSH-BUTTON

Revise Article 1074.02(a) of the Standard Specifications to read:

The pedestrian push-button housing shall be constructed of aluminum alloy according to ASTM B 308 6061-T6 and powder coated yellow, unless otherwise noted on the plans. The housing shall be furnished with suitable mounting hardware.

Revise Article 1074-02(e) of the Standard Specifications to read:

Stations shall be designed to be mounted directly to a post, mast arm pole or wood pole. The station shall be aluminum and shall accept a 3 inch (75mm) round push-button assembly and a regulatory pedestrian instruction sign according to MUTCD, sign series R10-3e 9 x 15 inch sign with arrow(s) for a count-down pedestrian signal. The pedestrian station size without count-down pedestrian signals shall accommodate a MUTCD sign series R10-3b or R10-3d 9 x 12 inch sign with arrow(s).

Add the following to Article 1074.02(a) of the Standard Specifications:

(f) Location. Pedestrian push-buttons and stations shall be mounted directly to a post, mast arm pole or wood pole as shown on the plans and shall be fully accessible from a paved or concrete surface. See the District's Detail sheets for orientation and mounting details.

CONTROLLER CABINET AND PERIPHERAL EQUIPMENT

Add the following to Article 1074.03 of the Standard Specifications:

(a) (6) Cabinets shall be designed for NEMA TS2 Type 1 operation. All cabinets shall be pre-wired for a minimum of eight (8) phases of vehicular, four (4) phases of pedestrian and four (4) phases of overlap operation.

(b) (5) Cabinets – Provide 1/8" (3.2 mm) thick unpainted aluminum alloy 5052-H32. The surface shall be smooth, free of marks and scratches. All external hardware shall be stainless steel.
(b) (6) Controller Harness – Provide a TS2 Type 2 "A" wired harness in addition to the TS2 Type 1 harness.
(b) (7) Surge Protection – Plug-in type EDCO SHA-1250 or Atlantic/Pacific approved equal.
(b) (8) BIU – Containment screw required.
(b) (9) Transfer Relays – Solid state or mechanical flash relays are acceptable.
(b) (10) Switch Guards – All switches shall be guarded.
(b) (11) Heating – One (1) 200 watt, thermostatically-controlled, Hoffman electric heater, or approved equivalent.
(b) (12) Lighting – One (1) LED Panel shall be placed inside the cabinet top panel and one (1) LED Panel shall be placed on each side of the pull-out drawer/shelf assembly located beneath the controller support shelf. The LED Panels shall be controlled by a wall switch. Relume Traffic Control Box LED Panels and power supply or approved equivalent.
(b) (13) The cabinet shall be equipped with a pull-out drawer/shelf assembly. A 1 ½ inch (38mm) deep drawer shall be provided in the cabinet, mounted directly beneath the controller support shelf. The drawer shall have a hinged top cover and shall be capable of accommodating one (1) complete set of cabinet prints and manuals. This drawer shall support 50 lbs. (23 kg) in weight when fully extended. The drawer shall open and close smoothly. Drawer dimensions shall make maximum use of available depth offered by the controller shelf and be a minimum of 24 inches (610mm) wide.
(b) (14) Plan & Wiring Diagrams – 12" x 16" (3.05mm x 4.06mm) moisture sealed container attached to door.

(b) (15) Detector Racks – Fully wired and labeled for four (4) channels of emergency vehicle pre-emption and sixteen channels (16) of vehicular operation.
(b) (16) Field Wiring Labels – All field wiring shall be labeled.
(b) (17) Field Wiring Termination – Approved channel lugs required.
(b) (18) Power Panel – Provide a nonconductive shield.
(b) (19) Circuit Breaker – The circuit breaker shall be sized for the proposed load but shall not be rated less than 30 amps.
(b) (20) Police Door – Provide wiring and termination for plug in manual phase advance switch.
(b) (21) Railroad Pre-Emption Test Switch – Eaton 8830K13 SHA 1250 or equivalent.

RAILROAD, FULL-ACTUATED CONTROLLER AND CABINET

Controller shall comply with Article 1073.01 as amended in these Traffic Signal Special Provisions.

Controller Cabinet and Peripheral Equipment shall comply with Article 1074.03 as amended in these Traffic Signal Special Provisions.

Add the following to Articles 1073.01 (c) (2) and 1074.03 (a) (5) (e) of the Standard Specifications:

Controllers and cabinets shall be new and NEMA TS2 Type 1 design.

A method of monitoring and/or providing redundancy to the railroad preemptor input to the controller shall be included as a component of the Railroad, Full Actuated Controller and Cabinet installation and be verified by the traffic signal equipment supplier prior to installation.

Railroad interconnected controllers and cabinets shall be assembled only by an approved traffic signal equipment supplier. All railroad interconnected (including temporary railroad interconnect) controllers and cabinets shall be new, built, tested and approved by the controller equipment vendor, in the vendor's District One facility, prior to field installation. The vendor shall provide the technical equipment and assistance as required by the Engineer to fully test this equipment.

UNINTERRUPTIBLE POWER SUPPLY (UPS)

Revise Article 1074.04(a)(1) of the Standard Specifications to read:

The UPS shall be line interactive and provide voltage regulation and power conditioning when utilizing utility power. The UPS shall be sized appropriately for the intersection's normal traffic signal operating connected load, plus 20 percent (20%). The total connected traffic signal load shall not exceed the published ratings for the UPS. The UPS shall provide a minimum of six (6) hours of normal operation run-time for signalized intersections with LED type signal head optics at 77 °F (25 °C) (minimum 700 W/1000 VA active output capacity, with 90 percent minimum inverter efficiency).

Revise the first paragraph of Article 1074.04(a)(3) of the Standard Specifications to read:

The UPS shall have a minimum of four (4) sets of normally open (NO) and normally closed (NC) single-pole double-throw (SPDT) relay contact closures, available on a panel mounted terminal block or locking circular connectors, rated at a minimum 120 V/1 A, and labeled so as to identify each contact according to the plans.

Revise Article 1074.04(a)(10) of the Standard Specifications to read:

The UPS shall be compatible with the District's approved traffic controller assemblies utilizing NEMA TS 1 or NEMA TS 2 controllers and cabinet components for full time operation.

Revise Article 1074.04(a)(17) of the Standard Specifications to read:

When the intersection is in battery backup mode, the UPS shall bypass all internal cabinet lights, ventilation fans, cabinet heaters, service receptacles, any lighted street name signs, any automated enforcement equipment and any other devices directed by the Engineer.

Revise Article 1074.04(b)(2)b of the Standard Specifications to read:

Batteries, inverter/charger and power transfer relay shall be housed in a separate NEMA Type 3R cabinet. The cabinet shall be Aluminum alloy, 5052-H32, 0.125-inch thick and have a natural mill finish.

Revise Article 1074.04(b)(2)c of the Standard Specifications to read:

No more than three batteries shall be mounted on individual shelves for a cabinet housing six batteries and no more than four batteries per shelf for a cabinet housing eight batteries.

Revise Article 1074.04(b)(2)e of the Standard Specifications to read:

The battery cabinet housing shall have the following nominal outside dimensions: a width of 25 in. (785 mm), a depth of 16 in. (440 mm), and a height of 41 to 48 in. (1.1 to 1.3 m). Clearance between shelves shall be a minimum of 10 in. (250 mm).

UPS
End of paragraph 1074.04(b) (2)e

The door shall be equipped with a two position doorstop, one a 90^{o} and one at 120^{o}.

Revise Article 1074.04(b)(2)g of the Standard Specifications to read:

The door shall open to the entire cabinet, have a neoprene gasket, an Aluminum continuous piano hinge with stainless steel pin, and a three point locking system. The cabinet shall be provided with a main door lock which shall operate with a traffic industry conventional No. 2 key. Provisions for padlocking the door shall be provided.

Add the following to Article 1074.04(b)(2) of the Standard Specifications:

j. The battery cabinet shall have provisions for an external generator connection.

Add the following to Article 1074.04(c) of the Standard Specifications:

(8) The UPS shall include a tip or kill switch installed in the battery cabinet, which shall completely disconnect power from the UPS when the switch is manually activated.

(9) The UPS shall incorporate a flanged electric generator inlet for charging the batteries and operating the UPS. The generator connector shall be male type, twist-lock, rated as 15A, 125VAC with a NEMA L5-15P configuration and weatherproof lift cover plate (Hubbell model HBL4716C or approved equal). Access to the generator inlet shall be from a secured weatherproof lift cover plate or behind a locked battery cabinet police panel.

Battery System.
Revise Article 1074.04(d)(3) of the Standard Specifications to read:

All batteries supplied in the UPS shall be either gel cell or AGM type, deep cycle, completely sealed, prismatic leadcalcium based, silver alloy, valve regulated lead acid (VRLA) requiring no maintenance. All batteries in a UPS installation shall be the same type; mixing of gel cell and AGM types within a UPS installation is not permitted.

Revise Article 1074.04(d)(4) of the Standard Specifications to read:

Batteries shall be certified by the manufacturer to operate over a temperature range of -13 to 160 °F (-25 to + 71 °C) for gel cell batteries and -40 to 140 °F (-40 to + 60 °C) for AGM type batteries.

Add the following to Article 1074.04(d) of the Standard Specifications:

(9) The UPS shall consist of an even number of batteries that are capable of maintaining normal operation of the signalized intersection for a minimum of six hours. Calculations shall be provided showing the number of batteries of the type supplied that are needed to satisfy this requirement. A minimum of four batteries shall be provided.

Add the following to the Article 1074.04 of the Standard Specifications:

(e) Warranty. The warranty for an uninterruptible power supply (UPS) shall cover a minimum of two years from date the equipment is placed in operation; however, the batteries of the UPS shall be warranted for full replacement for a minimum of five years from the date the traffic signal and UPS are placed into service.

ELECTRIC CABLE

Delete “or stranded, and No. 12 or” from the last sentence of Article 1076.04 (a) of the Standard Specifications.

Add the following to the Article 1076.04(d) of the Standard Specifications:

Service cable may be single or multiple conductor cable.

TRAFFIC SIGNAL POST

Add the following to Article 1077.01 (d) of the Standard Specifications:

All posts and bases shall be steel and hot dipped galvanized. If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with TRAFFIC SIGNAL PAINTING in Division 800 of these specifications.

PEDESTRIAN PUSH-BUTTON POST

Add the following to Article 1077.02(b) of the Standard Specifications:

All posts and bases shall be steel and hot-dipped galvanized. If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with Traffic Signal Painting in Division 800 of these specifications.

MAST ARM ASSEMBLY AND POLE

Add the following to Article 1077.03 (a) of the Standard Specifications:

Traffic signal mast arms shall be one piece construction, unless otherwise approved by the Engineer. All poles shall be galvanized. If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with TRAFFIC SIGNAL PAINTING in Division 800 of these specifications.

The shroud shall be of sufficient strength to deter pedestrian and vehicular damage. The shroud shall be constructed and designed to allow air to circulate throughout the mast arm but not allow infestation of insects or other animals, and such that it is not hazardous to probing fingers and feet. All mounting hardware shall be stainless steel.

LIGHT EMITTING DIODE (LED) TRAFFIC SIGNAL HEAD

Add the following to Section 1078 of the Standard Specifications:

General.
All signal and pedestrian heads shall provide 12" (300 mm) displays with glossy yellow or black polycarbonate housings. All head housings shall be the same color (yellow or black) at the intersection. For new signalized intersections and existing signalized intersections where all signal and/or pedestrian heads are being replaced, the proposed head housings shall be black. Where only selected heads are being replaced, the proposed head housing color (yellow or black) shall match existing head housings. Connecting hardware and mounting brackets shall be polycarbonate (black). A corrosion resistant anti-seize lubricant shall be applied to all metallic mounting bracket joints, and shall be visible to the inspector at the signal turn-on. Post top mounting collars are required on all posts, and shall be constructed of the same material as the brackets.

Pedestrian signal heads shall be furnished with the international symbolic "Walking Person" and "Upraised Palm" displays. Egg crate sun shields are not permitted.

Signal heads shall be positioned according to the "District One Standard Traffic Signal Design Details."

LED signal heads (All Face and Section Quantities), (All Mounting Types) shall conform fully to the requirements of Articles 1078.01 and 1078.02 of the Standard Specifications amended herein.

1. The LED signal modules shall be replaced or repaired if an LED signal module fails to function as intended due to workmanship or material defects within the first 60 months from the date of delivery. LED signal modules which exhibit luminous intensities less than the minimum values specified in Table 1 of the ITE Vehicle Traffic Control Signal Heads: Light Emitting Diode (LED) Circular Signal Supplement (June 27, 2005) [VTSCH], or applicable successor ITE specifications, or show signs of entrance of moisture or contaminants within the first 60 months of the date of delivery shall be replaced or repaired. The manufacturer's written warranty for the LED signal modules shall be dated, signed by an Officer of the company and included in the product submittal to the State.

(a) Physical and Mechanical Requirements

1. Modules can be manufactured under this specification for the following faces:

a. 12 inch (300 mm) circular, multi-section
b. 12 inch (300 mm) arrow, multi-section
c. 12 inch (300 mm) pedestrian, 2 sections

2. The maximum weight of a module shall be 4 lbs. (1.8 kg).

3. Each module shall be a sealed unit to include all parts necessary for operation (a printed circuit board, power supply, a lens and gasket, etc.), and shall be weather proof after installation and connection.

4. Material used for the lens and signal module construction shall conform to ASTM specifications for the materials.

5. The lens of the module shall be tinted with a wavelength-matched color to reduce sun phantom effect and enhance on/off contrast. The tinting shall be uniform across the lens face. Polymeric lens shall provide a surface coating or chemical surface treatment applied to provide abrasion resistance. The lens of the module shall be integral to the unit, convex with a smooth outer surface and made of plastic. The lens shall have a textured surface to reduce glare.

6. The use of tinting or other materials to enhance ON/OFF contrasts shall not affect chromaticity and shall be uniform across the face of the lens.

7. Each module shall have a symbol of the type of module (i.e. circle, arrow, etc.) in the color of the module. The symbol shall be 1 inch (25.4 mm) in diameter. Additionally, the color shall be written out in 1/2 inch (12.7mm) letters next to the symbol.

(b) Photometric Requirements

1. The minimum initial luminous intensity values for the modules shall conform to the values in Table 1 of the VTCSH (2005) for circular signal indications, and as stated in Table 3 of these specifications for arrow and pedestrian indications at 25 °C.

2. The modules shall meet or exceed the illumination values stated in Articles 1078.01 and 1078.02 the Standard Specifications for circular signal indications, and Table 3 of these specifications for arrow and pedestrian indications, throughout the useful life based on normal use in a traffic signal operation over the operating temperature range.

3. The measured chromaticity coordinates of the modules shall conform to the chromaticity requirements of Section 4.2 of the VTCSH (2005) or applicable successor ITE specifications.

4. The LEDs utilized in the modules shall be AlInGaP technology for red, yellow, Portland orange (pedestrian) and white (pedestrian) indications, and GaN for green indications, and shall be the ultra bright type rated for 100,000 hours of continuous operation from -40 °C to +74 °C.

(c) Electrical

1. Maximum power consumption for LED modules is per Table 2.

2. Operating voltage of the modules shall be 120 VAC. All parameters shall be measured at this voltage.

3. The modules shall be operationally compatible with currently used controller assemblies (solid state load switches, flashers, and conflict monitors).

4. When a current of 20 mA AC (or less) is applied to the unit, the voltage read across the two leads shall be 15 VAC or less.

5. The LED modules shall provide constant light output under power. Modules with dimming capabilities shall have the option disabled or set on a non-dimming operation.

6. The individual LEDs shall be wired such that a catastrophic loss or the failure of one or more LED will not result in the loss of the entire module.

(d) Retrofit Traffic Signal Module

1. The following specification requirements apply to the Retrofit module only. All general specifications apply unless specifically superseded in this section.

2. Retrofit modules can be manufactured under this specification for the following faces:

a. 12 inch (300 mm) circular, multi-section
b. 12 inch (300 mm) arrow, multi-section
c. 12 inch (300 mm) pedestrian, 2 sections

3. Each Retrofit module shall be designed to be installed in the doorframe of a standard traffic signal housing. The Retrofit module shall be sealed in the doorframe with a one-piece EPDM (ethylene propylene rubber) gasket.

4. The maximum weight of a Retrofit module shall be 4 lbs. (1.8 kg).

5. Each Retrofit module shall be a sealed unit to include all parts necessary for operation (a printed circuit board, power supply, a lens and gasket, etc.), and shall be weather proof after installation and connection.

6. Electrical conductors for modules, including Retrofit modules, shall be 39.4 inches (1m) in length, with quick disconnect terminals attached.

7. The lens of the Retrofit module shall be integral to the unit, shall be convex with a smooth outer surface and made of plastic or of glass.

(e) The following specification requirements apply to the 12 inch (300 mm) arrow module only. All general specifications apply unless specifically superseded in this section.

1. The arrow module shall meet specifications stated in Section 9.01 of the Equipment and Material Standards of the Institute of Transportation Engineers (November 1998) [ITE Standards], Chapter 2 (Vehicle Traffic Control Signal Heads) or applicable successor ITE specifications for arrow indications.

2. The LEDs arrow indication shall be a solid display with a minimum of three (3) outlining rows of LEDs and at least one (1) fill row of LEDs.

(f) The following specification requirement applies to the 12 inch (300 mm) programmed visibility (PV) module only. All general specifications apply unless specifically superseded in this section.
1. The LED module shall be a module designed and constructed to be installed in a programmed visibility (PV) signal housing without modification to the housing.

(g) The following specification requirements apply to the 12 inch (300 mm) Pedestrian module only. All general specifications apply unless specifically superseded in this section.

1. Each pedestrian signal LED module shall provide the ability to actuate the solid upraised hand and the solid walking person on one 12 inch (300mm) section.

2. Two (2) pedestrian sections shall be installed. The top section shall be wired to illuminate only the upraised hand and the bottom section shall be the walking man.

3. “Egg Crate” type sun shields are not permitted. All figures must be a minimum of 9 inches (225mm) in height and easily identified from a distance of 120-feet (36.6m).

LIGHT EMITTING DIODE (LED) PEDESTRIAN COUNTDOWN SIGNAL HEAD

Add the following to Article 1078.02 of the Standard Specifications:

General.

1. The module shall operate in one mode: Clearance Cycle Countdown Mode Only. The countdown module shall display actual controller programmed clearance cycle and shall start counting when the flashing clearance signal turns on and shall countdown to “0” and turn off when the steady Upraised Hand (symbolizing Don’t Walk) signal turns on. Module shall not have user accessible switches or controls for modification of cycle.

2. At power on, the module shall enter a single automatic learning cycle. During the automatic learning cycle, the countdown display shall remain dark.

3. The module shall re-program itself if it detects any increase or decrease of Pedestrian Timing. The counting unit will go blank once a change is detected and then take one complete pedestrian cycle (with no counter during this cycle) to adjust its buffer timer.

4. The module shall allow for consecutive cycles without displaying the steady Upraised Hand.

5. The module shall recognize preemption events and temporarily modify the crossing cycle accordingly.

6. If the controller preempts during the Walking Person (symbolizing Walk), the countdown will follow the controller's directions and will adjust from Walking Person to flashing Upraised Hand. It will start to count down during the flashing Upraised Hand.

7. If the controller preempts during the flashing Upraised Hand, the countdown will continue to count down without interruption.

8. The next cycle, following the preemption event, shall use the correct, initially programmed values.

9. If the controller output displays Upraised Hand steady condition and the unit has not arrived to zero or if both the Upraised Hand and Walking Person are dark for some reason, the unit suspends any timing and the digits will go dark.

10. The digits will go dark for one pedestrian cycle after loss of power of more than 1.5 seconds.

11. The countdown numerals shall be two (2) “7 segment” digits forming the time display utilizing two rows of LEDs.

12. The LED module shall meet the requirements of the Institute of Transportation Engineers (ITE) LED purchase specification, “Pedestrian Traffic Control Signal Indications - Part 2: LED Pedestrian Traffic Signal Modules,” or applicable successor ITE specifications, except as modified herein.

13. The LED modules shall provide constant light output under power. Modules with dimming capabilities shall have the option disabled or set on a non-dimming operation.

14. In the event of a power outage, light output from the LED modules shall cease instantaneously.

15. The LEDs utilized in the modules shall be AlInGaP technology for Portland Orange (Countdown Numerals and Upraised Hand) and GaN technology for Lunar White (Walking Person) indications.

16. The individual LEDs shall be wired such that a catastrophic loss or the failure of one or more LED will not result in the loss of the entire module.

Electrical.

1. Maximum power consumption for LED modules is 29 watts.

2. The measured chromaticity shall remain unchanged over the input line voltage range listed of 80 VAC to 135 VAC.

TRAFFIC SIGNAL BACKPLATE

Delete 1st sentence of Article 1078.03 of the Standard Specifications and add "All backplates shall be aluminum and louvered".

Add the following to the third paragraph of Article 1078.03 of the Standard Specifications. The reflective backplate shall not contain louvers.

Delete second sentence of the fourth paragraph of Article 1078.03 f the Standard Specifications.

Add the following to the fourth paragraph of Article 1078.03 of the Standard Specifications:

When retro reflective sheeting is specified, it shall be Type ZZ sheeting according to Article 1091.03 and applied in preferred orientation for the maximum angularity according to the manufacturer's recommendations. The retro reflective sheeting shall be installed under a controlled environment at the manufacturer/supplier before shipment to the contractor. The aluminum backplate shall be prepared and cleaned, following recommendations of the retro reflective sheeting manufacturer.

INDUCTIVE LOOP DETECTOR

Add the following to Article 1079.01 of the Standard Specifications:

Contracts requiring new cabinets shall provide for rack mounted detector amplifier cards. Detector amplifiers shall provide LCD displays with loop frequency, inductance, and change of inductance readings.

ILLUMINATED SIGN, LIGHT EMITTING DIODE

Delete last sentence of Article 1084.01(a) and add "Mounting hardwire shall be black polycarbonate or galvanized steel and similar to mounting Signal Head hardware and bracket specified herein and shall provide tool free access to the interior."

Revise the second paragraph of Article 1084.01(a) to read:

The exterior surface of the housing shall be acid-etched and shop painted with one coat of zinc-chromate primer and two coats of exterior enamel. The housing shall be the same color (yellow or black) to match the existing or proposed signal heads. The painting shall be according to Section 851.

Add the following to Article 1084.01 (b) of the Standard Specifications:

The message shall be formed by rows of LEDs. The sign face shall be 24 inches (600 mm) by 24 inches (600 mm).

Add the following to Article 1084.01 of the Standard Specifications:
(e) The light emitting diode (LED) blank out signs shall be manufactured by National Sign & Signal Company, or an approved equal and consist of a weatherproof housing and door, LEDs and transformers.

ILLUMINATED STREET NAME SIGN

The illuminate street name sign shall be as follows.

(a) Description.
The LEDs shall be white in color and utilize InGaN or UV thermally efficient technology. The LED Light Engines shall be designed to fit inside a standard fluorescent illuminated street sign housing in lieu of fluorescent lamps and ballasts or a slim line type housing. The LED internally-illuminated street name sign shall display the designated street name clearly and legibly in the daylight hours without being energized and at night when energized. The sign assembly shall consist of a four-, six-, or eight-foot aluminum housing. White translucent 3M DG^3 reflective sheeting sign faces with the street name applied in 3M/Scotchlite Series 1177 or current 3M equivalent transparent green shall be installed in hinged doors on the side of the sign for easy access to perform general cleaning and maintenance operations. Illumination shall occur with LED Light Engine as specified.

(b) Environmental Requirements.
The LED lamp shall be rated for use in the ambient operating temperature range of -40 to +50^{o}C (-40 to +122^{o}F) for storage in the ambient temperature range of -40 to +75^{o}C (-40 to +167^{o}F).

(c) General Construction.
The LED Light Engine shall be a single, self-contained device, for installation in an existing street sign housing. The power supply must be designed to fit and mounted on the inside wall at one end of the street sign housing. The LED Light Engine shall be mounted within the inner top portion of the housing and no components of the light source shall sit between the sign faces.

The assembly and manufacturing processes of the LED Light Engine shall be designed to ensure that all LED and electronic components are adequately supported to withstand mechanical shocks and vibrations in compliance with the specifications of the ANSI, C136.31-2001 standards.

(d) Mechanical Construction.
The sign shall be constructed using a weatherproof, aluminum housing consisting of an extruded aluminum top with a minimum thickness of .140” x 10 ¾” deep (including the drip edge). The extruded aluminum bottom is .094” thick x 5 7/8” deep. The ends of the housing shall be cast aluminum with a minimum thickness of .250”. A six-foot sign shall be 72 5/8” long and 22 5/16” tall and not weigh more than 77 pounds. An eight-foot sign shall be 96 5/8” long and 22 5/16” tall and not weigh more than 92 pounds. All corners are continuous TIG (Tungsten Inert Gas) welded to provide a weatherproof seal around the entire housing.

The door shall be constructed of extruded aluminum. Two corners are continuous TIG welded with the other two screwed together to make one side of the door removable for installation of the sign face. The door is fastened to the housing on the bottom by a full length, .040" x 1 1/8" open stainless steel hinge. The door shall be held secure onto a 1" wide by 5/32" thick neoprene gasket by three (six total for two-way sign) quarter-turn fasteners to form a watertight seal between the door and the housing.

The sign face shall be constructed of .125" white translucent polycarbonate. The letters shall be 8" upper case and 6" lower case. The sign face legend background shall consist of 3M/Scotchlite Series 4090T or current equivalent 3M translucent DG^3 white VIP (Visual Impact Performance) diamond grade sheeting (ATSM Type 9) and 3M/Scotchlite Series 1177 or current 3M equivalent transparent green acrylic EC (electronic cut-able) film applied to the front of the sign face. The legend shall be framed by a white polycarbonate border. A logo symbol and/or name of the community may be included with approval of the Engineer.

All surfaces of the sign shall be etched and primed in accordance to industry standards before receiving appropriate color coats of industrial enamel.

All fasteners and hardware shall be corrosion resistant stainless steel. No tools are required for routine maintenance.

All wiring shall be secured by insulated wire compression nuts.

A wire entrance junction box shall be supplied with the sign assembly. The box may be supplied mounted to the exterior or interior of the sign and provide a weather tight seal.

A photoelectric switch shall be mounted in the control cabinet to control lighting functions for day and night display. Each sign shall be individually fused.

Brackets and Mounting: LED internally-illuminated street name signs will be factory drilled to accommodate mast arm two-point support assembly mounting brackets.

(e) Electrical.
Photocell shall be rated 105-305V, turn on at 1.5 fcs. with a 3-5 second delay. A manufacturer's warranty of six (6) years shall be provided. Power consumption shall be no greater than 1 watt at 120V.

The LED Light Engine shall operate from a 60 +- 3 cycle AC line power over a voltage range of 80 to 135 Vac rms. Fluctuations in line voltage over the range of 80 to 135 Vac shall not affect luminous intensity by more than +- 10%.

Total harmonic distortion induced into the AC power line by the LED Light Engine, operated at a nominal operating voltage, and at a temperature of +25^{o}C (+77^{o}F), shall not exceed 20%.

The LED Light Engine shall cycled ON and OFF with a photocell as shown on the detail sheet and shall not exceed the following maximum power values:

4-Foot Sign	60 W
6-Foot Sign	90 W
8-Foot Sign	120 W

The signs shall not be energized when traffic signals are powered by an alternate energy source such as a generator or uninterruptable power source (UPS). The signs shall be connected to the generator or UPS bypass circuitry.

(f) Photometric Requirements.

The entire surface of the sign panel shall be evenly illuminated. The average maintained luminous intensity measured across the letters, operating under the conditions defined in Environmental Requirements and Wattage Sections shall be of a minimum value of 100 cd/m^2.

The manufacturer shall make available independent laboratory test results to verify compliance to Voltage Range and Luminous Intensity Distribution Sections.

Twelve (12) 1.25 watt LED units shall be mounted on 1-inch x 22-inch metal cone printed circuit boards (MCPCB). The viewing angle shall be 120 degrees. LED shall have a color temperature of 5200k nominal, CRI of 80 with a life expectancy of 75,000 hrs.

(g) Quality Assurance.

The LED Light Engine shall be manufactured in accordance with a vendor quality assurance (QA) program. The production QA shall include statistically controlled routine tests to ensure minimum performance levels of the LED Light Engine build to meet this specification. QA process and test result documentations shall be kept on file for a minimum period of seven (7) years. The LED Light Engine that does not satisfy the production QA testing performance requirements shall not be labeled, advertised, or sold as conforming to these specifications. Each LED Light Engine shall be identified by a manufacturer's serial number for warranty purposes. LED Light Engines shall be replaced or repaired if they fail to function as intended due to workmanship or material defects within the first sixty (60) months from the date of acceptance. LED Light Engines that exhibit luminous intensities less than the minimum value specified in Photometric Section within the first thirty-six (36) months from the date of acceptance shall be replaced or repaired.

TEMPORARY WIRELESS INTERCONNECT, COMPLETE

Description

This work shall consist of furnishing, installing, maintaining, and removing a temporary wireless interconnect system between the following intersections:

IL Route 31 at Virginia Road
IL Route 31 at James R. Rakow Road

The radio interconnect system shall be compatible with Econolite controller closed loop systems. This item shall include all temporary wireless interconnect components, complete, at the existing traffic signal(s) listed above to provide a completely operational closed loop system. This item shall include all materials, labor and testing to provide the completely operational closed loop system as shown on the plans. Prior to installation, the Contractor shall submit marked-up traffic signal plans indicating locations of radios and antennas and installation details. If, in the opinion of the engineer, the temporary wireless interconnect is not viable, or if it fails during testing or operations, the Contractor shall be responsible for installing all necessary poles, fiber optic cable, and other infrastructure for providing temporary fiber optic interconnect at no additional cost to the contract.

The temporary wireless interconnect shall include the following components:

Rack or Shelf Mounted RS-232 Frequency Hopping Spread Spectrum (FHSS) Radio
Software for Radio Configuration (Configure Frequency and Hopping Patterns)
Antennas (Omni Directional or Yagi Directional)
Antenna Cables, LMR400, Low Loss. Max. 100-ft from controller cabinet to antenna
Brackets, Mounting Hardware, and Accessories Required for Installation
RS232 Data Cable for Connection from the radio to the local or master controller
All other components required for a fully functional radio interconnect system, including radio repeaters if needed

All controller cabinet modifications and other modifications to existing equipment that are required for the installation of the radio interconnect system components shall be included in this item.

The radio interconnect system may operate at 900Mhz (902-928) or 2.4 Ghz depending on the results of a site survey. The telemetry shall have an acceptable rate of transmission errors, time outs, etc. comparable to that of a hardwire system.

The master controller and telemetry module shall be configured for use with the radio interconnect at a minimum rate of 9600 baud.

The radio interconnect system shall include all other components required for a complete and fully functional telemetry system and shall be installed in accordance to the manufacturers recommendations.

The following radio equipment is currently approved for use in Region One/District One: Encom Model 5100 and Intuicom Communicator II.

Basis of Payment
This work shall be paid for at the contract lump sum unit price for TEMPORARY WIRELESS INTERCONNECT, COMPLETE the price of which shall include all costs for the labor and materials required for the installation, maintenance, and complete removal of the temporary wireless interconnect.

REMOVE FIBER OPTIC CABLE FROM CONDUIT

This work shall consist of removing the existing fiber optic interconnect cable from the intersection of IL Route 31/Virginia Road to the intersection of IL Route 31/James R Rakow Road. The existing fiber optic cable shall be disconnected from the traffic signal controllers and removed from the existing conduits to be reused. The existing interconnect cable shall not be disconnected and removed until the temporary interconnect has been installed and is operational.

Basis of Payment. This work will be paid for at the contract unit price per foot for REMOVE FIBER OPTIC CABLE FROM CONDUIT which price shall be payment in full for disconnecting the existing fiber optic cable from the controllers and removing the existing fiber optic cable from the existing conduits to be reused.

TEMPORARY VIDEO DETECTION

This work shall include the installation of a temporary video vehicle detector at the intersection of IL Route 31 and James R. Rakow Road/Central Park Drive. The temporary video detector shall maintain vehicle detection on the northbound approach of the intersection during the partial reconstruction of the approach. The temporary video vehicle detector shall be installed on the westbound mast arm pole on the northwest corner, and shall be operational prior to the removal of the existing northbound loop detectors. Upon activation and approval of the new northbound loop detectors, the temporary video vehicle detector and associated cabling and equipment shall be removed.

The video vehicle detector shall be approved by IDOT prior to the Contractor furnishing and installing. The Contractor shall install, wire, and adjust the alignment of the video vehicle detection system in accordance with the manufacturer's recommendations and requirements. The Contractor shall be responsible for adjusting the alignment of the video vehicle detector for all construction staging changes and maintaining proper alignment throughout the project. A representative of the approved control equipment vendor shall be present and assist the contractor in setting up and maintaining the video vehicle detector. This pay item shall also include all cabling including video lead-in cable, hardware, and all connections in the controller cabinet and modifications to the existing traffic signal controller required for proper operation and installation of the video vehicle detector. This pay item will also include removal of the video vehicle detector and all of its cabling, associated equipment, and any connections and modifications to the existing traffic signal controller once the northbound loops are installed and operational to the satisfaction of the Engineer.

Basis of Payment. This work shall be paid for at the contract unit price each for TEMPORARY VIDEO DETECTION, the price of which shall include all material and labor costs for completing the work as described herein.

PIPE UNDERDRAINS FOR STRUCTURES
Effective: May 17, 2000
Revised: January 22, 2010

Description. This work shall consist of furnishing and installing a pipe underdrain system as shown on the plans, as specified herein, and as directed by the Engineer.

Materials. Materials shall meet the requirements as set forth below:

The perforated pipe underdrain shall be according to Article 601.02 of the Standard Specifications. Outlet pipes or pipes connecting to a separate storm sewer system shall not be perforated.

The drainage aggregate shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 16, according to Sections 1003 and 1004 of the Standard Specifications.

The fabric surrounding the drainage aggregate shall be Geotechnical Fabric for French Drains according to Article 1080.05 of the Standard Specifications.

Construction Requirements. All work shall be according to the applicable requirements of Section 601 of the Standard Specifications except as modified below.

The pipe underdrains shall consist of a perforated pipe drain situated at the bottom of an area of drainage aggregate wrapped completely in geotechnical fabric and shall be installed to the lines and gradients as shown on the plans.

Method of Measurement. Pipe Underdrains for Structures shall be measured for payment in feet (meters), in place. Measurement shall be along the centerline of the pipe underdrains. All connectors, outlet pipes, elbows, and all other miscellaneous items shall be included in the measurement. Concrete headwalls shall be included in the cost of Pipe Underdrains for Structures, but shall not be included in the measurement for payment.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for PIPE UNDERDRAINS FOR STRUCTURES of the diameter specified. Furnishing and installation of the drainage aggregate, geotechnical fabric, forming holes in structural elements and any excavation required, will not be paid for separately, but shall be included in the cost of the pipe underdrains for structures.

AUTOMATED FLAGGER ASSISTANCE DEVICES (BDE)

Effective: January 1, 2008

Description. This work shall consist of furnishing and operating automated flagger assistance devices (AFADs) as part of the work zone traffic control and protection for two-lane highways where two-way traffic is maintained over one lane of pavement. Use of these devices shall be at the option of the Contractor.

Equipment. AFADs shall be according to the FHWA memorandum, "MUTCD - Revised Interim Approval for the use of Automated Flagger Assistance Devices in Temporary Traffic Control Zones (IA-4R)", dated January 28, 2005. The devices shall be mounted on a trailer or a moveable cart and shall meet the requirements of NCHRP 350, Category 4.

The AFAD shall be the Stop/Slow type. This device uses remotely controlled "STOP" and "SLOW" signs to alternately control right-of-way.

Signs for the AFAD shall be according to Article 701.03 of the Standard Specifications and the MUTCD. The signs shall be 24 x 24 in. (600 x 600 mm) having an octagon shaped "STOP" sign on one side and a diamond shaped "SLOW" sign on the opposite side. The letters on the signs shall be 8 in. (200 mm) high. If the "STOP" sign has louvers, the full sign face shall be visible at a distance of 50 ft (15 m) and greater.

The signs shall be supplemented with one of the following types of lights.

(a) Flashing Lights. When flashing lights are used, white or red flashing lights shall be mounted within the "STOP" sign face and white or yellow flashing lights within the "SLOW" sign face.

(b) Stop and Warning Beacons. When beacons are used, a stop beacon shall be mounted 24 in. (600 mm) or less above the "STOP" sign face and a warning beacon mounted 24 in. (600 mm) or less above, below, or to the side of the "SLOW" sign face. As an option, a Type B warning light may be used in lieu of the warning beacon.

A "WAIT ON STOP" sign shall be placed on the right hand side of the roadway at a point where drivers are expected to stop. The sign shall be 24 x 30 in. (600 x 750 mm) with a black legend and border on a white background. The letters shall be at least 6 in. (150 mm) high.

This device may include a gate arm or mast arm that descends to a horizontal position when the "STOP" sign is displayed and rises to a vertical position when the "SLOW" sign is displayed. When included, the end of the arm shall reach at least to the center of the lane being controlled. The arm shall have alternating red and white retroreflective stripes, on both sides, sloping downward at 45 degrees toward the side on which traffic will pass. The stripes shall be 6 in. (150 mm) in width and at least 2 in. (50 mm) in height.

Flagging Requirements. Flaggers and flagging requirements shall be according to Article 701.13 of the Standard Specifications and the following.

AFADs shall be placed at each end of the traffic control, where a flagger is shown on the plans. The flaggers shall be able to view the face of the AFAD and approaching traffic during operation.

To stop traffic, the "STOP" sign shall be displayed, the corresponding lights/beacon shall flash, and when included, the gate arm shall descend to a horizontal position. To permit traffic to move, the "SLOW" sign shall be displayed, the corresponding lights/beacon shall flash, and when included, the gate arm shall rise to a vertical position.

If used at night, the AFAD location shall be illuminated according to Section 701 of the Standard Specifications.

When not in use, AFADs will be considered nonoperating equipment and shall be stored according to Article 701.11 of the Standard Specifications.

Basis of Payment. This work will not be paid for separately but shall be considered as included in the cost of the various traffic control items included in the contract.

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010 Revised: January 1, 2014

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term "equipment" refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted using the phased in approach shown below. Equipment that is of a model year older than the year given for that equipment's respective horsepower range shall be retrofitted:

Effective Dates	Horsepower Range	Model Year
June 1, 2010 [1/]	600-749	2002
	750 and up	2006
June 1, 2011 [2/]	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006
June 1, 2012 [2/]	50-99	2004
	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006

1/ Effective dates apply to Contractor diesel powered off-road equipment assigned to the contract.

2/ Effective dates apply to Contractor and subcontractor diesel powered off-road equipment assigned to the contract.

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

a) Included on the U.S. Environmental Protection Agency (USEPA) Verified Retrofit Technology List (http://www.epa.gov/cleandiesel/verification/verif-list.htm), or verified by the California Air Resources Board (CARB) (http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm); or

b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be $1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected. Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000 Revised: August 2, 2011

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor.

> The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR Part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. The determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform **23.00**% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

(a) The bidder documents that enough DBE participation has been obtained to meet the goal: or

(b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217)785-4611, or by visiting the Department's website at www.dot.il.gov.

BIDDING PROCEDURES. Compliance with this Special Provision is a material bidding requirement. The failure of the bidder to comply will render the bid not responsive.

(a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.

(b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.

(c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:

(1) The names and addresses of DBE firms that will participate in the contract;

(2) A description, including pay item numbers, of the work each DBE will perform;

(3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;

(4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;

(5) if the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,

(6) If the contract goal if not met, evidence of good faith efforts.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document that good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere pro forma efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

(a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.

(1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.

(2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.

(3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.

(5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.

(6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.

(7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.

(8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.

(b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons for the determination.

(c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for consideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR Part 26.55, the provisions of which govern over the summary contained herein.

(a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.

(b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.

(c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.

(d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:

(1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.

(2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.

(e) DBE as a material supplier:

(1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.

(2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.

(3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement.

(a) NO AMENDMENT. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217)785-4611. Telefax number (217)785-1524.

(b) TERMINATION OR REPLACEMENT. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in the Special Provision.

(c) CHANGES TO WORK. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, than a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

(d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:

(1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or

(2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or

(3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

(e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

(1) The listed DBE subcontractor fails or refuses to execute a written contract;

(2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;

(3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;

(4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;

(5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law.

(6) You have determined that the listed DBE subcontractor is not a responsible contractor;

(7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice of its withdrawal;

(8) The listed DBE is ineligible to receive DBE credit for the type of work required;

(9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;

(10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated, or fails to complete its work on the Contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal.

(f) PAYMENT RECORDS. The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the BDE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.

(g) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

(h) RECONSIDERATION. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor my request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

GRANULAR MATERIALS (BDE)

Effective: November 1, 2012

Revise the title of Article 1003.04 of the Standard Specifications to read:

"**1003.04 Fine Aggregate for Bedding, Trench Backfill, Embankment, Porous Granular Backfill, Sand Backfill for Underdrains, and French Drains.**"

Revise Article 1003.04(c) of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradations for granular embankment, granular backfill, bedding, and trench backfill for pipe culverts and storm sewers shall be FA 1, FA 2, or FA 6 through FA 21.

The fine aggregate gradation for porous granular embankment, porous granular backfill, french drains, and sand backfill for underdrains shall be FA 1, FA 2, or FA 20, except the percent passing the No. 200 (75 µm) sieve shall be 2±2."

Revise Article 1004.05(c) of the Standard Specifications to read:

"(c) Gradation. The coarse aggregate gradations shall be as follows.

Application	Gradation
Blotter	CA 15
Granular Embankment, Granular Backfill, Bedding, and Trench Backfill for Pipe Culverts and Storm Sewers	CA 6, CA 9, CA 10, CA 12, CA17, CA18, and CA 19
Porous Granular Embankment, Porous Granular Backfill, and French Drains	CA 7, CA 8, CA 11, CA 15, CA 16 and CA 18"

HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)

Effective: January 1, 2010 Revised: April 1, 2012

Description. This work shall consist of testing the density of longitudinal joints as part of the quality control/quality assurance (QC/QA) of hot-mix asphalt (HMA). Work shall be according to Section 1030 of the Standard Specifications except as follows.

Quality Control/Quality Assurance (QC/QA). Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

Add the following paragraphs to the end of Article 1030.05(d)(3) of the Standard Specifications:

"Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4 in. (100 mm), from each pavement edge. (i.e. for a 5 in. (125 mm) lift the near edge of the density gauge or core barrel shall be within 5 in. (125 mm) from the edge of pavement.) Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

a. Confined Edge. Each confined edge density shall be represented by a one-minute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.

b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced ten feet apart longitudinally along the unconfined pavement edge and centered at the random density test location."

Revise the Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

"Mixture Composition	Parameter	Individual Test (includes confined edges)	Unconfined Edge Joint Density Minimum
IL-4.75	Ndesign = 50	93.0 – 97.4%	91.0%
IL-9.5, IL-12.5	Ndesign ≥ 90	92.0 – 96.0%	90.0%
IL-9.5,IL-9.5L, IL-12.5	Ndesign < 90	92.5 – 97.4%	90.0%
IL-19.0, IL-25.0	Ndesign ≥ 90	93.0 – 96.0%	90.0%
IL-19.0, IL-19.0L, IL-25.0	Ndesign < 90	93.0 – 97.4%	90.0%
SMA	Ndesign = 50 & 80	93.5 – 97.4%	91.0%
All Other	Ndesign = 30	93.0 - 97.4%	90.0%"

LRFD PIPE CULVERT BURIAL TABLES (BDE)

Effective: November 1, 2013

Revise Article 542.02 of the Standard Specifications to read as follows:

"

Item	Article/Section
(a) Corrugated Steel Pipe	1006.01
(b) Corrugated Steel Pipe Arch	1006.01
(c) Bituminous Coated Corrugated Steel Pipe	1006.01
(d) Bituminous Coated Corrugated Steel Pipe Arch	1006.01
(e) Zinc and Aramid Fiber Composite Coated Corrugated Steel Pipe	1006.01
(f) Aluminized Steel Type 2 Corrugated Pipe	1006.01
(g) Aluminized Steel Type 2 Corrugated Pipe Arch	1006.01
(h) Precoated Galvanized Corrugated Steel Pipe	1006.01
(i) Precoated Galvanized Corrugated Steel Pipe Arch	1006.01
(j) Corrugated Aluminum Alloy Pipe	1006.03
(k) Corrugated Aluminum Alloy Pipe Arch	1006.03
(l) Extra Strength Clay Pipe	1040.02
(m) Concrete Sewer, Storm Drain, and Culvert Pipe	1042
(n) Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe	1042
(o) Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe	1042
(p) Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe	1042
(q) Polyvinyl Chloride (PVC) Pipe	1040.03
(r) Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior	1040.03
(s) Corrugated Polypropylene (CPP) pipe with smooth Interior	1040.07
(t) Corrugated Polyethylene (PE) Pipe with a Smooth Interior	1040.04
(u) Polyethylene (PE) Pipe with a Smooth Interior	1040.04
(v) Rubber Gaskets and Preformed Flexible Joint Sealants for Concrete Pipe	1056
(w) Mastic Joint Sealer for Pipe	1055
(x) External Sealing Band	1057
(y) Fine Aggregate (Note 1)	1003.04
(z) Coarse Aggregate (Note 2)	1004.05
(aa) Packaged Rapid Hardening Mortar or Concrete	1018
(bb) Nonshrink Grout	1024.02
(cc) Reinforcement Bars and Welded Wire Fabric	1006.10
(dd) Handling Hole Plugs	1042.16

Note 1. The fine aggregate shall be moist.

Note 2. The coarse aggregate shall be wet."

Revise the table for permitted materials in Article 542.03 of the Standard Specifications as follows:

"CLASS	**MATERIALS**
A	Rigid Pipes: Extra Strength Clay Pipe Concrete Sewer Storm Drain and Culvert Pipe, Class 3 Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
C	Rigid Pipes: Extra Strength Clay Pipe Concrete Sewer Storm Drain and Culvert Pipe, Class 3 Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe Flexible Pipes: Aluminized Steel Type 2 Corrugated Pipe Aluminized Steel Type 2 Corrugated Pipe Arch Precoated Galvanized Corrugated Steel Pipe Precoated Galvanized Corrugated Steel Pipe Arch Corrugated Aluminum Alloy Pipe Corrugated Aluminum Alloy Pipe Arch Polyvinyl Chloride (PVC) Pipe Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polypropylene (CPP) Pipe with Smooth Interior
D	Rigid Pipes: Extra Strength Clay Pipe Concrete Sewer Storm Drain and Culvert Pipe, Class 3 Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe Flexible Pipes: Corrugated Steel Pipe Corrugated Steel Pipe Arch Bituminous Coated Corrugated Steel Pipe Bituminous Coated Corrugated Steel Pipe Arch Zinc and Aramid Fiber Composite Coated Corrugated Steel Pipe Aluminized Steel Type 2 Corrugated Pipe Aluminized Steel Type 2 Corrugated Pipe Arch Precoated Galvanized Corrugated Steel Pipe Precoated Galvanized Corrugated Steel Pipe Arch Corrugated Aluminum Alloy Pipe Corrugated Aluminum Alloy Pipe Arch Polyvinyl Chloride (PVC) Pipe Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior Corrugated Polyethylene (PE) Pipe with a Smooth Interior Polyethylene (PE) Pipe with a Smooth Interior" Corrugated Polypropylene (CPP) Pipe with Smooth Interior

Revise Articles 542.03(b) and (c) of the Standard Specifications to read:

"(b) Extra strength clay pipe will only be permitted for pipe culverts Type 1, for 10 in., 12 in., 42 in. and 48 in. (250 mm, 300 mm, 1050 mm and 1200 mm), Types 2, up to and including 48 in. (1200 mm), Type 3, up to and including 18 in. (450 mm), Type 4 up to and including 10 in. (250 mm), for all pipe classes.

(c) Concrete sewer, storm drain, and culvert pipe Class 3 will only be permitted for pipe culverts Type 1, up to and including 10 in (250 mm), Type 2, up to and including 30 in. (750 mm), Type 3, up to and including 15 in. (375 mm); Type 4, up to and including 10 in. (250 mm), for all pipe classes."

Replace the pipe tables in Article 542.03 of the Standard Specifications with the following:

"Table IA: Classes of Reinforced Concrete Pipe for the Respective Diameters of Pipe and Fill Heights over the Top of the Pipe							
Nominal Diameter in.	Type 1 Fill Height: 3' and less 1' min cover	Type 2 Fill Height: Greater than 3' not exceeding 10'	Type 3 Fill Height: Greater than 10' not exceeding 15'	Type 4 Fill Height: Greater than 15' not exceeding 20'	Type 5 Fill Height: Greater than 20' not exceeding 25'	Type 6 Fill Height: Greater than 25' not exceeding 30'	Type 7 Fill Height: Greater than 30' not exceeding 35'
12	IV	II	III	IV	IV	V	V
15	IV	II	III	IV	IV	V	V
18	IV	II	III	IV	IV	V	V
21	III	II	III	IV	IV	V	V
24	III	II	III	IV	IV	V	V
30	IV	II	III	IV	IV	V	V
36	III	II	III	IV	IV	V	V
42	II	II	III	IV	IV	V	V
48	II	II	III	IV	IV	V	V
54	II	II	III	IV	IV	V	V
60	II	II	III	IV	IV	V	V
66	II	II	III	IV	IV	V	V
72	II	II	III	IV	V	V	V
78	II	II	III	IV	2020	2370	2730
84	II	II	III	IV	2020	2380	2740
90	II	III	III	1680	2030	2390	2750
96	II	III	III	1690	2040	2400	2750
102	II	III	IV	1700	2050	2410	2760
108	II	III	1360	1710	2060	2410	2770

Notes:
A number indicates the D-Load for the diameter and depth of fill and that a special design is required.
Design assumptions; Water filled pipe, Type 2 bedding and Class C Walls

Table IA: Classes of Reinforced Concrete Pipe
for the Respective Diameters of Pipe and Fill Heights over the Top of the Pipe
(Metric)

Nominal Diameter mm	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7
	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:
	1 m and less 0.3 m min cover	Greater than 1 m not exceeding 3 m	Greater than 3 m not exceeding 4.5 m	Greater than 4.5 m not exceeding 6 m	Greater than 6 m not exceeding 7.5 m	Greater than 7.5 m not exceeding 9 m	Greater than 9 m not exceeding 10.5 m
300	IV	II	III	IV	IV	V	V
375	IV	II	III	IV	IV	V	V
450	IV	II	III	IV	IV	V	V
525	III	II	III	IV	IV	V	V
600	III	II	III	IV	IV	V	V
750	IV	II	III	IV	IV	V	V
900	III	II	III	IV	IV	V	V
1050	II	II	III	IV	IV	V	V
1200	II	II	III	IV	IV	V	V
1350	II	II	III	IV	IV	V	V
1500	II	II	III	IV	IV	V	V
1650	II	II	III	IV	IV	V	V
1800	II	II	III	IV	V	V	V
1950	II	II	III	IV	100	110	130
2100	II	II	III	IV	100	110	130
2250	II	III	III	80	100	110	130
2400	II	III	III	80	100	110	130
2550	II	III	IV	80	100	120	130
2700	II	III	70	80	100	120	130

Notes:
A number indicates the D-Load for the diameter and depth of fill and that a special design is required.
Design assumptions; Water filled pipe, Type 2 bedding and Class C Walls

TABLE IB: THICKNESS OF CORRUGATED STEEL PIPE
FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 2 2/3"x1/2", 3"x1" AND 5"x1" CORRUGATIONS

Nominal Diameter in.	Type 1			Type 2			Type 3			Type 4			Type 5			Type 6			Type 7		
	Fill Height: 3' and less 1' min. cover			Fill Height: Greater than 3' not exceeding 10'			Fill Height: Greater than 10' not exceeding 15'			Fill Height: Greater than 15' not exceeding 20'			Fill Height: Greater than 20' not exceeding 25'			Fill Height: Greater than 25' not exceeding 30'			Fill Height: Greater than 30' not exceeding 35'		
	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"
12*	0.109			0.079			0.079			0.079			0.079			0.079			0.079		
15	0.109			0.079			0.079			0.079			0.079			0.109			0.109		
18	0.109			0.079			0.079			0.079			0.109			0.109			0.109		
21	0.109			0.079			0.079			0.079			0.109			0.109			0.109		
24	0.109			0.079			0.079			0.109			0.109			0.109			0.109		
30	0.109			0.079			0.109			0.109			0.109			0.109			0.109		
36	0.109E			0.079			0.109			0.109			0.109			0.109			0.138E		
42	0.109	0.109	0.109	0.079	0.079	0.079	0.109	0.079	0.109	0.109	0.079	0.109	0.109	0.109	0.109	0.109E	0.109	0.109	0.138E	0.109	0.109
48	0.109	0.109	0.109	0.109	0.079	0.079	0.109	0.079	0.109	0.109	0.109	0.109	0.109	0.109	0.109	0.138E	0.109	0.109	0.138E	0.109	0.109
54	0.109	0.109	0.109	0.109	0.079	0.109	0.109	0.079	0.109	0.109	0.109	0.109	0.109	0.109	0.109	0.138E	0.109	0.109	0.168E	0.138	0.138
60	0.109	0.109	0.109	0.109	0.079	0.109	0.109	0.079	0.109	0.109	0.109	0.109	0.138	0.109	0.109	0.138E	0.109	0.138	0.168E	0.138E	0.138E
66	0.138	0.109	0.109	0.138	0.079	0.109	0.138	0.109	0.109	0.138	0.109	0.109	0.138	0.109	0.109	0.138E	0.138	0.138	0.168E	0.138E	0.168E
72	0.138	0.109	0.109	0.138	0.079	0.109	0.138	0.109	0.109	0.138	0.109	0.109	0.138	0.109	0.138	0.168E	0.138E	0.138E	0.168E	0.138E	0.168E
78	0.168	0.109	0.109	0.168	0.079	0.109	0.168	0.109	0.109	0.168	0.109	0.109	0.168	0.138	0.138	0.168E	0.138E	0.138E	0.168E	0.168E	0.168E
84	0.168	0.109	0.138	0.168	0.079	0.109	0.168	0.109	0.109	0.168	0.109	0.109	0.168	0.138	0.138	0.168E	0.138E	0.168E	0.168E	0.168E	0.168E
90		0.138	0.138		0.079	0.109		0.109	0.109		0.109	0.138		0.138	0.138		0.168E	0.168E		0.168E	0.168E
96		0.138	0.138		0.109	0.109		0.109	0.109		0.138	0.138		0.138	0.168		0.168E	0.168E		0.168E	0.168E
102		0.138Z	0.138Z		0.109	0.109		0.109	0.109		0.138	0.138		0.138	0.168		0.168E	0.168E			
108		0.138Z	0.168Z		0.109	0.109		0.109	0.109		0.138	0.138		0.168	0.168		0.168E	0.168E			
114		0.138Z	0.168Z		0.109	0.109		0.109	0.109		0.138	0.168		0.168	0.168		0.168E	0.168E			
120		0.138Z	0.168Z		0.109	0.109		0.109	0.138		0.138	0.168		0.168	0.168						
126		0.168Z	0.168Z		0.138	0.138		0.138	0.138		0.138	0.168		0.168	0.168						
132		0.168Z	0.168Z		0.138	0.138		0.138	0.138		0.168	0.168		0.168	0.168						
138		0.168Z	0.168Z		0.138	0.138		0.138	0.138		0.168	0.168		0.168	0.168						
144		0.168Z	0.168Z		0.168	0.168		0.168	0.168		0.168	0.168									

Notes:
* 1 1/2" x 1/4" corrugations shall be use for 6", 8", and 10" diameters.
E Elongation according to Article 542.04(e), the elongation requirement for Type 1 fill heights may be eliminated for fills above 1'-6"
Z 1'-6" Minimum fill
Longitudinal seams assumed.

TABLE IB: THICKNESS OF CORRUGATED STEEL PIPE
FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 68 mm x 13 mm, 75 mm x 25 mm AND 125 mm x 25 mm CORRUGATIONS
(Metric)

Nominal Diameter mm	Type 1 Fill Height: 1 m and less 0.3 m min. cover			Type 2 Fill Height: Greater than 1 m not exceeding 3 m			Type 3 Fill Height: Greater than 3 m not exceeding 4.5 m			Type 4 Fill Height: Greater than 4.5 m not exceeding 6 m			Type 5 Fill Height: Greater than 6 m not exceeding 7.5 m			Type 6 Fill Height: Greater than 7.5 m not exceeding 9 m			Type 7 Fill Height: Greater than 9 m not exceeding 10.5 m		
	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm
300*	2.77			2.01			2.01			2.01			2.01			2.01			2.01		
375	2.77			2.01			2.01			2.01			2.01			2.77			2.77		
450	2.77			2.01			2.01			2.01			2.77			2.77			2.77		
525	2.77			2.01			2.01			2.01			2.77			2.77			2.77		
600	2.77			2.01			2.01			2.77			2.77			2.77			2.77		
750	2.77			2.01			2.77			2.77			2.77			2.77			2.77		
900	2.77E			2.01			2.77			2.77			2.77			2.77			3.51E		
1050	2.77	2.77	2.77	2.01	2.01	2.01	2.77	2.01	2.77	2.77	2.01	2.77	2.77	2.77	2.77	2.77E	2.77	2.77	3.51E	2.77	2.77
1200	2.77	2.77	2.77	2.77	2.01	2.01	2.77	2.01	2.77	2.77	2.77	2.77	2.77	2.77	2.77	3.51E	2.77	2.77	3.51E	2.77	2.77
1350	2.77	2.77	2.77	2.77	2.01	2.77	2.77	2.01	2.77	2.77	2.77	2.77	2.77	2.77	2.77	3.51E	2.77	2.77	4.27E	3.51	3.51
1500	2.77	2.77	2.77	2.77	2.01	2.77	2.77	2.01	2.77	2.77	2.77	2.77	3.51	2.77	2.77	3.51E	2.77	3.51	4.27E	3.51E	3.51E
1650	3.51	2.77	2.77	3.51	2.01	2.77	3.51	2.77	2.77	3.51	2.77	2.77	3.51	2.77	2.77	3.51E	3.51	3.51	4.27E	3.51E	4.27E
1800	3.51	2.77	2.77	3.51	2.01	2.77	3.51	2.77	2.77	3.51	2.77	2.77	3.51	2.77	3.51	4.27E	3.51E	3.51E	4.27E	3.51E	4.27E
1950	4.27	2.77	2.77	4.27	2.01	2.77	4.27	2.77	2.77	4.27	2.77	2.77	4.27	3.51	3.51	4.27E	3.51E	3.51E	4.27E	4.27E	4.27E
2100	4.27	2.77	3.51	4.27	2.01	2.77	4.27	2.77	2.77	4.27	2.77	2.77	4.27	3.51	3.51	4.27E	3.51E	4.27E	4.27E	4.27E	4.27E
2250		3.51	3.51		2.01	2.77		2.77	2.77		2.77	3.51		3.51	3.51		4.27E	4.27E		4.27E	4.27E
2400		3.51	3.51		2.77	2.77		2.77	2.77		3.51	3.51		3.51	4.27		4.27E	4.27E		4.27E	4.27E
2550		3.51Z	3.51Z		2.77	2.77		2.77	2.77		3.51	3.51		3.51	4.27		4.27E	4.27E			
2700		3.51Z	4.27Z		2.77	2.77		2.77	2.77		3.51	3.51		4.27	4.27		4.27E	4.27E			
2850		3.51Z	4.27Z		2.77	2.77		2.77	2.77		3.51	4.27		4.27	4.27		4.27E	4.27E			
3000		3.51Z	4.27Z		2.77	2.77		2.77	3.51		3.51	4.27		4.27	4.27						
3150		4.27Z	4.27Z		3.51	3.51		3.51	3.51		3.51	4.27		4.27	4.27						
3300		4.27Z	4.27Z		3.51	3.51		3.51	3.51		4.27	4.27		4.27	4.27						
3450		4.27Z	4.27Z		3.51	3.51		3.51	3.51		4.27	4.27		4.27	4.27						
3600		4.27Z	4.27Z		4.27	4.27		4.27	4.27		4.27	4.27									

Notes:
* 38 mm x 6.5 mm corrugations shall be use for 150 mm, 200 mm, and 250 mm diameters.
E Elongation according to Article 542.04(e), the elongation requirement for Type 1 fill heights may be eliminated for fills above 450 mm
Z 450 mm Minimum Fill
Longitudinal seams assumed.

TABLE IC: THICKNESS OF CORRUGATED ALUMINUM ALLOY PIPE
FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 2 2/3"x1/2" AND 3"x1" CORRUGATIONS

Nominal Diameter in.	Type 1 Fill Height: 3' and less 1' min. cover		Type 2 Fill Height: Greater than 3' not exceeding 10'		Type 3 Fill Height: Greater than 10' not exceeding 15'		Type 4 Fill Height: Greater than 15' not exceeding 20'		Type 5 Fill Height: Greater than 20' not exceeding 25'		Type 6 Fill Height: Greater than 25' not exceeding 30'		Type 7 Fill Height: Greater than 30' not exceeding 35'	
	2 2/3"x1/2"	3"x1"	2 2/3"x1/2"	3"x1"	2 2/3"x1/2"	3"x1"	2 2/3"x1/2"	3"x1"	2 2/3"x1/2"	3"x1"	2 2/3"x1/2"	3"x1"	2 2/3"x1/2"	3"x1"
12	0.06		0.06		0.06		0.06		0.06		0.06		0.06	
15	0.06		0.06		0.06		0.06		0.06		0.06		0.06	
18	0.06		0.06		0.06		0.06		0.06		0.06		0.075	
21	0.075E		0.06		0.06		0.06		0.06		0.075		0.075E	
24	0.075E		0.06		0.06		0.06		0.06		0.075		0.075E	
30	0.105E		0.075		0.075		0.075		0.075		0.105E		0.105E	
36	0.105E		0.075		0.075		0.075		0.105		0.105E		0.105E	
42	0.105E	0.06	0.105	0.06	0.105	0.06	0.105	0.06	0.105	0.06	0.105E	0.105	0.105E	0.105E
48	0.105E	0.105	0.105	0.06	0.105	0.06	0.105	0.06	0.105	0.105	0.105E	0.105E	0.135E	0.135E
54	0.105E	0.105	0.105	0.06	0.105	0.06	0.105	0.105	0.105	0.105	0.105E	0.135E	0.135E	0.135E
60	0.135E	0.105	0.135	0.06	0.135	0.06	0.135	0.105	0.135	0.105	0.135E	0.135E	0.164E	0.135E
66	0.164E	0.105	0.164	0.06	0.164	0.06	0.164	0.105	0.164	0.135	0.164E	0.135E		0.135E
72	0.164E	0.135	0.164	0.06	0.164	0.105	0.164	0.105	0.164	0.135		0.135E		0.164E
78		0.135		0.075		0.105		0.135		0.135		0.135E		0.164E
84		0.135		0.105		0.105		0.135		0.135		0.164E		0.164E
90		0.135		0.105		0.105		0.135		0.135		0.164E		0.164E
96		0.135		0.105		0.105		0.135		0.164		0.164E		
102		0.135Z		0.135		0.135		0.135		0.164		0.164E		
108		0.135Z		0.135		0.135		0.135		0.164				
114		0.164Z		0.164		0.164		0.164		0.164				
120		0.164Z		0.164		0.164		0.164		0.164				

Notes:
E Elongation according to Article 542.04(e), the elongation requirement for Type 1 fill heights may be eliminated for fills above 1'-6"

TABLE IC: THICKNESS OF CORRUGATED ALUMINUM ALLOY PIPE
FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 2 2/3"x1/2" AND 3"x1" CORRUGATIONS
(Metric)

Nominal Diameter in.	Type 1 Fill Height: 1 m and less 0.3 m min. cover		Type 2 Fill Height: Greater than 1 m not exceeding 3 m		Type 3 Fill Height: Greater than 3 m not exceeding 4.5 m		Type 4 Fill Height: Greater than 4.5 m not exceeding 6 m		Type 5 Fill Height: Greater than 6 m not exceeding 7.5 m		Type 6 Fill Height: Greater than 7.5 m not exceeding 9 m		Type 7 Fill Height: Greater than 9 m not exceeding 10.5 m	
	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm
300	1.52		1.52		1.52		1.52		1.52		1.52		1.52	
375	1.52		1.52		1.52		1.52		1.52		1.52		1.52	
450	1.52		1.52		1.52		1.52		1.52		1.52		1.91	
525	1.91E		1.52		1.52		1.52		1.52		1.91		1.91E	
600	1.91E		1.52		1.52		1.52		1.52		1.91		1.91E	
750	2.67E		1.91		1.91		1.91		1.91		2.67E		2.67E	
900	2.67E		1.91		1.91		1.91		2.67		2.67E		2.67E	
1050	2.67E	1.52	2.67	1.52	2.67	1.52	2.67	1.52	2.67	1.52	2.67E	2.67	2.67E	2.67E
1200	2.67E	2.67	2.67	1.52	2.67	1.52	2.67	1.52	2.67	2.67	2.67E	2.67E	3.43E	3.43E
1350	2.67E	2.67	2.67	1.52	2.67	1.52	2.67	2.67	2.67	2.67	2.67E	3.43E	3.43E	3.43E
1500	3.43E	2.67	3.43	1.52	3.43	1.52	3.43	2.67	3.43	2.67	3.43E	3.43E	4.17E	3.43E
1650	4.17E	2.67	4.17	1.52	4.17	1.52	4.17	2.67	4.17	3.43	4.17E	3.43E		3.43E
1800	4.17E	3.43	4.17	1.52	4.17	2.67	4.17	2.67	4.17	3.43		3.43E		4.17E
1950		3.43		1.91		2.67		3.43		3.43		3.43E		4.17E
2100		3.43		2.67		2.67		3.43		3.43		4.17E		4.17E
2250		3.43		2.67		2.67		3.43		3.43		4.17E		4.17E
2400		3.43		2.67		2.67		3.43		4.17		4.17E		
2550		3.43Z		3.43		3.43		3.43		4.17		4.17E		
2700		3.43Z		3.43		3.43		3.43		4.17				
2850		4.17Z		4.17		4.17		4.17		4.17				
3000		4.17Z		4.17		4.17		4.17		4.17				

Notes:
E Elongation according to Article 542.04(e), the elongation requirement for Type 1 fill heights may be eliminated for fills above 450 mm.

Table IIA: THICKNESS FOR CORRUGATED STEEL PIPE ARCHES AND CORRUGATED ALUMINUM ALLOY PIPE ARCHES FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE

Equivalent Round Size in.	Corrugated Steel & Aluminum Pipe Arch 2 2/3" x 1/2"		Corrugated Steel & Aluminum Pipe Arch 3" x 1"		Corrugated Steel Pipe Arch 5" x 1"		Min. Cover	Type 1					Type 2					Type 3				
								Fill Height: 3' and less					Fill Height: Greater than 3' not exceeding 10'					Fill Height: Greater than 10' not exceeding 15'				
	Span (in.)	Rise (in.)	Span (in.)	Rise (in.)	Span (in.)	Rise (in.)	Steel & Aluminum	Steel			Aluminum		Steel			Aluminum		Steel			Aluminum	
								2 2/3" x 1/2"	3"x1"	5" x 1"	2 2/3" x 1/2"	3"x1"	2 2/3" x 1/2"	3"x1"	5" x 1"	2 2/3" x 1/2"	3"x1"	2 2/3" x 1/2"	3"x1"	5" x 1"	2 2/3" x 1/2"	3"x1"
15	17	13					1'-6"	0.079			0.060		0.079			0.060		0.079			0.060	
18	21	15					1'-6"	0.109			0.060		0.079			0.060		0.079			0.060	
21	24	18					1'-6"	0.109			0.060		0.079			0.060		0.079			0.060	
24	28	20					1'-6"	0.109			0.075		0.079			0.075		0.079			0.075	
30	35	24					1'-6"	0.109			0.075		0.079			0.075		0.109			0.075	
36	42	29					1'-6"	0.109			0.105		0.079			0.105		0.109			0.105	
42	49	33					1'-6"	0.109			0.105		0.109			0.105		0.109			0.105	
48	57	38	53	41	53	41	1'-6"	0.109	0.079	0.109	0.135	0.060	0.109	0.079	0.109	0.135	0.060	0.109	0.079	0.109	0.135	0.060
54	64	43	60	46	60	46	1'-6"	0.109	0.109	0.109	0.135	0.060	0.109	0.079	0.109	0.135	0.060	0.109	0.079	0.109	0.135	0.060
60	71	47	66	51	66	51	1'-6"	0.138	0.109	0.109	0.164	0.060	0.138	0.079	0.109	0.164	0.060	0.138	0.109	0.109	0.164	0.060
66	77	52	73	55	73	55	1'-6"	0.168	0.109	0.109		0.105	0.168	0.079	0.109		0.075	0.168	0.109	0.109		0.105
72	83	57	81	59	81	59	1'-6"	0.168	0.109	0.109		0.105	0.168	0.079	0.109		0.105	0.168	0.109	0.109		0.105
78			87	63	87	63	1'-6"		0.109	0.109		0.105		0.079	0.109		0.105		0.109	0.109		0.105
84			95	67	95	67	1'-6"		0.109	0.109		0.105		0.109	0.109		0.105		0.109	0.109		0.105
90			103	71	103	71	1'-6"		0.109	0.109		0.135		0.109	0.109		0.135		0.109	0.109		0.135
96			112	75	112	75	1'-6"		0.109	0.109		0.164		0.109	0.109		0.164		0.109	0.109		0.164
102			117	79	117	79	1'-6"		0.109	0.109		0.164		0.109	0.109		0.164		0.109	0.109		0.164
108			128	83	128	83	1'-6"		0.138	0.138				0.138	0.138				0.138	0.138		
114			137	87	137	87	1'-6"		0.138	0.138				0.138	0.138				0.138	0.138		
120			142	91	142	91	1'-6"		0.168	0.168				0.168	0.168				0.168	0.168		

Notes:
The Type 1 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 3 tons per square foot.
The Type 2 and 3 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 2 tons per square foot.
This minimum bearing capacity will be determined by the Engineer in the field.

Table IIA: THICKNESS FOR CORRUGATED STEEL PIPE ARCHES AND CORRUGATED ALUMINUM ALLOY PIPE ARCHES FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE (Metric)

Equivalent Round Size (mm)	Corrugated Steel & Aluminum Pipe Arch 68 x 13 mm		Corrugated Steel & Aluminum Pipe Arch 75 x 25 mm		Corrugated Steel Pipe Arch 125 x 25 mm		Min. Cover	Type 1 Fill Height: 1 m and less					Type 2 Fill Height: Greater than 1 m not exceeding 3 m					Type 3 Fill Height: Greater than 3 m not exceeding 4.5 m				
	Span (mm)	Rise (mm)	Span (mm)	Rise (mm)	Span (mm)	Rise (mm)	Steel & Aluminum	Steel			Aluminum		Steel			Aluminum		Steel			Aluminum	
								68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm
375	430	330					0.5 m	2.01			1.52		2.01			1.52		2.01			1.52	
450	530	380					0.5 m	2.77			1.52		2.01			1.52		2.01			1.52	
525	610	460					0.5 m	2.77			1.52		2.01			1.52		2.01			1.52	
600	710	510					0.5 m	2.77			1.91		2.01			1.91		2.01			1.91	
750	870	630					0.5 m	2.77			1.91		2.01			1.91		2.77			1.91	
900	1060	740					0.5 m	2.77			2.67		2.01			2.67		2.77			2.67	
1050	1240	840					0.5 m	2.77			2.67		2.77			2.67		2.77			2.67	
1200	1440	970	1340	1050	1340	1050	0.5 m	2.77	2.01	2.77	3.43	1.52	2.77	2.01	2.77	3.43	1.52	2.77	2.01	2.77	3.43	1.52
1350	1620	1100	1520	1170	1520	1170	0.5 m	2.77	2.77	2.77	3.43	1.52	2.77	2.01	2.77	3.43	1.52	2.77	2.01	2.77	3.43	1.52
1500	1800	1200	1670	1300	1670	1300	0.5 m	3.51	2.77	2.77	4.17	1.52	3.51	2.01	2.77	4.17	1.52	3.51	2.77	2.77	4.17	1.52
1650	1950	1320	1850	1400	1850	1400	0.5 m	4.27	2.77	2.77		2.67	4.27	2.01	2.77		1.91	4.27	2.77	2.77		2.67
1800	2100	1450	2050	1500	2050	1500	0.5 m	4.27	2.77	2.77		2.67	4.27	2.01	2.77		2.67	4.27	2.77	2.77		2.67
1950			2200	1620	2200	1620	0.5 m		2.77	2.77		2.67		2.01	2.77		2.67		2.77	2.77		2.67
2100			2400	1720	2400	1720	0.5 m		2.77	2.77		2.67		2.77	2.77		2.67		2.77	2.77		2.67
2250			2600	1820	2600	1820	0.5 m		2.77	2.77		3.43		2.77	2.77		3.43		2.77	2.77		3.43
2400			2840	1920	2840	1920	0.5 m		2.77	2.77		4.17		2.77	2.77		4.17		2.77	2.77		4.17
2550			2970	2020	2970	2020	0.5 m		2.77	2.77		4.17		2.77	2.77		4.17		2.77	2.77		4.17
2700			3240	2120	3240	2120	0.5 m		3.51	3.51				3.51	3.51				3.51	3.51		
2850			3470	2220	3470	2220	0.5 m		3.51	3.51				3.51	3.51				3.51	3.51		
3000			3600	2320	3600	2320	0.5 m		4.27	4.27				4.27	4.27				4.27	4.27		

Notes:
The Type 1 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 290 kN per square meter.
The Type 2 and 3 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 192 kN per square meter.
This minimum bearing capacity will be determined by the Engineer in the field.

Table IIB: CLASSES OF REINFORCED CONCRETE ELLIPTICALL AND REINFORCED CONCRETE ARCH PIPE FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE

Equivalent Round Size (in.)	Reinforced Concrete Elliptical pipe (in.)		Reinforced Concrete Arch pipe (in.)		Minimum Cover	Type 1		Type 2		Type 3	
						Fill Height: 3' and less		Fill Height: Greater than 3' not exceeding 10'		Fill Height: Greater than 10' not exceeding 15'	
	Span	Rise	Span	Rise	RCCP HE & A	HE	Arch	HE	Arch	HE	Arch
15	23	14	18	11	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
18	23	14	22	13 1/2	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
21	30	19	26	15 1/2	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
24	30	19	28 1/2	18	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
27	34	22	36 1/4	22 1/2	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
30	38	24	36 1/4	22 1/2	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
36	45	29	43 3/4	26 5/8	1' -0"	HE-II	A-II	HE-III	A-III	HE-IV	A-IV
42	53	34	51 1/8	31 5/16	1' -0"	HE-I	A-II	HE-III	A-III	HE-IV	A-IV
48	60	38	58 1/2	36	1' -0"	HE-I	A-II	HE-III	A-III	1460	1450
54	68	43	65	40	1' -0"	HE-I	A-II	HE-III	A-III	1460	1460
60	76	48	73	45	1' -0"	HE-I	A-II	HE-III	A-III	1460	1470
66	83	53	88	54	1' -0"	HE-I	A-II	HE-III	A-III	1470	1480
72	91	58	88	54	1' -0"	HE-I	A-II	HE-III	A-III	1470	1480

Notes:
A number indicates the D-Load for the diameter and depth of fill and that a special design is required.
Design assumptions; Water filled pipe, AASHTO Type 2 installation per AASHTO LRFD Table 12.10.2.1-1

Table IIB: CLASSES OF REINFORCED CONCRETE ELLIPTICALL AND REINFORCED CONCRETE ARCH PIPE FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE
(Metric)

Equivalent Round Size (mm)	Reinforced Concrete Elliptical pipe (mm)		Reinforced Concrete Arch pipe (mm)		Minimum Cover	Type 1		Type 2		Type 3	
						Fill Height: 1 m and less		Fill Height: Greater than 1 m not exceeding 3 m		Fill Height: Greater than 3 m not exceeding 4.5 m	
	Span	Rise	Span	Rise	RCCP HE & A	HE	Arch	HE	Arch	HE	Arch
375	584	356	457	279	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
450	584	356	559	343	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
525	762	483	660	394	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
600	762	483	724	457	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
686	864	559	921	572	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
750	965	610	921	572	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
900	1143	737	1111	676	0.3 m	HE-II	A-II	HE-III	A-III	HE-IV	A-IV
1050	1346	864	1299	795	0.3 m	HE-I	A-II	HE-III	A-III	HE-IV	A-IV
1200	1524	965	1486	914	0.3 m	HE-I	A-II	HE-III	A-III	70	70
1350	1727	1092	1651	1016	0.3 m	HE-I	A-II	HE-III	A-III	70	70
1500	1930	1219	1854	1143	0.3 m	HE-I	A-II	HE-III	A-III	70	70
1676	2108	1346	2235	1372	0.3 m	HE-I	A-II	HE-III	A-III	70	70
1800	2311	1473	2235	1372	0.3 m	HE-I	A-II	HE-III	A-III	70	70

Notes:
A number indicates the D-Load for the diameter and depth of fill and that a special design is required.
Design assumptions; Water filled pipe, AASHTO Type 2 installation per AASHTO LRFD Table 12.10.2.1-1

TABLE IIIA: PLASTIC PIPE PERMITTED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nominal Diameter (in.)	Type 1 Fill Height: 3' and less, with 1' min					Type 2 Fill Height: Greater than 3', not exceeding 10'					Type 3 Fill Height: Greater than 10', not exceeding 15'					Type 4 Fill Height: Greater than 15', not exceeding 20'			
	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPP
10	X	X	X	X	NA	X	X	X	X	NA	X	X	X	X	NA	X	X	X	NA
12	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	X	X	X	X	NA
15	X	X	NA	X	X	X	X	NA	X	X	X	X	NA	NA	X	X	X	NA	X
18	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	X	X	X	X	NA
21	X	X	NA	NA	NA	X	X	NA	NA	NA	X	X	NA	NA	NA	X	X	NA	NA
24	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	X	X	X	NA
30	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	X	X	X	X	NA
36	X	X	X	X	X	X	X	X	NA	X	X	X	X	NA	NA	X	X	X	NA
42	X	NA	X	X	NA	X	NA	X	NA	NA	X	NA	X	NA	NA	X	NA	X	NA
48	X	NA	X	X	X	X	NA	X	NA	NA	X	NA	X	NA	NA	X	NA	X	NA

Notes:
PVC Polyvinyl Chloride (PVC) pipe with a smooth interior
CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior
PE Polyethylene (PE) pipe with a smooth interior
CPE Corrugated Polyethylene (PE) pipe with a smooth interior
CPP Corrugated Polypropylene (CPP) pipe with a smooth interior
X This material may be used for the given pipe diameter and fill height
NA Not Available

TABLE IIIA: PLASTIC PIPE PERMITTED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE
(Metric)

Nominal Diameter (mm)	Type 1					Type 2					Type 3					Type 4			
	Fill Height: 1 m and less, with 0.3 m min. cover					Fill Height: Greater than 1 m, not exceeding 3 m					Fill Height: Greater than 3 m, not exceeding 4.5 m					Fill Height: Greater than 4.5 m, not exceeding 6 m			
	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPP
250	X	X	X	X	NA	X	X	X	X	NA	X	X	X	X	NA	X	X	X	NA
300	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	X	X	X	X	NA
375	X	X	NA	X	X	X	X	NA	X	X	X	X	NA	NA	X	X	X	NA	X
450	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	X	X	X	X	NA
525	X	X	NA	NA	NA	X	X	NA	NA	NA	X	X	NA	NA	NA	X	X	NA	NA
600	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	X	X	X	NA
750	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	X	X	X	X	NA
900	X	X	X	X	X	X	X	X	NA	X	X	X	X	NA	NA	X	X	X	NA
1000	X	NA	X	X	NA	X	NA	X	NA	NA	X	NA	X	NA	NA	X	NA	X	NA
1200	X	NA	X	X	X	X	NA	X	NA	NA	X	NA	X	NA	NA	X	NA	X	NA

Notes:
PVC Polyvinyl Chloride (PVC) pipe with a smooth interior
CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior
PE Polyethylene (PE) pipe with a smooth interior
CPE Corrugated Polyethylene (PE) pipe with a smooth interior
CPP Corrugated Polypropylene (CPP) pipe with a smooth interior
X This material may be used for the given pipe diameter and fill height
NA Not Available

TABLE IIIB: PLASTIC PIPE PERMITTED

FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nominal Diameter (in.)	Type 5			Type 6			Type 7	
	Fill Height: Greater than 20', not exceeding 25'			Fill Height: Greater than 25', not exceeding 30'			Fill Height: Greater than 30', not exceeding 35'	
	PVC	CPVC		PVC	CPVC		CPVC	
10	X	X		X	X		X	
12	X	X		X	X		X	
15	X	X		X	X		X	
18	X	X		X	X		X	
21	X	X		X	X		X	
24	X	X		X	X		X	
30	X	X		X	X		X	
36	X	X		X	X		X	
42	X	NA		X	NA		NA	
48	X	NA		X	NA		NA	

Notes:
PVC Polyvinyl Chloride (PVC) pipe with a smooth interior
CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior
X This material may be used for the given pipe diameter and fill height
NA Not Available

TABLE IIIB: PLASTIC PIPE PERMITTED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE
(metric)

Nominal Diameter (mm)	Type 5			Type 6			Type 7	
	Fill Height: Greater than 6 m, not exceeding 7.5 m			Fill Height: Greater than 7.5 m, not exceeding 9 m			Fill Height: Greater than 9 m, not exceeding 10.5 m	
	PVC	CPVC		PVC	CPVC		CPVC	
250	X	X		X	X		X	
300	X	X		X	X		X	
375	X	X		X	X		X	
450	X	X		X	X		X	
525	X	X		X	X		X	
600	X	X		X	X		X	
750	X	X		X	X		X	
900	X	X		X	X		X	
1000	X	NA		X	NA		NA	
1200	X	NA		X	NA		NA	

Notes:
PVC Polyvinyl Chloride (PVC) pipe with a smooth interior
CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior
PE Polyethylene (PE) pipe with a smooth interior
X This material may be used for the given pipe diameter and fill height
NA Not Available”

Revise the first sentence of the first paragraph of Article 542.04(c) of the Standard Specifications to read:

"Compacted aggregate, at least 4 in. (100 mm) in depth below the pipe culvert, shall be placed the entire width of the trench and for the length of the pipe culvert, except compacted impervious material shall be used for the outer 3 ft (1 m) at each end of the pipe culvert."

Revise the seventh paragraph of Article 542.04(d) of the Standard Specifications to read:

"PVC, PE and CPP pipes shall be joined according to the manufacturer's specifications."

Replace the third sentence of the first paragraph of Article 542.04(h) of the Standard Specifications with the following:

"The total cover required for various construction loadings shall be as recommended by the manufacturer of the pipe to be loaded. The manufacturer's recommendations shall be provided in writing."

Delete "Table IV : Wheel Loads and Total Cover" in Article 542.04(h) of the Standard Specifications.

Revise the first and second paragraphs of Article 542.04(i) of the Standard Specifications to read:

"(i) Deflection Testing for Pipe Culverts. All PE, PVC and CPP pipe culverts shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

For PVC, PE, and CPP pipe culverts with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC, PE, and CPP pipe culverts with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel shall be used."

Revise Articles 542.04(i)(1) and (2) of the Standard Specifications to read:

"(1) For all PVC pipe: as defined using ASTM D 3034 methodology.

(2) For all PE and CPP pipe: the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications."

Revise the second sentence of the second paragraph of Article 542.07 of the Standard Specifications to read:

"When a prefabricated end section is used, it shall be of the same material as the pipe culvert, except for polyethylene (PE), polyvinylchloride (PVC), and polypropylene (PP) pipes which shall have metal end sections."

Revise the first paragraph of Article 1040.03 of the Standard Specifications to read:

"**1040.03 Polyvinyl Chloride (PVC) Pipe.** Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements."

Delete Articles 1040.03(e) and (f) of the Standard Specifications.

Revise Articles 1040.04(c) and (d) of the Standard Specifications to read:

"(c) PE Profile Wall Pipe for Insertion Lining. The pipe shall be according to ASTM F 894. When used for insertion lining of pipe culverts, the pipe liner shall have a minimum pipe stiffness of 46 psi (317 kPa) at five percent deflection for nominal inside diameters of 42 in. (1050 mm) or less. For nominal inside diameters of greater than 42 in. (1050 mm), the pipe liner shall have a minimum pipe stiffness of 32.5 psi (225 kPa) at five percent deflection. All sizes shall have wall construction that presents essentially smooth internal and external surfaces.

(d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties and the resin used to manufacture the pipe meets or exceeds the minimum cell classification requirements."

Add the following to Section 1040 of the Standard Specifications:

"**1040.08 Polypropylene (PP) Pipe.** Storage and handling shall be according to the manufacturer's recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.

(a) Corrugated PP Pipe with a Smooth Interior. The pipe shall be according to AAHSTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D.

(b) Perforated Corrugated PP Pipe with A Smooth Interior. The pipe shall be according to AASHTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type SP. In addition, the top centerline of the pipe shall be marked so that it is readily visible from the top of the trench before backfilling, and the upper ends of the slot perforations shall be a minimum of ten degrees below the horizontal."

LRFD STORM SEWER BURIAL TABLES (BDE)

Effective: November 1, 2013

Revise Article 550.02 of the Standard Specifications to read as follows:

"Item	Article Section
(a) Clay Sewer Pipe	1040.02
(b) Extra Strength Clay Pipe	1040.02
(c) Concrete Sewer, Storm Drain, and Culvert Pipe	1042
(d) Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe	1042
(e) Reinforced Concrete Elliptical Culvert, Storm Drain,and Sewer Pipe (Note 1)	1042
(f) Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(g) Polyvinyl Chloride (PVC) Pipe	1040.03
(h) Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior	1040.03
(i) Corrugated Polypropylene (CPP) Pipe with Smooth Interior	1040.07
(j) Rubber Gaskets and Preformed Flexible Joint Sealants for Concrete Pipe	1056
(k) Mastic Joint Sealer for Pipe	1055
(l) External Sealing Band	1057
(m) Fine Aggregate (Note 2)	1003.04
(n) Coarse Aggregate (Note 3)	1004.05
(o) Reinforcement Bars and Welded Wire Fabric	1006.10
(p) Handling Hole Plugs	1042.16
(q) Polyethylene (PE) Pipe with a Smooth Interior	1040.04
(r) Corrugated Polyethylene (PE) Pipe with a Smooth Interior	1040.04

Note 1. The class of elliptical and arch pipe used for various storm sewer sizes and heights of fill shall conform to the requirements for circular pipe.

Note 2. The fine aggregate shall be moist.

Note 3. The coarse aggregate shall be wet."

Revise the table for permitted materials in Article 550.03 of the Standard Specifications as follows:

"Class	A. Materials
A	Rigid Pipes: Clay Sewer Pipe Extra Strength Clay Pipe Concrete Sewer, Storm Drain, and Culvert Pipe Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
B	Rigid Pipes: Clay Sewer Pipe Extra Strength Clay Pipe Concrete Sewer, Storm Drain, and Culvert Pipe Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe Flexible Pipes: Polyvinyl Chloride (PVC) Pipe Corrugated Polyvinyl Chloride Pipe (PVC) with a Smooth Interior Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polypropylene (CPP) Pipe with a Smooth Interior"

Replace the storm sewers tables in Article 550.03 of the Standard Specifications with the following:

STORM SEWERS
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 1								Type 2							
	Fill Height: 3' and less With 1' minimum cover								Fill Height: Greater than 3' not exceeding 10'							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
10	NA	3	X	X	X	X	X	NA	NA	1	*X	X	X	X	X	NA
12	IV	NA	X	X	X	X	X	X	II	1	*X	X	X	X	X	X
15	IV	NA	NA	X	X	NA	X	X	II	1	*X	X	X	NA	X	X
18	IV	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
21	III	NA	NA	X	X	NA	NA	NA	II	2	X	X	X	NA	NA	NA
24	III	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
27	III	NA	NA	NA	NA	NA	NA	NA	II	3	X	NA	NA	NA	NA	NA
30	IV	NA	NA	X	X	X	X	X	II	3	X	X	X	X	X	X
33	III	NA	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA
36	III	NA	NA	X	X	X	X	X	II	NA	X	X	X	X	NA	X
42	II	NA	X	X	NA	X	X	NA	II	NA	X	X	NA	X	NA	NA
48	II	NA	X	X	NA	X	X	X	II	NA	X	X	NA	X	NA	NA
54	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
60	II	NA	NA	NA	NA	NA	NA	X	II	NA	NA	NA	NA	NA	NA	X
66	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
72	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
78	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
84	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
90	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
96	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
102	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
108	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
CSP Concrete Sewer, Storm drain, and Culvert Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe
ESCP Extra Strength Clay Pipe
PE Polyethylene Pipe with a Smooth Interior
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene pipe with a Smooth Interior

X This material may be used for the given pipe diameter and fill height.
NA This material is Not Acceptable for the given pipe diameter and fill height.
* May also use Standard Strength Clay Pipe

STORM SEWERS (Metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 1								Type 2							
	Fill Height: 1 m' and less With 300 mm minimum cover								Fill Height: Greater than 1 m not exceeding 3 m							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
250	NA	3	X	X	X	X	X	NA	NA	1	*X	X	X	X	X	NA
300	IV	NA	X	X	X	X	X	X	II	1	*X	X	X	X	X	X
375	IV	NA	NA	X	X	NA	X	X	II	1	*X	X	X	NA	X	X
450	IV	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
525	III	NA	NA	X	X	NA	NA	NA	II	2	X	X	X	NA	NA	NA
600	III	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
675	III	NA	NA	NA	NA	NA	NA	NA	II	3	X	NA	NA	NA	NA	NA
750	IV	NA	NA	X	X	X	X	X	II	3	X	X	X	X	X	X
825	III	NA	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA
900	III	NA	NA	X	X	X	X	X	II	NA	X	X	X	X	NA	X
1050	II	NA	X	X	NA	X	X	NA	II	NA	X	X	NA	X	NA	NA
1200	II	NA	X	X	NA	X	X	X	II	NA	X	X	NA	X	NA	NA
1350	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1500	II	NA	NA	NA	NA	NA	NA	X	II	NA	NA	NA	NA	NA	NA	X
1650	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1800	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1950	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2100	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2250	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2400	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2550	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2700	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
CSP Concrete Sewer, Storm drain, and Culvert Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe
ESCP Extra Strength Clay Pipe
PE Polyethylene Pipe with a Smooth Interior
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene pipe with a Smooth Interior
X This material may be used for the given pipe diameter and fill height.
NA This material is Not Acceptable for the given pipe diameter and fill height.
* May also use Standard Strength Clay Pipe

STORM SEWERS
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 3								Type 4						
	Fill Height: Greater than 10' not exceeding 15'								Fill Height: Greater than 15' not exceeding 20'						
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPP
10	NA	2	X	X	X	X	X	NA	NA	3	X	X	X	X	NA
12	III	2	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
15	III	3	X	X	X	NA	NA	X	IV	NA	NA	X	X	NA	X
18	III	NA	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
21	III	NA	NA	X	X	NA	NA	NA	IV	NA	NA	X	X	NA	NA
24	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
27	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
30	III	NA	NA	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
33	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
36	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
42	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
48	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
54	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
60	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
66	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
72	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
78	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
84	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
90	III	NA	NA	NA	NA	NA	NA	NA	1680	NA	NA	NA	NA	NA	NA
96	III	NA	NA	NA	NA	NA	NA	NA	1690	NA	NA	NA	NA	NA	NA
102	IV	NA	NA	NA	NA	NA	NA	NA	1700	NA	NA	NA	NA	NA	NA
108	1360	NA	NA	NA	NA	NA	NA	NA	1710	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
CSP Concrete Sewer, Storm drain, and Culvert Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe
ESCP Extra Strength Clay Pipe
PE Polyethylene Pipe with a Smooth Interior
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene pipe with a Smooth Iinterior
X This material may be used for the given pipe diameter and fill height.
NA This material is Not Acceptable for the given pipe diameter and fill height.
* May also use Standard Strength Clay Pipe
Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.

STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 3								Type 4						
	Fill Height: Greater than 3 m not exceeding 4.5 m								Fill Height: Greater than 4.5 m not exceeding 6 m						
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPP
250	NA	2	X	X	X	X	X	NA	NA	3	X	X	X	X	NA
300	III	2	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
375	III	3	X	X	X	NA	NA	X	IV	NA	NA	X	X	NA	X
450	III	NA	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
525	III	NA	NA	X	X	NA	NA	NA	IV	NA	NA	X	X	NA	NA
600	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
675	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
750	III	NA	NA	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
825	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
900	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
1050	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
1200	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
1350	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1500	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1650	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1800	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1950	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
2100	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
2250	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2400	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2550	IV	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2700	70	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
CSP Concrete Sewer, Storm drain, and Culvert Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe
ESCP Extra Strength Clay Pipe
PE Polyethylene Pipe with a Smooth Interior
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene pipe with a Smooth Interior
X This material may be used for the given pipe diameter and fill height.
NA This material is Not Acceptable for the given pipe diameter and fill height.
* May also use Standard Strength Clay Pipe
Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack.

STORM SEWERS
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 5 Fill Height: Greater than 20' not exceeding 25'			Type 6 Fill Height: Greater than 25' not exceeding 30'			Type 7 Fill Height: Greater than 30' not exceeding 35'	
	RCCP	PVC	CPVC	RCCP	PVC	CPVC	RCCP	CPVC
10	NA	X	X	NA	X	X	NA	X
12	IV	X	X	V	X	X	V	X
15	IV	X	X	V	X	X	V	X
18	IV	X	X	V	X	X	V	X
21	IV	X	X	V	X	X	V	X
24	IV	X	X	V	X	X	V	X
27	IV	NA	NA	V	NA	NA	V	NA
30	IV	X	X	V	X	X	V	X
33	IV	NA	NA	V	NA	NA	V	NA
36	IV	X	X	V	X	X	V	X
42	IV	X	NA	V	X	NA	V	NA
48	IV	X	NA	V	X	NA	V	NA
54	IV	NA	NA	V	NA	NA	V	NA
60	IV	NA	NA	V	NA	NA	V	NA
66	IV	NA	NA	V	NA	NA	V	NA
72	V	NA	NA	V	NA	NA	V	NA
78	2020	NA	NA	2370	NA	NA	2730	NA
84	2020	NA	NA	2380	NA	NA	2740	NA
90	2030	NA	NA	2390	NA	NA	2750	NA
96	2040	NA	NA	2400	NA	NA	2750	NA
102	2050	NA	NA	2410	NA	NA	2760	NA
108	2060	NA	NA	2410	NA	NA	2770	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe
ESCP Extra Strength Clay Pipe
X This material may be used for the given pipe diameter and fill height.
NA This material is Not Acceptable for the given pipe diameter and fill height.
Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.

STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 5			Type 6			Type 7	
	Fill Height: Greater than 20' not exceeding 25'			Fill Height: Greater than 25' not exceeding 30'			Fill Height: Greater than 30' not exceeding 35'	
	RCCP	PVC	CPVC	RCCP	PVC	CPVC	RCCP	CPVC
250	NA	X	X	NA	X	X	NA	X
300	IV	X	X	V	X	X	V	X
375	IV	X	X	V	X	X	V	X
450	IV	X	X	V	X	X	V	X
525	IV	X	X	V	X	X	V	X
600	IV	X	X	V	X	X	V	X
675	IV	NA	NA	V	NA	NA	V	NA
750	IV	X	X	V	X	X	V	X
825	IV	NA	NA	V	NA	NA	V	NA
900	IV	X	X	V	X	X	V	X
1050	IV	X	NA	V	X	NA	V	NA
1200	IV	X	NA	V	X	NA	V	NA
1350	IV	NA	NA	V	NA	NA	V	NA
1500	IV	NA	NA	V	NA	NA	V	NA
1650	IV	NA	NA	V	NA	NA	V	NA
1800	V	NA	NA	V	NA	NA	V	NA
1950	100	NA	NA	110	NA	NA	130	NA
2100	100	NA	NA	110	NA	NA	130	NA
2250	100	NA	NA	110	NA	NA	130	NA
2400	100	NA	NA	120	NA	NA	130	NA
2550	100	NA	NA	120	NA	NA	130	NA
2700	100	NA	NA	120	NA	NA	130	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe
ESCP Extra Strength Clay Pipe
X This material may be used for the given pipe diameter and fill height.
NA This material is Not Acceptable for the given pipe diameter and fill height.
Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack.

Revise the sixth paragraph of Article 550.06 of the Standard Specifications to read:

"PVC, PE and CPP pipes shall be joined according to the manufacturer's specifications."

Revise the first and second paragraphs of Article 550.08 of the Standard Specifications to read:

"**550.08 Deflection Testing for Storm Sewers.** All PVC, PE, and CPP storm sewers shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

For PVC, PE, and CPP storm sewers with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC, PE, and CPP storm sewers with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel shall be used."

Revise the fifth paragraph of Article 550.08 to read as follows.

"The outside diameter of the mandrel shall be 95 percent of the base inside diameter. For all PVC pipe the base inside diameter shall be defined using ASTM D 3034 methodology. For all PE and CPP pipe, the base inside diameter shall be defined as the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications."

Revise the first paragraph of Article 1040.03 of the Standard Specifications to read:

"**1040.03 Polyvinyl Chloride (PVC) Pipe.** Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements."

Delete Articles 1040.03(e) and (f) of the Standard Specifications.

Revise Articles 1040.04(c) and (d) of the Standard Specifications to read:

"(c) PE Profile Wall Pipe for Insertion Lining. The pipe shall be according to ASTM F 894. When used for insertion lining of pipe culverts, the pipe liner shall have a minimum pipe stiffness of 46 psi (317 kPa) at five percent deflection for nominal inside diameters of 42 in. (1050 mm) or less. For nominal inside diameters of greater than 42 in. (1050 mm), the pipe liner shall have a minimum pipe stiffness of 32.5 psi (225 kPa) at five percent deflection. All sizes shall have wall construction that presents essentially smooth internal and external surfaces.

(d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties and the resin used to manufacture the pipe meets or exceeds the minimum cell classification requirements."

Add the following to Section 1040 of the Standard Specifications:

"**1040.08 Polypropylene (PP) Pipe.** Storage and handling shall be according to the manufacturer's recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.

(a) Corrugated PP Pipe with a Smooth Interior. The pipe shall be according to AAHSTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D.

(b) Perforated Corrugated PP Pipe with A Smooth Interior. The pipe shall be according to AASHTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type SP. In addition, the top centerline of the pipe shall be marked so that it is readily visible from the top of the trench before backfilling, and the upper ends of the slot perforations shall be a minimum of ten degrees below the horizontal."

PAVEMENT MARKING FOR BIKE SYMBOL (BDE)

Effective: January 1, 2014

Add the following to the SYMBOLS table in Article 780.14 of the Standard Specifications:

"Symbol	Large Size sq ft (sq m)	Small Size Sq ft (sq m)
Bike Symbol	6.0 (0.56)	--"

PAVEMENT PATCHING (BDE)

Effective: January 1, 2010

Revise the first sentence of the second paragraph of Article 701.17(e)(1) of the Standard Specifications to read:

"In addition to the traffic control and protection shown elsewhere in the contract for pavement, two devices shall be placed immediately in front of each open patch, open hole, and broken pavement where temporary concrete barriers are not used to separate traffic from the work area."

PAYROLLS AND PAYROLL RECORDS (BDE)

Effective: January 1, 2014

FEDERAL AID CONTRACTS. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

"STATEMENTS AND PAYROLLS

The payroll records shall include the worker's name, the worker's address, the worker's telephone number when available, the worker's social security number, the worker's classification or classifications, the worker's gross and net wages paid in each pay period, the worker's number of hours worked each day, the worker's starting and ending times of work each day. However, any Contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker's hourly wage rate, the worker's hourly overtime wage rate, the worker's hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable.

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form."

STATE CONTRACTS. Revise Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

"IV. COMPLIANCE WITH THE PREVAILING WAGE ACT

1. Prevailing Wages. All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the Contractor will not be allowed additional compensation on account of said revisions.

2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of five years from the later of the date of final payment under the contract or completion of the contract, records of the wages paid to his/her workers. The payroll records shall include the worker's name, the worker's address, the worker's telephone number when available, the worker's social security number, the worker's classification or classifications, the worker's gross and net wages paid in each pay period, the worker's number of hours worked each day, the worker's starting and ending times of work each day. However, any contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker's hourly wage rate, the worker's hourly overtime wage rate, the worker's hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable. Upon seven business days' notice, these records shall be available at a location within the State, during reasonable hours, for inspection by the Department or the Department of Labor; and Federal, State, or local law enforcement agencies and prosecutors.

3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form.

Each submittal shall be accompanied by a statement signed by the Contractor or subcontractor, or an officer, employee, or officer thereof, which avers that: (i) he or she has examined the records and such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by the Act; and (iii) the Contractor or subcontractor is aware that filing a payroll record that he/she knows to be false is a Class A misdemeanor.

4. Employee Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor."

PORTLAND CEMENT CONCRETE EQUIPMENT (BDE)

Effective: November 1, 2013

Add the following to the first paragraph of Article 1103.03(a)(5) of the Standard Specifications to read:

"As an alternative to a locking key, the start and finish time for mixing may be automatically printed on the batch ticket. The start and finish time shall be reported to the nearest second."

PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

Revise Article 109.07(a) of the Standard Specifications to read:

"(a) Progress Payments. At least once each month, the Engineer will make a written estimate of the quantity of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than $1000.00 will be approved for payment other than the final payment.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics' Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610), progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved."

QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE)

Effective: January 1, 2012 Revised: January 1, 2014

Revise Note 7/ of Schedule B of Recurring Special Provision Check Sheet #31 of the Standard Specifications to read:

7/ The test of record for strength shall be the day indicated in Article 1020.04. For cement aggregate mixture II, a strength requirement is not specified and testing is not required. Additional strength testing to determine early falsework and form removal, early pavement or bridge opening to traffic, or to monitor strengths is at the discretion of the Contractor. Strength shall be defined as the average of two 6 x 12 in. (150 x 300 mm) cylinder breaks, three 4 x 8 in. (100 x 200 mm) cylinder breaks, or two beam breaks for field tests. Per Illinois Modified AASHTO T 23, cylinders shall be 6 x 12 in. (150 x 300 mm) when the nominal maximum size of the coarse aggregate exceeds 1 in. (25 mm).

REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)

Effective: November 2, 2012

Revise the first four paragraphs of Article 202.03 of the Standard Specifications to read:

"**202.03 Removal and Disposal of Surplus, Unstable, Unsuitable, and Organic Materials.** Suitable excavated materials shall not be wasted without permission of the Engineer. The Contractor shall dispose of all surplus, unstable, unsuitable, and organic materials, in such a manner that public or private property will not be damaged or endangered.

Suitable earth, stones and boulders naturally occurring within the right-of-way may be placed in fills or embankments in lifts and compacted according to Section 205. Broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities may be used in embankment or in fill. If used in fills or embankments, these materials shall be placed and compacted to the satisfaction of the Engineer; shall be buried under a minimum of 2 ft (600 mm) of earth cover (except when the materials include only uncontaminated dirt); and shall not create an unsightly appearance or detract from the natural topographic features of an area. Broken concrete without protruding metal bars, bricks, rock, or stone may be used as riprap as approved by the Engineer. If the materials are used for fill in locations within the right-of-way but outside project construction limits, the Contractor must specify to the Engineer, in writing, how the landscape restoration of the fill areas will be accomplished. Placement of fill in such areas shall not commence until the Contractor's landscape restoration plan is approved by the Engineer.

Aside from the materials listed above, all other construction and demolition debris or waste shall be disposed of in a licensed landfill, recycled, reused, or otherwise disposed of as allowed by State or Federal laws and regulations. When the Contractor chooses to dispose of uncontaminated soil at a clean construction and demolition debris (CCDD) facility or at an uncontaminated soil fill operation, it shall be the Contractor's responsibility to have the pH of the material tested to ensure the value is between 6.25 and 9.0, inclusive. A copy of the pH test results shall be provided to the Engineer.

A permit shall be obtained from IEPA and made available to the Engineer prior to open burning of organic materials (i.e., plant refuse resulting from pruning or removal of trees or shrubs) or other construction or demolition debris. Organic materials originating within the right-of-way limits may be chipped or shredded and placed as mulch around landscape plantings within the right-of-way when approved by the Engineer. Chipped or shredded material to be placed as mulch shall not exceed a depth of 6 in. (150 mm)."

TRACKING THE USE OF PESTICIDES (BDE)

Effective: August 1, 2012

Add the following paragraph after the first paragraph of Article 107.23 of the Standard Specifications:

"Within 48 hours of the application of pesticides, including but not limited to herbicides, insecticides, algaecides, and fungicides, the Contractor shall complete and return to the Engineer, Operations form "OPER 2720"."

TRAINING SPECIAL PROVISIONS (BDE)

Effective: October 15, 1975

This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the Contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be **3**. In the event the Contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The Contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the Contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. The Contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather then clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the Contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the Contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A Contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The Contractor shall provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

Method of Measurement. The unit of measurement is in hours.

Basis of Payment. This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price, and total price have been included in the schedule of prices.

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG)

Effective: August 1, 2012 Revised: February 1, 2014

In addition to the Contractor's equal employment opportunity affirmative action efforts undertaken as elsewhere required by this Contract, the Contractor is encouraged to participate in the incentive program to provide additional on-the-job training to certified graduates of IDOT funded pre-apprenticeship training programs outlined by this Special Provision.

It is the policy of IDOT to fund IDOT pre-apprenticeship training programs throughout Illinois to provide training and skill-improvement opportunities to assure the increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The intent of this IDOT Training Program Graduate (TPG) Special Provision is to place certified graduates of these IDOT funded pre-apprentice training programs on IDOT project sites when feasible, and provide the graduates with meaningful on-the-job training intended to lead to journey-level employment. IDOT and its sub-recipients, in carrying out the responsibilities of a state contract, shall determine which construction contracts shall include "Training Program Graduate Special Provisions." To benefit from the incentives to encourage the participation in the additional on-the-job training under this Training Program Graduate Special Provision, the Contractor shall make every reasonable effort to employ certified graduates of IDOT funded Pre-apprenticeship Training Programs to the extent such persons are available within a reasonable recruitment area.

Participation pursuant to IDOT's requirements by the Contractor or subcontractor in this Training Program Graduate (TPG) Special Provision entitles the Contractor or subcontractor to be reimbursed at $15.00 per hour for training given a certified TPG on this contract. As approved by the Department, reimbursement will be made for training persons as specified herein. This reimbursement will be made even though the Contractor or subcontractor may receive additional training program funds from other sources for other trainees, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving other reimbursement. For purposes of this Special Provision the Contractor is not relieved of requirements under applicable federal law, the Illinois Prevailing Wage Act, and is not eligible for other training fund reimbursements in addition to the Training Program Graduate (TPG) Special Provision reimbursement.

No payment shall be made to the Contractor if the Contractor or subcontractor fails to provide the required training. It is normally expected that a TPG will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project through completion of the contract, so long as training opportunities exist in his work classification or until he has completed his training program. Should the TPG's employment end in advance of the completion of the contract, the Contractor shall promptly notify the designated IDOT staff member under this Special Provision that the TPG's involvement in the contract has ended and supply a written report of the reason for the end of the involvement, the hours completed by the TPG under the Contract and the number of hours for which the incentive payment provided under this Special Provision will be or has been claimed for the TPG.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting its performance under this Special Provision.

METHOD OF MEASUREMENT: The unit of measurement is in hours.

BASIS OF PAYMENT: This work will be paid for at the contract unit price of $15.00 per hour for certified TRAINEES TRAINING PROGRAM GRADUATE. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

The Contractor shall provide training opportunities aimed at developing full journeyworker in the type of trade or job classification involved. The initial number of TPGs for which the incentive is available under this contract is **3**. During the course of performance of the Contract the Contractor may seek approval from the Department for additional incentive eligible TPGs. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the TPGs are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this Special Provision. The Contractor shall also insure that this Training Program Graduate Special Provision is made applicable to such subcontract if the TPGs are to be trained by a subcontractor and that the incentive payment is passed on to each subcontractor.

For the Contractor to meet the obligations for participation in this TPG incentive program under this Special Provision, the Department has contracted with several entities to provide screening, tutoring and pre-training to individuals interested in working in the applicable construction classification and has certified those students who have successfully completed the program and are eligible to be TPGs. A designated IDOT staff member, the Director of the Office of Business and Workforce Diversity (OBWD), will be responsible for providing assistance and referrals to the Contractor for the applicable TPGs. For this contract, the Director of OBWD is designated as the responsible IDOT staff member to provide the assistance and referral services related to the placement for this Special Provision. For purposes of this Contract, contacting the Director of OBWD and interviewing each candidate he/she recommends constitutes reasonable recruitment.

Prior to commencing construction, the Contractor shall submit to the Department for approval the TPGs to be trained in each selected classification. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. No employee shall be employed as a TPG in any classification in which he/she has successfully completed a training course leading to journeyman status or in which he/she has been employed as a journeyman. Notwithstanding the on-the-job training purpose of this TPG Special Provision, some offsite training is permissible as long as the offsite training is an integral part of the work of the contract and does not comprise a significant part of the overall training.

Training and upgrading of TPGs of IDOT pre-apprentice training programs is intended to move said TPGs toward journeyman status and is the primary objective of this Training Program Graduate Special Provision. Accordingly, the Contractor shall make every effort to enroll TPGs by recruitment through the IDOT funded TPG programs to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance and entitled to the Training Program Graduate Special Provision $15.00 an hour incentive.

The Contractor or subcontractor shall provide each TPG with a certificate showing the type and length of training satisfactorily completed.

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012 Revised: November 1, 2013

Description. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

Materials.

Add the following to Article 1030.02 of the Standard Specifications.

"(h) Warm Mix Asphalt (WMA) Technologies (Note 3)"

Add the following note to Article 1030.02 of the Standard Specifications.

"Note 3. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm-Mix Asphalt Technologies"."

Equipment.

Revise the first paragraph of Article 1102.01 of the Standard Specifications to read:

"**1102.01 Hot-Mix Asphalt Plant.** The hot-mix asphalt (HMA) plant shall be the batch-type, continuous-type, or dryer drum plant. The plants shall be evaluated for prequalification rating and approval to produce HMA according to the current Bureau of Materials and Physical Research Policy Memorandum, "Approval of Hot-Mix Asphalt Plants and Equipment". Once approved, the Contractor shall notify the Bureau of Materials and Physical Research to obtain approval of all plant modifications. The plants shall not be used to produce mixtures concurrently for more than one project or for private work unless permission is granted in writing by the Engineer. The plant units shall be so designed, coordinated and operated that they will function properly and produce HMA having uniform temperatures and compositions within the tolerances specified. The plant units shall meet the following requirements."

Add the following to Article 1102.01(a) of the Standard Specifications.

"(13) Equipment for Warm Mix Technologies.

a. Foaming. Metering equipment for foamed asphalt shall have an accuracy of ± 2 percent of the actual water metered. The foaming control system shall be electronically interfaced with the asphalt binder meter.

b. Additives. Additives shall be introduced into the plant according to the supplier's recommendations and shall be approved by the Engineer. The system for introducing the WMA additive shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes."

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

"(e) Warm Mix Technologies.

(1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.

(2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification.

Production.

Revise the second paragraph of Article 1030.06(a) of the Standard Specifications to read:

"At the start of mix production for HMA, WMA, and HMA using WMA technologies, QC/QA mixture start-up will be required for the following situations; at the beginning of production of a new mixture design, at the beginning of each production season, and at every plant utilized to produce mixtures, regardless of the mix."

Quality Control/Quality Assurance Testing.

Revise the table in Article 1030.05(d)(2)a. of the Standard Specifications to read:

Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
Aggregate Gradation % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 μm) No. 200 (75 μm) Note 1.	1 washed ignition oven test on the mix per half day of production Note 4.	1 washed ignition oven test on the mix per day of production Note 4.	Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 2.	1 per half day of production	1 per day	Illinois-Modified AASHTO T 308
VMA Note 3.	Day's production ≥ 1200 tons: 1 per half day of production	N/A	Illinois-Modified AASHTO R 35
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		
Air Voids Bulk Specific Gravity of Gyratory Sample Note 5.	Day's production ≥ 1200 tons: 1 per half day of production	1 per day	Illinois-Modified AASHTO T 312
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		
Maximum Specific Gravity of Mixture	Day's production ≥ 1200 tons: 1 per half day of production	1 per day	Illinois-Modified AASHTO T 209
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first		

Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
	sample of the day)		

Note 1. The No. 8 (2.36 mm) and No. 30 (600 µm) sieves are not required for All Other Mixtures.

Note 2. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the asphalt binder content.

Note 3. The G_{sb} used in the voids in the mineral aggregate (VMA) calculation shall be the same average G_{sb} value listed in the mix design.

Note 4. The Engineer reserves the right to require additional hot bin gradations for batch

Note 5. The WMA compaction temperature for mixture volumetric testing shall be 270 ± 5 °F (132 ± 3 °C) for quality control testing. The WMA compaction temperature for quality assurance testing will be 270 ± 5 °F (132 ± 3 °C) if the mixture is not allowed to cool to room temperature. If the mixture is allowed to cool to room temperature it shall be reheated to standard HMA compaction temperatures."

Construction Requirements.

Revise the second paragraph of Article 406.06(b)(1) of the Standard Specifications to read:

"The HMA shall be delivered at a temperature of 250 to 350 °F (120 to 175 °C). WMA shall be delivered at a minimum temperature of 215 °F (102 °C)."

Basis of Payment.

This work will be paid at the contract unit price bid for the HMA pay items involved. Anti-strip will not be paid for separately, but shall be considered as included in the cost of the work.

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012

The Contractor shall provide a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used on the jobsite; or used for the delivery and/or removal of equipment/material to and from the jobsite. The jobsite shall also include offsite locations, such as plant sites or storage sites, when those locations are used solely for this contract.

The report shall be submitted on the form provided by the Department within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur. The report shall be submitted to the Engineer and a copy shall be provided to the district EEO Officer.

Any costs associated with providing weekly DBE trucking reports shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 2, 2004 Revised: April 1, 2009

Description. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form or failure to indicate contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

Types of Steel Products. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling)
Structural Steel
Reinforcing Steel

Other steel materials such as dowel bars, tie bars, mesh reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in has a contract value of $10,000 or greater.

Documentation. Sufficient documentation shall be furnished to the Engineer to verify the following:

(a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.

(b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

$SCA = Q \times D$

Where: SCA = steel cost adjustment, in dollars
Q = quantity of steel incorporated into the work, in lb (kg)
D = price factor, in dollars per lb (kg)

$D = MPI_M - MPI_L$

Where: MPI_M = The Materials Cost Index for steel as published by the Engineering News-Record for the month the steel is shipped from the mill. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

MPI_L = The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the MPI_M will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

Basis of Payment. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the MPI_L and MPI_M in excess of five percent, as calculated by:

Percent Difference = $\{(MPI_L - MPI_M) \div MPI_L\} \times 100$

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Attachment

Item	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	
Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness)	23 lb/ft (34 kg/m)
Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness)	32 lb/ft (48 kg/m)
Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness)	37 lb/ft (55 kg/m)
Other piling	See plans
Structural Steel	See plans for weights (masses)
Reinforcing Steel	See plans for weights (masses)
Dowel Bars and Tie Bars	6 lb (3 kg) each
Mesh Reinforcement	63 lb/100 sq ft (310 kg/sq m)
Guardrail	
Steel Plate Beam Guardrail, Type A w/steel posts	20 lb/ft (30 kg/m)
Steel Plate Beam Guardrail, Type B w/steel posts	30 lb/ft (45 kg/m)
Steel Plate Beam Guardrail, Types A and B w/wood posts	8 lb/ft (12 kg/m)
Steel Plate Beam Guardrail, Type 2	305 lb (140 kg) each
Steel Plate Beam Guardrail, Type 6	1260 lb (570 kg) each
Traffic Barrier Terminal, Type 1 Special (Tangent)	730 lb (330 kg) each
Traffic Barrier Terminal, Type 1 Special (Flared)	410 lb (185 kg) each
Steel Traffic Signal and Light Poles, Towers and Mast Arms	
Traffic Signal Post	11 lb/ft (16 kg/m)
Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 – 12 m)	14 lb/ft (21 kg/m)
Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 – 16.5 m)	21 lb/ft (31 kg/m)
Light Pole w/Mast Arm, 30 - 50 ft (9 – 15.2 m)	13 lb/ft (19 kg/m)
Light Pole w/Mast Arm, 55 - 60 ft (16.5 – 18 m)	19 lb/ft (28 kg/m)
Light Tower w/Luminaire Mount, 80 - 110 ft (24 – 33.5 m)	31 lb/ft (46 kg/m)
Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 – 42.5 m)	65 lb/ft (97 kg/m)
Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 – 48.5 m)	80 lb/ft (119 kg/m)
Metal Railings (excluding wire fence)	
Steel Railing, Type SM	64 lb/ft (95 kg/m)
Steel Railing, Type S-1	39 lb/ft (58 kg/m)
Steel Railing, Type T-1	53 lb/ft (79 kg/m)
Steel Bridge Rail	52 lb/ft (77 kg/m)
Frames and Grates	
Frame	250 lb (115 kg)
Lids and Grates	150 lb (70 kg)

Return With Bid

ILLINOIS DEPARTMENT OF TRANSPORTATION

OPTION FOR
STEEL COST ADJUSTMENT

The bidder shall submit this completed form with his/her bid. Failure to submit the form or properly complete contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment. After award, this form, when submitted shall become part of the contract.

Contract No.: _____

Company Name:_____

Contractor's Option:

Is your company opting to include this special provision as part of the contract plans for the following items of work?

Metal Piling Yes ☐

Structural Steel Yes ☐

Reinforcing Steel Yes ☐

Dowel Bars, Tie Bars and Mesh Reinforcement Yes ☐

Guardrail Yes ☐

Steel Traffic Signal and Light Poles, Towers and Mast Arms Yes ☐

Metal Railings (excluding wire fence) Yes ☐

Frames and Grates Yes ☐

Signature: _____ **Date:** _____

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

Revise Article 669.01 of the Standard Specifications to read:

"669.01 Description. This work shall consist of the transportation and proper disposal of contaminated soil and water. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their content and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities."

Revise Article 669.08 of the Standard Specifications to read:

"669.08 Contaminated Soil and/or Groundwater Monitoring. The Contractor shall hire a qualified environmental firm to monitor the area containing the regulated substances. The affected area shall be monitored with a photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID). Any field screen reading on the PID or FID in excess of background levels indicates the potential presence of contaminated material requiring handling as a non-special waste, special waste, or hazardous waste. No excavated soils can be taken to a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation with detectable PID or FID meter readings that are above background. The PID or FID meter shall be calibrated on-site and background level readings taken and recorded daily. All testing shall be done by a qualified engineer/technician. Such testing and monitoring shall be included in the work. The Contractor shall identify the exact limits of removal of non-special waste, special waste, or hazardous waste. All limits shall be approved by the Engineer prior to excavation. The Contractor shall take all necessary precautions.

Based upon the land use history of the subject property and/or PID or FID readings indicating contamination, a soil or groundwater sample shall be taken from the same location and submitted to an approved laboratory. Soil or groundwater samples shall be analyzed for the contaminants of concern, including pH, based on the property's land use history or the parameters listed in the maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605. The analytical results shall serve to document the level of soil contamination. Soil and groundwater samples may be required at the discretion of the Engineer to verify the level of soil and groundwater contamination.

Samples shall be grab samples (not combined with other locations). The samples shall be taken with decontaminated or disposable instruments. The samples shall be placed in sealed containers and transported in an insulated container to the laboratory. The container shall maintain a temperature of 39 °F (4 °C). All samples shall be clearly labeled. The labels shall indicate the sample number, date sampled, location and elevation, and any other observations.

The laboratory shall use analytical methods which are able to meet the lowest appropriate practical quantitation limits (PQL) or estimated quantitation limit (EQL) specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication No. SW-846 and "Methods for the Determination of Organic Compounds in Drinking Water", EPA, EMSL, EPA-600/4-88/039. For parameters where the specified cleanup objective is below the acceptable detection limit (ADL), the ADL shall serve as the cleanup objective. For other parameters the ADL shall be equal to or below the specified cleanup objective."

Replace the first two paragraphs of Article 669.09 of the Standard Specifications with the following:

"669.09 Contaminated Soil and/or Groundwater Management and Disposal. The management and disposal of contaminated soil and/or groundwater shall be according to the following:

(a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605, the soil shall be managed as follows:

(1) When analytical results indicate chemical constituents exceed the most stringent MAC but they are still considered within area background levels by the Engineer, the excavated soil can be utilized within the construction limits as fill, when suitable. Such soil excavated for storm sewers can be placed back into the excavated trench as backfill, when suitable, unless trench backfill is specified. If the soils cannot be utilized within the construction limits, they shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.

(2) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(5) When the Engineer determines soil cannot be managed according to Articles 669.09(a)(1) through (a)(4) above, the soil shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.

(b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC but the pH of the soil is less than 6.25 or greater than 9.0, the excavated soil can be utilized within the construction limits or managed and disposed of off-site as "uncontaminated soil" according to Article 202.03. However the excavated soil cannot be taken to a CCDD facility or an uncontaminated soil fill operation.

(c) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Illinois Administrative Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste.

All groundwater encountered within lateral trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench it must be removed as a special or hazardous waste. The Contractor is prohibited from managing groundwater within the trench by discharging it through any existing or new storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10^{-7} cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer."

Revise Article 669.14 of the Standard Specifications to read:

"669.14 Final Environmental Construction Report. At the end of the project, the Contractor will prepare and submit three copies of the Environmental Construction Report on the activities conducted during the life of the project, one copy shall be submitted to the Resident Engineer, one copy shall be submitted to the District's Environmental Studies Unit, and one copy shall be submitted with an electronic copy in Adode.pdf format to the Geologic and Waste Assessment Unit, Bureau of Design and Environment, IDOT, 2300 South Dirksen Parkway, Springfield, Illinois 62764. The technical report shall include all pertinent information regarding the project including, but not limited to:

(a) Measures taken to identify, monitor, handle, and dispose of soil or groundwater containing regulated substances, to prevent further migration of regulated substances, and to protect workers,

(b) Cost of identifying, monitoring, handling, and disposing of soil or groundwater containing regulated substances, the cost of preventing further migration of regulated substances, and the cost for worker protection from the regulated substances. All cost should be in the format of the contract pay items listed in the contract plans (identified by the preliminary environmental site assessment (PESA) site number),

(c) Plan sheets showing the areas containing the regulated substances,

(d) Field sampling and testing results used to identify the nature and extent of the regulated substances,

(e) Waste manifests (identified by the preliminary environmental site assessment (PESA) site number) for special or hazardous waste disposal, and

(f) Landfill tickets (identified by the preliminary environmental site assessment (PESA) site number) for non-special waste disposal."

Revise the second paragraph of Article 669.16 of the Standard Specifications to read:

"The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL."

Qualifications. The term environmental firm shall mean an environmental firm with at least five (5) documented leaking underground storage tank (LUST) cleanups or that is pre-qualified in hazardous waste by the Department. Documentation includes but not limited to verifying remediation and special waste operations for sites contaminated with gasoline, diesel, or waste oil in accordance with all Federal, State, or local regulatory requirements and shall be provided to the Engineer for approval. The environmental firm selected shall not be a former or current consultant or have any ties with any of the properties contained within and/or adjacent to this construction project.

General. This Special Provision will likely require the Contractor to subcontract for the execution of certain activities.

All contaminated materials shall be managed as either "uncontaminated soil" or non-special waste. This work shall include monitoring and potential sampling, analytical testing, and management of a material contaminated by regulated substances. The Environmental Firm shall continuously monitor all soil excavation for worker protection and soil contamination. **Phase I Preliminary Engineering information is available through the District's Environmental Studies Unit.** Soil samples or analysis without the approval of the Engineer will be at no additional cost to the Department. The lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit whichever is less.

The Contractor shall manage any excavated soils and sediment within the following areas:

- Station 281+80 to Station 283+00 0 to 100 feet LT (Commercial and Residential Buildings, PESA Site 1227V-25, 8813 IL 31). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Lead.
- Station 300+60 to Station 301+50 0 to 100 feet LT (Berquist Marine Center, PESA Site 1227V-22, 8415 IL 31). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: PNAs and Manganese.
- Station 277+40 to Station 279+80 0 to 100 feet LT (Aggregate Pit, PESA Site 1227V-27, 8800 block of IL 31). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Manganese.
- Station 286+00 to Station 290+60 0 to 150 feet LT (Parking Lot and Retention Basin, PESA Site 1227V-23, 8601 IL 31). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 285+40 to Station 289+50 0 to 150 feet RT (Agricultural Land and Wooded Areas, PESA Site 1227V-24, 8400-8800 blocks of IL 31). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

- Station 294+50 to Station 296+00 0 to 80 feet LT (Parking Lot and Retention Basin, PESA Site 1227V-23, 8601 IL 31). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 294+50 to Station 299+70 0 to 100 feet RT (Agricultural Land and Wooded Areas, PESA Site 1227V-24, 8400-8800 blocks of IL 31). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 298+20 to Station 300+60 0 to 100 feet LT (Parking Lot and Retention Basin, PESA Site 1227V-23, 8601 IL 31). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 306+00 to Station 311+80 0 to 80 feet LT (Whispering Hills Garden Center, PESA Site 1227V-19, 8401 IL 31). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 309+00 to Station 311+50 0 to 100 feet RT (Chase Bank, PESA Site 1227V-18, 1185 IL 31). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 314+00 to Station 3316+50 0 to 80 feet LT (Residence and Vacant Land, PESA Site 1227V-16, 8100 block of IL 31). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 317+50 to Station 321+00 0 to 80 feet LT (The Barn Nursery and Landscape Center, PESA Site 1227V-13, 8109 IL 31). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Manganese.
- Station 279+80 to Station 280+60 0 to 100 feet LT (Commercial and Residential Buildings, PESA Site 1227V-26, 8817 IL 31). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 304+50 to Station 306+00 0 to 100 feet LT (Route 21 Self Storage, PESA Site 1227V-20, 8405 IL 31). This material meets the criteria of Article 669.09(b) and shall be managed in accordance to Article 669.09.

IEPA FORM 663

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02D (2-4)
Date Collected: 04/03/13 10:50
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-6
Matrix: Solid
Percent Solids: 81.2

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<7.3		7.3	1.5	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Vinyl chloride	<7.3		7.3	1.5	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Bromomethane	<7.3		7.3	2.2	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Chloroethane	<7.3		7.3	2.0	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
1,1-Dichloroethene	<7.3		7.3	1.2	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Carbon disulfide	<7.3		7.3	1.1	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Acetone	<7.3		7.3	3.2	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Methylene Chloride	<7.3		7.3	2.0	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
trans-1,2-Dichloroethene	<7.3		7.3	1.0	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Methyl tert-butyl ether	<7.3		7.3	1.2	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
1,1-Dichloroethane	<7.3		7.3	1.2	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
cis-1,2-Dichloroethene	<7.3		7.3	1.0	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Methyl Ethyl Ketone	<7.3		7.3	2.6	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Chloroform	<7.3		7.3	0.84	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
1,1,1-Trichloroethane	<7.3		7.3	1.1	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Carbon tetrachloride	<7.3		7.3	1.3	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Benzene	<7.3		7.3	1.0	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
1,2-Dichloroethane	<7.3		7.3	1.1	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Trichloroethene	<7.3		7.3	1.2	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
1,2-Dichloropropane	<7.3		7.3	1.1	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Bromodichloromethane	<7.3		7.3	1.3	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
cis-1,3-Dichloropropene	<7.3		7.3	0.96	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
methyl isobutyl ketone	<7.3		7.3	1.9	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Toluene	<7.3		7.3	1.0	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
trans-1,3-Dichloropropene	<7.3		7.3	1.3	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
1,1,2-Trichloroethane	<7.3		7.3	0.99	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Tetrachloroethene	<7.3		7.3	1.1	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
2-Hexanone	<7.3		7.3	2.1	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Dibromochloromethane	<7.3		7.3	1.3	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Chlorobenzene	<7.3		7.3	0.74	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Ethylbenzene	<7.3		7.3	1.5	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Styrene	<7.3		7.3	0.96	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Bromoform	<7.3		7.3	1.7	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
1,1,2,2-Tetrachloroethane	<7.3		7.3	1.5	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
Xylenes, Total	<15		15	0.66	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1
1,3-Dichloropropene, Total	<7.3		7.3	0.96	ug/Kg	☼	04/03/13 10:50	04/09/13 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 134*	*04/03/13 10:50*	*04/09/13 13:50*	*1*
Toluene-d8 (Surr)	*99*		*75 - 122*	*04/03/13 10:50*	*04/09/13 13:50*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 122*	*04/03/13 10:50*	*04/09/13 13:50*	*1*
Dibromofluoromethane	*100*		*75 - 120*	*04/03/13 10:50*	*04/09/13 13:50*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	64	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Bis(2-chloroethyl)ether	<200		200	60	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
1,3-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
1,4-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
1,2-Dichlorobenzene	<200		200	44	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1

TestAmerica Chicago

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4/16/2013

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02D (2-4)
Date Collected: 04/03/13 10:50
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-6
Matrix: Solid
Percent Solids: 81.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	53	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2,2'-oxybis[1-chloropropane]	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
N-Nitrosodi-n-propylamine	<200		200	51	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Hexachloroethane	<200		200	43	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2-Chlorophenol	<200		200	58	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Nitrobenzene	<40		40	12	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Bis(2-chloroethoxy)methane	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
1,2,4-Trichlorobenzene	<200		200	46	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Isophorone	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2,4-Dimethylphenol	<400		400	130	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Hexachlorobutadiene	<200		200	53	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Naphthalene	<40		40	7.8	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2,4-Dichlorophenol	<400		400	120	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
4-Chloroaniline	<810		810	120	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2,4,6-Trichlorophenol	<400		400	51	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2,4,5-Trichlorophenol	<400		400	120	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Hexachlorocyclopentadiene	<810		810	190	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2-Methylnaphthalene	<200		200	52	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2-Nitroaniline	<200		200	73	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2-Chloronaphthalene	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
4-Chloro-3-methylphenol	<400		400	190	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2,6-Dinitrotoluene	<200		200	48	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2-Nitrophenol	<400		400	63	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
3-Nitroaniline	<400		400	78	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Dimethyl phthalate	<200		200	50	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2,4-Dinitrophenol	<810	*	810	210	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Acenaphthylene	<40		40	9.3	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
2,4-Dinitrotoluene	<200		200	62	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Acenaphthene	<40		40	12	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Dibenzofuran	<200		200	48	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
4-Nitrophenol	<810		810	220	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Fluorene	<40		40	9.2	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
4-Nitroaniline	<400		400	83	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
4-Bromophenyl phenyl ether	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Hexachlorobenzene	<81		81	7.9	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Diethyl phthalate	<200		200	67	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
4-Chlorophenyl phenyl ether	<200		200	63	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Pentachlorophenol	<810		810	200	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
N-Nitrosodiphenylamine	<200		200	54	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
4,6-Dinitro-2-methylphenol	<400		400	98	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Phenanthrene	<40		40	17	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Anthracene	<40		40	9.5	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Carbazole	<200		200	57	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Di-n-butyl phthalate	<200		200	51	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Fluoranthene	<40		40	16	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Pyrene	<40		40	15	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Butyl benzyl phthalate	<200		200	50	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Benzo[a]anthracene	<40		40	8.4	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Chrysene	<40		40	9.1	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02D (2-4)
Date Collected: 04/03/13 10:50
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-6
Matrix: Solid
Percent Solids: 81.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	34	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Bis(2-ethylhexyl) phthalate	<200		200	53	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Di-n-octyl phthalate	<200		200	82	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Benzo[b]fluoranthene	<40		40	7.8	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Benzo[k]fluoranthene	<40		40	9.6	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Benzo[a]pyrene	<40		40	7.3	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Indeno[1,2,3-cd]pyrene	<40		40	14	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Dibenz(a,h)anthracene	<40		40	11	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
Benzo[g,h,i]perylene	<40		40	14	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1
3 & 4 Methylphenol	<200		200	76	ug/Kg	☼	04/04/13 18:12	04/05/13 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*56*		*30 - 110*	*04/04/13 18:12*	*04/05/13 19:49*	*1*
Phenol-d5	*58*		*31 - 110*	*04/04/13 18:12*	*04/05/13 19:49*	*1*
Nitrobenzene-d5	*63*		*30 - 115*	*04/04/13 18:12*	*04/05/13 19:49*	*1*
2-Fluorobiphenyl	*71*		*30 - 119*	*04/04/13 18:12*	*04/05/13 19:49*	*1*
2,4,6-Tribromophenol	*76*		*35 - 137*	*04/04/13 18:12*	*04/05/13 19:49*	*1*
Terphenyl-d14	*60*		*36 - 134*	*04/04/13 18:12*	*04/05/13 19:49*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.15	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Arsenic	7.4		0.57	0.12	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Barium	140		0.57	0.067	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Beryllium	0.84		0.23	0.017	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Cadmium	0.17		0.11	0.028	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Chromium	16		0.57	0.095	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Cobalt	9.7		0.28	0.030	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Copper	8.9		0.57	0.15	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Iron	16000		11	4.9	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Lead	15	B	0.28	0.098	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Magnesium	2700		5.7	1.1	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Manganese	1400		5.7	0.80	mg/Kg	☼	04/04/13 07:47	04/10/13 19:59	10
Nickel	14		0.57	0.12	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Selenium	0.22	J	0.57	0.16	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Silver	<0.28		0.28	0.034	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Thallium	0.25	J	0.57	0.15	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Vanadium	30		0.28	0.043	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1
Zinc	45	B	1.1	0.39	mg/Kg	☼	04/04/13 07:47	04/09/13 15:46	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:50	1
Barium	0.51		0.50	0.010	mg/L		04/10/13 08:05	04/10/13 21:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/13 08:05	04/10/13 21:50	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/10/13 08:05	04/10/13 21:50	1
Chromium	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:50	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:50	1
Copper	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:50	1
Iron	0.22		0.20	0.20	mg/L		04/10/13 08:05	04/10/13 21:50	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02D (2-4)
Date Collected: 04/03/13 10:50
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-6
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/10/13 08:05	04/10/13 21:50	1
Manganese	0.021	J	0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:50	1
Nickel	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:50	1
Selenium	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:50	1
Silver	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:50	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:50	1
Zinc	0.020	J	0.10	0.020	mg/L		04/10/13 08:05	04/10/13 21:50	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/10/13 08:05	04/10/13 18:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/10/13 08:05	04/10/13 18:16	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000029	J	0.00020	0.000020	mg/L		04/10/13 15:30	04/11/13 11:18	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.020	0.0076	mg/Kg	☼	04/08/13 18:00	04/09/13 13:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.18		0.200	0.200	SU			04/08/13 21:45	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02 (10-12)
Date Collected: 04/03/13 11:00
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-7
Matrix: Solid
Percent Solids: 78.9

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.1		6.1	1.3	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Vinyl chloride	<6.1		6.1	1.3	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Bromomethane	<6.1		6.1	1.9	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Chloroethane	<6.1		6.1	1.7	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
1,1-Dichloroethene	<6.1		6.1	0.99	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Carbon disulfide	<6.1		6.1	0.92	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Acetone	<6.1		6.1	2.6	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Methylene Chloride	<6.1		6.1	1.7	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
trans-1,2-Dichloroethene	<6.1		6.1	0.84	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Methyl tert-butyl ether	<6.1		6.1	1.0	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
1,1-Dichloroethane	<6.1		6.1	0.97	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
cis-1,2-Dichloroethene	<6.1		6.1	0.87	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Methyl Ethyl Ketone	<6.1		6.1	2.2	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Chloroform	<6.1		6.1	0.71	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
1,1,1-Trichloroethane	<6.1		6.1	0.92	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Carbon tetrachloride	<6.1		6.1	1.1	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Benzene	<6.1		6.1	0.84	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
1,2-Dichloroethane	<6.1		6.1	0.91	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Trichloroethene	<6.1		6.1	1.0	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
1,2-Dichloropropane	<6.1		6.1	0.93	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Bromodichloromethane	<6.1		6.1	1.1	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
cis-1,3-Dichloropropene	<6.1		6.1	0.80	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
methyl isobutyl ketone	<6.1		6.1	1.6	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Toluene	<6.1		6.1	0.86	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
trans-1,3-Dichloropropene	<6.1		6.1	1.1	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
1,1,2-Trichloroethane	<6.1		6.1	0.84	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Tetrachloroethene	<6.1		6.1	0.94	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
2-Hexanone	<6.1		6.1	1.8	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Dibromochloromethane	<6.1		6.1	1.1	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Chlorobenzene	<6.1		6.1	0.62	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Ethylbenzene	<6.1		6.1	1.2	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Styrene	<6.1		6.1	0.80	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Bromoform	<6.1		6.1	1.4	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
1,1,2,2-Tetrachloroethane	<6.1		6.1	1.2	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
Xylenes, Total	<12		12	0.56	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1
1,3-Dichloropropene, Total	<6.1		6.1	0.80	ug/Kg	☼	04/03/13 11:00	04/09/13 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 134*	*04/03/13 11:00*	*04/09/13 14:13*	*1*
Toluene-d8 (Surr)	*101*		*75 - 122*	*04/03/13 11:00*	*04/09/13 14:13*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 122*	*04/03/13 11:00*	*04/09/13 14:13*	*1*
Dibromofluoromethane	*96*		*75 - 120*	*04/03/13 11:00*	*04/09/13 14:13*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	63	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Bis(2-chloroethyl)ether	<200		200	59	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
1,3-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
1,4-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
1,2-Dichlorobenzene	<200		200	44	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02 (10-12)
Date Collected: 04/03/13 11:00
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-7
Matrix: Solid
Percent Solids: 78.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	53	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2,2'-oxybis[1-chloropropane]	<200		200	44	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
N-Nitrosodi-n-propylamine	<200		200	51	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Hexachloroethane	<200		200	43	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2-Chlorophenol	<200		200	57	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Nitrobenzene	<40		40	12	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Bis(2-chloroethoxy)methane	<200		200	44	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
1,2,4-Trichlorobenzene	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Isophorone	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2,4-Dimethylphenol	<400		400	130	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Hexachlorobutadiene	<200		200	52	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Naphthalene	<40		40	7.7	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2,4-Dichlorophenol	<400		400	120	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
4-Chloroaniline	<810		810	120	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2,4,6-Trichlorophenol	<400		400	50	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2,4,5-Trichlorophenol	<400		400	110	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Hexachlorocyclopentadiene	<810		810	190	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2-Methylnaphthalene	<200		200	52	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2-Nitroaniline	<200		200	72	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2-Chloronaphthalene	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
4-Chloro-3-methylphenol	<400		400	190	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2,6-Dinitrotoluene	<200		200	48	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2-Nitrophenol	<400		400	63	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
3-Nitroaniline	<400		400	77	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Dimethyl phthalate	<200		200	50	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2,4-Dinitrophenol	<810	*	810	200	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Acenaphthylene	<40		40	9.2	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
2,4-Dinitrotoluene	<200		200	61	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Acenaphthene	<40		40	12	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Dibenzofuran	<200		200	48	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
4-Nitrophenol	<810		810	220	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Fluorene	<40		40	9.1	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
4-Nitroaniline	<400		400	82	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
4-Bromophenyl phenyl ether	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Hexachlorobenzene	<81		81	7.9	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Diethyl phthalate	<200		200	67	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
4-Chlorophenyl phenyl ether	<200		200	63	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Pentachlorophenol	<810		810	200	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
N-Nitrosodiphenylamine	<200		200	54	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
4,6-Dinitro-2-methylphenol	<400		400	97	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Phenanthrene	<40		40	17	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Anthracene	<40		40	9.4	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Carbazole	<200		200	56	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Di-n-butyl phthalate	<200		200	51	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Fluoranthene	<40		40	16	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Pyrene	<40		40	14	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Butyl benzyl phthalate	<200		200	50	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Benzo[a]anthracene	<40		40	8.4	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Chrysene	<40		40	9.0	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02 (10-12)
Date Collected: 04/03/13 11:00
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-7
Matrix: Solid
Percent Solids: 78.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	33	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Bis(2-ethylhexyl) phthalate	<200		200	53	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Di-n-octyl phthalate	<200		200	81	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Benzo[b]fluoranthene	<40		40	7.8	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Benzo[k]fluoranthene	<40		40	9.6	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Benzo[a]pyrene	<40		40	7.3	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Indeno[1,2,3-cd]pyrene	<40		40	14	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Dibenz(a,h)anthracene	<40		40	11	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
Benzo[g,h,i]perylene	<40		40	14	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1
3 & 4 Methylphenol	<200		200	76	ug/Kg	☼	04/04/13 18:12	04/05/13 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*60*		*30 - 110*	*04/04/13 18:12*	*04/05/13 20:10*	*1*
Phenol-d5	*61*		*31 - 110*	*04/04/13 18:12*	*04/05/13 20:10*	*1*
Nitrobenzene-d5	*66*		*30 - 115*	*04/04/13 18:12*	*04/05/13 20:10*	*1*
2-Fluorobiphenyl	*80*		*30 - 119*	*04/04/13 18:12*	*04/05/13 20:10*	*1*
2,4,6-Tribromophenol	*73*		*35 - 137*	*04/04/13 18:12*	*04/05/13 20:10*	*1*
Terphenyl-d14	*62*		*36 - 134*	*04/04/13 18:12*	*04/05/13 20:10*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.15	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Arsenic	7.3		0.58	0.13	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Barium	82		0.58	0.069	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Beryllium	0.70		0.23	0.017	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Cadmium	0.39		0.12	0.029	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Chromium	14		0.58	0.097	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Cobalt	7.4		0.29	0.031	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Copper	18		0.58	0.16	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Iron	18000		12	5.1	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Lead	11	B	0.29	0.10	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Magnesium	3400		5.8	1.1	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Manganese	520		0.58	0.082	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Nickel	23		0.58	0.13	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Selenium	<0.58		0.58	0.17	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Silver	<0.29		0.29	0.035	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Thallium	0.38	J	0.58	0.15	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Vanadium	28		0.29	0.044	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1
Zinc	50	B	1.2	0.40	mg/Kg	☼	04/04/13 07:47	04/09/13 16:07	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 22:15	1
Barium	0.41	J	0.50	0.010	mg/L		04/10/13 08:05	04/10/13 22:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/13 08:05	04/10/13 22:15	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/10/13 08:05	04/10/13 22:15	1
Chromium	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 22:15	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 22:15	1
Copper	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 22:15	1
Iron	<0.20		0.20	0.20	mg/L		04/10/13 08:05	04/10/13 22:15	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02 (10-12)
Date Collected: 04/03/13 11:00
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-7
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/10/13 08:05	04/10/13 22:15	1
Manganese	0.25		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 22:15	1
Nickel	0.014	J	0.025	0.010	mg/L		04/10/13 08:05	04/10/13 22:15	1
Selenium	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 22:15	1
Silver	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 22:15	1
Vanadium	0.0058	J	0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 22:15	1
Zinc	<0.10		0.10	0.020	mg/L		04/10/13 08:05	04/10/13 22:15	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.029		0.025	0.010	mg/L		04/15/13 08:30	04/15/13 18:55	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/10/13 08:05	04/10/13 18:21	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/10/13 08:05	04/10/13 18:21	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000025	J	0.00020	0.000020	mg/L		04/10/13 15:30	04/11/13 11:21	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.019	0.0071	mg/Kg	☼	04/08/13 18:00	04/09/13 13:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.68		0.200	0.200	SU			04/08/13 21:50	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
F	MS or MSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	Duplicate RPD exceeds the control limit
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-30-14
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-14
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.53

500-55724 COC

Chain of Custody Record

Report To (optional)
Contact: Sherr. Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Lab Job #: 500-55724
Chain of Custody Number: E748-07
Page 1 of 1
Temperature °C of Cooler: 3.8

Client: Ecology & Environment
Client Project #: EE-004330-0001-01770
Project Name: IL 31
Project Location/State: McHenry Co IL
Lab Project #: 500077751
Sampler: Scott Cooper
Lab PM: Dick Wright

Preservative / Parameter

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL metals	TCLP/SPLP TAL metals	pH/Cyanide					Comments
1		E4825B01 (0-2)	4-3-13	0940	2	S	X	X	X	X	X					
2		E4825B01 (4-6)	4-3-13	0945	2	S	X	X	X	X	X					
3		E4825B03 (0-2)	4-3-13	1010	2	S	X	X	X	X	X					
4		E4825B03 (4-6)	4-3-13	1035	2	S	X	X	X	X	X					
5		E4826B02 (2-4)	4-3-13	1050	2	S	X	X	X	X	X					
6		E4826B02D (2-4)	4-3-13	1050	2	S	X	X	X	X	X					
7		E4826B02 (10-12)	4-3-13	1100	2	S	X	X	X	X	X					
8		E4825B04 (0-2)	4-3-13	1130	2	S	X	X	X	X	X					
9		E4823B06 (0-2)	4-3-13	1200	2	S	X	X	X	X	X					
10		E4823B06 (2-4)	4-3-13	1205	2	S	X	X	X	X	X					

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days _____ Other
Requested Due Date

Sample Disposal
☐ Return to Client ✓ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	E.E.	4-3-13	1400		TA	4/3/13	1400
	TA	4/3/13	1530		TA-CHI	4/3/13	1530

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

4/16/2013

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd. Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
8900 block of IL 31

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.19776 (Decimal Degrees) Longitude: -88.28582 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☒ Map Interpolation ☐ Photo Interpolation ☐ Survey ☐ Other

IEPA Site Number(s), If assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

	Site Owner		Site Operator
Name:	Illinois Department of Transportation	Name:	
Street Address:	201 West Center Court	Street Address:	
PO Box:		PO Box:	
City:	Schaumburg State: IL	City:	State:
Zip Code:	60196-1096 Phone: 847-705-4159	Zip Code:	Phone:
Contact:	Sam Mead	Contact:	
Email, If available:	Sam.Mead@illinois.gov	Email, If available:	

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

IL 532-2922
LPC 663 Rev. 8/2012

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd

Latitude: 42.19778 Longitude: -88.28582

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Location E4828B01 was sampled within the construction zone adjacent to ISGS #1227V-28. Refer to PSI Report Section 4.2.1 and Section 4.3.1 ISGS #1227V-28 (Agricultural Land), Table 4-3, and Figure 4-5.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package 500-55131-1.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8/9/13
Date:

STEVEN GOBELMAN
196-000598
LICENSED
PROFESSIONAL
GEOLOGIST
STATE OF ILLINOIS

P.E. or P.G. Seal:

Analytical Data Summary
PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

Key to Data Tables

µg/kg = Micrograms per kilogram.
MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
mg/kg = Milligrams per kilogram.
mg/L = Milligrams per liter.
MSA = Metropolitan Statistical Area
TCLP = Toxicity Characteristic Leaching Procedure.
SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
SPLP = Synthetic Precipitation Leaching Procedure.
ND = Not detected.
NA = Not analyzed.
J = Estimated value.
B = Also present in blank.

Criteria Qualifiers

= pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
† = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical Areas.
* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is considered to exceed the MAC.
= Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
= Soil concentration exceeds the applicable MAC.

PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

CONTAMINANTS OF CONCERN

SITE	ISGS #1227V-28 (Agricultural Land)	Comparison Criteria		
BORING	E4828B01	MACs		TACO
SAMPLE	E4828B01 (0-2)			
MATRIX	Soil			
DEPTH (m)	0.0-0.6	Most Stringent	Within an MSA	SCGIER
pH	8.11			
VOCs (µg/kg)				
Acetone	**6.1**	25,000	--	--
SVOCs (µg/kg) - None Detected				
Inorganics (mg/kg)				
Arsenic	**5.0**	11.3	13	--
Barium	**81 BJ**	1,500	--	--
Beryllium	**0.65**	22	--	--
Chromium	**12**	21	--	--
Cobalt	**6.6**	20	--	--
Copper	**6.6**	2,900	--	--
Iron	**12,000**	15,000	15,900	--
Lead	**9.0**	107	--	--
Magnesium	**1,900**	325,000	--	--
Manganese	**490**	630	636	--
Mercury	**0.014 J**	0.89	--	--
Nickel	**10**	100	--	--
Selenium	**0.45 J**	1.3	--	--
Thallium	**0.32 J**	2.6	--	--
Vanadium	**24**	550	--	--
Zinc	**25**	5,100	--	--
TCLP Metals (mg/L)				
Barium	**0.57**	--	--	2
Manganese	**0.016 J**	--	--	0.15

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55131-1
Client Project/Site: IDOT - Algonquin - WO 48

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
3/25/2013 9:22:32 AM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

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Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4828B01 (0-2)
Date Collected: 03/11/13 13:35
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-5
Matrix: Solid
Percent Solids: 85.8

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.8		5.8	1.2	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Vinyl chloride	<5.8		5.8	1.2	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Bromomethane	<5.8		5.8	1.8	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Chloroethane	<5.8		5.8	1.6	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
1,1-Dichloroethene	<5.8		5.8	0.94	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Carbon disulfide	<5.8		5.8	0.87	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Acetone	6.1		5.8	2.5	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Methylene Chloride	<5.8		5.8	1.6	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
trans-1,2-Dichloroethene	<5.8		5.8	0.80	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Methyl tert-butyl ether	<5.8		5.8	0.96	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
1,1-Dichloroethane	<5.8		5.8	0.92	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
cis-1,2-Dichloroethene	<5.8		5.8	0.82	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Methyl Ethyl Ketone	<5.8		5.8	2.1	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Chloroform	<5.8		5.8	0.67	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
1,1,1-Trichloroethane	<5.8		5.8	0.87	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Carbon tetrachloride	<5.8		5.8	1.1	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Benzene	<5.8		5.8	0.80	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
1,2-Dichloroethane	<5.8		5.8	0.86	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Trichloroethene	<5.8		5.8	0.96	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
1,2-Dichloropropane	<5.8		5.8	0.88	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Bromodichloromethane	<5.8		5.8	1.0	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
cis-1,3-Dichloropropene	<5.8		5.8	0.76	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
methyl isobutyl ketone	<5.8		5.8	1.5	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Toluene	<5.8		5.8	0.82	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
trans-1,3-Dichloropropene	<5.8		5.8	1.0	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
1,1,2-Trichloroethane	<5.8		5.8	0.79	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Tetrachloroethene	<5.8		5.8	0.89	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
2-Hexanone	<5.8		5.8	1.7	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Dibromochloromethane	<5.8		5.8	1.0	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Chlorobenzene	<5.8		5.8	0.59	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Ethylbenzene	<5.8		5.8	1.2	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Styrene	<5.8		5.8	0.76	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Bromoform	<5.8		5.8	1.3	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
1,1,2,2-Tetrachloroethane	<5.8		5.8	1.2	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
Xylenes, Total	<12		12	0.53	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1
1,3-Dichloropropene, Total	<5.8		5.8	0.76	ug/Kg	☼	03/11/13 13:35	03/14/13 12:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 134*	*03/11/13 13:35*	*03/14/13 12:30*	*1*
Toluene-d8 (Surr)	*104*		*75 - 122*	*03/11/13 13:35*	*03/14/13 12:30*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 122*	*03/11/13 13:35*	*03/14/13 12:30*	*1*
Dibromofluoromethane	*101*		*75 - 120*	*03/11/13 13:35*	*03/14/13 12:30*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<190		190	61	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Bis(2-chloroethyl)ether	<190		190	57	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
1,3-Dichlorobenzene	<190		190	41	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
1,4-Dichlorobenzene	<190		190	41	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
1,2-Dichlorobenzene	<190		190	42	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4828B01 (0-2)
Date Collected: 03/11/13 13:35
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-5
Matrix: Solid
Percent Solids: 85.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<190		190	51	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2,2'-oxybis[1-chloropropane]	<190		190	43	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
N-Nitrosodi-n-propylamine	<190		190	49	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Hexachloroethane	<190		190	41	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2-Chlorophenol	<190		190	55	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Nitrobenzene	<38		38	12	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Bis(2-chloroethoxy)methane	<190		190	43	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
1,2,4-Trichlorobenzene	<190		190	44	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Isophorone	<190		190	43	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2,4-Dimethylphenol	<380		380	120	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Hexachlorobutadiene	<190		190	51	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Naphthalene	<38		38	7.4	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2,4-Dichlorophenol	<380		380	120	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
4-Chloroaniline	<780		780	120	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2,4,6-Trichlorophenol	<380		380	48	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2,4,5-Trichlorophenol	<380		380	110	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Hexachlorocyclopentadiene	<780		780	180	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2-Methylnaphthalene	<190		190	50	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2-Nitroaniline	<190		190	70	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2-Chloronaphthalene	<190		190	43	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
4-Chloro-3-methylphenol	<380		380	180	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2,6-Dinitrotoluene	<190		190	46	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2-Nitrophenol	<380		380	61	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
3-Nitroaniline	<380		380	75	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Dimethyl phthalate	<190		190	48	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2,4-Dinitrophenol	<780		780	200	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Acenaphthylene	<38		38	8.9	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
2,4-Dinitrotoluene	<190		190	59	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Acenaphthene	<38		38	12	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Dibenzofuran	<190		190	46	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
4-Nitrophenol	<780		780	210	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Fluorene	<38		38	8.8	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
4-Nitroaniline	<380		380	79	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
4-Bromophenyl phenyl ether	<190		190	43	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Hexachlorobenzene	<78		78	7.6	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Diethyl phthalate	<190		190	64	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
4-Chlorophenyl phenyl ether	<190		190	61	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Pentachlorophenol	<780		780	200	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
N-Nitrosodiphenylamine	<190		190	52	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
4,6-Dinitro-2-methylphenol	<380		380	94	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Phenanthrene	<38		38	16	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Anthracene	<38		38	9.1	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Carbazole	<190		190	54	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Di-n-butyl phthalate	<190		190	49	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Fluoranthene	<38		38	16	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Pyrene	<38		38	14	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Butyl benzyl phthalate	<190		190	48	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Benzo[a]anthracene	<38		38	8.1	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Chrysene	<38		38	8.7	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4828B01 (0-2)
Date Collected: 03/11/13 13:35
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-5
Matrix: Solid
Percent Solids: 85.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<190		190	32	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Bis(2-ethylhexyl) phthalate	<190		190	51	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Di-n-octyl phthalate	<190		190	78	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Benzo[b]fluoranthene	<38		38	7.5	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Benzo[k]fluoranthene	<38		38	9.2	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Benzo[a]pyrene	<38		38	7.0	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Indeno[1,2,3-cd]pyrene	<38		38	13	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Dibenz(a,h)anthracene	<38		38	11	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
Benzo[g,h,i]perylene	<38		38	13	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1
3 & 4 Methylphenol	<190		190	73	ug/Kg	☼	03/13/13 07:16	03/13/13 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*52*		*30 - 110*	*03/13/13 07:16*	*03/13/13 23:12*	*1*
Phenol-d5	*59*		*31 - 110*	*03/13/13 07:16*	*03/13/13 23:12*	*1*
Nitrobenzene-d5	*65*		*30 - 115*	*03/13/13 07:16*	*03/13/13 23:12*	*1*
2-Fluorobiphenyl	*71*		*30 - 119*	*03/13/13 07:16*	*03/13/13 23:12*	*1*
2,4,6-Tribromophenol	*58*		*35 - 137*	*03/13/13 07:16*	*03/13/13 23:12*	*1*
Terphenyl-d14	*66*		*36 - 134*	*03/13/13 07:16*	*03/13/13 23:12*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.15	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Arsenic	5.0		0.58	0.13	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Barium	81	B	0.58	0.069	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Beryllium	0.65		0.23	0.017	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Cadmium	<0.12		0.12	0.029	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Chromium	12		0.58	0.097	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Cobalt	6.6		0.29	0.031	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Copper	6.6		0.58	0.16	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Iron	12000		12	5.0	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Lead	9.0		0.29	0.10	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Magnesium	1900		5.8	1.1	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Manganese	490		0.58	0.082	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Nickel	10		0.58	0.13	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Selenium	0.45	J	0.58	0.17	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Silver	<0.29		0.29	0.035	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Thallium	0.32	J	0.58	0.15	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Vanadium	24		0.29	0.044	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1
Zinc	25		1.2	0.40	mg/Kg	☼	03/13/13 10:40	03/14/13 17:44	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/20/13 10:15	03/21/13 03:24	1
Barium	0.57		0.50	0.010	mg/L		03/20/13 10:15	03/21/13 03:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/20/13 10:15	03/21/13 03:24	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/20/13 10:15	03/21/13 03:24	1
Chromium	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:24	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 03:24	1
Copper	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:24	1
Iron	<0.20		0.20	0.20	mg/L		03/20/13 10:15	03/21/13 20:20	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4828B01 (0-2)
Date Collected: 03/11/13 13:35
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-5
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/20/13 10:15	03/21/13 03:24	1
Manganese	0.016	J	0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:24	1
Nickel	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:24	1
Selenium	<0.050		0.050	0.010	mg/L		03/20/13 10:15	03/21/13 03:24	1
Silver	<0.025		0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 03:24	1
Vanadium	<0.025		0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 03:24	1
Zinc	<0.10		0.10	0.020	mg/L		03/20/13 10:15	03/21/13 03:24	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		03/20/13 10:15	03/20/13 18:10	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/20/13 10:15	03/20/13 18:10	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000022	J B	0.00020	0.000020	mg/L		03/20/13 14:30	03/21/13 10:18	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.018	0.0070	mg/Kg	☼	03/13/13 14:45	03/14/13 09:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.11		0.200	0.200	SU			03/16/13 12:44	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	Duplicate RPD exceeds the control limit
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-11-13
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Lab Job #: 500-55131
Chain of Custody Number: E748-01
Page 1 of 1
Temperature °C of Cooler: 3.5

Report To (optional)		Bill To (optional)	
Contact:	Sherri Johnson	Contact:	
Company:		Company:	
Address:		Address:	
Address:		Address:	
Phone:		Phone:	
Fax:		Fax:	
E-Mail:		PO#/Reference#	

Client	Client Project #	Preservative
Ecology / Environment	EE-004330-0001-01770	
Project Name: FL 31		Parameter
Project Location/State: McHenry Co, IL	Lab Project #: 500007751	
Sampler: Scott Cooper	Lab PM: Dick Wright	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	Target TAL Metals	PAH's 8270					Comments
1		E4825B02(0-2)	3-11-13	1145	2	S	X	X	X	X	X					
2		E4824B01(4-6)	3-11-13	1230	2	S	X	X	X	X	X					
3		E4824B01(10-12)	3-11-13	1235	2	S	X	X	X	X	X					
4		E4818B01(0-2)	3-11-13	1255	2	S	X	X	X	X	X					
5		E4825B01(0-2)	3-11-13	1335	2	S	X	X	X	X	X					
6		E4819B01(0-2)	3-11-13	1500	2	S	X	X	X	X	X					
7		E4819B01(4-6)	3-11-13	1505	2	S	X	X	X	X	X					
8		E4819B05(0-2)	3-11-13	1525	2	S	X	X	X	X	X					
9		E4819B05(10-12)	3-11-13	1530	2	S	X	X	X	X	X					
10		E4819B03(0-2)	3-11-13	1550	2	S	X	X	X	X	X					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

	Company	Date	Time		Company	Date	Time
Relinquished By	E&E	3/12/13	1005	Received By	TAL	3-12-13	1005
Relinquished By	TAL	3-12-13	1041	Received By	TA	3/12/13	1041
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification
by Licensed Professional Engineer or Licensed Professional Geologist
for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation
LPC-663
Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd. Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
8100 block of IL 31

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.21014 (Decimal Degrees) Longitude: -88.28678 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☒ Map Interpolation ☐ Photo Interpolation ☐ Survey ☐ Other

IEPA Site Number(s), If assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

	Site Owner		Site Operator	
Name:	Illinois Department of Transportation		Name:	
Street Address:	201 West Center Court		Street Address:	
PO Box:			PO Box:	
City:	Schaumburg	State: IL	City:	State:
Zip Code:	60196-1096	Phone: 847-705-4159	Zip Code:	Phone:
Contact:	Sam Mead		Contact:	
Email, If available:	Sam.Mead@illinois.gov		Email, If available:	

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

IL 532-2922
LPC 663 Rev. 8/2012

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd

Latitude: 42.21014 Longitude: -88.28676

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations E4816B01 and E4816B03 were sampled within the construction zone adjacent to ISGS #1227V-16. Refer to Preliminary Site Investigation Report Section 4.2.1 and Section 4.3.1 ISGS #1227V-16 (Residence and Vacant Land), Table 4-3, and Figure 4-2.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package 500-55194-1.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8/9/13
Date:

STEVEN GOBELMAN
196-000598
LICENSED
PROFESSIONAL
GEOLOGIST
STATE OF ILLINOIS

P.E. or P.G. Seal:

Analytical Data Summary
PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

Key to Data Tables

µg/kg = Micrograms per kilogram.
MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
mg/kg = Milligrams per kilogram.
mg/L = Milligrams per liter.
MSA = Metropolitan Statistical Area
TCLP = Toxicity Characteristic Leaching Procedure.
SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
SPLP = Synthetic Precipitation Leaching Procedure.
ND = Not detected.
NA = Not analyzed.
J = Estimated value.
B = Also present in blank.
U = Analyte was analyzed for but not detected.

Criteria Qualifiers

\# = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
† = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical Areas.
* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is considered to exceed the MAC.
= Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
= Soil concentration exceeds the applicable MAC.

PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

CONTAMINANTS OF CONCERN

SITE	ISGS #1227V-16 (Residence and Vacant Land)		Comparison Criteria		
BORING	E4816B01	E4816B03	MACs		TACO
SAMPLE	E4816B01 (2-4)	E4816B03 (2-4)			
MATRIX	Soil	Soil			
DEPTH (m)	0.6-1.2	0.6-1.2	Most Stringent	Within an MSA	SCGIER
pH	6.85	7.81			
VOCs (µg/kg) - None Detected					
SVOCs (µg/kg) - None Detected					
Inorganics (mg/kg)					
Arsenic	**6.1**	**6.7**	11.3	13	--
Barium	**110**	**79**	1,500	--	--
Beryllium	**0.77**	**0.72**	22	--	--
Cadmium	ND U	**0.087 J**	5.2	--	--
Chromium	**16**	**15**	21	--	--
Cobalt	**12**	**7.7**	20	--	--
Copper	**8.2**	**19**	2,900	--	--
Iron	**16,000 †m**	**18,000 †m**	15,000	15,900	--
Lead	**13**	**10**	107	--	--
Magnesium	**2,200 BJ**	**2,500 BJ**	325,000	--	--
Manganese	**990 †m**	**500**	630	636	--
Mercury	**0.018 J**	**0.026**	0.89	--	--
Nickel	**9.5**	**22**	100	--	--
Selenium	**0.70**	**0.46 J**	1.3	--	--
Thallium	**0.33 J**	**0.32 J**	2.6	--	--
Vanadium	**29**	**27**	550	--	--
Zinc	**44**	**44**	5,100	--	--
TCLP Metals (mg/L)					
Barium	**0.36 J**	**0.46 J**	--	--	2
Manganese	ND U	**0.012 J**	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55194-1
Client Project/Site: IDOT - Algonquin - WO 48
Revision: 1

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
3/28/2013 4:01:17 PM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4816B01 (2-4)
Date Collected: 03/13/13 10:40
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-6
Matrix: Solid
Percent Solids: 80.8

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.2		6.2	1.3	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Vinyl chloride	<6.2		6.2	1.3	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Bromomethane	<6.2		6.2	1.9	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Chloroethane	<6.2		6.2	1.7	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
1,1-Dichloroethene	<6.2		6.2	1.0	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Carbon disulfide	<6.2		6.2	0.93	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Acetone	<6.2		6.2	2.7	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Methylene Chloride	<6.2		6.2	1.7	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
trans-1,2-Dichloroethene	<6.2		6.2	0.85	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Methyl tert-butyl ether	<6.2		6.2	1.0	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
1,1-Dichloroethane	<6.2		6.2	0.98	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
cis-1,2-Dichloroethene	<6.2		6.2	0.88	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Methyl Ethyl Ketone	<6.2		6.2	2.2	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Chloroform	<6.2		6.2	0.71	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
1,1,1-Trichloroethane	<6.2		6.2	0.93	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Carbon tetrachloride	<6.2		6.2	1.1	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Benzene	<6.2		6.2	0.85	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
1,2-Dichloroethane	<6.2		6.2	0.92	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Trichloroethene	<6.2		6.2	1.0	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
1,2-Dichloropropane	<6.2		6.2	0.94	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Bromodichloromethane	<6.2		6.2	1.1	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
cis-1,3-Dichloropropene	<6.2		6.2	0.81	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
methyl isobutyl ketone	<6.2		6.2	1.6	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Toluene	<6.2		6.2	0.87	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
trans-1,3-Dichloropropene	<6.2		6.2	1.1	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
1,1,2-Trichloroethane	<6.2		6.2	0.85	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Tetrachloroethene	<6.2		6.2	0.95	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
2-Hexanone	<6.2		6.2	1.8	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Dibromochloromethane	<6.2		6.2	1.1	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Chlorobenzene	<6.2		6.2	0.63	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Ethylbenzene	<6.2		6.2	1.3	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Styrene	<6.2		6.2	0.81	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Bromoform	<6.2		6.2	1.4	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
1,1,2,2-Tetrachloroethane	<6.2		6.2	1.3	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
Xylenes, Total	<12		12	0.56	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1
1,3-Dichloropropene, Total	<6.2		6.2	0.81	ug/Kg	☼	03/13/13 10:40	03/19/13 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 134*	*03/13/13 10:40*	*03/19/13 00:46*	*1*
Toluene-d8 (Surr)	*103*		*75 - 122*	*03/13/13 10:40*	*03/19/13 00:46*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 122*	*03/13/13 10:40*	*03/19/13 00:46*	*1*
Dibromofluoromethane	*104*		*75 - 120*	*03/13/13 10:40*	*03/19/13 00:46*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	64	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Bis(2-chloroethyl)ether	<200		200	60	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
1,3-Dichlorobenzene	<200		200	42	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
1,4-Dichlorobenzene	<200		200	42	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
1,2-Dichlorobenzene	<200		200	44	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4816B01 (2-4)
Date Collected: 03/13/13 10:40
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-6
Matrix: Solid
Percent Solids: 80.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	53	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2,2'-oxybis[1-chloropropane]	<200		200	45	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
N-Nitrosodi-n-propylamine	<200		200	51	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Hexachloroethane	<200		200	43	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2-Chlorophenol	<200		200	58	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Nitrobenzene	<40		40	12	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Bis(2-chloroethoxy)methane	<200		200	45	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
1,2,4-Trichlorobenzene	<200		200	46	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Isophorone	<200		200	45	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2,4-Dimethylphenol	<400		400	130	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Hexachlorobutadiene	<200		200	53	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Naphthalene	<40		40	7.8	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2,4-Dichlorophenol	<400		400	120	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
4-Chloroaniline	<810		810	120	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2,4,6-Trichlorophenol	<400		400	51	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2,4,5-Trichlorophenol	<400		400	120	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Hexachlorocyclopentadiene	<810		810	190	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2-Methylnaphthalene	<200		200	52	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2-Nitroaniline	<200		200	73	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2-Chloronaphthalene	<200		200	45	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
4-Chloro-3-methylphenol	<400		400	190	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2,6-Dinitrotoluene	<200		200	48	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2-Nitrophenol	<400		400	63	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
3-Nitroaniline	<400		400	78	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Dimethyl phthalate	<200		200	50	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2,4-Dinitrophenol	<810		810	210	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Acenaphthylene	<40		40	9.3	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
2,4-Dinitrotoluene	<200		200	62	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Acenaphthene	<40		40	12	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Dibenzofuran	<200		200	48	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
4-Nitrophenol	<810		810	220	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Fluorene	<40		40	9.2	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
4-Nitroaniline	<400		400	83	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
4-Bromophenyl phenyl ether	<200		200	45	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Hexachlorobenzene	<81		81	7.9	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Diethyl phthalate	<200		200	67	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
4-Chlorophenyl phenyl ether	<200		200	63	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Pentachlorophenol	<810		810	210	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
N-Nitrosodiphenylamine	<200		200	54	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
4,6-Dinitro-2-methylphenol	<400		400	98	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Phenanthrene	<40		40	17	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Anthracene	<40		40	9.5	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Carbazole	<200		200	57	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Di-n-butyl phthalate	<200		200	51	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Fluoranthene	<40		40	16	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Pyrene	<40		40	15	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Butyl benzyl phthalate	<200		200	50	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Benzo[a]anthracene	<40		40	8.4	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Chrysene	<40		40	9.1	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4816B01 (2-4)
Date Collected: 03/13/13 10:40
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-6
Matrix: Solid
Percent Solids: 80.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	34	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Bis(2-ethylhexyl) phthalate	<200		200	53	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Di-n-octyl phthalate	<200		200	82	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Benzo[b]fluoranthene	<40		40	7.8	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Benzo[k]fluoranthene	<40		40	9.6	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Benzo[a]pyrene	<40		40	7.3	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Indeno[1,2,3-cd]pyrene	<40		40	14	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Dibenz(a,h)anthracene	<40		40	11	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
Benzo[g,h,i]perylene	<40		40	14	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1
3 & 4 Methylphenol	<200		200	76	ug/Kg	☼	03/18/13 07:56	03/19/13 17:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*62*		*30 - 110*	*03/18/13 07:56*	*03/19/13 17:29*	*1*
Phenol-d5	*60*		*31 - 110*	*03/18/13 07:56*	*03/19/13 17:29*	*1*
Nitrobenzene-d5	*58*		*30 - 115*	*03/18/13 07:56*	*03/19/13 17:29*	*1*
2-Fluorobiphenyl	*59*		*30 - 119*	*03/18/13 07:56*	*03/19/13 17:29*	*1*
2,4,6-Tribromophenol	*77*		*35 - 137*	*03/18/13 07:56*	*03/19/13 17:29*	*1*
Terphenyl-d14	*78*		*36 - 134*	*03/18/13 07:56*	*03/19/13 17:29*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.16	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Arsenic	6.1		0.59	0.13	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Barium	110		0.59	0.070	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Beryllium	0.77		0.24	0.017	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Cadmium	<0.12		0.12	0.029	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Chromium	16		0.59	0.098	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Cobalt	12		0.29	0.031	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Copper	8.2		0.59	0.16	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Iron	16000		12	5.1	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Lead	13		0.29	0.10	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Magnesium	2200	B	5.9	1.1	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Manganese	990		5.9	0.83	mg/Kg	☼	03/14/13 16:30	03/18/13 12:47	10
Nickel	9.5		0.59	0.13	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Selenium	0.70		0.59	0.17	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Silver	<0.29		0.29	0.035	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Thallium	0.33	J	0.59	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Vanadium	29		0.29	0.045	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1
Zinc	44		1.2	0.40	mg/Kg	☼	03/14/13 16:30	03/16/13 02:29	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 01:48	1
Barium	0.36	J	0.50	0.010	mg/L		03/22/13 15:00	03/25/13 01:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/22/13 15:00	03/25/13 01:48	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/22/13 15:00	03/25/13 01:48	1
Chromium	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:48	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:48	1
Copper	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:48	1
Iron	<0.20		0.20	0.20	mg/L		03/22/13 15:00	03/25/13 01:48	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4816B01 (2-4)
Date Collected: 03/13/13 10:40
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-6
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/22/13 15:00	03/25/13 01:48	1
Manganese	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:48	1
Nickel	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:48	1
Selenium	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 01:48	1
Silver	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:48	1
Vanadium	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:48	1
Zinc	<0.10		0.10	0.020	mg/L		03/22/13 15:00	03/25/13 01:48	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		03/22/13 15:00	03/27/13 17:41	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/22/13 15:00	03/27/13 17:41	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000020	mg/L		03/22/13 14:00	03/25/13 11:11	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.020	0.0076	mg/Kg	☼	03/15/13 15:30	03/18/13 10:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.85		0.200	0.200	SU			03/26/13 12:41	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4816B03 (2-4)
Date Collected: 03/13/13 13:15
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-14
Matrix: Solid
Percent Solids: 83.1

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.1		6.1	1.3	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Vinyl chloride	<6.1		6.1	1.3	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Bromomethane	<6.1		6.1	1.8	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Chloroethane	<6.1		6.1	1.6	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
1,1-Dichloroethene	<6.1		6.1	0.98	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Carbon disulfide	<6.1		6.1	0.90	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Acetone	<6.1		6.1	2.6	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Methylene Chloride	<6.1		6.1	1.6	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
trans-1,2-Dichloroethene	<6.1		6.1	0.83	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Methyl tert-butyl ether	<6.1		6.1	1.0	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
1,1-Dichloroethane	<6.1		6.1	0.96	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
cis-1,2-Dichloroethene	<6.1		6.1	0.86	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Methyl Ethyl Ketone	<6.1		6.1	2.2	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Chloroform	<6.1		6.1	0.70	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
1,1,1-Trichloroethane	<6.1		6.1	0.90	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Carbon tetrachloride	<6.1		6.1	1.1	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Benzene	<6.1		6.1	0.83	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
1,2-Dichloroethane	<6.1		6.1	0.90	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Trichloroethene	<6.1		6.1	1.0	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
1,2-Dichloropropane	<6.1		6.1	0.92	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Bromodichloromethane	<6.1		6.1	1.0	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
cis-1,3-Dichloropropene	<6.1		6.1	0.79	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
methyl isobutyl ketone	<6.1		6.1	1.6	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Toluene	<6.1		6.1	0.85	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
trans-1,3-Dichloropropene	<6.1		6.1	1.1	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
1,1,2-Trichloroethane	<6.1		6.1	0.83	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Tetrachloroethene	<6.1		6.1	0.93	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
2-Hexanone	<6.1		6.1	1.7	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Dibromochloromethane	<6.1		6.1	1.1	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Chlorobenzene	<6.1		6.1	0.61	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Ethylbenzene	<6.1		6.1	1.2	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Styrene	<6.1		6.1	0.79	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Bromoform	<6.1		6.1	1.4	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
1,1,2,2-Tetrachloroethane	<6.1		6.1	1.2	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
Xylenes, Total	<12		12	0.55	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1
1,3-Dichloropropene, Total	<6.1		6.1	0.79	ug/Kg	☼	03/13/13 13:15	03/19/13 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 134*	*03/13/13 13:15*	*03/19/13 03:49*	*1*
Toluene-d8 (Surr)	*106*		*75 - 122*	*03/13/13 13:15*	*03/19/13 03:49*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 122*	*03/13/13 13:15*	*03/19/13 03:49*	*1*
Dibromofluoromethane	*107*		*75 - 120*	*03/13/13 13:15*	*03/19/13 03:49*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<190		190	60	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Bis(2-chloroethyl)ether	<190		190	56	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
1,3-Dichlorobenzene	<190		190	40	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
1,4-Dichlorobenzene	<190		190	40	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
1,2-Dichlorobenzene	<190		190	41	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4816B03 (2-4)
Date Collected: 03/13/13 13:15
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-14
Matrix: Solid
Percent Solids: 83.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<190		190	50	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2,2'-oxybis[1-chloropropane]	<190		190	42	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
N-Nitrosodi-n-propylamine	<190		190	48	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Hexachloroethane	<190		190	40	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2-Chlorophenol	<190		190	54	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Nitrobenzene	<37		37	12	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Bis(2-chloroethoxy)methane	<190		190	42	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
1,2,4-Trichlorobenzene	<190		190	43	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Isophorone	<190		190	42	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2,4-Dimethylphenol	<370		370	120	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Hexachlorobutadiene	<190		190	49	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Naphthalene	<37		37	7.2	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2,4-Dichlorophenol	<370		370	110	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
4-Chloroaniline	<760		760	110	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2,4,6-Trichlorophenol	<370		370	47	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2,4,5-Trichlorophenol	<370		370	110	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Hexachlorocyclopentadiene	<760		760	170	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2-Methylnaphthalene	<190		190	49	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2-Nitroaniline	<190		190	68	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2-Chloronaphthalene	<190		190	42	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
4-Chloro-3-methylphenol	<370		370	180	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2,6-Dinitrotoluene	<190		190	45	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2-Nitrophenol	<370		370	59	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
3-Nitroaniline	<370		370	73	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Dimethyl phthalate	<190		190	47	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2,4-Dinitrophenol	<760		760	190	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Acenaphthylene	<37		37	8.6	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
2,4-Dinitrotoluene	<190		190	58	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Acenaphthene	<37		37	11	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Dibenzofuran	<190		190	45	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
4-Nitrophenol	<760		760	200	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Fluorene	<37		37	8.6	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
4-Nitroaniline	<370		370	77	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
4-Bromophenyl phenyl ether	<190		190	42	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Hexachlorobenzene	<76		76	7.4	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Diethyl phthalate	<190		190	63	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
4-Chlorophenyl phenyl ether	<190		190	59	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Pentachlorophenol	<760		760	190	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
N-Nitrosodiphenylamine	<190		190	51	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
4,6-Dinitro-2-methylphenol	<370		370	91	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Phenanthrene	<37		37	16	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Anthracene	<37		37	8.8	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Carbazole	<190		190	53	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Di-n-butyl phthalate	<190		190	47	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Fluoranthene	<37		37	15	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Pyrene	<37		37	14	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Butyl benzyl phthalate	<190		190	47	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Benzo[a]anthracene	<37		37	7.9	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Chrysene	<37		37	8.5	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4816B03 (2-4)
Date Collected: 03/13/13 13:15
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-14
Matrix: Solid
Percent Solids: 83.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<190		190	31	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Bis(2-ethylhexyl) phthalate	<190		190	50	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Di-n-octyl phthalate	<190		190	76	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Benzo[b]fluoranthene	<37		37	7.3	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Benzo[k]fluoranthene	<37		37	9.0	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Benzo[a]pyrene	<37		37	6.9	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Indeno[1,2,3-cd]pyrene	<37		37	13	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Dibenz(a,h)anthracene	<37		37	11	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
Benzo[g,h,i]perylene	<37		37	13	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1
3 & 4 Methylphenol	<190		190	71	ug/Kg	☼	03/18/13 07:56	03/19/13 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*66*		*30 - 110*	*03/18/13 07:56*	*03/19/13 20:10*	*1*
Phenol-d5	*65*		*31 - 110*	*03/18/13 07:56*	*03/19/13 20:10*	*1*
Nitrobenzene-d5	*68*		*30 - 115*	*03/18/13 07:56*	*03/19/13 20:10*	*1*
2-Fluorobiphenyl	*58*		*30 - 119*	*03/18/13 07:56*	*03/19/13 20:10*	*1*
2,4,6-Tribromophenol	*82*		*35 - 137*	*03/18/13 07:56*	*03/19/13 20:10*	*1*
Terphenyl-d14	*88*		*36 - 134*	*03/18/13 07:56*	*03/19/13 20:10*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Arsenic	6.7		0.58	0.13	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Barium	79		0.58	0.069	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Beryllium	0.72		0.23	0.017	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Cadmium	0.087	J	0.12	0.029	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Chromium	15		0.58	0.097	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Cobalt	7.7		0.29	0.031	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Copper	19		0.58	0.16	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Iron	18000		12	5.1	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Lead	10		0.29	0.10	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Magnesium	2500	B	5.8	1.1	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Manganese	500		0.58	0.082	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Nickel	22		0.58	0.13	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Selenium	0.46	J	0.58	0.17	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Silver	<0.29		0.29	0.035	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Thallium	0.32	J	0.58	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Vanadium	27		0.29	0.044	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1
Zinc	44		1.2	0.40	mg/Kg	☼	03/14/13 16:30	03/16/13 03:33	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 02:55	1
Barium	0.46	J	0.50	0.010	mg/L		03/22/13 15:00	03/25/13 02:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/22/13 15:00	03/25/13 02:55	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/22/13 15:00	03/25/13 02:55	1
Chromium	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 02:55	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 02:55	1
Copper	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 02:55	1
Iron	<0.20		0.20	0.20	mg/L		03/22/13 15:00	03/25/13 02:55	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4816B03 (2-4)
Date Collected: 03/13/13 13:15
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-14
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/22/13 15:00	03/25/13 02:55	1
Manganese	0.012	J	0.025	0.010	mg/L		03/22/13 15:00	03/25/13 02:55	1
Nickel	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 02:55	1
Selenium	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 02:55	1
Silver	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 02:55	1
Vanadium	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 02:55	1
Zinc	<0.10		0.10	0.020	mg/L		03/22/13 15:00	03/25/13 02:55	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		03/22/13 15:00	03/27/13 17:49	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/22/13 15:00	03/27/13 17:49	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000020	mg/L		03/22/13 14:00	03/25/13 11:26	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.019	0.0073	mg/Kg	☼	03/15/13 15:30	03/18/13 10:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.81		0.200	0.200	SU			03/26/13 12:59	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	Duplicate RPD exceeds the control limit
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-11-13
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: Chris Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55194
Chain of Custody Number: E748-03
Page 1 of 1
Temperature °C of Cooler: (3.4) (3.2)

Client: Ecology & Environment
Client Project #: EE-004330-0001-01TTO
Project Name: IL 31
Project Location/State: McHenry County, IL
Lab Project #: 50007751
Sampler: Scott Cooper
Lab PM: Dick Wright

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	TCLP/SPLP TAL Metals	pH/% Solids					Comments
1		E4824B04 (0-2)	3-13-13	0920	2	S	X	X	X	X	X					
2		E4824B05 (2-4)	3-13-13	0946	2	S	X	X	X	X	X					
3		E4824B05 (E?)	3-13-13	0945	2	S	X	X	X	X	X					
4		E4824B06 (2-4)	3-13-13	1010	2	S	X	X	X	X	X					
5		E4824B06D (2-4)	3-13-13	1010	2	S	X	X	X	X	X					
6		E4816B01 (2-4)	3-13-13	1040	2	S	X	X	X	X	X					
7		E4819B04 (0-2)	3-13-13	1110	2	S	X	X	X	X	X					
8		E4819B04 (2-4)	3-13-13	1115	2	S	X	X	X	X	X					
9		E4819B02 (0-2)	3-13-13	1135	2	S	X	X	X	X	X					
10		E4819B02 (4-6)	3-13-13	1140	2	S	X	X	X	X	X					

Turnaround Time Required (Business Days)
__ 1 Day __ 2 Days __ 5 Days __ 7 Days __ 10 Days ✓ 15 Days ____ Other
Requested Due Date ____

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E&E	3-14-13	0835	[signature]	TestAmerica	03/14/13	0835
[signature]	TestAmerica	03/14/13	1010	[signature]	TA	3/14/13	1010

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

3/28/2013

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Report To (optional)
Contact: Marv. Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Lab Job #: 500-55194
Chain of Custody Number: E748-04
Page 1 of 1
Temperature °C of Cooler:

Client: Ecology Environment
Client Project #: EE-004331-0001-01TTG
Project Name: IL 31
Project Location/State: McHenry Co, IL
Lab Project #: 50007751
Sampler: Scott Cooper
Lab PM: Dick Wright

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	TCLP/SPLP TAL Metals	pH/Cyanide					Comments
11		E4813B01 (0-2)	3-13-13	1225	2	S	X	X	X	X	X					
12		E4813B01 (4-6)	3-13-13	1230	2	S	X	X	X	X	X					
13		E4813B02 (0-2)	3-13-13	1305	2	S	X	X	X	X	X					
14		E4816B03 (2-4)	3-13-13	1315	2	S	X	X	X	X	X					
15		E4816B02 (0-2)	3-13-13	1335	2	S	X	X	X	X	X					
16		E4824B02 (2-4)	3-13-13	1420	2	S	X	X	X	X	X					
17		E4824B02 (6-8)	3-13-13	1425	2	S	X	X	X	X	X					
18		E4824B03 (2-4)	3-13-13	1510	2	S	X	X	X	X	X					
19		E4824B03 (6-8)	3-13-13	1515	2	S	X	X	X	X	X					
									3-13-13							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days ___ Other
Requested Due Date ___

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E-E	3-14-13	0835	[signature]	TestAmerica	03/14/13	0835
[signature]	TestAmerica	03/14/13	1010	[signature]	TA	3/14/13	1010

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

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3/28/2013

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification
by Licensed Professional Engineer or Licensed Professional Geologist
for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation
LPC-663
Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (I) is uncontaminated soil and (II) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd. Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
8411 IL 31

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20649 (Decimal Degrees) Longitude: -88.28699 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☒ Map Interpolation ☐ Photo Interpolation ☐ Survey ☐ Other

IEPA Site Number(s), if assigned: BOL: 1118015017 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

	Site Owner		Site Operator
Name:	Illinois Department of Transportation	Name:	
Street Address:	201 West Center Court	Street Address:	
PO Box:		PO Box:	
City:	Schaumburg State: IL	City:	State:
Zip Code:	60196-1096 Phone: 847-705-4159	Zip Code:	Phone:
Contact:	Sam Mead	Contact:	
Email, if available:	Sam.Mead@illinois.gov	Email, if available:	

IL 532-2922
LPC 663 Rev. 8/2012

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd

Latitude: 42.20649 Longitude: -88.28699

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations E4821B02 and E4821B03 were sampled within the construction zone adjacent to ISGS #1227V-21. Refer to PSI Report Section 4.2.1 and Section 4.3.1 ISGS #1227V-21 (E-Wheels, Inc.), Table 4-3, and Figure 4-3.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package 500-55780-1.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8/2/13
Date:

STEVEN GOBELMAN
196-000598
LICENSED
PROFESSIONAL
GEOLOGIST
STATE OF ILLINOIS

P.E. or L.P.G. Seal:

Analytical Data Summary
PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

Key to Data Tables

µg/kg = Micrograms per kilogram.
MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
mg/kg = Milligrams per kilogram.
mg/L = Milligrams per liter.
MSA = Metropolitan Statistical Area
TCLP = Toxicity Characteristic Leaching Procedure.
SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
SPLP = Synthetic Precipitation Leaching Procedure.
ND = Not detected.
NA = Not analyzed.
J = Estimated value.
B = Also present in blank.
U = Analyte was analyzed for but not detected.

Criteria Qualifiers

\# = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
† = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical Areas.
* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is considered to exceed the MAC.
= Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
= Soil concentration exceeds the applicable MAC.

PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

CONTAMINANTS OF CONCERN

SITE	ISGS #1227V-21 (E-Wheels, Inc.)				Comparison Criteria		
BORING	E4821B02		E4821B03		MACs		TACO
SAMPLE	E4821B02 (0-2)	E4821B02 (4-6)	E4821B03 (2-4)	E4821B03 (4-6)			
MATRIX	Soil	Soil	Soil	Soil			
DEPTH (m)	0.0-0.6	1.2-1.8	0.6-1.2	1.2-1.8	Most Stringent	Within an MSA	SCGIER
pH	7.27	7.07	6.98	7.85			
VOCs (µg/kg)							
Acetone	17	ND U	ND U	ND U	25,000	--	--
Toluene	3.2 J	ND U	ND U	ND U	12,000	--	--
SVOCs (µg/kg)							
Benzo[a]anthracene	ND U	38 J	ND U	ND U	900	1,800	--
Benzo[a]pyrene	ND U	44	ND U	ND U	90	2,100	--
Benzo[b]fluoranthene	ND U	62	ND U	ND U	900	2,100	--
Benzo[g,h,i]perylene	ND U	49	ND U	ND U	--	--	--
Benzo[k]fluoranthene	ND U	26 J	ND U	ND U	9,000	--	--
Chrysene	ND U	59	ND U	ND U	88,000	--	--
Dibenzo(a,h)anthracene	ND U	15 J	ND U	ND U	90	420	--
Fluoranthene	ND U	120	ND U	ND U	3,100,000	--	--
Indeno[1,2,3-cd]pyrene	ND U	41	ND U	ND U	900	1,600	--
Phenanthrene	ND U	41	ND U	ND U	--	--	--
Pyrene	ND U	81	ND U	ND U	2,300,000	--	--
Inorganics (mg/kg)							
Arsenic	5.4	6.6	5.3	6.1	11.3	13	--
Barium	110 BJ	83 BJ	90 BJ	60 BJ	1,500	--	--
Beryllium	0.72	0.66	0.64	0.63	22	--	--
Cadmium	0.35	0.35	0.26	0.56	5.2	--	--
Chromium	17	15	15	14	21	--	--
Cobalt	7.6	7.3	5.8	7.6	20	--	--
Copper	10	16	11	19	2,900	--	--
Iron	13,000	14,000	13,000	14,000	15,000	15,900	--
Lead	11	9.5	8.7	9.7	107	--	--
Magnesium	4,900 BJ	2,700 BJ	2,300 BJ	8,900 BJ	325,000	--	--
Manganese	650 †m	450	380	540	630	636	--
Mercury	0.028	0.024	0.043	0.025	0.89	--	--
Nickel	13	19	13	21	100	--	--
Selenium	0.46 J	0.35 J	0.53 J	ND U	1.3	--	--
Thallium	0.33 J	0.33 J	0.23 J	0.31 J	2.6	--	--
Vanadium	28	30	27	26	550	--	--
Zinc	40	40	31	44	5,100	--	--
TCLP Metals (mg/L)							
Barium	0.66	0.52	0.48 J	0.40 J	--	--	2
Cadmium	ND U	ND U	ND U	ND U	--	--	0.005
Manganese	1.3	0.040	0.013 J	0.30	--	--	0.15
Mercury	0.000029 J	ND U	0.000033 J	ND U	--	--	0.002
Nickel	0.012 J	ND U	ND U	0.013 J	--	--	0.1
Zinc	0.024 J	ND U	0.035 J	0.028 J	--	--	5
SPLP Metals (mg/L)							
Manganese	0.14	NA	NA	ND U	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55780-1
Client Project/Site: IDOT - Algonquin - WO 48

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
4/22/2013 3:16:45 PM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B02 (0-2)
Date Collected: 04/04/13 10:10
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-11
Matrix: Solid
Percent Solids: 80.0

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.2		6.2	1.3	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Vinyl chloride	<6.2		6.2	1.3	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Bromomethane	<6.2		6.2	1.9	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Chloroethane	<6.2		6.2	1.7	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
1,1-Dichloroethene	<6.2		6.2	1.0	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Carbon disulfide	<6.2		6.2	0.93	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Acetone	17		6.2	2.7	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Methylene Chloride	<6.2		6.2	1.7	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
trans-1,2-Dichloroethene	<6.2		6.2	0.86	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Methyl tert-butyl ether	<6.2		6.2	1.0	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
1,1-Dichloroethane	<6.2		6.2	0.98	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
cis-1,2-Dichloroethene	<6.2		6.2	0.88	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Methyl Ethyl Ketone	<6.2		6.2	2.3	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Chloroform	<6.2		6.2	0.72	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
1,1,1-Trichloroethane	<6.2		6.2	0.93	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Carbon tetrachloride	<6.2		6.2	1.1	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Benzene	<6.2		6.2	0.85	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
1,2-Dichloroethane	<6.2		6.2	0.92	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Trichloroethene	<6.2		6.2	1.0	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
1,2-Dichloropropane	<6.2		6.2	0.94	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Bromodichloromethane	<6.2		6.2	1.1	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
cis-1,3-Dichloropropene	<6.2		6.2	0.82	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
methyl isobutyl ketone	<6.2		6.2	1.6	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Toluene	3.2	J	6.2	0.87	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
trans-1,3-Dichloropropene	<6.2		6.2	1.1	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
1,1,2-Trichloroethane	<6.2		6.2	0.85	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Tetrachloroethene	<6.2		6.2	0.95	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
2-Hexanone	<6.2		6.2	1.8	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Dibromochloromethane	<6.2		6.2	1.1	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Chlorobenzene	<6.2		6.2	0.63	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Ethylbenzene	<6.2		6.2	1.3	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Styrene	<6.2		6.2	0.82	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Bromoform	<6.2		6.2	1.4	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
1,1,2,2-Tetrachloroethane	<6.2		6.2	1.3	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
Xylenes, Total	<12		12	0.56	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1
1,3-Dichloropropene, Total	<6.2		6.2	0.82	ug/Kg	☼	04/03/13 10:10	04/09/13 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 134*	*04/03/13 10:10*	*04/09/13 17:44*	*1*
Toluene-d8 (Surr)	*109*		*75 - 122*	*04/03/13 10:10*	*04/09/13 17:44*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 122*	*04/03/13 10:10*	*04/09/13 17:44*	*1*
Dibromofluoromethane	*111*		*75 - 120*	*04/03/13 10:10*	*04/09/13 17:44*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	62	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Bis(2-chloroethyl)ether	<200		200	58	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
1,3-Dichlorobenzene	<200		200	41	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
1,4-Dichlorobenzene	<200		200	41	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
1,2-Dichlorobenzene	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B02 (0-2)
Date Collected: 04/04/13 10:10
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-11
Matrix: Solid
Percent Solids: 80.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	52	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2,2'-oxybis[1-chloropropane]	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
N-Nitrosodi-n-propylamine	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Hexachloroethane	<200		200	42	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2-Chlorophenol	<200		200	56	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Nitrobenzene	<39		39	12	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Bis(2-chloroethoxy)methane	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
1,2,4-Trichlorobenzene	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Isophorone	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2,4-Dimethylphenol	<390		390	120	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Hexachlorobutadiene	<200		200	52	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Naphthalene	<39		39	7.6	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2,4-Dichlorophenol	<390		390	120	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
4-Chloroaniline	<790		790	120	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2,4,6-Trichlorophenol	<390		390	49	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2,4,5-Trichlorophenol	<390		390	110	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Hexachlorocyclopentadiene	<790		790	180	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2-Methylnaphthalene	<200		200	51	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2-Nitroaniline	<200		200	71	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2-Chloronaphthalene	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
4-Chloro-3-methylphenol	<390		390	190	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2,6-Dinitrotoluene	<200		200	47	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2-Nitrophenol	<390		390	62	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
3-Nitroaniline	<390		390	76	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Dimethyl phthalate	<200		200	49	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2,4-Dinitrophenol	<790		790	200	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Acenaphthylene	<39		39	9.0	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
2,4-Dinitrotoluene	<200		200	60	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Acenaphthene	<39		39	12	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Dibenzofuran	<200		200	47	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
4-Nitrophenol	<790		790	210	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Fluorene	<39		39	8.9	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
4-Nitroaniline	<390		390	81	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
4-Bromophenyl phenyl ether	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Hexachlorobenzene	<79		79	7.7	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Diethyl phthalate	<200		200	66	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
4-Chlorophenyl phenyl ether	<200		200	62	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Pentachlorophenol	<790		790	200	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
N-Nitrosodiphenylamine	<200		200	53	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
4,6-Dinitro-2-methylphenol	<390		390	95	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Phenanthrene	<39		39	16	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Anthracene	<39		39	9.2	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Carbazole	<200		200	55	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Di-n-butyl phthalate	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Fluoranthene	<39		39	16	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Pyrene	<39		39	14	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Butyl benzyl phthalate	<200		200	49	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Benzo[a]anthracene	<39		39	8.2	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Chrysene	<39		39	8.9	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B02 (0-2)
Date Collected: 04/04/13 10:10
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-11
Matrix: Solid
Percent Solids: 80.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	33	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Bis(2-ethylhexyl) phthalate	<200		200	52	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Di-n-octyl phthalate	<200		200	80	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Benzo[b]fluoranthene	<39		39	7.6	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Benzo[k]fluoranthene	<39		39	9.4	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Benzo[a]pyrene	<39		39	7.2	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Indeno[1,2,3-cd]pyrene	<39		39	13	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Dibenz(a,h)anthracene	<39		39	11	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
Benzo[g,h,i]perylene	<39		39	13	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1
3 & 4 Methylphenol	<200		200	74	ug/Kg	☼	04/08/13 17:02	04/12/13 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*39*		*30 - 110*	*04/08/13 17:02*	*04/12/13 18:47*	*1*
Phenol-d5	*49*		*31 - 110*	*04/08/13 17:02*	*04/12/13 18:47*	*1*
Nitrobenzene-d5	*36*		*30 - 115*	*04/08/13 17:02*	*04/12/13 18:47*	*1*
2-Fluorobiphenyl	*47*		*30 - 119*	*04/08/13 17:02*	*04/12/13 18:47*	*1*
2,4,6-Tribromophenol	*51*		*35 - 137*	*04/08/13 17:02*	*04/12/13 18:47*	*1*
Terphenyl-d14	*52*		*36 - 134*	*04/08/13 17:02*	*04/12/13 18:47*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Arsenic	5.4		0.60	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Barium	110	B	0.60	0.072	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Beryllium	0.72		0.24	0.018	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Cadmium	0.35		0.12	0.030	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Chromium	17		0.60	0.10	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Cobalt	7.6		0.30	0.032	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Copper	10		0.60	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Iron	13000		11	4.9	mg/Kg	☼	04/15/13 09:41	04/16/13 21:01	1
Lead	11		0.30	0.10	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Magnesium	4900	B	6.0	1.2	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Manganese	650		5.7	0.80	mg/Kg	☼	04/15/13 09:41	04/18/13 10:24	10
Nickel	13		0.60	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Selenium	0.46	J	0.60	0.17	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Silver	<0.30		0.30	0.036	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Thallium	0.33	J	0.60	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Vanadium	28		0.30	0.046	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1
Zinc	40		1.2	0.41	mg/Kg	☼	04/05/13 13:00	04/13/13 05:40	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 07:07	1
Barium	0.66		0.50	0.010	mg/L		04/17/13 09:30	04/18/13 07:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/17/13 09:30	04/18/13 07:07	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/17/13 09:30	04/18/13 07:07	1
Chromium	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:07	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:07	1
Copper	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:07	1
Iron	<0.20		0.20	0.20	mg/L		04/17/13 09:30	04/18/13 07:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B02 (0-2)
Date Collected: 04/04/13 10:10
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-11
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/17/13 09:30	04/18/13 07:07	1
Manganese	1.3		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:07	1
Nickel	0.012	J	0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:07	1
Selenium	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 07:07	1
Silver	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:07	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:07	1
Zinc	0.024	J	0.10	0.020	mg/L		04/17/13 09:30	04/18/13 07:07	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.14		0.025	0.010	mg/L		04/19/13 08:35	04/20/13 01:09	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/17/13 09:30	04/19/13 10:29	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/17/13 09:30	04/19/13 10:29	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000029	J	0.00020	0.000020	mg/L		04/17/13 13:00	04/18/13 09:27	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.020	0.0076	mg/Kg	☼	04/09/13 14:15	04/10/13 10:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.27		0.200	0.200	SU			04/09/13 21:20	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B02 (4-6)
Date Collected: 04/04/13 10:15
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-12
Matrix: Solid
Percent Solids: 78.9

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.5		6.5	1.4	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Vinyl chloride	<6.5		6.5	1.4	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Bromomethane	<6.5		6.5	2.0	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Chloroethane	<6.5		6.5	1.8	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
1,1-Dichloroethene	<6.5		6.5	1.1	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Carbon disulfide	<6.5		6.5	0.97	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Acetone	<6.5		6.5	2.8	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Methylene Chloride	<6.5		6.5	1.8	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
trans-1,2-Dichloroethene	<6.5		6.5	0.90	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Methyl tert-butyl ether	<6.5		6.5	1.1	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
1,1-Dichloroethane	<6.5		6.5	1.0	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
cis-1,2-Dichloroethene	<6.5		6.5	0.92	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Methyl Ethyl Ketone	<6.5		6.5	2.4	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Chloroform	<6.5		6.5	0.75	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
1,1,1-Trichloroethane	<6.5		6.5	0.97	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Carbon tetrachloride	<6.5		6.5	1.2	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Benzene	<6.5		6.5	0.89	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
1,2-Dichloroethane	<6.5		6.5	0.96	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Trichloroethene	<6.5		6.5	1.1	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
1,2-Dichloropropane	<6.5		6.5	0.99	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Bromodichloromethane	<6.5		6.5	1.1	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
cis-1,3-Dichloropropene	<6.5		6.5	0.85	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
methyl isobutyl ketone	<6.5		6.5	1.7	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Toluene	<6.5		6.5	0.91	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
trans-1,3-Dichloropropene	<6.5		6.5	1.2	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
1,1,2-Trichloroethane	<6.5		6.5	0.89	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Tetrachloroethene	<6.5		6.5	0.99	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
2-Hexanone	<6.5		6.5	1.9	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Dibromochloromethane	<6.5		6.5	1.1	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Chlorobenzene	<6.5		6.5	0.66	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Ethylbenzene	<6.5		6.5	1.3	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Styrene	<6.5		6.5	0.85	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Bromoform	<6.5		6.5	1.5	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
1,1,2,2-Tetrachloroethane	<6.5		6.5	1.3	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
Xylenes, Total	<13		13	0.59	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1
1,3-Dichloropropene, Total	<6.5		6.5	0.85	ug/Kg	☼	04/03/13 10:15	04/09/13 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 134*	*04/03/13 10:15*	*04/09/13 18:07*	*1*
Toluene-d8 (Surr)	*111*		*75 - 122*	*04/03/13 10:15*	*04/09/13 18:07*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 122*	*04/03/13 10:15*	*04/09/13 18:07*	*1*
Dibromofluoromethane	*106*		*75 - 120*	*04/03/13 10:15*	*04/09/13 18:07*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	64	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Bis(2-chloroethyl)ether	<200		200	60	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
1,3-Dichlorobenzene	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
1,4-Dichlorobenzene	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
1,2-Dichlorobenzene	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B02 (4-6)
Date Collected: 04/04/13 10:15
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-12
Matrix: Solid
Percent Solids: 78.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	54	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2,2'-oxybis[1-chloropropane]	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
N-Nitrosodi-n-propylamine	<200		200	52	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Hexachloroethane	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2-Chlorophenol	<200		200	58	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Nitrobenzene	<40		40	13	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Bis(2-chloroethoxy)methane	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
1,2,4-Trichlorobenzene	<200		200	46	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Isophorone	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2,4-Dimethylphenol	<400		400	130	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Hexachlorobutadiene	<200		200	53	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Naphthalene	<40		40	7.8	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2,4-Dichlorophenol	<400		400	120	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
4-Chloroaniline	<820		820	120	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2,4,6-Trichlorophenol	<400		400	51	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2,4,5-Trichlorophenol	<400		400	120	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Hexachlorocyclopentadiene	<820		820	190	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2-Methylnaphthalene	<200		200	53	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2-Nitroaniline	<200		200	73	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2-Chloronaphthalene	<200		200	46	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
4-Chloro-3-methylphenol	<400		400	190	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2,6-Dinitrotoluene	<200		200	48	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2-Nitrophenol	<400		400	64	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
3-Nitroaniline	<400		400	79	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Dimethyl phthalate	<200		200	51	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2,4-Dinitrophenol	<820		820	210	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Acenaphthylene	<40		40	9.3	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
2,4-Dinitrotoluene	<200		200	62	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Acenaphthene	<40		40	12	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Dibenzofuran	<200		200	49	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
4-Nitrophenol	<820		820	220	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Fluorene	<40		40	9.2	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
4-Nitroaniline	<400		400	83	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
4-Bromophenyl phenyl ether	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Hexachlorobenzene	<82		82	8.0	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Diethyl phthalate	<200		200	68	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
4-Chlorophenyl phenyl ether	<200		200	64	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Pentachlorophenol	<820		820	210	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
N-Nitrosodiphenylamine	<200		200	55	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
4,6-Dinitro-2-methylphenol	<400		400	99	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Phenanthrene	41		40	17	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Anthracene	<40		40	9.6	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Carbazole	<200		200	57	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Di-n-butyl phthalate	<200		200	51	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Fluoranthene	120		40	17	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Pyrene	81		40	15	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Butyl benzyl phthalate	<200		200	51	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Benzo[a]anthracene	38	J	40	8.5	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Chrysene	59		40	9.2	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B02 (4-6)
Date Collected: 04/04/13 10:15
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-12
Matrix: Solid
Percent Solids: 78.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	34	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Bis(2-ethylhexyl) phthalate	<200		200	54	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Di-n-octyl phthalate	<200		200	83	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Benzo[b]fluoranthene	62		40	7.9	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Benzo[k]fluoranthene	26	J	40	9.7	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Benzo[a]pyrene	44		40	7.4	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Indeno[1,2,3-cd]pyrene	41		40	14	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Dibenz(a,h)anthracene	15	J	40	11	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
Benzo[g,h,i]perylene	49		40	14	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1
3 & 4 Methylphenol	<200		200	77	ug/Kg	☼	04/08/13 17:02	04/12/13 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*44*		*30 - 110*	*04/08/13 17:02*	*04/12/13 19:07*	*1*
Phenol-d5	*48*		*31 - 110*	*04/08/13 17:02*	*04/12/13 19:07*	*1*
Nitrobenzene-d5	*45*		*30 - 115*	*04/08/13 17:02*	*04/12/13 19:07*	*1*
2-Fluorobiphenyl	*52*		*30 - 119*	*04/08/13 17:02*	*04/12/13 19:07*	*1*
2,4,6-Tribromophenol	*54*		*35 - 137*	*04/08/13 17:02*	*04/12/13 19:07*	*1*
Terphenyl-d14	*56*		*36 - 134*	*04/08/13 17:02*	*04/12/13 19:07*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Arsenic	6.6		0.61	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Barium	83	B	0.61	0.073	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Beryllium	0.66		0.24	0.018	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Cadmium	0.35		0.12	0.030	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Chromium	15		0.61	0.10	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Cobalt	7.3		0.31	0.032	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Copper	16		0.61	0.17	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Iron	14000		12	5.3	mg/Kg	☼	04/15/13 09:41	04/16/13 21:07	1
Lead	9.5		0.31	0.11	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Magnesium	2700	B	6.1	1.2	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Manganese	450		0.61	0.086	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Nickel	19		0.61	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Selenium	0.35	J	0.61	0.18	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Silver	<0.31		0.31	0.037	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Thallium	0.33	J	0.61	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Vanadium	30		0.31	0.046	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1
Zinc	40		1.2	0.42	mg/Kg	☼	04/05/13 13:00	04/13/13 05:46	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 07:24	1
Barium	0.52		0.50	0.010	mg/L		04/17/13 09:30	04/18/13 07:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/17/13 09:30	04/18/13 07:24	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/17/13 09:30	04/18/13 07:24	1
Chromium	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:24	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:24	1
Copper	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:24	1
Iron	<0.20		0.20	0.20	mg/L		04/17/13 09:30	04/18/13 07:24	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B02 (4-6)
Date Collected: 04/04/13 10:15
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-12
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/17/13 09:30	04/18/13 07:24	1
Manganese	0.040		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:24	1
Nickel	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:24	1
Selenium	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 07:24	1
Silver	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:24	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:24	1
Zinc	<0.10		0.10	0.020	mg/L		04/17/13 09:30	04/18/13 07:24	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/17/13 09:30	04/19/13 10:30	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/17/13 09:30	04/19/13 10:30	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000039	J	0.00020	0.000020	mg/L		04/17/13 13:00	04/18/13 09:29	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.018	0.0070	mg/Kg	☼	04/09/13 14:15	04/10/13 10:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.07		0.200	0.200	SU			04/09/13 21:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B03 (2-4)
Date Collected: 04/04/13 11:30
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-15
Matrix: Solid
Percent Solids: 83.9

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.5		5.5	1.1	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Vinyl chloride	<5.5		5.5	1.1	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Bromomethane	<5.5		5.5	1.6	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Chloroethane	<5.5		5.5	1.5	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
1,1-Dichloroethene	<5.5		5.5	0.88	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Carbon disulfide	<5.5		5.5	0.82	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Acetone	<5.5		5.5	2.4	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Methylene Chloride	<5.5		5.5	1.5	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
trans-1,2-Dichloroethene	<5.5		5.5	0.75	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Methyl tert-butyl ether	<5.5		5.5	0.90	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
1,1-Dichloroethane	<5.5	*	5.5	0.86	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
cis-1,2-Dichloroethene	<5.5		5.5	0.77	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Methyl Ethyl Ketone	<5.5		5.5	2.0	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Chloroform	<5.5		5.5	0.63	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
1,1,1-Trichloroethane	<5.5		5.5	0.82	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Carbon tetrachloride	<5.5		5.5	0.99	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Benzene	<5.5		5.5	0.75	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
1,2-Dichloroethane	<5.5		5.5	0.81	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Trichloroethene	<5.5		5.5	0.90	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
1,2-Dichloropropane	<5.5		5.5	0.83	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Bromodichloromethane	<5.5		5.5	0.94	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
cis-1,3-Dichloropropene	<5.5		5.5	0.72	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
methyl isobutyl ketone	<5.5		5.5	1.4	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Toluene	<5.5		5.5	0.76	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
trans-1,3-Dichloropropene	<5.5		5.5	0.98	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
1,1,2-Trichloroethane	<5.5	*	5.5	0.74	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Tetrachloroethene	<5.5		5.5	0.83	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
2-Hexanone	<5.5		5.5	1.6	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Dibromochloromethane	<5.5		5.5	0.95	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Chlorobenzene	<5.5		5.5	0.55	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Ethylbenzene	<5.5		5.5	1.1	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Styrene	<5.5		5.5	0.72	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Bromoform	<5.5		5.5	1.3	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
1,1,2,2-Tetrachloroethane	<5.5	*	5.5	1.1	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
Xylenes, Total	<11		11	0.49	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1
1,3-Dichloropropene, Total	<5.5		5.5	0.72	ug/Kg	☼	04/03/13 11:05	04/10/13 11:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 134*	*04/03/13 11:05*	*04/10/13 11:38*	*1*
Toluene-d8 (Surr)	*110*		*75 - 122*	*04/03/13 11:05*	*04/10/13 11:38*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 122*	*04/03/13 11:05*	*04/10/13 11:38*	*1*
Dibromofluoromethane	*107*		*75 - 120*	*04/03/13 11:05*	*04/10/13 11:38*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<190		190	61	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Bis(2-chloroethyl)ether	<190		190	57	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
1,3-Dichlorobenzene	<190		190	41	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
1,4-Dichlorobenzene	<190		190	41	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
1,2-Dichlorobenzene	<190		190	42	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B03 (2-4)
Date Collected: 04/04/13 11:30
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-15
Matrix: Solid
Percent Solids: 83.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<190		190	51	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2,2'-oxybis[1-chloropropane]	<190		190	43	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
N-Nitrosodi-n-propylamine	<190		190	49	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Hexachloroethane	<190		190	41	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2-Chlorophenol	<190		190	55	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Nitrobenzene	<38		38	12	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Bis(2-chloroethoxy)methane	<190		190	43	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
1,2,4-Trichlorobenzene	<190		190	44	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Isophorone	<190		190	43	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2,4-Dimethylphenol	<380		380	120	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Hexachlorobutadiene	<190		190	51	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Naphthalene	<38		38	7.5	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2,4-Dichlorophenol	<380		380	120	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
4-Chloroaniline	<780		780	120	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2,4,6-Trichlorophenol	<380		380	49	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2,4,5-Trichlorophenol	<380		380	110	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Hexachlorocyclopentadiene	<780		780	180	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2-Methylnaphthalene	<190		190	50	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2-Nitroaniline	<190		190	70	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2-Chloronaphthalene	<190		190	44	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
4-Chloro-3-methylphenol	<380		380	190	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2,6-Dinitrotoluene	<190		190	46	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2-Nitrophenol	<380		380	61	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
3-Nitroaniline	<380		380	75	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Dimethyl phthalate	<190		190	48	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2,4-Dinitrophenol	<780	*	780	200	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Acenaphthylene	<38		38	8.9	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
2,4-Dinitrotoluene	<190		190	59	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Acenaphthene	<38		38	12	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Dibenzofuran	<190		190	47	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
4-Nitrophenol	<780	*	780	210	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Fluorene	<38		38	8.8	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
4-Nitroaniline	<380		380	79	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
4-Bromophenyl phenyl ether	<190		190	43	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Hexachlorobenzene	<78		78	7.6	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Diethyl phthalate	<190		190	65	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
4-Chlorophenyl phenyl ether	<190		190	61	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Pentachlorophenol	<780	*	780	200	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
N-Nitrosodiphenylamine	<190		190	52	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
4,6-Dinitro-2-methylphenol	<380		380	94	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Phenanthrene	<38		38	16	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Anthracene	<38		38	9.1	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Carbazole	<190		190	54	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Di-n-butyl phthalate	<190		190	49	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Fluoranthene	<38		38	16	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Pyrene	<38		38	14	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Butyl benzyl phthalate	<190		190	49	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Benzo[a]anthracene	<38		38	8.1	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Chrysene	<38		38	8.7	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B03 (2-4)
Date Collected: 04/04/13 11:30
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-15
Matrix: Solid
Percent Solids: 83.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<190		190	32	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Bis(2-ethylhexyl) phthalate	<190		190	51	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Di-n-octyl phthalate	<190		190	79	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Benzo[b]fluoranthene	<38		38	7.5	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Benzo[k]fluoranthene	<38		38	9.2	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Benzo[a]pyrene	<38		38	7.1	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Indeno[1,2,3-cd]pyrene	<38		38	13	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Dibenz(a,h)anthracene	<38		38	11	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
Benzo[g,h,i]perylene	<38		38	13	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1
3 & 4 Methylphenol	<190		190	73	ug/Kg	☼	04/18/13 18:39	04/19/13 15:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*50*		*30 - 110*	*04/18/13 18:39*	*04/19/13 15:19*	*1*
Phenol-d5	*55*		*31 - 110*	*04/18/13 18:39*	*04/19/13 15:19*	*1*
Nitrobenzene-d5	*54*		*30 - 115*	*04/18/13 18:39*	*04/19/13 15:19*	*1*
2-Fluorobiphenyl	*66*		*30 - 119*	*04/18/13 18:39*	*04/19/13 15:19*	*1*
2,4,6-Tribromophenol	*65*		*35 - 137*	*04/18/13 18:39*	*04/19/13 15:19*	*1*
Terphenyl-d14	*54*		*36 - 134*	*04/18/13 18:39*	*04/19/13 15:19*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Arsenic	5.3		0.55	0.12	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Barium	90	B	0.55	0.065	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Beryllium	0.64		0.22	0.016	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Cadmium	0.26		0.11	0.027	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Chromium	15		0.55	0.092	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Cobalt	5.8		0.27	0.029	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Copper	11		0.55	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Iron	13000		11	4.8	mg/Kg	☼	04/15/13 09:41	04/16/13 21:43	1
Lead	8.7		0.27	0.095	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Magnesium	2300	B	5.5	1.1	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Manganese	380		0.55	0.078	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Nickel	13		0.55	0.12	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Selenium	0.53	J	0.55	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Silver	<0.27		0.27	0.033	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Thallium	0.23	J	0.55	0.14	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Vanadium	27		0.27	0.042	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1
Zinc	31		1.1	0.38	mg/Kg	☼	04/05/13 13:00	04/13/13 06:05	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 07:40	1
Barium	0.48	J	0.50	0.010	mg/L		04/17/13 09:30	04/18/13 07:40	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/17/13 09:30	04/18/13 07:40	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/17/13 09:30	04/18/13 07:40	1
Chromium	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:40	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:40	1
Copper	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:40	1
Iron	<0.20		0.20	0.20	mg/L		04/17/13 09:30	04/18/13 07:40	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B03 (2-4)
Date Collected: 04/04/13 11:30
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-15
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/17/13 09:30	04/18/13 07:40	1
Manganese	0.013	J	0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:40	1
Nickel	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:40	1
Selenium	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 07:40	1
Silver	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:40	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:40	1
Zinc	0.035	J	0.10	0.020	mg/L		04/17/13 09:30	04/18/13 07:40	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/17/13 09:30	04/19/13 10:32	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/17/13 09:30	04/19/13 10:32	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000033	J	0.00020	0.000020	mg/L		04/17/13 13:00	04/18/13 09:35	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043		0.020	0.0076	mg/Kg	☼	04/09/13 14:15	04/10/13 11:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.98		0.200	0.200	SU			04/09/13 21:46	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B03 (4-6)
Date Collected: 04/04/13 11:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-16
Matrix: Solid
Percent Solids: 80.3

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.1		6.1	1.3	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Vinyl chloride	<6.1		6.1	1.3	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Bromomethane	<6.1		6.1	1.8	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Chloroethane	<6.1		6.1	1.7	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
1,1-Dichloroethene	<6.1		6.1	0.98	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Carbon disulfide	<6.1		6.1	0.91	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Acetone	<6.1		6.1	2.6	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Methylene Chloride	<6.1		6.1	1.6	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
trans-1,2-Dichloroethene	<6.1		6.1	0.83	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Methyl tert-butyl ether	<6.1		6.1	1.0	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
1,1-Dichloroethane	<6.1	*	6.1	0.96	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
cis-1,2-Dichloroethene	<6.1		6.1	0.86	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Methyl Ethyl Ketone	<6.1		6.1	2.2	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Chloroform	<6.1		6.1	0.70	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
1,1,1-Trichloroethane	<6.1		6.1	0.91	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Carbon tetrachloride	<6.1		6.1	1.1	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Benzene	<6.1		6.1	0.83	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
1,2-Dichloroethane	<6.1		6.1	0.90	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Trichloroethene	<6.1		6.1	1.0	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
1,2-Dichloropropane	<6.1		6.1	0.92	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Bromodichloromethane	<6.1		6.1	1.0	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
cis-1,3-Dichloropropene	<6.1		6.1	0.80	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
methyl isobutyl ketone	<6.1		6.1	1.6	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Toluene	<6.1		6.1	0.85	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
trans-1,3-Dichloropropene	<6.1		6.1	1.1	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
1,1,2-Trichloroethane	<6.1	*	6.1	0.83	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Tetrachloroethene	<6.1		6.1	0.93	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
2-Hexanone	<6.1		6.1	1.7	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Dibromochloromethane	<6.1		6.1	1.1	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Chlorobenzene	<6.1		6.1	0.62	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Ethylbenzene	<6.1		6.1	1.2	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Styrene	<6.1		6.1	0.80	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Bromoform	<6.1		6.1	1.4	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
1,1,2,2-Tetrachloroethane	<6.1	*	6.1	1.2	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
Xylenes, Total	<12		12	0.55	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1
1,3-Dichloropropene, Total	<6.1		6.1	0.80	ug/Kg	☼	04/03/13 11:35	04/10/13 12:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 134*	*04/03/13 11:35*	*04/10/13 12:02*	*1*
Toluene-d8 (Surr)	*111*		*75 - 122*	*04/03/13 11:35*	*04/10/13 12:02*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 122*	*04/03/13 11:35*	*04/10/13 12:02*	*1*
Dibromofluoromethane	*113*		*75 - 120*	*04/03/13 11:35*	*04/10/13 12:02*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<210		210	65	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Bis(2-chloroethyl)ether	<210		210	61	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
1,3-Dichlorobenzene	<210		210	43	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
1,4-Dichlorobenzene	<210		210	43	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
1,2-Dichlorobenzene	<210		210	45	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B03 (4-6)
Date Collected: 04/04/13 11:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-16
Matrix: Solid
Percent Solids: 80.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<210		210	54	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2,2'-oxybis[1-chloropropane]	<210		210	45	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
N-Nitrosodi-n-propylamine	<210		210	52	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Hexachloroethane	<210		210	44	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2-Chlorophenol	<210		210	58	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Nitrobenzene	<41		41	13	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Bis(2-chloroethoxy)methane	<210		210	45	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
1,2,4-Trichlorobenzene	<210		210	46	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Isophorone	<210		210	46	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2,4-Dimethylphenol	<410		410	130	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Hexachlorobutadiene	<210		210	54	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Naphthalene	<41		41	7.9	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2,4-Dichlorophenol	<410		410	120	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
4-Chloroaniline	<820		820	120	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2,4,6-Trichlorophenol	<410		410	51	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2,4,5-Trichlorophenol	<410		410	120	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Hexachlorocyclopentadiene	<820		820	190	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2-Methylnaphthalene	<210		210	53	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2-Nitroaniline	<210		210	74	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2-Chloronaphthalene	<210		210	46	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
4-Chloro-3-methylphenol	<410		410	200	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2,6-Dinitrotoluene	<210		210	49	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2-Nitrophenol	<410		410	64	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
3-Nitroaniline	<410		410	79	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Dimethyl phthalate	<210		210	51	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2,4-Dinitrophenol	<820		820	210	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Acenaphthylene	<41		41	9.4	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
2,4-Dinitrotoluene	<210		210	63	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Acenaphthene	<41		41	12	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Dibenzofuran	<210		210	49	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
4-Nitrophenol	<820		820	220	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Fluorene	<41		41	9.3	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
4-Nitroaniline	<410		410	84	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
4-Bromophenyl phenyl ether	<210		210	46	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Hexachlorobenzene	<82		82	8.0	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Diethyl phthalate	<210		210	68	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
4-Chlorophenyl phenyl ether	<210		210	64	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Pentachlorophenol	<820		820	210	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
N-Nitrosodiphenylamine	<210		210	55	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
4,6-Dinitro-2-methylphenol	<410		410	99	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Phenanthrene	<41		41	17	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Anthracene	<41		41	9.6	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Carbazole	<210		210	57	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Di-n-butyl phthalate	<210		210	52	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Fluoranthene	<41		41	17	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Pyrene	<41		41	15	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Butyl benzyl phthalate	<210		210	51	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Benzo[a]anthracene	<41		41	8.6	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Chrysene	<41		41	9.2	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B03 (4-6)
Date Collected: 04/04/13 11:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-16
Matrix: Solid
Percent Solids: 80.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<210		210	34	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Bis(2-ethylhexyl) phthalate	<210		210	54	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Di-n-octyl phthalate	<210		210	83	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Benzo[b]fluoranthene	<41		41	7.9	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Benzo[k]fluoranthene	<41		41	9.7	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Benzo[a]pyrene	<41		41	7.4	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Indeno[1,2,3-cd]pyrene	<41		41	14	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Dibenz(a,h)anthracene	<41		41	11	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
Benzo[g,h,i]perylene	<41		41	14	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1
3 & 4 Methylphenol	<210		210	77	ug/Kg	☼	04/08/13 17:02	04/12/13 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*42*		*30 - 110*	*04/08/13 17:02*	*04/12/13 20:27*	*1*
Phenol-d5	*43*		*31 - 110*	*04/08/13 17:02*	*04/12/13 20:27*	*1*
Nitrobenzene-d5	*44*		*30 - 115*	*04/08/13 17:02*	*04/12/13 20:27*	*1*
2-Fluorobiphenyl	*53*		*30 - 119*	*04/08/13 17:02*	*04/12/13 20:27*	*1*
2,4,6-Tribromophenol	*46*		*35 - 137*	*04/08/13 17:02*	*04/12/13 20:27*	*1*
Terphenyl-d14	*45*		*36 - 134*	*04/08/13 17:02*	*04/12/13 20:27*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Arsenic	6.1		0.60	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Barium	60	B	0.60	0.071	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Beryllium	0.63		0.24	0.018	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Cadmium	0.56		0.12	0.030	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Chromium	14		0.60	0.10	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Cobalt	7.6		0.30	0.031	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Copper	19		0.60	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Iron	14000		12	5.2	mg/Kg	☼	04/15/13 09:41	04/16/13 21:49	1
Lead	9.7		0.30	0.10	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Magnesium	8900	B	6.0	1.2	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Manganese	540		0.60	0.084	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Nickel	21		0.60	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Selenium	<0.60		0.60	0.17	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Silver	<0.30		0.30	0.036	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Thallium	0.31	J	0.60	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Vanadium	26		0.30	0.045	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1
Zinc	44		1.2	0.41	mg/Kg	☼	04/05/13 13:00	04/13/13 06:11	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 07:45	1
Barium	0.40	J	0.50	0.010	mg/L		04/17/13 09:30	04/18/13 07:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/17/13 09:30	04/18/13 07:45	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/17/13 09:30	04/18/13 07:45	1
Chromium	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:45	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:45	1
Copper	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:45	1
Iron	<0.20		0.20	0.20	mg/L		04/17/13 09:30	04/18/13 07:45	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4821B03 (4-6)
Date Collected: 04/04/13 11:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-16
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/17/13 09:30	04/18/13 07:45	1
Manganese	0.30		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:45	1
Nickel	0.013	J	0.025	0.010	mg/L		04/17/13 09:30	04/18/13 07:45	1
Selenium	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 07:45	1
Silver	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:45	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 07:45	1
Zinc	0.028	J	0.10	0.020	mg/L		04/17/13 09:30	04/18/13 07:45	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		04/19/13 08:35	04/20/13 01:36	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/17/13 09:30	04/19/13 10:33	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/17/13 09:30	04/19/13 10:33	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000029	J	0.00020	0.000020	mg/L		04/17/13 13:00	04/18/13 09:41	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.020	0.0076	mg/Kg	☼	04/09/13 14:15	04/10/13 11:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.85		0.200	0.200	SU			04/09/13 21:52	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-14
Illinois	NELAP	5	100201	04-30-14
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-30-14
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-14
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	07-15-13

TestAmerica
THE LEADER IN ENVIRONMENTAL
2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.5

500-55780 COC

Report To (optional)
Contact: Sheri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55780
Chain of Custody Number: E748-08
Page 1 of 1
Temperature °C of Cooler: (3.5) (4.4)

Client: Ecology & Environment
Client Project #: EE-004330-0001-01770
Project Name: IL 31
Project Location/State: McHenry Co, IL
Lab Project #: 50087151
Sampler: Scott Coup
Lab PM: Dick Wright

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	TCLP/SPLP TAL Metals	pH/% Solids					Comments
1		E4823B05 (0-2)	4-3-13	1235	2	S	X	X	X	X	X					
2		E4823B05 (8-10)	4-3-13	1240	2	S	X	X	X	X	X					
3		E4823B04 (2-4)	4-3-13	1255	2	S	X	X	X	X	X					
4		E4822B01 (0-2)	4-3-13	1400	2	S	X	X	X	X	X					
5		E4822B01 (6-8)	4-3-13	1405	2	S	X	X	X	X	X					
6		E4822B03 (2-4)	4-3-13	1435	2	S	X	X	X	X	X					
7		E4822B03 (4-6)	4-3-13	1440	2	S	X	X	X	X	X					
8		E4822B02 (0-2)	4-3-13	1455	2	S	X	X	X	X	X					
9		E4822B02 (4-6)	4-3-13	1500	2	S	X	X	X	X	X					

SC 4-3-13

Turnaround Time Required (Business Days)
__ 1 Day __ 2 Days __ 5 Days __ 7 Days __ 10 Days ✓ 15 Days __ Other
Requested Due Date

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for __ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E&E	4-3-13	1645	Cooler	E&E	4-3-13 1645	Seal # 149607
Cooler	E&E	4-4-13	0700	[signature]	E&E	4-4-13	0700
[signature]	E&E	4-4-13	1315	[signature]	TA	4/4/13	1315

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

[signature] TA 4/4/13 1640 [signature] TA

Client Comments: rel. Jeff Tamer 4/5/13 0930

Lab Comments: 4/5/13 0830 REC'd by: [signature] TA 4/5/13 0930

4/22/2013

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: Sherri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55780
Chain of Custody Number: E748-09
Page 1 of 1
Temperature °C of Cooler:

Client: Ecology & Environment
Client Project #: EE-004330-0001-01TT6
Project Name: IL 31
Project Location/State: McHenry Co, IL
Lab Project #: 50007751
Sampler: Scott Coop
Lab PM: Dick Wright

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL metals	TCLP/SPLP TAL metals	pH/% solids					Comments
10		E4820B01(2-4)	4-4-13	0915	2	S	X	X	X	X	X					
11		E4821B02(0-2)	4-4-13	1010	2	S	X	X	X	X	X					
12		E4821B02(4-6)	4-4-13	1015	2	S	X	X	X	X	X					
13		E4821B01 (2-4)	4-4-13	1100	2	S	X	X	X	X	X					
14		E4821B01 (6-8)	4-4-13	1105	2	S	X	X	X	X	X					
15		E4821B03(2-4)	4-4-13	1130	2	S	X	X	X	X	X					
16		E4821B03(4-6)	4-4-13	1135	2	S	X	X	X	X	X					

4-4-13

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
__ 1 Day __ 2 Days __ 5 Days __ 7 Days __ 10 Days ✓ 15 Days __ Other
Requested Due Date __

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for __ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E&E	4-4-13	1314	[signature]	TA	4/4/13	13:15
[signature]	TA	4/4/13	1640	[signature]		4/5/13	0830
[signature]		4/5/13	0930	[signature]	TA	4/5/13	0930

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

4/22/2013

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification
by Licensed Professional Engineer or Licensed Professional Geologist
for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation
LPC-663
Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd. Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
8415 IL 31

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20603 (Decimal Degrees) Longitude: -88.28703 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☒ Map Interpolation ☐ Photo Interpolation ☐ Survey ☐ Other

IEPA Site Number(s), If assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner		Site Operator	
Name:	Illinois Department of Transportation	Name:	
Street Address:	201 West Center Court	Street Address:	
PO Box:		PO Box:	
City:	Schaumburg State: IL	City:	State:
Zip Code:	60196-1096 Phone: 847-705-4159	Zip Code:	Phone:
Contact:	Sam Mead	Contact:	
Email, If available:	Sam.Mead@illinois.gov	Email, If available:	

IL 532-2922
LPC 663 Rev. 8/2012

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd

Latitude: 42.20603 Longitude: -88.28703

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations E4822B02 and E4822B03 were sampled within the construction zone adjacent to ISGS #1227V-22. Refer to PSI Report Section 4.2.1 and Section 4.3.1 ISGS #1227V-22 (Berquist Marine Center), Table 4-3, and Figure 4-3.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package 500-55780-1.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8/2/13
Date:

P.E. or P.G. Seal:

STEVEN GOBELMAN
196-000598
LICENSED
PROFESSIONAL
GEOLOGIST
STATE OF ILLINOIS

Analytical Data Summary
PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

Key to Data Tables

µg/kg = Micrograms per kilogram.
MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
mg/kg = Milligrams per kilogram.
mg/L = Milligrams per liter.
MSA = Metropolitan Statistical Area
TCLP = Toxicity Characteristic Leaching Procedure.
SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
SPLP = Synthetic Precipitation Leaching Procedure.
ND = Not detected.
NA = Not analyzed.
J = Estimated value.
B = Also present in blank.
U = Analyte was analyzed for but not detected.

Criteria Qualifiers

\# = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
† = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical Areas.
* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is considered to exceed the MAC.
= Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
= Soil concentration exceeds the applicable MAC.

PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09
CONTAMINANTS OF CONCERN

SITE	ISGS #1227V-22 (Berquist Marine Center)				Comparison Criteria		
BORING	E4822B02		E4822B03		MACs		TACO
SAMPLE	E4822B02 (0-2)	E4822B02 (4-6)	E4822B03 (2-4)	E4822B03 (4-6)			
MATRIX	Soil	Soil	Soil	Soil			
DEPTH (m)	0.0-0.6	1.2-1.8	0.6-1.2	1.2-1.8	Most Stringent	Within an MSA	SCGIER
pH	7.17	8.03	7.09	6.96			
VOCs (µg/kg) - None Detected							
SVOCs (µg/kg)							
Benzo[a]anthracene	9.3 J	ND U	ND U	ND U	900	1,800	--
Benzo[a]pyrene	9.0 J	ND U	ND U	ND U	90	2,100	--
Benzo[b]fluoranthene	14 J	ND U	ND U	ND U	900	2,100	--
Chrysene	11 J	ND U	ND U	ND U	88,000	--	--
Fluoranthene	24 J	ND U	ND U	ND U	3,100,000	--	--
Pyrene	15 J	ND U	ND U	ND U	2,300,000	--	--
Inorganics (mg/kg)							
Arsenic	5.5	4.2	8.3	6.8	11.3	13	--
Barium	76 BJ	29 BJ	85 BJ	89 BJ	1,500	--	--
Beryllium	0.62	0.38	0.70	0.63	22	--	--
Cadmium	0.30	0.56	0.48	0.32	5.2	--	--
Chromium	14	7.5	16	14	21	--	--
Cobalt	6.5	3.8	10	6.9	20	--	--
Copper	11	11	20	15	2,900	--	--
Iron	16,000 †m	9,600	14,000	16,000 †m	15,000	15,900	--
Lead	13	5.3	11	8.5	107	--	--
Magnesium	3,300 BJ	48,000 BJ	3,600 BJ	2,400 BJ	325,000	--	--
Manganese	470	360	930 †m	830 †m	630	636	--
Mercury	0.032	0.012 J	0.030	0.039	0.89	--	--
Nickel	13	9.1	19	18	100	--	--
Selenium	0.52 J	ND U	0.32 J	0.40 J	1.3	--	--
Thallium	0.25 J	ND U	0.49 J	0.23 J	2.6	--	--
Vanadium	28	16	34	28	550	--	--
Zinc	31	24	49	31	5,100	--	--
TCLP Metals (mg/L)							
Barium	0.39 J	0.33 J	0.55	0.45 J	--	--	2
Manganese	0.030	0.40	0.57	ND U	--	--	0.15
Mercury	ND U	0.000032 J	ND U	ND U	--	--	0.002
Zinc	ND U	ND U	ND U	0.023 J	--	--	5
SPLP Metals (mg/L)							
Manganese	NA	0.020 J	0.15	NA	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55780-1
Client Project/Site: IDOT - Algonquin - WO 48

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
4/22/2013 3:16:45 PM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B03 (2-4)
Date Collected: 04/03/13 14:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-6
Matrix: Solid
Percent Solids: 81.2

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.4		6.4	1.3	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Vinyl chloride	<6.4		6.4	1.3	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Bromomethane	<6.4		6.4	1.9	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Chloroethane	<6.4		6.4	1.7	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
1,1-Dichloroethene	<6.4		6.4	1.0	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Carbon disulfide	<6.4		6.4	0.96	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Acetone	<6.4		6.4	2.8	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Methylene Chloride	<6.4		6.4	1.7	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
trans-1,2-Dichloroethene	<6.4		6.4	0.88	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Methyl tert-butyl ether	<6.4		6.4	1.1	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
1,1-Dichloroethane	<6.4		6.4	1.0	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
cis-1,2-Dichloroethene	<6.4		6.4	0.91	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Methyl Ethyl Ketone	<6.4		6.4	2.3	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Chloroform	<6.4		6.4	0.74	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
1,1,1-Trichloroethane	<6.4		6.4	0.96	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Carbon tetrachloride	<6.4		6.4	1.2	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Benzene	<6.4		6.4	0.88	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
1,2-Dichloroethane	<6.4		6.4	0.95	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Trichloroethene	<6.4		6.4	1.1	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
1,2-Dichloropropane	<6.4		6.4	0.97	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Bromodichloromethane	<6.4		6.4	1.1	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
cis-1,3-Dichloropropene	<6.4		6.4	0.84	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
methyl isobutyl ketone	<6.4		6.4	1.7	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Toluene	<6.4		6.4	0.90	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
trans-1,3-Dichloropropene	<6.4		6.4	1.1	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
1,1,2-Trichloroethane	<6.4		6.4	0.87	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Tetrachloroethene	<6.4		6.4	0.98	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
2-Hexanone	<6.4		6.4	1.8	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Dibromochloromethane	<6.4		6.4	1.1	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Chlorobenzene	<6.4		6.4	0.65	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Ethylbenzene	<6.4		6.4	1.3	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Styrene	<6.4		6.4	0.84	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Bromoform	<6.4		6.4	1.5	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
1,1,2,2-Tetrachloroethane	<6.4		6.4	1.3	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
Xylenes, Total	<13		13	0.58	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1
1,3-Dichloropropene, Total	<6.4		6.4	0.84	ug/Kg	☼	04/03/13 14:35	04/09/13 15:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 134*	*04/03/13 14:35*	*04/09/13 15:46*	*1*
Toluene-d8 (Surr)	*112*		*75 - 122*	*04/03/13 14:35*	*04/09/13 15:46*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 122*	*04/03/13 14:35*	*04/09/13 15:46*	*1*
Dibromofluoromethane	*109*		*75 - 120*	*04/03/13 14:35*	*04/09/13 15:46*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	63	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Bis(2-chloroethyl)ether	<200		200	59	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
1,3-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
1,4-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
1,2-Dichlorobenzene	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B03 (2-4)
Date Collected: 04/03/13 14:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-6
Matrix: Solid
Percent Solids: 81.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	53	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2,2'-oxybis[1-chloropropane]	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
N-Nitrosodi-n-propylamine	<200		200	51	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Hexachloroethane	<200		200	42	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2-Chlorophenol	<200		200	57	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Nitrobenzene	<40		40	12	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Bis(2-chloroethoxy)methane	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
1,2,4-Trichlorobenzene	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Isophorone	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2,4-Dimethylphenol	<400		400	120	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Hexachlorobutadiene	<200		200	52	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Naphthalene	<40		40	7.7	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2,4-Dichlorophenol	<400		400	120	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
4-Chloroaniline	<800		800	120	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2,4,6-Trichlorophenol	<400		400	50	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2,4,5-Trichlorophenol	<400		400	110	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Hexachlorocyclopentadiene	<800		800	180	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2-Methylnaphthalene	<200		200	52	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2-Nitroaniline	<200		200	72	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2-Chloronaphthalene	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
4-Chloro-3-methylphenol	<400		400	190	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2,6-Dinitrotoluene	<200		200	47	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2-Nitrophenol	<400		400	62	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
3-Nitroaniline	<400		400	77	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Dimethyl phthalate	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2,4-Dinitrophenol	<800		800	200	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Acenaphthylene	<40		40	9.1	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
2,4-Dinitrotoluene	<200		200	61	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Acenaphthene	<40		40	12	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Dibenzofuran	<200		200	48	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
4-Nitrophenol	<800		800	210	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Fluorene	<40		40	9.0	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
4-Nitroaniline	<400		400	82	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
4-Bromophenyl phenyl ether	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Hexachlorobenzene	<80		80	7.8	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Diethyl phthalate	<200		200	66	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
4-Chlorophenyl phenyl ether	<200		200	63	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Pentachlorophenol	<800		800	200	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
N-Nitrosodiphenylamine	<200		200	54	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
4,6-Dinitro-2-methylphenol	<400		400	97	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Phenanthrene	<40		40	17	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Anthracene	<40		40	9.4	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Carbazole	<200		200	56	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Di-n-butyl phthalate	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Fluoranthene	<40		40	16	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Pyrene	<40		40	14	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Butyl benzyl phthalate	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Benzo[a]anthracene	<40		40	8.3	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Chrysene	<40		40	9.0	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B03 (2-4)
Date Collected: 04/03/13 14:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-6
Matrix: Solid
Percent Solids: 81.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	33	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Bis(2-ethylhexyl) phthalate	<200		200	53	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Di-n-octyl phthalate	<200		200	81	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Benzo[b]fluoranthene	<40		40	7.7	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Benzo[k]fluoranthene	<40		40	9.5	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Benzo[a]pyrene	<40		40	7.2	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Indeno[1,2,3-cd]pyrene	<40		40	13	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Dibenz(a,h)anthracene	<40		40	11	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
Benzo[g,h,i]perylene	<40		40	13	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1
3 & 4 Methylphenol	<200		200	75	ug/Kg	☼	04/08/13 17:02	04/12/13 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*49*		*30 - 110*	*04/08/13 17:02*	*04/12/13 17:07*	*1*
Phenol-d5	*54*		*31 - 110*	*04/08/13 17:02*	*04/12/13 17:07*	*1*
Nitrobenzene-d5	*49*		*30 - 115*	*04/08/13 17:02*	*04/12/13 17:07*	*1*
2-Fluorobiphenyl	*65*		*30 - 119*	*04/08/13 17:02*	*04/12/13 17:07*	*1*
2,4,6-Tribromophenol	*63*		*35 - 137*	*04/08/13 17:02*	*04/12/13 17:07*	*1*
Terphenyl-d14	*53*		*36 - 134*	*04/08/13 17:02*	*04/12/13 17:07*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Arsenic	8.3		0.57	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Barium	85	B	0.57	0.068	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Beryllium	0.70		0.23	0.017	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Cadmium	0.48		0.11	0.028	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Chromium	16		0.57	0.096	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Cobalt	10		0.29	0.030	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Copper	20		0.57	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Iron	14000		12	5.3	mg/Kg	☼	04/15/13 09:41	04/16/13 20:30	1
Lead	11		0.29	0.099	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Magnesium	3600	B	5.7	1.1	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Manganese	930		5.7	0.81	mg/Kg	☼	04/05/13 13:00	04/14/13 20:37	10
Nickel	19		0.57	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Selenium	0.32	J	0.57	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Silver	<0.29		0.29	0.035	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Thallium	0.49	J	0.57	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Vanadium	34		0.29	0.044	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1
Zinc	49		1.1	0.39	mg/Kg	☼	04/05/13 13:00	04/13/13 04:54	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 06:26	1
Barium	0.55		0.50	0.010	mg/L		04/17/13 09:30	04/18/13 06:26	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/17/13 09:30	04/18/13 06:26	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/17/13 09:30	04/18/13 06:26	1
Chromium	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:26	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:26	1
Copper	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:26	1
Iron	<0.20		0.20	0.20	mg/L		04/17/13 09:30	04/18/13 06:26	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B03 (2-4)
Date Collected: 04/03/13 14:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-6
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/17/13 09:30	04/18/13 06:26	1
Manganese	0.57		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:26	1
Nickel	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:26	1
Selenium	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 06:26	1
Silver	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:26	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:26	1
Zinc	<0.10		0.10	0.020	mg/L		04/17/13 09:30	04/18/13 06:26	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.15		0.025	0.010	mg/L		04/19/13 08:35	04/20/13 00:57	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/17/13 09:30	04/19/13 10:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/17/13 09:30	04/19/13 10:19	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000040	J	0.00020	0.000020	mg/L		04/17/13 13:00	04/18/13 09:17	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.021	0.0078	mg/Kg	☼	04/09/13 14:15	04/10/13 10:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.09		0.200	0.200	SU			04/09/13 20:49	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B03 (4-6)
Date Collected: 04/03/13 14:40
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-7
Matrix: Solid
Percent Solids: 83.1

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.5		5.5	1.1	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Vinyl chloride	<5.5		5.5	1.1	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Bromomethane	<5.5		5.5	1.7	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Chloroethane	<5.5		5.5	1.5	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
1,1-Dichloroethene	<5.5		5.5	0.88	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Carbon disulfide	<5.5		5.5	0.82	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Acetone	<5.5		5.5	2.4	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Methylene Chloride	<5.5		5.5	1.5	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
trans-1,2-Dichloroethene	<5.5		5.5	0.75	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Methyl tert-butyl ether	<5.5		5.5	0.90	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
1,1-Dichloroethane	<5.5		5.5	0.87	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
cis-1,2-Dichloroethene	<5.5		5.5	0.77	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Methyl Ethyl Ketone	<5.5		5.5	2.0	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Chloroform	<5.5		5.5	0.63	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
1,1,1-Trichloroethane	<5.5		5.5	0.82	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Carbon tetrachloride	<5.5		5.5	1.0	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Benzene	<5.5		5.5	0.75	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
1,2-Dichloroethane	<5.5		5.5	0.81	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Trichloroethene	<5.5		5.5	0.90	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
1,2-Dichloropropane	<5.5		5.5	0.83	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Bromodichloromethane	<5.5		5.5	0.94	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
cis-1,3-Dichloropropene	<5.5		5.5	0.72	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
methyl isobutyl ketone	<5.5		5.5	1.4	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Toluene	<5.5		5.5	0.77	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
trans-1,3-Dichloropropene	<5.5		5.5	0.98	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
1,1,2-Trichloroethane	<5.5		5.5	0.75	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Tetrachloroethene	<5.5		5.5	0.84	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
2-Hexanone	<5.5		5.5	1.6	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Dibromochloromethane	<5.5		5.5	0.95	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Chlorobenzene	<5.5		5.5	0.55	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Ethylbenzene	<5.5		5.5	1.1	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Styrene	<5.5		5.5	0.72	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Bromoform	<5.5		5.5	1.3	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
1,1,2,2-Tetrachloroethane	<5.5		5.5	1.1	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
Xylenes, Total	<11		11	0.50	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1
1,3-Dichloropropene, Total	<5.5		5.5	0.72	ug/Kg	☼	04/03/13 14:40	04/09/13 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 134*	*04/03/13 14:40*	*04/09/13 16:10*	*1*
Toluene-d8 (Surr)	*111*		*75 - 122*	*04/03/13 14:40*	*04/09/13 16:10*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 122*	*04/03/13 14:40*	*04/09/13 16:10*	*1*
Dibromofluoromethane	*110*		*75 - 120*	*04/03/13 14:40*	*04/09/13 16:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	62	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Bis(2-chloroethyl)ether	<200		200	58	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
1,3-Dichlorobenzene	<200		200	41	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
1,4-Dichlorobenzene	<200		200	41	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
1,2-Dichlorobenzene	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B03 (4-6)
Date Collected: 04/03/13 14:40
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-7
Matrix: Solid
Percent Solids: 83.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	52	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2,2'-oxybis[1-chloropropane]	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
N-Nitrosodi-n-propylamine	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Hexachloroethane	<200		200	42	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2-Chlorophenol	<200		200	56	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Nitrobenzene	<39		39	12	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Bis(2-chloroethoxy)methane	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
1,2,4-Trichlorobenzene	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Isophorone	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2,4-Dimethylphenol	<390		390	120	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Hexachlorobutadiene	<200		200	51	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Naphthalene	<39		39	7.5	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2,4-Dichlorophenol	<390		390	120	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
4-Chloroaniline	<790		790	120	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2,4,6-Trichlorophenol	<390		390	49	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2,4,5-Trichlorophenol	<390		390	110	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Hexachlorocyclopentadiene	<790		790	180	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2-Methylnaphthalene	<200		200	51	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2-Nitroaniline	<200		200	70	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2-Chloronaphthalene	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
4-Chloro-3-methylphenol	<390		390	190	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2,6-Dinitrotoluene	<200		200	46	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2-Nitrophenol	<390		390	61	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
3-Nitroaniline	<390		390	75	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Dimethyl phthalate	<200		200	49	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2,4-Dinitrophenol	<790		790	200	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Acenaphthylene	<39		39	9.0	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
2,4-Dinitrotoluene	<200		200	60	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Acenaphthene	<39		39	12	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Dibenzofuran	<200		200	47	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
4-Nitrophenol	<790		790	210	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Fluorene	<39		39	8.9	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
4-Nitroaniline	<390		390	80	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
4-Bromophenyl phenyl ether	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Hexachlorobenzene	<79		79	7.7	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Diethyl phthalate	<200		200	65	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
4-Chlorophenyl phenyl ether	<200		200	61	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Pentachlorophenol	<790		790	200	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
N-Nitrosodiphenylamine	<200		200	53	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
4,6-Dinitro-2-methylphenol	<390		390	95	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Phenanthrene	<39		39	16	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Anthracene	<39		39	9.2	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Carbazole	<200		200	55	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Di-n-butyl phthalate	<200		200	49	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Fluoranthene	<39		39	16	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Pyrene	<39		39	14	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Butyl benzyl phthalate	<200		200	49	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Benzo[a]anthracene	<39		39	8.2	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Chrysene	<39		39	8.8	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B03 (4-6)
Date Collected: 04/03/13 14:40
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-7
Matrix: Solid
Percent Solids: 83.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	33	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Bis(2-ethylhexyl) phthalate	<200		200	52	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Di-n-octyl phthalate	<200		200	79	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Benzo[b]fluoranthene	<39		39	7.6	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Benzo[k]fluoranthene	<39		39	9.3	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Benzo[a]pyrene	<39		39	7.1	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Indeno[1,2,3-cd]pyrene	<39		39	13	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Dibenz(a,h)anthracene	<39		39	11	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
Benzo[g,h,i]perylene	<39		39	13	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1
3 & 4 Methylphenol	<200		200	74	ug/Kg	☼	04/08/13 17:02	04/12/13 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*38*		*30 - 110*	*04/08/13 17:02*	*04/12/13 17:27*	*1*
Phenol-d5	*42*		*31 - 110*	*04/08/13 17:02*	*04/12/13 17:27*	*1*
Nitrobenzene-d5	*41*		*30 - 115*	*04/08/13 17:02*	*04/12/13 17:27*	*1*
2-Fluorobiphenyl	*45*		*30 - 119*	*04/08/13 17:02*	*04/12/13 17:27*	*1*
2,4,6-Tribromophenol	*59*		*35 - 137*	*04/08/13 17:02*	*04/12/13 17:27*	*1*
Terphenyl-d14	*50*		*36 - 134*	*04/08/13 17:02*	*04/12/13 17:27*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Arsenic	6.8		0.57	0.12	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Barium	89	B	0.57	0.068	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Beryllium	0.63		0.23	0.017	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Cadmium	0.32		0.11	0.028	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Chromium	14		0.57	0.096	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Cobalt	6.9		0.29	0.030	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Copper	15		0.57	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Iron	16000		12	5.2	mg/Kg	☼	04/15/13 09:41	04/16/13 20:36	1
Lead	8.5		0.29	0.098	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Magnesium	2400	B	5.7	1.1	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Manganese	830		5.7	0.81	mg/Kg	☼	04/05/13 13:00	04/14/13 20:41	10
Nickel	18		0.57	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Selenium	0.40	J	0.57	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Silver	<0.29		0.29	0.034	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Thallium	0.23	J	0.57	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Vanadium	28		0.29	0.043	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1
Zinc	31		1.1	0.39	mg/Kg	☼	04/05/13 13:00	04/13/13 05:00	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 06:32	1
Barium	0.45	J	0.50	0.010	mg/L		04/17/13 09:30	04/18/13 06:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/17/13 09:30	04/18/13 06:32	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/17/13 09:30	04/18/13 06:32	1
Chromium	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:32	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:32	1
Copper	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:32	1
Iron	<0.20		0.20	0.20	mg/L		04/17/13 09:30	04/18/13 06:32	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B03 (4-6)
Date Collected: 04/03/13 14:40
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-7
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/17/13 09:30	04/18/13 06:32	1
Manganese	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:32	1
Nickel	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:32	1
Selenium	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 06:32	1
Silver	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:32	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:32	1
Zinc	0.023	J	0.10	0.020	mg/L		04/17/13 09:30	04/18/13 06:32	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/17/13 09:30	04/19/13 10:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/17/13 09:30	04/19/13 10:20	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000050	J	0.00020	0.000020	mg/L		04/17/13 13:00	04/18/13 09:19	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.019	0.0074	mg/Kg	☼	04/09/13 14:15	04/10/13 10:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.96		0.200	0.200	SU			04/09/13 20:55	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B02 (0-2)
Date Collected: 04/03/13 14:55
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-8
Matrix: Solid
Percent Solids: 86.0

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.4		5.4	1.1	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Vinyl chloride	<5.4		5.4	1.1	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Bromomethane	<5.4		5.4	1.6	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Chloroethane	<5.4		5.4	1.5	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
1,1-Dichloroethene	<5.4		5.4	0.88	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Carbon disulfide	<5.4		5.4	0.81	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Acetone	<5.4		5.4	2.3	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Methylene Chloride	<5.4		5.4	1.5	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
trans-1,2-Dichloroethene	<5.4		5.4	0.75	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Methyl tert-butyl ether	<5.4		5.4	0.90	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
1,1-Dichloroethane	<5.4	*	5.4	0.86	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
cis-1,2-Dichloroethene	<5.4		5.4	0.77	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Methyl Ethyl Ketone	<5.4		5.4	2.0	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Chloroform	<5.4		5.4	0.62	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
1,1,1-Trichloroethane	<5.4		5.4	0.81	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Carbon tetrachloride	<5.4		5.4	0.99	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Benzene	<5.4		5.4	0.74	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
1,2-Dichloroethane	<5.4		5.4	0.80	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Trichloroethene	<5.4		5.4	0.89	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
1,2-Dichloropropane	<5.4		5.4	0.82	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Bromodichloromethane	<5.4		5.4	0.93	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
cis-1,3-Dichloropropene	<5.4		5.4	0.71	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
methyl isobutyl ketone	<5.4		5.4	1.4	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Toluene	<5.4		5.4	0.76	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
trans-1,3-Dichloropropene	<5.4		5.4	0.97	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
1,1,2-Trichloroethane	<5.4	*	5.4	0.74	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Tetrachloroethene	<5.4		5.4	0.83	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
2-Hexanone	<5.4		5.4	1.6	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Dibromochloromethane	<5.4		5.4	0.94	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Chlorobenzene	<5.4		5.4	0.55	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Ethylbenzene	<5.4		5.4	1.1	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Styrene	<5.4		5.4	0.71	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Bromoform	<5.4		5.4	1.2	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
1,1,2,2-Tetrachloroethane	<5.4	*	5.4	1.1	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
Xylenes, Total	<11		11	0.49	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1
1,3-Dichloropropene, Total	<5.4		5.4	0.71	ug/Kg	☼	04/03/13 14:55	04/10/13 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 134*	*04/03/13 14:55*	*04/10/13 11:15*	*1*
Toluene-d8 (Surr)	*111*		*75 - 122*	*04/03/13 14:55*	*04/10/13 11:15*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 122*	*04/03/13 14:55*	*04/10/13 11:15*	*1*
Dibromofluoromethane	*112*		*75 - 120*	*04/03/13 14:55*	*04/10/13 11:15*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<190		190	61	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Bis(2-chloroethyl)ether	<190		190	57	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
1,3-Dichlorobenzene	<190		190	40	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
1,4-Dichlorobenzene	<190		190	40	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
1,2-Dichlorobenzene	<190		190	42	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B02 (0-2)
Date Collected: 04/03/13 14:55
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-8
Matrix: Solid
Percent Solids: 86.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<190		190	51	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2,2'-oxybis[1-chloropropane]	<190		190	43	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
N-Nitrosodi-n-propylamine	<190		190	49	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Hexachloroethane	<190		190	41	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2-Chlorophenol	<190		190	55	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Nitrobenzene	<38		38	12	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Bis(2-chloroethoxy)methane	<190		190	42	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
1,2,4-Trichlorobenzene	<190		190	43	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Isophorone	<190		190	43	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2,4-Dimethylphenol	<380		380	120	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Hexachlorobutadiene	<190		190	50	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Naphthalene	<38		38	7.4	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2,4-Dichlorophenol	<380		380	120	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
4-Chloroaniline	<770		770	120	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2,4,6-Trichlorophenol	<380		380	48	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2,4,5-Trichlorophenol	<380		380	110	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Hexachlorocyclopentadiene	<770		770	180	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2-Methylnaphthalene	<190		190	50	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2-Nitroaniline	<190		190	69	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2-Chloronaphthalene	<190		190	43	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
4-Chloro-3-methylphenol	<380		380	180	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2,6-Dinitrotoluene	<190		190	46	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2-Nitrophenol	<380		380	60	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
3-Nitroaniline	<380		380	74	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Dimethyl phthalate	<190		190	48	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2,4-Dinitrophenol	<770		770	200	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Acenaphthylene	<38		38	8.8	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
2,4-Dinitrotoluene	<190		190	59	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Acenaphthene	<38		38	11	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Dibenzofuran	<190		190	46	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
4-Nitrophenol	<770		770	210	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Fluorene	<38		38	8.7	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
4-Nitroaniline	<380		380	79	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
4-Bromophenyl phenyl ether	<190		190	43	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Hexachlorobenzene	<77		77	7.6	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Diethyl phthalate	<190		190	64	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
4-Chlorophenyl phenyl ether	<190		190	60	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Pentachlorophenol	<770		770	200	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
N-Nitrosodiphenylamine	<190		190	52	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
4,6-Dinitro-2-methylphenol	<380		380	93	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Phenanthrene	<38		38	16	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Anthracene	<38		38	9.0	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Carbazole	<190		190	54	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Di-n-butyl phthalate	<190		190	48	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Fluoranthene	24	J	38	16	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Pyrene	15	J	38	14	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Butyl benzyl phthalate	<190		190	48	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Benzo[a]anthracene	9.3	J	38	8.1	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Chrysene	11	J	38	8.7	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B02 (0-2)
Date Collected: 04/03/13 14:55
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-8
Matrix: Solid
Percent Solids: 86.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<190		190	32	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Bis(2-ethylhexyl) phthalate	<190		190	51	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Di-n-octyl phthalate	<190		190	78	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Benzo[b]fluoranthene	14	J	38	7.5	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Benzo[k]fluoranthene	<38		38	9.2	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Benzo[a]pyrene	9.0	J	38	7.0	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Indeno[1,2,3-cd]pyrene	<38		38	13	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Dibenz(a,h)anthracene	<38		38	11	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
Benzo[g,h,i]perylene	<38		38	13	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1
3 & 4 Methylphenol	<190		190	73	ug/Kg	☼	04/08/13 17:02	04/12/13 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*52*		*30 - 110*	*04/08/13 17:02*	*04/12/13 17:47*	*1*
Phenol-d5	*51*		*31 - 110*	*04/08/13 17:02*	*04/12/13 17:47*	*1*
Nitrobenzene-d5	*55*		*30 - 115*	*04/08/13 17:02*	*04/12/13 17:47*	*1*
2-Fluorobiphenyl	*59*		*30 - 119*	*04/08/13 17:02*	*04/12/13 17:47*	*1*
2,4,6-Tribromophenol	*72*		*35 - 137*	*04/08/13 17:02*	*04/12/13 17:47*	*1*
Terphenyl-d14	*60*		*36 - 134*	*04/08/13 17:02*	*04/12/13 17:47*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.14	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Arsenic	5.5		0.54	0.12	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Barium	76	B	0.54	0.064	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Beryllium	0.62		0.21	0.016	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Cadmium	0.30		0.11	0.027	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Chromium	14		0.54	0.089	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Cobalt	6.5		0.27	0.028	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Copper	11		0.54	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Iron	16000		11	4.9	mg/Kg	☼	04/15/13 09:41	04/16/13 20:42	1
Lead	13		0.27	0.092	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Magnesium	3300	B	5.4	1.0	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Manganese	470		0.54	0.076	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Nickel	13		0.54	0.12	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Selenium	0.52	J	0.54	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Silver	<0.27		0.27	0.032	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Thallium	0.25	J	0.54	0.14	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Vanadium	28		0.27	0.041	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1
Zinc	31		1.1	0.37	mg/Kg	☼	04/05/13 13:00	04/13/13 05:21	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 06:37	1
Barium	0.39	J	0.50	0.010	mg/L		04/17/13 09:30	04/18/13 06:37	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/17/13 09:30	04/18/13 06:37	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/17/13 09:30	04/18/13 06:37	1
Chromium	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:37	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:37	1
Copper	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:37	1
Iron	<0.20		0.20	0.20	mg/L		04/17/13 09:30	04/18/13 06:37	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B02 (0-2)
Date Collected: 04/03/13 14:55
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-8
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/17/13 09:30	04/18/13 06:37	1
Manganese	0.030		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:37	1
Nickel	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:37	1
Selenium	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 06:37	1
Silver	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:37	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:37	1
Zinc	<0.10		0.10	0.020	mg/L		04/17/13 09:30	04/18/13 06:37	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/17/13 09:30	04/19/13 10:21	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/17/13 09:30	04/19/13 10:21	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000031	J	0.00020	0.000020	mg/L		04/17/13 13:00	04/18/13 09:21	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.019	0.0074	mg/Kg	☼	04/09/13 14:15	04/10/13 10:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.17		0.200	0.200	SU			04/09/13 21:02	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B02 (4-6)
Date Collected: 04/03/13 15:00
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-9
Matrix: Solid
Percent Solids: 86.8

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.7		5.7	1.2	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Vinyl chloride	<5.7		5.7	1.2	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Bromomethane	<5.7		5.7	1.7	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Chloroethane	<5.7		5.7	1.5	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
1,1-Dichloroethene	<5.7		5.7	0.92	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Carbon disulfide	<5.7		5.7	0.85	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Acetone	<5.7		5.7	2.5	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Methylene Chloride	<5.7		5.7	1.5	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
trans-1,2-Dichloroethene	<5.7		5.7	0.78	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Methyl tert-butyl ether	<5.7		5.7	0.94	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
1,1-Dichloroethane	<5.7		5.7	0.90	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
cis-1,2-Dichloroethene	<5.7		5.7	0.80	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Methyl Ethyl Ketone	<5.7		5.7	2.1	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Chloroform	<5.7		5.7	0.65	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
1,1,1-Trichloroethane	<5.7		5.7	0.85	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Carbon tetrachloride	<5.7		5.7	1.0	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Benzene	<5.7		5.7	0.78	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
1,2-Dichloroethane	<5.7		5.7	0.84	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Trichloroethene	<5.7		5.7	0.94	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
1,2-Dichloropropane	<5.7		5.7	0.86	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Bromodichloromethane	<5.7		5.7	0.98	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
cis-1,3-Dichloropropene	<5.7		5.7	0.75	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
methyl isobutyl ketone	<5.7		5.7	1.5	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Toluene	<5.7		5.7	0.80	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
trans-1,3-Dichloropropene	<5.7		5.7	1.0	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
1,1,2-Trichloroethane	<5.7		5.7	0.78	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Tetrachloroethene	<5.7		5.7	0.87	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
2-Hexanone	<5.7		5.7	1.6	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Dibromochloromethane	<5.7		5.7	0.99	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Chlorobenzene	<5.7		5.7	0.58	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Ethylbenzene	<5.7		5.7	1.1	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Styrene	<5.7		5.7	0.75	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Bromoform	<5.7		5.7	1.3	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
1,1,2,2-Tetrachloroethane	<5.7		5.7	1.1	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
Xylenes, Total	<11		11	0.52	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1
1,3-Dichloropropene, Total	<5.7		5.7	0.75	ug/Kg	☼	04/03/13 15:00	04/09/13 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 134*	*04/03/13 15:00*	*04/09/13 16:57*	*1*
Toluene-d8 (Surr)	*111*		*75 - 122*	*04/03/13 15:00*	*04/09/13 16:57*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 122*	*04/03/13 15:00*	*04/09/13 16:57*	*1*
Dibromofluoromethane	*110*		*75 - 120*	*04/03/13 15:00*	*04/09/13 16:57*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<190		190	60	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Bis(2-chloroethyl)ether	<190		190	56	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
1,3-Dichlorobenzene	<190		190	40	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
1,4-Dichlorobenzene	<190		190	40	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
1,2-Dichlorobenzene	<190		190	42	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B02 (4-6)
Date Collected: 04/03/13 15:00
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-9
Matrix: Solid
Percent Solids: 86.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<190		190	50	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2,2'-oxybis[1-chloropropane]	<190		190	42	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
N-Nitrosodi-n-propylamine	<190		190	48	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Hexachloroethane	<190		190	41	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2-Chlorophenol	<190		190	54	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Nitrobenzene	<38		38	12	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Bis(2-chloroethoxy)methane	<190		190	42	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
1,2,4-Trichlorobenzene	<190		190	43	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Isophorone	<190		190	42	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2,4-Dimethylphenol	<380		380	120	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Hexachlorobutadiene	<190		190	50	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Naphthalene	<38		38	7.3	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2,4-Dichlorophenol	<380		380	120	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
4-Chloroaniline	<770		770	120	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2,4,6-Trichlorophenol	<380		380	48	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2,4,5-Trichlorophenol	<380		380	110	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Hexachlorocyclopentadiene	<770		770	180	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2-Methylnaphthalene	<190		190	49	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2-Nitroaniline	<190		190	68	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2-Chloronaphthalene	<190		190	43	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
4-Chloro-3-methylphenol	<380		380	180	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2,6-Dinitrotoluene	<190		190	45	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2-Nitrophenol	<380		380	60	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
3-Nitroaniline	<380		380	73	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Dimethyl phthalate	<190		190	48	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2,4-Dinitrophenol	<770		770	190	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Acenaphthylene	<38		38	8.7	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
2,4-Dinitrotoluene	<190		190	58	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Acenaphthene	<38		38	11	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Dibenzofuran	<190		190	46	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
4-Nitrophenol	<770		770	200	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Fluorene	<38		38	8.6	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
4-Nitroaniline	<380		380	78	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
4-Bromophenyl phenyl ether	<190		190	42	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Hexachlorobenzene	<77		77	7.5	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Diethyl phthalate	<190		190	63	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
4-Chlorophenyl phenyl ether	<190		190	60	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Pentachlorophenol	<770		770	190	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
N-Nitrosodiphenylamine	<190		190	51	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
4,6-Dinitro-2-methylphenol	<380		380	92	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Phenanthrene	<38		38	16	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Anthracene	<38		38	8.9	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Carbazole	<190		190	53	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Di-n-butyl phthalate	<190		190	48	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Fluoranthene	<38		38	16	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Pyrene	<38		38	14	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Butyl benzyl phthalate	<190		190	48	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Benzo[a]anthracene	<38		38	8.0	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Chrysene	<38		38	8.6	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B02 (4-6)
Date Collected: 04/03/13 15:00
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-9
Matrix: Solid
Percent Solids: 86.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<190		190	32	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Bis(2-ethylhexyl) phthalate	<190		190	50	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Di-n-octyl phthalate	<190		190	77	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Benzo[b]fluoranthene	<38		38	7.4	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Benzo[k]fluoranthene	<38		38	9.1	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Benzo[a]pyrene	<38		38	6.9	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Indeno[1,2,3-cd]pyrene	<38		38	13	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Dibenz(a,h)anthracene	<38		38	11	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
Benzo[g,h,i]perylene	<38		38	13	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1
3 & 4 Methylphenol	<190		190	72	ug/Kg	☼	04/08/13 17:02	04/12/13 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*49*		*30 - 110*	*04/08/13 17:02*	*04/12/13 18:07*	*1*
Phenol-d5	*55*		*31 - 110*	*04/08/13 17:02*	*04/12/13 18:07*	*1*
Nitrobenzene-d5	*51*		*30 - 115*	*04/08/13 17:02*	*04/12/13 18:07*	*1*
2-Fluorobiphenyl	*63*		*30 - 119*	*04/08/13 17:02*	*04/12/13 18:07*	*1*
2,4,6-Tribromophenol	*61*		*35 - 137*	*04/08/13 17:02*	*04/12/13 18:07*	*1*
Terphenyl-d14	*55*		*36 - 134*	*04/08/13 17:02*	*04/12/13 18:07*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.14	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Arsenic	4.2		0.54	0.12	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Barium	29	B	0.54	0.064	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Beryllium	0.38		0.22	0.016	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Cadmium	0.56		0.11	0.027	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Chromium	7.5		0.54	0.090	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Cobalt	3.8		0.27	0.028	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Copper	11		0.54	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Iron	9600		11	4.6	mg/Kg	☼	04/15/13 09:41	04/16/13 20:49	1
Lead	5.3		0.27	0.093	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Magnesium	48000	B	5.4	1.0	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Manganese	360		0.54	0.076	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Nickel	9.1		0.54	0.12	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Selenium	<0.54		0.54	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Silver	<0.27		0.27	0.032	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Thallium	<0.54		0.54	0.14	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Vanadium	16		0.27	0.041	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1
Zinc	24		1.1	0.37	mg/Kg	☼	04/05/13 13:00	04/13/13 05:27	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 06:57	1
Barium	0.33	J	0.50	0.010	mg/L		04/17/13 09:30	04/18/13 06:57	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/17/13 09:30	04/18/13 06:57	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/17/13 09:30	04/18/13 06:57	1
Chromium	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:57	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:57	1
Copper	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:57	1
Iron	<0.20		0.20	0.20	mg/L		04/17/13 09:30	04/18/13 06:57	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4822B02 (4-6)
Date Collected: 04/03/13 15:00
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-9
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/17/13 09:30	04/18/13 06:57	1
Manganese	0.40		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:57	1
Nickel	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:57	1
Selenium	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 06:57	1
Silver	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:57	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:57	1
Zinc	<0.10		0.10	0.020	mg/L		04/17/13 09:30	04/18/13 06:57	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.020	J	0.025	0.010	mg/L		04/19/13 08:35	04/20/13 01:03	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/17/13 09:30	04/19/13 10:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/17/13 09:30	04/19/13 10:27	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000032	J	0.00020	0.000020	mg/L		04/17/13 13:00	04/18/13 09:23	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.017	0.0066	mg/Kg	☼	04/09/13 14:15	04/10/13 10:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.03		0.200	0.200	SU			04/09/13 21:08	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-14
Illinois	NELAP	5	100201	04-30-14
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-30-14
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-14
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	07-15-13

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.5

500-55780 COC

Report To (optional)
Contact: Sheri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55780
Chain of Custody Number: E748-08
Page 1 of 1
Temperature °C of Cooler: (3.5) (4.4)

Client: Ecology & Environment
Client Project #: EE-004330-0001-01770
Project Name: IL 31
Project Location/State: McHenry Co, IL
Lab Project #: 50007751
Sampler: Scott Coup
Lab PM: Dick Wright

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	TCLP/SPLP TAL metals	pH, f'/s, l.f.	Comments
1		E4823B05 (0-2)	4-3-13	1235	2	S	X	X	X	X	X	
2		E4823B05 (8-10)	4-3-13	1240	2	S	X	X	X	X	X	
3		E4823B04 (2-4)	4-3-13	1255	2	S	X	X	X	X	X	
4		E4822B01 (0-2)	4-3-13	1400	2	S	X	X	X	X	X	
5		E4822B01 (6-8)	4-3-13	1405	2	S	X	X	X	X	X	
6		E4822B03 (2-4)	4-3-13	1435	2	S	X	X	X	X	X	
7		E4822B03 (4-6)	4-3-13	1440	2	S	X	X	X	X	X	
8		E4822B02 (0-2)	4-3-13	1455	2	S	X	X	X	X	X	
9		E4822B02 (4-6)	4-3-13	1500	2	S	X	X	X	X	X	

4-3-13

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
__ 1 Day __ 2 Days __ 5 Days __ 7 Days __ 10 Days ✓ 15 Days __ Other
Requested Due Date

Sample Disposal
[ ] Return to Client [✓] Disposal by Lab [ ] Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E&E	4-3-13	1645	Cooler	E&E	4-3-13	1645 Seal # 149607
Cooler	E&E	4-4-13	0700	[signature]	E&E	4-4-13	0700
[signature] TA	E&E	4-4-13	1315	[signature]	TA	4/4/13	1315

Lab Courier: TA
Shipped:
Hand Delivered:

Client Comments: 4/4/13 1640 Rel. Jeff Tamer 4/5/13 0830

Lab Comments: 4/5/13 0830 REC'd by: [signature] TA 4/5/13 0930

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Lab Job #: 500-55780
Chain of Custody Number: E748-09
Page 1 of 1
Temperature °C of Cooler:

Report To (optional)		Bill To (optional)	
Contact:	Sherri Johnson	Contact:	
Company:		Company:	
Address:		Address:	
Address:		Address:	
Phone:		Phone:	
Fax:		Fax:	
E-Mail:		PO#/Reference#	

Client	Client Project #	Preservative Key
Ecology : Environmental	EE-08 4330-0001-0776	1. HCL, Cool to 4°
Project Name	Parameter	2. H2SO4, Cool to 4°
IL 31		3. HNO3, Cool to 4°
Project Location/State	Lab Project #	4. NaOH, Cool to 4°
McHenry Co, IL	500077S1	5. NaOH/Zn, Cool to 4°
Sampler	Lab PM	6. NaHSO4
Scott Coop	Dietzman, W	7. Cool to 4°
		8. None
		9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	Total TAL Metals	Pest/PCB's				Comments
10		E4820B01(2-4)	4-4-13	0915	2	S	X	X	X	X	X				
11		E4821B02(0-2)	4-4-13	1010	2	S	X	X	X	X	X				
12		E4821B02(4-6)	4-4-13	1015	2	S	X	X	X	X	X				
13		E4821B01(2-4)	4-4-13	1100	2	S	X	X	X	X	X				
14		E4821B01(6-8)	4-4-13	1105	2	S	X	X	X	X	X				
15		E4821B03(2-4)	4-4-13	1130	2	S	X	X	X	X	X				
16		E4821B03(4-6)	4-4-13	1135	2	S	X	X	X	X	X				
							4-4-13								

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

	Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1		E-C	4-4-13	1315		TA	4/4/13	1315
2		TA	4/4/13	1640		TA	4/5/13	0830
3		TA	4/5/13	0750		TA	4/5/13	0930

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification
by Licensed Professional Engineer or Licensed Professional Geologist
for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation
LPC-663
Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (I) is uncontaminated soil and (II) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd. Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
8601 IL 31

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20382 (Decimal Degrees) Longitude: -88.28695 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☒ Map Interpolation ☐ Photo Interpolation ☐ Survey ☐ Other

IEPA Site Number(s), If assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner		Site Operator	
Name:	Illinois Department of Transportation	Name:	
Street Address:	201 West Center Court	Street Address:	
PO Box:		PO Box:	
City:	Schaumburg State: IL	City:	State:
Zip Code:	60196-1096 Phone: 847-705-4159	Zip Code:	Phone:
Contact:	Sam Mead	Contact:	
Email, If available:	Sam.Mead@illinois.gov	Email, If available:	

IL 532-2922
LPC 663 Rev. 8/2012

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd

Latitude: 42.20392 Longitude: -88.28695

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations E4823B01, E4823B02, E4823B04, E4823B05, and E4823B07 were sampled within the construction zone adjacent to ISGS #1227V-23. Refer to PSI Report Section 4.2.1 and Section 4.3.1 ISGS #1227V-23 (Parking Lot and Retention Basin), Table 4-3, and Figures 4-3 and 4-4.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages 500-55693-1 and 500-55780-1.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8/9/13
Date:

STEVEN GOBELMAN
196-000598
LICENSED
PROFESSIONAL
GEOLOGIST
STATE OF ILLINOIS

P.E. or P.G. Seal:

Analytical Data Summary
PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

Key to Data Tables

µg/kg = Micrograms per kilogram.
MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
mg/kg = Milligrams per kilogram.
mg/L = Milligrams per liter.
MSA = Metropolitan Statistical Area
TCLP = Toxicity Characteristic Leaching Procedure.
SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
SPLP = Synthetic Precipitation Leaching Procedure.
ND = Not detected.
NA = Not analyzed.
J = Estimated value.
B = Also present in blank.

Criteria Qualifiers

\# = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
† = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical Areas.
* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is considered to exceed the MAC.
= Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
= Soil concentration exceeds the applicable MAC.

PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09
CONTAMINANTS OF CONCERN

SITE	ISGS #1227V-23 (Parking Lot and Retention Basin)												Comparison Criteria			
BORING	E4823B01		E4823B02			E4823B04		E4823B05			E4823B07		MACs			TACO
SAMPLE	E4823B01 (0-2)	E4823B01 (8-10)	E4823B01D (8-10)	E4823B02 (0-2)	E4823B02 (2-4)	E4823B04 (2-4)	E4823B05 (0-2)	E4823B05 (8-10)	E4823B06 (2-4)	E4823B07 (0-2)	E4823B07 (6-8)	Most Stringent	Within an MSA	SCGIER
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
DEPTH (m)	0.0-0.6	2.4-3.1	2.4-3.1	0.0-0.6	0.6-1.2	0.6-1.2	0.0-0.6	2.4-3.1	0.6-1.2	0.0-0.6	1.8-2.4			
pH	6.90	8.20	8.29	7.90	7.22	6.73	6.64	8.33	8.17	7.30	7.78			
VOCs (µg/kg) - None Detected														
SVOCs (µg/kg)														
Benzo[a]anthracene	ND U	ND U	ND U	45	ND U	ND U	17 J	ND U	ND U	ND U	ND U	900	1,800	--
Benzo[a]pyrene	ND U	ND U	ND U	60	ND U	ND U	16 J	ND U	ND U	ND U	ND U	90	2,100	--
Benzo[b]fluoranthene	ND U	ND U	ND U	71	ND U	ND U	21 J	ND U	ND U	9.2 J	ND U	900	2,100	--
Benzo[g,h,i]perylene	ND U	ND U	ND U	44	ND U	ND U	23 J	ND U	ND U	ND U	ND U	--	--	--
Benzo[k]fluoranthene	ND U	ND U	ND U	38	ND U	ND U	ND U	ND U	ND U	ND U	ND U	9,000	--	--
Chrysene	ND U	ND U	ND U	54	ND U	ND U	15 J	ND U	ND U	ND U	ND U	88,000	--	--
Fluoranthene	ND U	ND U	ND U	83	ND U	ND U	33 J	ND U	ND U	ND U	ND U	3,100,000	--	--
Indeno[1,2,3-cd]pyrene	ND U	ND U	ND U	37	ND U	ND U	14 J	ND U	ND U	ND U	ND U	900	1,600	--
Phenanthrene	ND U	ND U	ND U	34 J	ND U	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--
Pyrene	ND U	ND U	ND U	71	ND U	ND U	27 J	ND U	ND U	ND U	ND U	2,300,000	--	--
Inorganics (mg/kg)														
Antimony	ND U	0.34 J	0.42 J	ND U	ND U	ND U	ND U	ND U	ND U	ND U	0.38 J	5	--	--
Arsenic	6.2	5.0	4.4	4.0	4.1	7.0	6.1	9.0	3.6	6.4	4.5	11.3	13	--
Barium	45	26	27	83	82	88 BJ	120 BJ	15 BJ	18	110	15	1,500	--	--
Beryllium	0.31	0.14 J	0.18 J	0.33	0.39	0.76	0.86	0.30	0.33	0.42	0.14 J	22	--	--
Cadmium	0.096 J	0.17	0.14	0.15	0.083 J	0.30	0.33	0.66	0.35	0.29	0.16	5.2	--	--
Chromium	9.6	5.8	6.1	9.0	11	18	17	5.2	5.5	11	4.9	21	--	--
Cobalt	8.5	4.4	4.3	5.8	7.2	7.4	8.5	2.9	2.8	7.4	4.1	20	--	--
Copper	15	9.5	10	5.5	6.3	14	10	14	8.6	9.6	11	2,900	--	--
Iron	13,000 BJ	8,600 BJ	7,700 BJ	8,900 BJ	10,000 BJ	20,000 tm	17,000 tm	9,200	7,300	11,000 BJ	7,900 BJ	15,000	15,900	--
Lead	12	6.4	7.7	11	9.4	9.7	12	14	4.3 BJ	33	6.9	107	--	--
Magnesium	3,700 BJ	50,000 BJ	39,000 BJ	2,600 BJ	1,800 BJ	2,700 BJ	2,600 BJ	51,000 BJ	49,000	2,000 BJ	41,000 BJ	325,000	--	--
Manganese	380 BJ	380 BJ	280 BJ	380 BJ	410 BJ	520	940 tm	280	310	570 BJ	270 BJ	630	636	--
Mercury	0.035	0.012 J	0.015 J	0.030	0.027	0.044	0.061	ND U	0.015 J	0.047	0.010 J	0.89	--	--
Nickel	23	9.5	9.7	9.0	11	18	14	7.4	6.5	13	10	100	--	--
Selenium	0.37 J	0.35 J	0.31 J	0.34 J	0.41 J	0.72	0.67	ND U	ND U	0.41 J	0.14 J	1.3	--	--
Thallium	0.21 J	0.16 J	0.13 J	ND U	0.14 J	0.53 J	0.21 J	ND U	ND U	0.15 J	ND U	2.6	--	--
Vanadium	20	11	13	18	20	36	32	12	13	21	10	550	--	--
Zinc	39	31	29	29	29	37	42	21	22	78	37	5,100	--	--
TCLP Metals (mg/L)														
Barium	0.41 J	0.29 J	0.27 J	0.69	0.51	0.41 J	0.41 J	0.19 J	0.27 J	0.48 J	0.17 J	--	--	2
Cadmium	ND U	ND U	ND U	ND U	ND U	ND U	ND U	0.0023 J	ND U	ND U	ND U	--	--	0.005
Cobalt	ND U	0.043	0.041	ND U	ND U	ND U	ND U	0.033	0.037	ND U	ND U	--	--	1
Iron	ND U	ND U	ND U	ND U	ND U	ND U	1.0	ND U	ND U	1.0	ND U	--	--	5
Manganese	0.080	5.2	4.7	1.9	0.012 J	0.011 J	0.045	3.6	4.4	0.079	1.1	--	--	0.15
Mercury	0.000056 JB	ND JBU	ND JBU	ND JBU	ND JBU	ND JBU	ND U	ND U	0.000053 J	0.000026 JB	ND JBU	--	--	0.002
Nickel	ND U	0.059	0.060	ND U	ND U	ND U	ND U	0.055	0.047	ND U	0.013 J	--	--	0.1
Vanadium	ND U	ND U	ND U	0.0050 J	ND U	ND U	ND U	ND U	ND U	0.0061 J	ND U	--	--	0.049
Zinc	ND U	ND U	0.079 J	ND U	ND U	0.044 J	0.38	0.033 J	ND U	0.034 J	ND U	--	--	5
SPLP Metals (mg/L)														
Manganese	NA	ND U	ND U	0.14	NA	NA	NA	ND U	ND U	NA	ND U	--	--	0.15

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55693-1
Client Project/Site: IDOT - Algonquin - WO 48

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
4/17/2013 11:32:03 AM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

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Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B07 (0-2)
Date Collected: 04/02/13 10:10
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-2
Matrix: Solid
Percent Solids: 82.6

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.3		6.3	1.3	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Vinyl chloride	<6.3		6.3	1.3	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Bromomethane	<6.3		6.3	1.9	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Chloroethane	<6.3		6.3	1.7	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
1,1-Dichloroethene	<6.3		6.3	1.0	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Carbon disulfide	<6.3		6.3	0.94	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Acetone	<6.3	*	6.3	2.7	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Methylene Chloride	<6.3		6.3	1.7	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
trans-1,2-Dichloroethene	<6.3		6.3	0.86	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Methyl tert-butyl ether	<6.3		6.3	1.0	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
1,1-Dichloroethane	<6.3		6.3	0.99	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
cis-1,2-Dichloroethene	<6.3		6.3	0.89	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Methyl Ethyl Ketone	<6.3		6.3	2.3	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Chloroform	<6.3		6.3	0.72	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
1,1,1-Trichloroethane	<6.3		6.3	0.94	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Carbon tetrachloride	<6.3		6.3	1.1	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Benzene	<6.3		6.3	0.86	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
1,2-Dichloroethane	<6.3		6.3	0.93	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Trichloroethene	<6.3		6.3	1.0	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
1,2-Dichloropropane	<6.3		6.3	0.95	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Bromodichloromethane	<6.3		6.3	1.1	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
cis-1,3-Dichloropropene	<6.3		6.3	0.82	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
methyl isobutyl ketone	<6.3		6.3	1.6	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Toluene	<6.3		6.3	0.88	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
trans-1,3-Dichloropropene	<6.3		6.3	1.1	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
1,1,2-Trichloroethane	<6.3		6.3	0.85	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Tetrachloroethene	<6.3		6.3	0.96	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
2-Hexanone	<6.3		6.3	1.8	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Dibromochloromethane	<6.3		6.3	1.1	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Chlorobenzene	<6.3		6.3	0.63	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Ethylbenzene	<6.3		6.3	1.3	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Styrene	<6.3		6.3	0.82	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Bromoform	<6.3		6.3	1.4	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
1,1,2,2-Tetrachloroethane	<6.3		6.3	1.3	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
Xylenes, Total	<13		13	0.57	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1
1,3-Dichloropropene, Total	<6.3		6.3	0.82	ug/Kg	☼	04/02/13 10:10	04/08/13 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 134*	*04/02/13 10:10*	*04/08/13 14:13*	*1*
Toluene-d8 (Surr)	*99*		*75 - 122*	*04/02/13 10:10*	*04/08/13 14:13*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 122*	*04/02/13 10:10*	*04/08/13 14:13*	*1*
Dibromofluoromethane	*99*		*75 - 120*	*04/02/13 10:10*	*04/08/13 14:13*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<190		190	61	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Bis(2-chloroethyl)ether	<190		190	57	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
1,3-Dichlorobenzene	<190		190	41	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
1,4-Dichlorobenzene	<190		190	41	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
1,2-Dichlorobenzene	<190		190	42	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B07 (0-2)
Date Collected: 04/02/13 10:10
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-2
Matrix: Solid
Percent Solids: 82.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<190		190	51	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2,2'-oxybis[1-chloropropane]	<190		190	43	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
N-Nitrosodi-n-propylamine	<190		190	49	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Hexachloroethane	<190		190	41	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2-Chlorophenol	<190		190	55	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Nitrobenzene	<39		39	12	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Bis(2-chloroethoxy)methane	<190		190	43	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
1,2,4-Trichlorobenzene	<190		190	44	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Isophorone	<190		190	43	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2,4-Dimethylphenol	<390		390	120	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Hexachlorobutadiene	<190		190	51	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Naphthalene	<39		39	7.5	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2,4-Dichlorophenol	<390		390	120	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
4-Chloroaniline	<780		780	120	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2,4,6-Trichlorophenol	<390		390	49	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2,4,5-Trichlorophenol	<390		390	110	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Hexachlorocyclopentadiene	<780		780	180	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2-Methylnaphthalene	<190		190	50	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2-Nitroaniline	<190		190	70	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2-Chloronaphthalene	<190		190	44	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
4-Chloro-3-methylphenol	<390		390	190	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2,6-Dinitrotoluene	<190		190	46	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2-Nitrophenol	<390		390	61	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
3-Nitroaniline	<390		390	75	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Dimethyl phthalate	<190		190	48	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2,4-Dinitrophenol	<780		780	200	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Acenaphthylene	<39		39	8.9	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
2,4-Dinitrotoluene	<190		190	59	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Acenaphthene	<39		39	12	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Dibenzofuran	<190		190	47	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
4-Nitrophenol	<780		780	210	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Fluorene	<39		39	8.8	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
4-Nitroaniline	<390		390	79	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
4-Bromophenyl phenyl ether	<190		190	43	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Hexachlorobenzene	<78		78	7.6	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Diethyl phthalate	<190		190	65	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
4-Chlorophenyl phenyl ether	<190		190	61	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Pentachlorophenol	<780		780	200	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
N-Nitrosodiphenylamine	<190		190	52	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
4,6-Dinitro-2-methylphenol	<390		390	94	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Phenanthrene	<39		39	16	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Anthracene	<39		39	9.1	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Carbazole	<190		190	55	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Di-n-butyl phthalate	<190		190	49	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Fluoranthene	<39		39	16	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Pyrene	<39		39	14	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Butyl benzyl phthalate	<190		190	49	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Benzo[a]anthracene	<39		39	8.1	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Chrysene	<39		39	8.8	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B07 (0-2)
Date Collected: 04/02/13 10:10
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-2
Matrix: Solid
Percent Solids: 82.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<190		190	32	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Bis(2-ethylhexyl) phthalate	<190		190	51	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Di-n-octyl phthalate	<190		190	79	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Benzo[b]fluoranthene	9.2	J	39	7.5	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Benzo[k]fluoranthene	<39		39	9.2	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Benzo[a]pyrene	<39		39	7.1	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Indeno[1,2,3-cd]pyrene	<39		39	13	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Dibenz(a,h)anthracene	<39		39	11	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
Benzo[g,h,i]perylene	<39		39	13	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1
3 & 4 Methylphenol	<190		190	73	ug/Kg	☼	04/04/13 07:22	04/08/13 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*68*		*30 - 110*	*04/04/13 07:22*	*04/08/13 17:27*	*1*
Phenol-d5	*67*		*31 - 110*	*04/04/13 07:22*	*04/08/13 17:27*	*1*
Nitrobenzene-d5	*62*		*30 - 115*	*04/04/13 07:22*	*04/08/13 17:27*	*1*
2-Fluorobiphenyl	*73*		*30 - 119*	*04/04/13 07:22*	*04/08/13 17:27*	*1*
2,4,6-Tribromophenol	*95*		*35 - 137*	*04/04/13 07:22*	*04/08/13 17:27*	*1*
Terphenyl-d14	*82*		*36 - 134*	*04/04/13 07:22*	*04/08/13 17:27*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.16	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Arsenic	5.4		0.60	0.13	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Barium	110		0.60	0.071	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Beryllium	0.42		0.24	0.018	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Cadmium	0.29		0.12	0.030	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Chromium	11		0.60	0.10	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Cobalt	7.4		0.30	0.031	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Copper	9.6		0.60	0.16	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Iron	11000	B	12	5.2	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Lead	33		0.30	0.10	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Magnesium	2000	B	6.0	1.2	mg/Kg	☼	04/03/13 16:00	04/09/13 17:01	1
Manganese	570	B	0.60	0.084	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Nickel	13		0.60	0.13	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Selenium	0.41	J	0.60	0.17	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Silver	<0.30		0.30	0.036	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Thallium	0.15	J	0.60	0.15	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Vanadium	21		0.30	0.045	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1
Zinc	78		1.2	0.41	mg/Kg	☼	04/03/13 16:00	04/05/13 23:32	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 04:56	1
Barium	0.48	J	0.50	0.010	mg/L		04/11/13 11:20	04/12/13 04:56	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/13 11:20	04/12/13 04:56	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/13 11:20	04/12/13 04:56	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 04:56	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 04:56	1
Copper	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 04:56	1
Iron	1.0		0.20	0.20	mg/L		04/11/13 11:20	04/12/13 04:56	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B07 (0-2)
Date Collected: 04/02/13 10:10
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-2
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/11/13 11:20	04/12/13 04:56	1
Manganese	0.079		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 04:56	1
Nickel	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 04:56	1
Selenium	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 04:56	1
Silver	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 04:56	1
Vanadium	0.0061	J	0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 04:56	1
Zinc	0.034	J	0.10	0.020	mg/L		04/11/13 11:20	04/12/13 04:56	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/11/13 11:20	04/16/13 20:21	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/13 11:20	04/16/13 20:21	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	J B	0.00020	0.000020	mg/L		04/11/13 15:15	04/12/13 11:13	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.047		0.019	0.0074	mg/Kg	☼	04/04/13 16:30	04/05/13 10:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.30		0.200	0.200	SU			04/08/13 20:19	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B07 (6-8)
Date Collected: 04/02/13 10:15
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-3
Matrix: Solid
Percent Solids: 95.3

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.6		4.6	0.96	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Vinyl chloride	<4.6		4.6	0.96	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Bromomethane	<4.6		4.6	1.4	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Chloroethane	<4.6		4.6	1.2	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
1,1-Dichloroethene	<4.6		4.6	0.74	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Carbon disulfide	<4.6		4.6	0.68	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Acetone	<4.6	*	4.6	2.0	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Methylene Chloride	<4.6		4.6	1.2	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
trans-1,2-Dichloroethene	<4.6		4.6	0.63	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Methyl tert-butyl ether	<4.6		4.6	0.75	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
1,1-Dichloroethane	<4.6		4.6	0.72	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
cis-1,2-Dichloroethene	<4.6		4.6	0.65	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Methyl Ethyl Ketone	<4.6		4.6	1.7	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Chloroform	<4.6		4.6	0.53	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
1,1,1-Trichloroethane	<4.6		4.6	0.68	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Carbon tetrachloride	<4.6		4.6	0.83	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Benzene	<4.6		4.6	0.63	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
1,2-Dichloroethane	<4.6		4.6	0.68	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Trichloroethene	<4.6		4.6	0.75	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
1,2-Dichloropropane	<4.6		4.6	0.69	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Bromodichloromethane	<4.6		4.6	0.79	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
cis-1,3-Dichloropropene	<4.6		4.6	0.60	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
methyl isobutyl ketone	<4.6		4.6	1.2	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Toluene	<4.6		4.6	0.64	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
trans-1,3-Dichloropropene	<4.6		4.6	0.82	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
1,1,2-Trichloroethane	<4.6		4.6	0.62	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Tetrachloroethene	<4.6		4.6	0.70	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
2-Hexanone	<4.6		4.6	1.3	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Dibromochloromethane	<4.6		4.6	0.79	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Chlorobenzene	<4.6		4.6	0.46	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Ethylbenzene	<4.6		4.6	0.92	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Styrene	<4.6		4.6	0.60	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Bromoform	<4.6		4.6	1.1	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
1,1,2,2-Tetrachloroethane	<4.6		4.6	0.92	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
Xylenes, Total	<9.1		9.1	0.41	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1
1,3-Dichloropropene, Total	<4.6		4.6	0.60	ug/Kg	☼	04/02/13 10:15	04/08/13 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 134*	*04/02/13 10:15*	*04/08/13 14:35*	*1*
Toluene-d8 (Surr)	*100*		*75 - 122*	*04/02/13 10:15*	*04/08/13 14:35*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 122*	*04/02/13 10:15*	*04/08/13 14:35*	*1*
Dibromofluoromethane	*94*		*75 - 120*	*04/02/13 10:15*	*04/08/13 14:35*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<170		170	54	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Bis(2-chloroethyl)ether	<170		170	50	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
1,3-Dichlorobenzene	<170		170	36	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
1,4-Dichlorobenzene	<170		170	36	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
1,2-Dichlorobenzene	<170		170	37	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B07 (6-8)
Date Collected: 04/02/13 10:15
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-3
Matrix: Solid
Percent Solids: 95.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<170		170	45	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2,2'-oxybis[1-chloropropane]	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
N-Nitrosodi-n-propylamine	<170		170	43	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Hexachloroethane	<170		170	36	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2-Chlorophenol	<170		170	49	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Nitrobenzene	<34		34	11	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Bis(2-chloroethoxy)methane	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
1,2,4-Trichlorobenzene	<170		170	39	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Isophorone	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2,4-Dimethylphenol	<340		340	110	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Hexachlorobutadiene	<170		170	45	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Naphthalene	<34		34	6.6	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2,4-Dichlorophenol	<340		340	100	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
4-Chloroaniline	<690		690	100	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2,4,6-Trichlorophenol	<340		340	43	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2,4,5-Trichlorophenol	<340		340	97	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Hexachlorocyclopentadiene	<690		690	160	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2-Methylnaphthalene	<170		170	44	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2-Nitroaniline	<170		170	61	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2-Chloronaphthalene	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
4-Chloro-3-methylphenol	<340		340	160	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2,6-Dinitrotoluene	<170		170	40	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2-Nitrophenol	<340		340	53	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
3-Nitroaniline	<340		340	66	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Dimethyl phthalate	<170		170	43	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2,4-Dinitrophenol	<690		690	170	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Acenaphthylene	<34		34	7.8	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
2,4-Dinitrotoluene	<170		170	52	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Acenaphthene	<34		34	10	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Dibenzofuran	<170		170	41	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
4-Nitrophenol	<690		690	180	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Fluorene	<34		34	7.7	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
4-Nitroaniline	<340		340	70	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
4-Bromophenyl phenyl ether	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Hexachlorobenzene	<69		69	6.7	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Diethyl phthalate	<170		170	57	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
4-Chlorophenyl phenyl ether	<170		170	54	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Pentachlorophenol	<690		690	170	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
N-Nitrosodiphenylamine	<170		170	46	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
4,6-Dinitro-2-methylphenol	<340		340	83	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Phenanthrene	<34		34	14	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Anthracene	<34		34	8.0	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Carbazole	<170		170	48	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Di-n-butyl phthalate	<170		170	43	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Fluoranthene	<34		34	14	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Pyrene	<34		34	12	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Butyl benzyl phthalate	<170		170	43	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Benzo[a]anthracene	<34		34	7.1	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Chrysene	<34		34	7.7	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B07 (6-8)
Date Collected: 04/02/13 10:15
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-3
Matrix: Solid
Percent Solids: 95.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<170		170	28	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Bis(2-ethylhexyl) phthalate	<170		170	45	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Di-n-octyl phthalate	<170		170	69	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Benzo[b]fluoranthene	<34		34	6.6	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Benzo[k]fluoranthene	<34		34	8.1	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Benzo[a]pyrene	<34		34	6.2	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Indeno[1,2,3-cd]pyrene	<34		34	11	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Dibenz(a,h)anthracene	<34		34	9.5	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
Benzo[g,h,i]perylene	<34		34	11	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1
3 & 4 Methylphenol	<170		170	64	ug/Kg	☼	04/04/13 07:22	04/08/13 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*75*		*30 - 110*	*04/04/13 07:22*	*04/08/13 17:44*	*1*
Phenol-d5	*73*		*31 - 110*	*04/04/13 07:22*	*04/08/13 17:44*	*1*
Nitrobenzene-d5	*70*		*30 - 115*	*04/04/13 07:22*	*04/08/13 17:44*	*1*
2-Fluorobiphenyl	*78*		*30 - 119*	*04/04/13 07:22*	*04/08/13 17:44*	*1*
2,4,6-Tribromophenol	*97*		*35 - 137*	*04/04/13 07:22*	*04/08/13 17:44*	*1*
Terphenyl-d14	*86*		*36 - 134*	*04/04/13 07:22*	*04/08/13 17:44*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.38	J	1.0	0.13	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Arsenic	4.5		0.50	0.11	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Barium	15		0.50	0.059	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Beryllium	0.14	J	0.20	0.015	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Cadmium	0.16		0.10	0.025	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Chromium	4.9		0.50	0.083	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Cobalt	4.1		0.25	0.026	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Copper	11		0.50	0.13	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Iron	7900	B	10	4.3	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Lead	6.9		0.25	0.086	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Magnesium	41000	B	5.0	0.97	mg/Kg	☼	04/03/13 16:00	04/09/13 17:08	1
Manganese	270	B	0.50	0.070	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Nickel	10		0.50	0.11	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Selenium	0.14	J	0.50	0.14	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Silver	<0.25		0.25	0.030	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Thallium	<0.50		0.50	0.13	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Vanadium	10		0.25	0.038	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1
Zinc	37		1.0	0.34	mg/Kg	☼	04/03/13 16:00	04/05/13 23:37	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:03	1
Barium	0.17	J	0.50	0.010	mg/L		04/11/13 11:20	04/12/13 05:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/13 11:20	04/12/13 05:03	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/13 11:20	04/12/13 05:03	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:03	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:03	1
Copper	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:03	1
Iron	<0.20		0.20	0.20	mg/L		04/11/13 11:20	04/12/13 05:03	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B07 (6-8)
Date Collected: 04/02/13 10:15
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-3
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/11/13 11:20	04/12/13 05:03	1
Manganese	1.1		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:03	1
Nickel	0.013	J	0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:03	1
Selenium	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:03	1
Silver	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:03	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:03	1
Zinc	<0.10		0.10	0.020	mg/L		04/11/13 11:20	04/12/13 05:03	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		04/15/13 08:30	04/15/13 17:39	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/11/13 11:20	04/16/13 20:22	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/13 11:20	04/16/13 20:22	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	J B	0.00020	0.000020	mg/L		04/11/13 15:15	04/12/13 11:15	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	J	0.016	0.0062	mg/Kg	☼	04/04/13 16:30	04/05/13 10:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.78		0.200	0.200	SU			04/08/13 20:23	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01 (0-2)
Date Collected: 04/02/13 11:15
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-4
Matrix: Solid
Percent Solids: 84.3

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.4		5.4	1.1	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Vinyl chloride	<5.4		5.4	1.1	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Bromomethane	<5.4		5.4	1.6	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Chloroethane	<5.4		5.4	1.5	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
1,1-Dichloroethene	<5.4		5.4	0.87	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Carbon disulfide	<5.4		5.4	0.80	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Acetone	<5.4	*	5.4	2.3	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Methylene Chloride	<5.4		5.4	1.4	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
trans-1,2-Dichloroethene	<5.4		5.4	0.74	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Methyl tert-butyl ether	<5.4		5.4	0.89	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
1,1-Dichloroethane	<5.4		5.4	0.85	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
cis-1,2-Dichloroethene	<5.4		5.4	0.76	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Methyl Ethyl Ketone	<5.4		5.4	1.9	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Chloroform	<5.4		5.4	0.62	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
1,1,1-Trichloroethane	<5.4		5.4	0.80	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Carbon tetrachloride	<5.4		5.4	0.98	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Benzene	<5.4		5.4	0.74	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
1,2-Dichloroethane	<5.4		5.4	0.80	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Trichloroethene	<5.4		5.4	0.89	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
1,2-Dichloropropane	<5.4		5.4	0.81	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Bromodichloromethane	<5.4		5.4	0.92	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
cis-1,3-Dichloropropene	<5.4		5.4	0.70	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
methyl isobutyl ketone	<5.4		5.4	1.4	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Toluene	<5.4		5.4	0.75	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
trans-1,3-Dichloropropene	<5.4		5.4	0.96	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
1,1,2-Trichloroethane	<5.4		5.4	0.73	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Tetrachloroethene	<5.4		5.4	0.82	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
2-Hexanone	<5.4		5.4	1.5	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Dibromochloromethane	<5.4		5.4	0.93	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Chlorobenzene	<5.4		5.4	0.54	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Ethylbenzene	<5.4		5.4	1.1	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Styrene	<5.4		5.4	0.70	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Bromoform	<5.4		5.4	1.2	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
1,1,2,2-Tetrachloroethane	<5.4		5.4	1.1	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
Xylenes, Total	<11		11	0.49	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1
1,3-Dichloropropene, Total	<5.4		5.4	0.70	ug/Kg	☼	04/02/13 11:15	04/08/13 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 134*	*04/02/13 11:15*	*04/08/13 14:58*	*1*
Toluene-d8 (Surr)	*100*		*75 - 122*	*04/02/13 11:15*	*04/08/13 14:58*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 122*	*04/02/13 11:15*	*04/08/13 14:58*	*1*
Dibromofluoromethane	*95*		*75 - 120*	*04/02/13 11:15*	*04/08/13 14:58*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<190		190	60	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Bis(2-chloroethyl)ether	<190		190	56	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
1,3-Dichlorobenzene	<190		190	40	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
1,4-Dichlorobenzene	<190		190	40	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
1,2-Dichlorobenzene	<190		190	41	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01 (0-2)
Date Collected: 04/02/13 11:15
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-4
Matrix: Solid
Percent Solids: 84.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<190		190	50	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2,2'-oxybis[1-chloropropane]	<190		190	42	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
N-Nitrosodi-n-propylamine	<190		190	48	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Hexachloroethane	<190		190	40	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2-Chlorophenol	<190		190	54	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Nitrobenzene	<38		38	12	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Bis(2-chloroethoxy)methane	<190		190	42	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
1,2,4-Trichlorobenzene	<190		190	43	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Isophorone	<190		190	42	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2,4-Dimethylphenol	<380		380	120	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Hexachlorobutadiene	<190		190	49	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Naphthalene	<38		38	7.3	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2,4-Dichlorophenol	<380		380	110	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
4-Chloroaniline	<760		760	110	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2,4,6-Trichlorophenol	<380		380	47	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2,4,5-Trichlorophenol	<380		380	110	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Hexachlorocyclopentadiene	<760		760	180	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2-Methylnaphthalene	<190		190	49	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2-Nitroaniline	<190		190	68	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2-Chloronaphthalene	<190		190	43	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
4-Chloro-3-methylphenol	<380		380	180	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2,6-Dinitrotoluene	<190		190	45	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2-Nitrophenol	<380		380	59	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
3-Nitroaniline	<380		380	73	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Dimethyl phthalate	<190		190	47	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2,4-Dinitrophenol	<760		760	190	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Acenaphthylene	<38		38	8.7	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
2,4-Dinitrotoluene	<190		190	58	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Acenaphthene	<38		38	11	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Dibenzofuran	<190		190	45	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
4-Nitrophenol	<760		760	200	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Fluorene	<38		38	8.6	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
4-Nitroaniline	<380		380	77	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
4-Bromophenyl phenyl ether	<190		190	42	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Hexachlorobenzene	<76		76	7.4	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Diethyl phthalate	<190		190	63	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
4-Chlorophenyl phenyl ether	<190		190	60	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Pentachlorophenol	<760		760	190	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
N-Nitrosodiphenylamine	<190		190	51	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
4,6-Dinitro-2-methylphenol	<380		380	92	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Phenanthrene	<38		38	16	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Anthracene	<38		38	8.9	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Carbazole	<190		190	53	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Di-n-butyl phthalate	<190		190	48	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Fluoranthene	<38		38	15	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Pyrene	<38		38	14	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Butyl benzyl phthalate	<190		190	47	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Benzo[a]anthracene	<38		38	7.9	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Chrysene	<38		38	8.5	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01 (0-2)
Date Collected: 04/02/13 11:15
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-4
Matrix: Solid
Percent Solids: 84.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<190		190	32	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Bis(2-ethylhexyl) phthalate	<190		190	50	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Di-n-octyl phthalate	<190		190	77	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Benzo[b]fluoranthene	<38		38	7.3	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Benzo[k]fluoranthene	<38		38	9.0	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Benzo[a]pyrene	<38		38	6.9	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Indeno[1,2,3-cd]pyrene	<38		38	13	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Dibenz(a,h)anthracene	<38		38	11	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
Benzo[g,h,i]perylene	<38		38	13	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1
3 & 4 Methylphenol	<190		190	72	ug/Kg	☼	04/04/13 07:22	04/08/13 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*64*		*30 - 110*	*04/04/13 07:22*	*04/08/13 18:01*	*1*
Phenol-d5	*64*		*31 - 110*	*04/04/13 07:22*	*04/08/13 18:01*	*1*
Nitrobenzene-d5	*58*		*30 - 115*	*04/04/13 07:22*	*04/08/13 18:01*	*1*
2-Fluorobiphenyl	*67*		*30 - 119*	*04/04/13 07:22*	*04/08/13 18:01*	*1*
2,4,6-Tribromophenol	*81*		*35 - 137*	*04/04/13 07:22*	*04/08/13 18:01*	*1*
Terphenyl-d14	*83*		*36 - 134*	*04/04/13 07:22*	*04/08/13 18:01*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.15	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Arsenic	6.2		0.58	0.13	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Barium	45		0.58	0.068	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Beryllium	0.31		0.23	0.017	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Cadmium	0.096	J	0.12	0.028	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Chromium	9.6		0.58	0.096	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Cobalt	8.5		0.29	0.030	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Copper	15		0.58	0.16	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Iron	13000	B	12	5.0	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Lead	12		0.29	0.099	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Magnesium	3700	B	5.8	1.1	mg/Kg	☼	04/03/13 16:00	04/09/13 17:39	1
Manganese	380	B	0.58	0.081	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Nickel	23		0.58	0.13	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Selenium	0.37	J	0.58	0.17	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Silver	<0.29		0.29	0.035	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Thallium	0.21	J	0.58	0.15	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Vanadium	20		0.29	0.044	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1
Zinc	39		1.2	0.39	mg/Kg	☼	04/03/13 16:00	04/06/13 00:08	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:09	1
Barium	0.41	J	0.50	0.010	mg/L		04/11/13 11:20	04/12/13 05:09	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/13 11:20	04/12/13 05:09	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/13 11:20	04/12/13 05:09	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:09	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:09	1
Copper	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:09	1
Iron	<0.20		0.20	0.20	mg/L		04/11/13 11:20	04/12/13 05:09	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01 (0-2)
Date Collected: 04/02/13 11:15
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-4
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/11/13 11:20	04/12/13 05:09	1
Manganese	0.080		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:09	1
Nickel	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:09	1
Selenium	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:09	1
Silver	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:09	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:09	1
Zinc	<0.10		0.10	0.020	mg/L		04/11/13 11:20	04/12/13 05:09	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/11/13 11:20	04/16/13 20:22	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/13 11:20	04/16/13 20:22	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000056	J B	0.00020	0.000020	mg/L		04/11/13 15:15	04/12/13 11:18	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.019	0.0073	mg/Kg	☼	04/04/13 16:30	04/05/13 10:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.90		0.200	0.200	SU			04/08/13 20:28	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01 (8-10)
Date Collected: 04/02/13 11:20
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-5
Matrix: Solid
Percent Solids: 93.2

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.7		4.7	1.0	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Vinyl chloride	<4.7		4.7	1.0	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Bromomethane	<4.7		4.7	1.4	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Chloroethane	<4.7		4.7	1.3	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
1,1-Dichloroethene	<4.7		4.7	0.77	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Carbon disulfide	<4.7		4.7	0.71	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Acetone	<4.7	*	4.7	2.1	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Methylene Chloride	<4.7		4.7	1.3	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
trans-1,2-Dichloroethene	<4.7		4.7	0.65	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Methyl tert-butyl ether	<4.7		4.7	0.78	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
1,1-Dichloroethane	<4.7		4.7	0.75	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
cis-1,2-Dichloroethene	<4.7		4.7	0.67	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Methyl Ethyl Ketone	<4.7		4.7	1.7	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Chloroform	<4.7		4.7	0.55	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
1,1,1-Trichloroethane	<4.7		4.7	0.71	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Carbon tetrachloride	<4.7		4.7	0.86	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Benzene	<4.7		4.7	0.65	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
1,2-Dichloroethane	<4.7		4.7	0.70	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Trichloroethene	<4.7		4.7	0.78	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
1,2-Dichloropropane	<4.7		4.7	0.72	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Bromodichloromethane	<4.7		4.7	0.82	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
cis-1,3-Dichloropropene	<4.7		4.7	0.62	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
methyl isobutyl ketone	<4.7		4.7	1.2	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Toluene	<4.7		4.7	0.66	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
trans-1,3-Dichloropropene	<4.7		4.7	0.85	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
1,1,2-Trichloroethane	<4.7		4.7	0.65	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Tetrachloroethene	<4.7		4.7	0.73	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
2-Hexanone	<4.7		4.7	1.4	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Dibromochloromethane	<4.7		4.7	0.83	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Chlorobenzene	<4.7		4.7	0.48	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Ethylbenzene	<4.7		4.7	0.96	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Styrene	<4.7		4.7	0.62	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Bromoform	<4.7		4.7	1.1	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
1,1,2,2-Tetrachloroethane	<4.7		4.7	0.98	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
Xylenes, Total	<9.5		9.5	0.43	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1
1,3-Dichloropropene, Total	<4.7		4.7	0.62	ug/Kg	☼	04/02/13 11:20	04/08/13 15:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 134*	*04/02/13 11:20*	*04/08/13 15:20*	*1*
Toluene-d8 (Surr)	*100*		*75 - 122*	*04/02/13 11:20*	*04/08/13 15:20*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 122*	*04/02/13 11:20*	*04/08/13 15:20*	*1*
Dibromofluoromethane	*97*		*75 - 120*	*04/02/13 11:20*	*04/08/13 15:20*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<170		170	55	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Bis(2-chloroethyl)ether	<170		170	51	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
1,3-Dichlorobenzene	<170		170	37	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
1,4-Dichlorobenzene	<170		170	37	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
1,2-Dichlorobenzene	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01 (8-10)
Date Collected: 04/02/13 11:20
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-5
Matrix: Solid
Percent Solids: 93.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<170		170	46	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2,2'-oxybis[1-chloropropane]	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
N-Nitrosodi-n-propylamine	<170		170	44	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Hexachloroethane	<170		170	37	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2-Chlorophenol	<170		170	50	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Nitrobenzene	<35		35	11	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Bis(2-chloroethoxy)methane	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
1,2,4-Trichlorobenzene	<170		170	39	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Isophorone	<170		170	39	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2,4-Dimethylphenol	<350		350	110	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Hexachlorobutadiene	<170		170	45	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Naphthalene	<35		35	6.7	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2,4-Dichlorophenol	<350		350	110	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
4-Chloroaniline	<700		700	110	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2,4,6-Trichlorophenol	<350		350	44	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2,4,5-Trichlorophenol	<350		350	99	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Hexachlorocyclopentadiene	<700		700	160	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2-Methylnaphthalene	<170		170	45	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2-Nitroaniline	<170		170	63	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2-Chloronaphthalene	<170		170	39	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
4-Chloro-3-methylphenol	<350		350	170	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2,6-Dinitrotoluene	<170		170	41	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2-Nitrophenol	<350		350	54	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
3-Nitroaniline	<350		350	67	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Dimethyl phthalate	<170		170	43	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2,4-Dinitrophenol	<700		700	180	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Acenaphthylene	<35		35	8.0	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
2,4-Dinitrotoluene	<170		170	53	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Acenaphthene	<35		35	10	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Dibenzofuran	<170		170	42	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
4-Nitrophenol	<700		700	190	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Fluorene	<35		35	7.9	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
4-Nitroaniline	<350		350	71	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
4-Bromophenyl phenyl ether	<170		170	39	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Hexachlorobenzene	<70		70	6.8	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Diethyl phthalate	<170		170	58	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
4-Chlorophenyl phenyl ether	<170		170	55	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Pentachlorophenol	<700		700	180	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
N-Nitrosodiphenylamine	<170		170	47	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
4,6-Dinitro-2-methylphenol	<350		350	84	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Phenanthrene	<35		35	15	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Anthracene	<35		35	8.2	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Carbazole	<170		170	49	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Di-n-butyl phthalate	<170		170	44	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Fluoranthene	<35		35	14	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Pyrene	<35		35	13	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Butyl benzyl phthalate	<170		170	44	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Benzo[a]anthracene	<35		35	7.3	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Chrysene	<35		35	7.8	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01 (8-10)
Date Collected: 04/02/13 11:20
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-5
Matrix: Solid
Percent Solids: 93.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<170		170	29	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Bis(2-ethylhexyl) phthalate	<170		170	46	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Di-n-octyl phthalate	<170		170	70	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Benzo[b]fluoranthene	<35		35	6.7	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Benzo[k]fluoranthene	<35		35	8.3	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Benzo[a]pyrene	<35		35	6.3	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Indeno[1,2,3-cd]pyrene	<35		35	12	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Dibenz(a,h)anthracene	<35		35	9.7	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
Benzo[g,h,i]perylene	<35		35	12	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1
3 & 4 Methylphenol	<170		170	66	ug/Kg	☼	04/04/13 07:22	04/08/13 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*70*		*30 - 110*	*04/04/13 07:22*	*04/08/13 18:18*	*1*
Phenol-d5	*67*		*31 - 110*	*04/04/13 07:22*	*04/08/13 18:18*	*1*
Nitrobenzene-d5	*66*		*30 - 115*	*04/04/13 07:22*	*04/08/13 18:18*	*1*
2-Fluorobiphenyl	*73*		*30 - 119*	*04/04/13 07:22*	*04/08/13 18:18*	*1*
2,4,6-Tribromophenol	*93*		*35 - 137*	*04/04/13 07:22*	*04/08/13 18:18*	*1*
Terphenyl-d14	*83*		*36 - 134*	*04/04/13 07:22*	*04/08/13 18:18*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.34	J	1.0	0.13	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Arsenic	5.0		0.51	0.11	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Barium	26		0.51	0.060	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Beryllium	0.14	J	0.20	0.015	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Cadmium	0.17		0.10	0.025	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Chromium	5.8		0.51	0.084	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Cobalt	4.4		0.25	0.027	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Copper	9.5		0.51	0.14	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Iron	8600	B	10	4.4	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Lead	6.4		0.25	0.087	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Magnesium	50000	B	5.1	0.98	mg/Kg	☼	04/03/13 16:00	04/09/13 17:45	1
Manganese	380	B	0.51	0.071	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Nickel	9.5		0.51	0.11	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Selenium	0.35	J	0.51	0.15	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Silver	<0.25		0.25	0.030	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Thallium	0.16	J	0.51	0.13	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Vanadium	11		0.25	0.038	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1
Zinc	31		1.0	0.35	mg/Kg	☼	04/03/13 16:00	04/06/13 00:13	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:16	1
Barium	0.29	J	0.50	0.010	mg/L		04/11/13 11:20	04/12/13 05:16	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/13 11:20	04/12/13 05:16	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/13 11:20	04/12/13 05:16	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:16	1
Cobalt	0.043		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:16	1
Copper	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:16	1
Iron	<0.20		0.20	0.20	mg/L		04/11/13 11:20	04/12/13 05:16	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01 (8-10)
Date Collected: 04/02/13 11:20
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-5
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/11/13 11:20	04/12/13 05:16	1
Manganese	5.2		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:16	1
Nickel	0.059		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:16	1
Selenium	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:16	1
Silver	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:16	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:16	1
Zinc	<0.10		0.10	0.020	mg/L		04/11/13 11:20	04/12/13 05:16	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		04/15/13 08:30	04/15/13 17:43	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/11/13 11:20	04/16/13 20:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/13 11:20	04/16/13 20:23	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000033	J B	0.00020	0.000020	mg/L		04/11/13 15:15	04/12/13 11:20	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.016	0.0061	mg/Kg	☼	04/04/13 16:30	04/05/13 10:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.20		0.200	0.200	SU			04/08/13 20:32	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01D (8-10)
Date Collected: 04/02/13 11:20
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-6
Matrix: Solid
Percent Solids: 93.1

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.4		4.4	0.92	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Vinyl chloride	<4.4		4.4	0.92	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Bromomethane	<4.4		4.4	1.3	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Chloroethane	<4.4		4.4	1.2	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
1,1-Dichloroethene	<4.4		4.4	0.71	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Carbon disulfide	<4.4		4.4	0.66	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Acetone	<4.4	*	4.4	1.9	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Methylene Chloride	<4.4		4.4	1.2	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
trans-1,2-Dichloroethene	<4.4		4.4	0.60	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Methyl tert-butyl ether	<4.4		4.4	0.73	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
1,1-Dichloroethane	<4.4		4.4	0.70	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
cis-1,2-Dichloroethene	<4.4		4.4	0.62	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Methyl Ethyl Ketone	<4.4		4.4	1.6	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Chloroform	<4.4		4.4	0.51	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
1,1,1-Trichloroethane	<4.4		4.4	0.66	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Carbon tetrachloride	<4.4		4.4	0.80	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Benzene	<4.4		4.4	0.60	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
1,2-Dichloroethane	<4.4		4.4	0.65	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Trichloroethene	<4.4		4.4	0.73	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
1,2-Dichloropropane	<4.4		4.4	0.67	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Bromodichloromethane	<4.4		4.4	0.76	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
cis-1,3-Dichloropropene	<4.4		4.4	0.58	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
methyl isobutyl ketone	<4.4		4.4	1.2	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Toluene	<4.4		4.4	0.62	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
trans-1,3-Dichloropropene	<4.4		4.4	0.79	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
1,1,2-Trichloroethane	<4.4		4.4	0.60	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Tetrachloroethene	<4.4		4.4	0.67	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
2-Hexanone	<4.4		4.4	1.3	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Dibromochloromethane	<4.4		4.4	0.76	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Chlorobenzene	<4.4		4.4	0.45	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Ethylbenzene	<4.4		4.4	0.89	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Styrene	<4.4		4.4	0.58	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Bromoform	<4.4		4.4	1.0	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
1,1,2,2-Tetrachloroethane	<4.4		4.4	0.89	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
Xylenes, Total	<8.8		8.8	0.40	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1
1,3-Dichloropropene, Total	<4.4		4.4	0.58	ug/Kg	☼	04/02/13 11:20	04/08/13 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 134*	*04/02/13 11:20*	*04/08/13 15:43*	*1*
Toluene-d8 (Surr)	*99*		*75 - 122*	*04/02/13 11:20*	*04/08/13 15:43*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 122*	*04/02/13 11:20*	*04/08/13 15:43*	*1*
Dibromofluoromethane	*98*		*75 - 120*	*04/02/13 11:20*	*04/08/13 15:43*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<170		170	54	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Bis(2-chloroethyl)ether	<170		170	51	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
1,3-Dichlorobenzene	<170		170	36	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
1,4-Dichlorobenzene	<170		170	36	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
1,2-Dichlorobenzene	<170		170	37	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01D (8-10)
Date Collected: 04/02/13 11:20
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-6
Matrix: Solid
Percent Solids: 93.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<170		170	45	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2,2'-oxybis[1-chloropropane]	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
N-Nitrosodi-n-propylamine	<170		170	43	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Hexachloroethane	<170		170	36	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2-Chlorophenol	<170		170	49	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Nitrobenzene	<34		34	11	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Bis(2-chloroethoxy)methane	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
1,2,4-Trichlorobenzene	<170		170	39	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Isophorone	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2,4-Dimethylphenol	<340		340	110	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Hexachlorobutadiene	<170		170	45	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Naphthalene	<34		34	6.6	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2,4-Dichlorophenol	<340		340	100	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
4-Chloroaniline	<690		690	100	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2,4,6-Trichlorophenol	<340		340	43	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2,4,5-Trichlorophenol	<340		340	98	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Hexachlorocyclopentadiene	<690		690	160	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2-Methylnaphthalene	<170		170	44	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2-Nitroaniline	<170		170	61	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2-Chloronaphthalene	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
4-Chloro-3-methylphenol	<340		340	160	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2,6-Dinitrotoluene	<170		170	41	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2-Nitrophenol	<340		340	54	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
3-Nitroaniline	<340		340	66	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Dimethyl phthalate	<170		170	43	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2,4-Dinitrophenol	<690		690	170	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Acenaphthylene	<34		34	7.8	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
2,4-Dinitrotoluene	<170		170	52	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Acenaphthene	<34		34	10	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Dibenzofuran	<170		170	41	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
4-Nitrophenol	<690		690	180	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Fluorene	<34		34	7.8	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
4-Nitroaniline	<340		340	70	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
4-Bromophenyl phenyl ether	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Hexachlorobenzene	<69		69	6.7	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Diethyl phthalate	<170		170	57	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
4-Chlorophenyl phenyl ether	<170		170	54	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Pentachlorophenol	<690		690	170	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
N-Nitrosodiphenylamine	<170		170	46	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
4,6-Dinitro-2-methylphenol	<340		340	83	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Phenanthrene	<34		34	14	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Anthracene	<34		34	8.0	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Carbazole	<170		170	48	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Di-n-butyl phthalate	<170		170	43	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Fluoranthene	<34		34	14	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Pyrene	<34		34	12	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Butyl benzyl phthalate	<170		170	43	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Benzo[a]anthracene	<34		34	7.2	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Chrysene	<34		34	7.7	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01D (8-10)
Date Collected: 04/02/13 11:20
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-6
Matrix: Solid
Percent Solids: 93.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<170		170	28	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Bis(2-ethylhexyl) phthalate	<170		170	45	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Di-n-octyl phthalate	<170		170	69	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Benzo[b]fluoranthene	<34		34	6.6	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Benzo[k]fluoranthene	<34		34	8.1	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Benzo[a]pyrene	<34		34	6.2	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Indeno[1,2,3-cd]pyrene	<34		34	12	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Dibenz(a,h)anthracene	<34		34	9.5	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
Benzo[g,h,i]perylene	<34		34	12	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1
3 & 4 Methylphenol	<170		170	65	ug/Kg	☼	04/04/13 07:22	04/08/13 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*78*		*30 - 110*	*04/04/13 07:22*	*04/08/13 18:35*	*1*
Phenol-d5	*76*		*31 - 110*	*04/04/13 07:22*	*04/08/13 18:35*	*1*
Nitrobenzene-d5	*72*		*30 - 115*	*04/04/13 07:22*	*04/08/13 18:35*	*1*
2-Fluorobiphenyl	*85*		*30 - 119*	*04/04/13 07:22*	*04/08/13 18:35*	*1*
2,4,6-Tribromophenol	*95*		*35 - 137*	*04/04/13 07:22*	*04/08/13 18:35*	*1*
Terphenyl-d14	*94*		*36 - 134*	*04/04/13 07:22*	*04/08/13 18:35*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.42	J	1.0	0.14	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Arsenic	4.4		0.52	0.11	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Barium	27		0.52	0.061	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Beryllium	0.18	J	0.21	0.015	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Cadmium	0.14		0.10	0.025	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Chromium	6.1		0.52	0.086	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Cobalt	4.3		0.26	0.027	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Copper	10		0.52	0.14	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Iron	7700	B	10	4.5	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Lead	7.7		0.26	0.089	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Magnesium	39000	B	5.2	1.0	mg/Kg	☼	04/03/13 16:00	04/09/13 17:51	1
Manganese	280	B	0.52	0.073	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Nickel	9.7		0.52	0.11	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Selenium	0.31	J	0.52	0.15	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Silver	<0.26		0.26	0.031	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Thallium	0.13	J	0.52	0.13	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Vanadium	13		0.26	0.039	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1
Zinc	29		1.0	0.35	mg/Kg	☼	04/03/13 16:00	04/06/13 00:18	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:22	1
Barium	0.27	J	0.50	0.010	mg/L		04/11/13 11:20	04/12/13 05:22	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/13 11:20	04/12/13 05:22	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/13 11:20	04/12/13 05:22	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:22	1
Cobalt	0.041		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:22	1
Copper	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:22	1
Iron	<0.20		0.20	0.20	mg/L		04/11/13 11:20	04/12/13 05:22	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B01D (8-10)
Date Collected: 04/02/13 11:20
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-6
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/11/13 11:20	04/12/13 05:22	1
Manganese	4.7		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:22	1
Nickel	0.060		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:22	1
Selenium	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:22	1
Silver	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:22	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:22	1
Zinc	0.079	J	0.10	0.020	mg/L		04/11/13 11:20	04/12/13 05:22	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		04/15/13 08:30	04/15/13 17:47	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/11/13 11:20	04/16/13 20:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/13 11:20	04/16/13 20:24	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000027	J B	0.00020	0.000020	mg/L		04/11/13 15:15	04/12/13 11:22	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.017	0.0066	mg/Kg	☼	04/04/13 16:30	04/05/13 11:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.29		0.200	0.200	SU			04/08/13 20:36	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B02 (0-2)
Date Collected: 04/02/13 11:55
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-7
Matrix: Solid
Percent Solids: 88.7

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.0		5.0	1.0	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Vinyl chloride	<5.0		5.0	1.0	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Bromomethane	<5.0		5.0	1.5	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Chloroethane	<5.0		5.0	1.4	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
1,1-Dichloroethene	<5.0		5.0	0.81	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Carbon disulfide	<5.0		5.0	0.75	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Acetone	<5.0	*	5.0	2.2	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Methylene Chloride	<5.0		5.0	1.3	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
trans-1,2-Dichloroethene	<5.0		5.0	0.69	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Methyl tert-butyl ether	<5.0		5.0	0.83	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
1,1-Dichloroethane	<5.0		5.0	0.79	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
cis-1,2-Dichloroethene	<5.0		5.0	0.71	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Methyl Ethyl Ketone	<5.0		5.0	1.8	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Chloroform	<5.0		5.0	0.57	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
1,1,1-Trichloroethane	<5.0		5.0	0.75	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Carbon tetrachloride	<5.0		5.0	0.91	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Benzene	<5.0		5.0	0.68	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
1,2-Dichloroethane	<5.0		5.0	0.74	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Trichloroethene	<5.0		5.0	0.82	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
1,2-Dichloropropane	<5.0		5.0	0.76	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Bromodichloromethane	<5.0		5.0	0.86	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
cis-1,3-Dichloropropene	<5.0		5.0	0.66	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
methyl isobutyl ketone	<5.0		5.0	1.3	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Toluene	<5.0		5.0	0.70	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
trans-1,3-Dichloropropene	<5.0		5.0	0.90	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
1,1,2-Trichloroethane	<5.0		5.0	0.68	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Tetrachloroethene	<5.0		5.0	0.76	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
2-Hexanone	<5.0		5.0	1.4	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Dibromochloromethane	<5.0		5.0	0.87	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Chlorobenzene	<5.0		5.0	0.51	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Ethylbenzene	<5.0		5.0	1.0	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Styrene	<5.0		5.0	0.66	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Bromoform	<5.0		5.0	1.1	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
1,1,2,2-Tetrachloroethane	<5.0		5.0	1.0	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
Xylenes, Total	<10		10	0.45	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1
1,3-Dichloropropene, Total	<5.0		5.0	0.66	ug/Kg	☼	04/02/13 11:55	04/08/13 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 134*	*04/02/13 11:55*	*04/08/13 16:05*	*1*
Toluene-d8 (Surr)	*98*		*75 - 122*	*04/02/13 11:55*	*04/08/13 16:05*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 122*	*04/02/13 11:55*	*04/08/13 16:05*	*1*
Dibromofluoromethane	*97*		*75 - 120*	*04/02/13 11:55*	*04/08/13 16:05*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<180		180	56	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Bis(2-chloroethyl)ether	<180		180	53	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
1,3-Dichlorobenzene	<180		180	37	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
1,4-Dichlorobenzene	<180		180	37	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
1,2-Dichlorobenzene	<180		180	39	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B02 (0-2)
Date Collected: 04/02/13 11:55
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-7
Matrix: Solid
Percent Solids: 88.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<180		180	47	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2,2'-oxybis[1-chloropropane]	<180		180	39	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
N-Nitrosodi-n-propylamine	<180		180	45	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Hexachloroethane	<180		180	38	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2-Chlorophenol	<180		180	51	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Nitrobenzene	<35		35	11	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Bis(2-chloroethoxy)methane	<180		180	39	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
1,2,4-Trichlorobenzene	<180		180	40	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Isophorone	<180		180	40	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2,4-Dimethylphenol	<350		350	110	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Hexachlorobutadiene	<180		180	46	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Naphthalene	<35		35	6.8	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2,4-Dichlorophenol	<350		350	110	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
4-Chloroaniline	<720		720	110	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2,4,6-Trichlorophenol	<350		350	45	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2,4,5-Trichlorophenol	<350		350	100	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Hexachlorocyclopentadiene	<720		720	160	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2-Methylnaphthalene	<180		180	46	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2-Nitroaniline	<180		180	64	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2-Chloronaphthalene	<180		180	40	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
4-Chloro-3-methylphenol	<350		350	170	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2,6-Dinitrotoluene	<180		180	42	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2-Nitrophenol	<350		350	56	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
3-Nitroaniline	<350		350	68	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Dimethyl phthalate	<180		180	44	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2,4-Dinitrophenol	<720		720	180	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Acenaphthylene	<35		35	8.1	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
2,4-Dinitrotoluene	<180		180	54	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Acenaphthene	<35		35	11	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Dibenzofuran	<180		180	43	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
4-Nitrophenol	<720		720	190	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Fluorene	<35		35	8.1	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
4-Nitroaniline	<350		350	73	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
4-Bromophenyl phenyl ether	<180		180	40	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Hexachlorobenzene	<72		72	7.0	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Diethyl phthalate	<180		180	59	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
4-Chlorophenyl phenyl ether	<180		180	56	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Pentachlorophenol	<720		720	180	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
N-Nitrosodiphenylamine	<180		180	48	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
4,6-Dinitro-2-methylphenol	<350		350	86	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Phenanthrene	34	J	35	15	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Anthracene	<35		35	8.3	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Carbazole	<180		180	50	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Di-n-butyl phthalate	<180		180	45	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Fluoranthene	83		35	15	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Pyrene	71		35	13	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Butyl benzyl phthalate	<180		180	44	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Benzo[a]anthracene	45		35	7.4	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Chrysene	54		35	8.0	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B02 (0-2)
Date Collected: 04/02/13 11:55
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-7
Matrix: Solid
Percent Solids: 88.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<180		180	30	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Bis(2-ethylhexyl) phthalate	<180		180	47	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Di-n-octyl phthalate	<180		180	72	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Benzo[b]fluoranthene	71		35	6.9	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Benzo[k]fluoranthene	38		35	8.5	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Benzo[a]pyrene	60		35	6.5	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Indeno[1,2,3-cd]pyrene	37		35	12	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Dibenz(a,h)anthracene	<35		35	9.9	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
Benzo[g,h,i]perylene	44		35	12	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1
3 & 4 Methylphenol	<180		180	67	ug/Kg	☼	04/04/13 07:22	04/08/13 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*64*		*30 - 110*	*04/04/13 07:22*	*04/08/13 18:53*	*1*
Phenol-d5	*63*		*31 - 110*	*04/04/13 07:22*	*04/08/13 18:53*	*1*
Nitrobenzene-d5	*56*		*30 - 115*	*04/04/13 07:22*	*04/08/13 18:53*	*1*
2-Fluorobiphenyl	*68*		*30 - 119*	*04/04/13 07:22*	*04/08/13 18:53*	*1*
2,4,6-Tribromophenol	*85*		*35 - 137*	*04/04/13 07:22*	*04/08/13 18:53*	*1*
Terphenyl-d14	*75*		*36 - 134*	*04/04/13 07:22*	*04/08/13 18:53*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.14	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Arsenic	4.0		0.52	0.11	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Barium	83		0.52	0.062	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Beryllium	0.33		0.21	0.015	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Cadmium	0.15		0.10	0.026	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Chromium	9.0		0.52	0.087	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Cobalt	5.8		0.26	0.027	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Copper	5.5		0.52	0.14	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Iron	8900	B	10	4.5	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Lead	11		0.26	0.089	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Magnesium	2600	B	5.2	1.0	mg/Kg	☼	04/03/13 16:00	04/09/13 17:57	1
Manganese	380	B	0.52	0.073	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Nickel	9.0		0.52	0.11	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Selenium	0.34	J	0.52	0.15	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Silver	<0.26		0.26	0.031	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Thallium	<0.52		0.52	0.13	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Vanadium	18		0.26	0.039	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1
Zinc	29		1.0	0.36	mg/Kg	☼	04/03/13 16:00	04/06/13 00:23	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:28	1
Barium	0.69		0.50	0.010	mg/L		04/11/13 11:20	04/12/13 05:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/13 11:20	04/12/13 05:28	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/13 11:20	04/12/13 05:28	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:28	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:28	1
Copper	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:28	1
Iron	<0.20		0.20	0.20	mg/L		04/11/13 11:20	04/12/13 05:28	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B02 (0-2)
Date Collected: 04/02/13 11:55
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-7
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/11/13 11:20	04/12/13 05:28	1
Manganese	1.9		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:28	1
Nickel	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:28	1
Selenium	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:28	1
Silver	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:28	1
Vanadium	0.0050	J	0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:28	1
Zinc	<0.10		0.10	0.020	mg/L		04/11/13 11:20	04/12/13 05:28	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.14		0.025	0.010	mg/L		04/15/13 08:30	04/15/13 18:03	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/11/13 11:20	04/16/13 20:25	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/13 11:20	04/16/13 20:25	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000051	J B	0.00020	0.000020	mg/L		04/11/13 15:15	04/12/13 11:25	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.017	0.0064	mg/Kg	☼	04/04/13 16:30	04/05/13 11:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.90		0.200	0.200	SU			04/08/13 20:40	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B02 (2-4)
Date Collected: 04/02/13 12:00
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-8
Matrix: Solid
Percent Solids: 89.9

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.9		4.9	1.0	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Vinyl chloride	<4.9		4.9	1.0	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Bromomethane	<4.9		4.9	1.5	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Chloroethane	<4.9		4.9	1.3	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
1,1-Dichloroethene	<4.9		4.9	0.80	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Carbon disulfide	<4.9		4.9	0.74	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Acetone	<4.9	*	4.9	2.1	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Methylene Chloride	<4.9		4.9	1.3	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
trans-1,2-Dichloroethene	<4.9		4.9	0.68	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Methyl tert-butyl ether	<4.9		4.9	0.82	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
1,1-Dichloroethane	<4.9		4.9	0.78	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
cis-1,2-Dichloroethene	<4.9		4.9	0.70	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Methyl Ethyl Ketone	<4.9		4.9	1.8	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Chloroform	<4.9		4.9	0.57	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
1,1,1-Trichloroethane	<4.9		4.9	0.74	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Carbon tetrachloride	<4.9		4.9	0.90	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Benzene	<4.9		4.9	0.68	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
1,2-Dichloroethane	<4.9		4.9	0.73	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Trichloroethene	<4.9		4.9	0.82	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
1,2-Dichloropropane	<4.9		4.9	0.75	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Bromodichloromethane	<4.9		4.9	0.85	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
cis-1,3-Dichloropropene	<4.9		4.9	0.65	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
methyl isobutyl ketone	<4.9		4.9	1.3	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Toluene	<4.9		4.9	0.69	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
trans-1,3-Dichloropropene	<4.9		4.9	0.89	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
1,1,2-Trichloroethane	<4.9		4.9	0.67	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Tetrachloroethene	<4.9		4.9	0.76	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
2-Hexanone	<4.9		4.9	1.4	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Dibromochloromethane	<4.9		4.9	0.86	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Chlorobenzene	<4.9		4.9	0.50	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Ethylbenzene	<4.9		4.9	1.0	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Styrene	<4.9		4.9	0.65	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Bromoform	<4.9		4.9	1.1	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
1,1,2,2-Tetrachloroethane	<4.9		4.9	1.0	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
Xylenes, Total	<9.9		9.9	0.45	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1
1,3-Dichloropropene, Total	<4.9		4.9	0.65	ug/Kg	☼	04/02/13 12:00	04/08/13 16:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 134*	*04/02/13 12:00*	*04/08/13 16:28*	*1*
Toluene-d8 (Surr)	*101*		*75 - 122*	*04/02/13 12:00*	*04/08/13 16:28*	*1*
4-Bromofluorobenzene (Surr)	*108*		*70 - 122*	*04/02/13 12:00*	*04/08/13 16:28*	*1*
Dibromofluoromethane	*107*		*75 - 120*	*04/02/13 12:00*	*04/08/13 16:28*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<180		180	58	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Bis(2-chloroethyl)ether	<180		180	54	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
1,3-Dichlorobenzene	<180		180	39	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
1,4-Dichlorobenzene	<180		180	39	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
1,2-Dichlorobenzene	<180		180	40	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B02 (2-4)
Date Collected: 04/02/13 12:00
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-8
Matrix: Solid
Percent Solids: 89.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<180		180	49	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2,2'-oxybis[1-chloropropane]	<180		180	41	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
N-Nitrosodi-n-propylamine	<180		180	47	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Hexachloroethane	<180		180	39	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2-Chlorophenol	<180		180	52	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Nitrobenzene	<36		36	11	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Bis(2-chloroethoxy)methane	<180		180	41	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
1,2,4-Trichlorobenzene	<180		180	42	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Isophorone	<180		180	41	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2,4-Dimethylphenol	<360		360	110	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Hexachlorobutadiene	<180		180	48	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Naphthalene	<36		36	7.1	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2,4-Dichlorophenol	<360		360	110	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
4-Chloroaniline	<740		740	110	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2,4,6-Trichlorophenol	<360		360	46	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2,4,5-Trichlorophenol	<360		360	100	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Hexachlorocyclopentadiene	<740		740	170	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2-Methylnaphthalene	<180		180	48	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2-Nitroaniline	<180		180	66	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2-Chloronaphthalene	<180		180	41	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
4-Chloro-3-methylphenol	<360		360	180	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2,6-Dinitrotoluene	<180		180	44	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2-Nitrophenol	<360		360	58	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
3-Nitroaniline	<360		360	71	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Dimethyl phthalate	<180		180	46	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2,4-Dinitrophenol	<740		740	190	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Acenaphthylene	<36		36	8.4	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
2,4-Dinitrotoluene	<180		180	56	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Acenaphthene	<36		36	11	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Dibenzofuran	<180		180	44	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
4-Nitrophenol	<740		740	200	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Fluorene	<36		36	8.3	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
4-Nitroaniline	<360		360	75	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
4-Bromophenyl phenyl ether	<180		180	41	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Hexachlorobenzene	<74		74	7.2	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Diethyl phthalate	<180		180	61	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
4-Chlorophenyl phenyl ether	<180		180	58	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Pentachlorophenol	<740		740	190	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
N-Nitrosodiphenylamine	<180		180	50	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
4,6-Dinitro-2-methylphenol	<360		360	89	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Phenanthrene	<36		36	15	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Anthracene	<36		36	8.6	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Carbazole	<180		180	52	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Di-n-butyl phthalate	<180		180	46	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Fluoranthene	<36		36	15	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Pyrene	<36		36	13	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Butyl benzyl phthalate	<180		180	46	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Benzo[a]anthracene	<36		36	7.7	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Chrysene	<36		36	8.3	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B02 (2-4)
Date Collected: 04/02/13 12:00
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-8
Matrix: Solid
Percent Solids: 89.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<180		180	31	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Bis(2-ethylhexyl) phthalate	<180		180	49	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Di-n-octyl phthalate	<180		180	74	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Benzo[b]fluoranthene	<36		36	7.1	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Benzo[k]fluoranthene	<36		36	8.8	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Benzo[a]pyrene	<36		36	6.7	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Indeno[1,2,3-cd]pyrene	<36		36	12	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Dibenz(a,h)anthracene	<36		36	10	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
Benzo[g,h,i]perylene	<36		36	12	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1
3 & 4 Methylphenol	<180		180	70	ug/Kg	☼	04/04/13 07:22	04/08/13 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*66*		*30 - 110*	*04/04/13 07:22*	*04/08/13 19:10*	*1*
Phenol-d5	*65*		*31 - 110*	*04/04/13 07:22*	*04/08/13 19:10*	*1*
Nitrobenzene-d5	*60*		*30 - 115*	*04/04/13 07:22*	*04/08/13 19:10*	*1*
2-Fluorobiphenyl	*70*		*30 - 119*	*04/04/13 07:22*	*04/08/13 19:10*	*1*
2,4,6-Tribromophenol	*91*		*35 - 137*	*04/04/13 07:22*	*04/08/13 19:10*	*1*
Terphenyl-d14	*82*		*36 - 134*	*04/04/13 07:22*	*04/08/13 19:10*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.14	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Arsenic	4.1		0.54	0.12	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Barium	82		0.54	0.064	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Beryllium	0.39		0.21	0.016	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Cadmium	0.083	J	0.11	0.027	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Chromium	11		0.54	0.089	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Cobalt	7.2		0.27	0.028	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Copper	5.3		0.54	0.15	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Iron	10000	B	11	4.6	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Lead	9.4		0.27	0.092	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Magnesium	1800	B	5.4	1.0	mg/Kg	☼	04/03/13 16:00	04/09/13 18:03	1
Manganese	410	B	0.54	0.076	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Nickel	11		0.54	0.12	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Selenium	0.41	J	0.54	0.15	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Silver	<0.27		0.27	0.032	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Thallium	0.14	J	0.54	0.14	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Vanadium	20		0.27	0.041	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1
Zinc	29		1.1	0.37	mg/Kg	☼	04/03/13 16:00	04/06/13 00:28	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:50	1
Barium	0.51		0.50	0.010	mg/L		04/11/13 11:20	04/12/13 05:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/13 11:20	04/12/13 05:50	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/13 11:20	04/12/13 05:50	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:50	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:50	1
Copper	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:50	1
Iron	<0.20		0.20	0.20	mg/L		04/11/13 11:20	04/12/13 05:50	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4823B02 (2-4)
Date Collected: 04/02/13 12:00
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-8
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/11/13 11:20	04/12/13 05:50	1
Manganese	0.012	J	0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:50	1
Nickel	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 05:50	1
Selenium	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 05:50	1
Silver	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:50	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 05:50	1
Zinc	<0.10		0.10	0.020	mg/L		04/11/13 11:20	04/12/13 05:50	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/11/13 11:20	04/16/13 20:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/13 11:20	04/16/13 20:28	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000056	J B	0.00020	0.000020	mg/L		04/11/13 15:15	04/12/13 11:27	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.017	0.0064	mg/Kg	☼	04/04/13 16:30	04/05/13 11:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.22		0.200	0.200	SU			04/08/13 20:44	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F	Duplicate RPD exceeds the control limit
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-30-14
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-14
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

TestAmerica
THE LEADER IN ENVIRONMENT
2417 Bond Street, University Park, Il
Phone: 708.534.5200 Fax: 708

500-55693 COC

Report To (optional)
Contact: Sherri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55693
Chain of Custody Number: E748-05
Page 1 of 1
Temperature °C of Cooler: (3.8) (3.5)

Client: Ecology - Environment
Client Project #: EE-004330-0001-01TTO
Project Name: IL 31
Project Location/State: McHenry Co. IL
Lab Project #: 50007751
Sampler: Scott Cooper
Lab PM: Dick Wright

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total RCRA metals	TCLP/SPLP TAL metals	pH/% Solids					Comments
1		E4823B09(2-4)	4-2-13	0935	2	S	X	X	X	X	X					
2		E4823B07(0-2)	4-2-13	1010	2	S	X	X	X	X	X					
3		E4823B07(6-8)	4-2-13	1015	2	S	X	X	X	X	X					
4		E4823B01(0-2)	4-2-13	1115	2	S	X	X	X	X	X					
5		E4823B01(8-10)	4-2-13	1120	2	S	X	X	X	X	X					
6		E4823B01D(8-10)	4-2-13	1120	2	S	X	X	X	X	X					
7		E4823B02(0-2)	4-2-13	1155	2	S	X	X	X	X	X					
8		E4823B02(2-4)	4-2-13	1200	2	S	X	X	X	X	X					
9		E4823B03(0-2)	4-2-13	1220	2	S	X	X	X	X	X					
10		E4823B03(4-6)	4-2-13	1225	2	S	X	X	X	X	X					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days ___ Other
Requested Due Date ______

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E&E	4-2-13	1435	[signature]	TA	4/2/13	1435
[signature]	TA	4/3/13	1630	[signature]	TA	4/3/13	1000

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

Page 130 of 132

4/17/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: Sherri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55693
Chain of Custody Number: E748-06
Page 1 of 1
Temperature °C of Cooler:

Client: Ecology & Environment
Client Project #: EE-004330-0001-01 TTO
Project Name: IL 31
Project Location/State: McHenry Co, IL
Lab Project #: 50007751
Sampler: Keith Coop
Lab PM: Dick Wright

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL metals	TCLP/SPLP TAL metals	pH/Cyanide					Comments
11		E4823B08(2-4)	4-2-13	1305	2	S	X	X	X	X	X					
12		E4823B08(6-8)	4-2-13	1310	2	S	X	X	X	X	X					
13		E4826B01(0-2)	4-2-13	1335	2	S	X	X	X	X	X					
14		E4826B01(4-6)	4-2-13	1340	2	S	X	X	X	X	X					
15		E4827B01(0-2)	4-2-13	1425	2	S	X	X	X	X	X					
16		E4827B01(2-4)	4-2-13	1430	2	S	X	X	X	X	X					

4-2-13

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days ___ Other
Requested Due Date ______

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E+E	4-2-13	1435	[signature]	TA	4/2/13	1435
[signature]	TA	4/2/13	1630	[signature]	TA	4/3/13	1000

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55780-1
Client Project/Site: IDOT - Algonquin - WO 48

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
4/22/2013 3:16:45 PM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B05 (0-2)
Date Collected: 04/03/13 12:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-1
Matrix: Solid
Percent Solids: 80.2

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.3		6.3	1.3	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Vinyl chloride	<6.3		6.3	1.3	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Bromomethane	<6.3		6.3	1.9	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Chloroethane	<6.3		6.3	1.7	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
1,1-Dichloroethene	<6.3		6.3	1.0	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Carbon disulfide	<6.3		6.3	0.95	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Acetone	<6.3		6.3	2.7	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Methylene Chloride	<6.3		6.3	1.7	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
trans-1,2-Dichloroethene	<6.3		6.3	0.87	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Methyl tert-butyl ether	<6.3		6.3	1.0	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
1,1-Dichloroethane	<6.3		6.3	1.0	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
cis-1,2-Dichloroethene	<6.3		6.3	0.90	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Methyl Ethyl Ketone	<6.3		6.3	2.3	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Chloroform	<6.3		6.3	0.73	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
1,1,1-Trichloroethane	<6.3		6.3	0.95	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Carbon tetrachloride	<6.3		6.3	1.2	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Benzene	<6.3		6.3	0.87	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
1,2-Dichloroethane	<6.3		6.3	0.94	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Trichloroethene	<6.3		6.3	1.0	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
1,2-Dichloropropane	<6.3		6.3	0.96	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Bromodichloromethane	<6.3		6.3	1.1	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
cis-1,3-Dichloropropene	<6.3		6.3	0.83	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
methyl isobutyl ketone	<6.3		6.3	1.7	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Toluene	<6.3		6.3	0.89	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
trans-1,3-Dichloropropene	<6.3		6.3	1.1	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
1,1,2-Trichloroethane	<6.3		6.3	0.86	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Tetrachloroethene	<6.3		6.3	0.97	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
2-Hexanone	<6.3		6.3	1.8	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Dibromochloromethane	<6.3		6.3	1.1	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Chlorobenzene	<6.3		6.3	0.64	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Ethylbenzene	<6.3		6.3	1.3	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Styrene	<6.3		6.3	0.83	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Bromoform	<6.3		6.3	1.5	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
1,1,2,2-Tetrachloroethane	<6.3		6.3	1.3	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
Xylenes, Total	<13		13	0.57	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1
1,3-Dichloropropene, Total	<6.3		6.3	0.83	ug/Kg	☼	04/03/13 12:35	04/09/13 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 134*	*04/03/13 12:35*	*04/09/13 13:48*	*1*
Toluene-d8 (Surr)	*109*		*75 - 122*	*04/03/13 12:35*	*04/09/13 13:48*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 122*	*04/03/13 12:35*	*04/09/13 13:48*	*1*
Dibromofluoromethane	*109*		*75 - 120*	*04/03/13 12:35*	*04/09/13 13:48*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	63	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Bis(2-chloroethyl)ether	<200		200	59	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
1,3-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
1,4-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
1,2-Dichlorobenzene	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B05 (0-2)
Date Collected: 04/03/13 12:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-1
Matrix: Solid
Percent Solids: 80.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	53	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2,2'-oxybis[1-chloropropane]	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
N-Nitrosodi-n-propylamine	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Hexachloroethane	<200		200	42	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2-Chlorophenol	<200		200	57	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Nitrobenzene	<39		39	12	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Bis(2-chloroethoxy)methane	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
1,2,4-Trichlorobenzene	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Isophorone	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2,4-Dimethylphenol	<390		390	120	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Hexachlorobutadiene	<200		200	52	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Naphthalene	<39		39	7.7	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2,4-Dichlorophenol	<390		390	120	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
4-Chloroaniline	<800		800	120	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2,4,6-Trichlorophenol	<390		390	50	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2,4,5-Trichlorophenol	<390		390	110	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Hexachlorocyclopentadiene	<800		800	180	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2-Methylnaphthalene	<200		200	52	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2-Nitroaniline	<200		200	72	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2-Chloronaphthalene	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
4-Chloro-3-methylphenol	<390		390	190	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2,6-Dinitrotoluene	<200		200	47	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2-Nitrophenol	<390		390	62	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
3-Nitroaniline	<390		390	77	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Dimethyl phthalate	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2,4-Dinitrophenol	<800		800	200	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Acenaphthylene	<39		39	9.1	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
2,4-Dinitrotoluene	<200		200	61	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Acenaphthene	<39		39	12	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Dibenzofuran	<200		200	48	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
4-Nitrophenol	<800		800	210	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Fluorene	<39		39	9.0	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
4-Nitroaniline	<390		390	81	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
4-Bromophenyl phenyl ether	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Hexachlorobenzene	<80		80	7.8	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Diethyl phthalate	<200		200	66	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
4-Chlorophenyl phenyl ether	<200		200	63	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Pentachlorophenol	<800		800	200	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
N-Nitrosodiphenylamine	<200		200	54	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
4,6-Dinitro-2-methylphenol	<390		390	96	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Phenanthrene	<39		39	17	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Anthracene	<39		39	9.3	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Carbazole	<200		200	56	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Di-n-butyl phthalate	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Fluoranthene	33	J	39	16	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Pyrene	27	J	39	14	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Butyl benzyl phthalate	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Benzo[a]anthracene	17	J	39	8.3	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Chrysene	15	J	39	9.0	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B05 (0-2)
Date Collected: 04/03/13 12:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-1
Matrix: Solid
Percent Solids: 80.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	33	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Bis(2-ethylhexyl) phthalate	<200		200	53	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Di-n-octyl phthalate	<200		200	81	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Benzo[b]fluoranthene	21	J	39	7.7	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Benzo[k]fluoranthene	<39		39	9.5	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Benzo[a]pyrene	16	J	39	7.2	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Indeno[1,2,3-cd]pyrene	14	J	39	13	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Dibenz(a,h)anthracene	<39		39	11	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
Benzo[g,h,i]perylene	23	J	39	13	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1
3 & 4 Methylphenol	<200		200	75	ug/Kg	☼	04/08/13 17:02	04/12/13 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*42*		*30 - 110*	*04/08/13 17:02*	*04/12/13 15:28*	*1*
Phenol-d5	*45*		*31 - 110*	*04/08/13 17:02*	*04/12/13 15:28*	*1*
Nitrobenzene-d5	*44*		*30 - 115*	*04/08/13 17:02*	*04/12/13 15:28*	*1*
2-Fluorobiphenyl	*57*		*30 - 119*	*04/08/13 17:02*	*04/12/13 15:28*	*1*
2,4,6-Tribromophenol	*59*		*35 - 137*	*04/08/13 17:02*	*04/12/13 15:28*	*1*
Terphenyl-d14	*47*		*36 - 134*	*04/08/13 17:02*	*04/12/13 15:28*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Arsenic	6.1		0.62	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Barium	120	B	0.62	0.073	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Beryllium	0.85		0.25	0.018	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Cadmium	0.33		0.12	0.030	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Chromium	17		0.62	0.10	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Cobalt	8.5		0.31	0.032	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Copper	10		0.62	0.17	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Iron	17000		12	5.0	mg/Kg	☼	04/15/13 09:41	04/16/13 19:19	1
Lead	12		0.31	0.11	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Magnesium	2600	B	6.2	1.2	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Manganese	940		6.2	0.87	mg/Kg	☼	04/05/13 13:00	04/14/13 20:26	10
Nickel	14		0.62	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Selenium	0.67		0.62	0.18	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Silver	<0.31		0.31	0.037	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Thallium	0.21	J	0.62	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Vanadium	32		0.31	0.047	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1
Zinc	42		1.2	0.42	mg/Kg	☼	04/05/13 13:00	04/13/13 03:43	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 05:53	1
Barium	0.41	J	0.50	0.010	mg/L		04/17/13 09:30	04/18/13 05:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/17/13 09:30	04/18/13 05:53	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/17/13 09:30	04/18/13 05:53	1
Chromium	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 05:53	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 05:53	1
Copper	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 05:53	1
Iron	1.0		0.20	0.20	mg/L		04/17/13 09:30	04/18/13 05:53	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B05 (0-2)
Date Collected: 04/03/13 12:35
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-1
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/17/13 09:30	04/18/13 05:53	1
Manganese	0.045		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 05:53	1
Nickel	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 05:53	1
Selenium	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 05:53	1
Silver	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 05:53	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 05:53	1
Zinc	0.38		0.10	0.020	mg/L		04/17/13 09:30	04/18/13 05:53	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/17/13 09:30	04/19/13 10:09	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/17/13 09:30	04/19/13 10:09	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000020	J	0.00020	0.000020	mg/L		04/17/13 13:00	04/18/13 09:00	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.061		0.019	0.0074	mg/Kg	☼	04/09/13 14:15	04/10/13 10:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.64		0.200	0.200	SU			04/09/13 20:18	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B05 (8-10)
Date Collected: 04/03/13 12:40
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-2
Matrix: Solid
Percent Solids: 94.0

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.4		4.4	0.92	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Vinyl chloride	<4.4		4.4	0.92	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Bromomethane	<4.4		4.4	1.3	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Chloroethane	<4.4		4.4	1.2	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
1,1-Dichloroethene	<4.4		4.4	0.71	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Carbon disulfide	<4.4		4.4	0.65	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Acetone	<4.4		4.4	1.9	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Methylene Chloride	<4.4		4.4	1.2	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
trans-1,2-Dichloroethene	<4.4		4.4	0.60	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Methyl tert-butyl ether	<4.4		4.4	0.72	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
1,1-Dichloroethane	<4.4		4.4	0.69	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
cis-1,2-Dichloroethene	<4.4		4.4	0.62	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Methyl Ethyl Ketone	<4.4		4.4	1.6	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Chloroform	<4.4		4.4	0.50	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
1,1,1-Trichloroethane	<4.4		4.4	0.65	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Carbon tetrachloride	<4.4		4.4	0.80	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Benzene	<4.4		4.4	0.60	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
1,2-Dichloroethane	<4.4		4.4	0.65	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Trichloroethene	<4.4		4.4	0.72	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
1,2-Dichloropropane	<4.4		4.4	0.67	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Bromodichloromethane	<4.4		4.4	0.75	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
cis-1,3-Dichloropropene	<4.4		4.4	0.57	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
methyl isobutyl ketone	<4.4		4.4	1.1	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Toluene	<4.4		4.4	0.61	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
trans-1,3-Dichloropropene	<4.4		4.4	0.79	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
1,1,2-Trichloroethane	<4.4		4.4	0.60	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Tetrachloroethene	<4.4		4.4	0.67	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
2-Hexanone	<4.4		4.4	1.3	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Dibromochloromethane	<4.4		4.4	0.76	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Chlorobenzene	<4.4		4.4	0.44	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Ethylbenzene	<4.4		4.4	0.88	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Styrene	<4.4		4.4	0.57	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Bromoform	<4.4		4.4	1.0	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
1,1,2,2-Tetrachloroethane	<4.4		4.4	0.88	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
Xylenes, Total	<8.8		8.8	0.40	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1
1,3-Dichloropropene, Total	<4.4		4.4	0.57	ug/Kg	☼	04/03/13 12:40	04/09/13 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 134*	*04/03/13 12:40*	*04/09/13 14:12*	*1*
Toluene-d8 (Surr)	*109*		*75 - 122*	*04/03/13 12:40*	*04/09/13 14:12*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 122*	*04/03/13 12:40*	*04/09/13 14:12*	*1*
Dibromofluoromethane	*104*		*75 - 120*	*04/03/13 12:40*	*04/09/13 14:12*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<170		170	54	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Bis(2-chloroethyl)ether	<170		170	51	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
1,3-Dichlorobenzene	<170		170	36	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
1,4-Dichlorobenzene	<170		170	36	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
1,2-Dichlorobenzene	<170		170	38	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B05 (8-10)
Date Collected: 04/03/13 12:40
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-2
Matrix: Solid
Percent Solids: 94.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<170		170	46	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2,2'-oxybis[1-chloropropane]	<170		170	38	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
N-Nitrosodi-n-propylamine	<170		170	44	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Hexachloroethane	<170		170	37	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2-Chlorophenol	<170		170	49	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Nitrobenzene	<34		34	11	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Bis(2-chloroethoxy)methane	<170		170	38	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
1,2,4-Trichlorobenzene	<170		170	39	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Isophorone	<170		170	38	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2,4-Dimethylphenol	<340		340	110	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Hexachlorobutadiene	<170		170	45	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Naphthalene	<34		34	6.6	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2,4-Dichlorophenol	<340		340	100	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
4-Chloroaniline	<690		690	100	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2,4,6-Trichlorophenol	<340		340	43	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2,4,5-Trichlorophenol	<340		340	98	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Hexachlorocyclopentadiene	<690		690	160	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2-Methylnaphthalene	<170		170	45	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2-Nitroaniline	<170		170	62	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2-Chloronaphthalene	<170		170	39	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
4-Chloro-3-methylphenol	<340		340	160	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2,6-Dinitrotoluene	<170		170	41	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2-Nitrophenol	<340		340	54	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
3-Nitroaniline	<340		340	66	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Dimethyl phthalate	<170		170	43	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2,4-Dinitrophenol	<690		690	180	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Acenaphthylene	<34		34	7.9	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
2,4-Dinitrotoluene	<170		170	53	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Acenaphthene	<34		34	10	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Dibenzofuran	<170		170	41	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
4-Nitrophenol	<690		690	190	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Fluorene	<34		34	7.8	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
4-Nitroaniline	<340		340	70	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
4-Bromophenyl phenyl ether	<170		170	38	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Hexachlorobenzene	<69		69	6.8	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Diethyl phthalate	<170		170	57	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
4-Chlorophenyl phenyl ether	<170		170	54	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Pentachlorophenol	<690		690	170	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
N-Nitrosodiphenylamine	<170		170	46	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
4,6-Dinitro-2-methylphenol	<340		340	83	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Phenanthrene	<34		34	14	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Anthracene	<34		34	8.1	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Carbazole	<170		170	48	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Di-n-butyl phthalate	<170		170	43	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Fluoranthene	<34		34	14	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Pyrene	<34		34	12	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Butyl benzyl phthalate	<170		170	43	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Benzo[a]anthracene	<34		34	7.2	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Chrysene	<34		34	7.8	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B05 (8-10)
Date Collected: 04/03/13 12:40
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-2
Matrix: Solid
Percent Solids: 94.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<170		170	29	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Bis(2-ethylhexyl) phthalate	<170		170	46	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Di-n-octyl phthalate	<170		170	70	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Benzo[b]fluoranthene	<34		34	6.7	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Benzo[k]fluoranthene	<34		34	8.2	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Benzo[a]pyrene	<34		34	6.3	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Indeno[1,2,3-cd]pyrene	<34		34	12	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Dibenz(a,h)anthracene	<34		34	9.6	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
Benzo[g,h,i]perylene	<34		34	12	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1
3 & 4 Methylphenol	<170		170	65	ug/Kg	☼	04/08/13 17:02	04/12/13 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*49*		*30 - 110*	*04/08/13 17:02*	*04/12/13 15:47*	*1*
Phenol-d5	*51*		*31 - 110*	*04/08/13 17:02*	*04/12/13 15:47*	*1*
Nitrobenzene-d5	*56*		*30 - 115*	*04/08/13 17:02*	*04/12/13 15:47*	*1*
2-Fluorobiphenyl	*63*		*30 - 119*	*04/08/13 17:02*	*04/12/13 15:47*	*1*
2,4,6-Tribromophenol	*62*		*35 - 137*	*04/08/13 17:02*	*04/12/13 15:47*	*1*
Terphenyl-d14	*59*		*36 - 134*	*04/08/13 17:02*	*04/12/13 15:47*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.14	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Arsenic	9.0		0.53	0.12	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Barium	15	B	0.53	0.063	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Beryllium	0.30		0.21	0.015	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Cadmium	0.66		0.11	0.026	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Chromium	5.2		0.53	0.088	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Cobalt	2.9		0.26	0.028	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Copper	14		0.53	0.14	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Iron	9200		10	4.5	mg/Kg	☼	04/15/13 09:41	04/16/13 19:26	1
Lead	14		0.26	0.091	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Magnesium	51000	B	5.3	1.0	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Manganese	280		0.53	0.074	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Nickel	7.4		0.53	0.12	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Selenium	<0.53		0.53	0.15	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Silver	<0.26		0.26	0.032	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Thallium	<0.53		0.53	0.14	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Vanadium	12		0.26	0.040	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1
Zinc	21		1.1	0.36	mg/Kg	☼	04/05/13 13:00	04/13/13 04:04	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 05:58	1
Barium	0.19	J	0.50	0.010	mg/L		04/17/13 09:30	04/18/13 05:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/17/13 09:30	04/18/13 05:58	1
Cadmium	0.0023	J	0.0050	0.0020	mg/L		04/17/13 09:30	04/18/13 05:58	1
Chromium	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 05:58	1
Cobalt	0.033		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 05:58	1
Copper	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 05:58	1
Iron	<0.20		0.20	0.20	mg/L		04/17/13 09:30	04/18/13 05:58	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B05 (8-10)
Date Collected: 04/03/13 12:40
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-2
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0082		0.0075	0.0050	mg/L		04/17/13 09:30	04/18/13 05:58	1
Manganese	3.6		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 05:58	1
Nickel	0.055		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 05:58	1
Selenium	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 05:58	1
Silver	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 05:58	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 05:58	1
Zinc	0.033	J	0.10	0.020	mg/L		04/17/13 09:30	04/18/13 05:58	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/19/13 08:35	04/20/13 00:20	1
Manganese	<0.025		0.025	0.010	mg/L		04/19/13 08:35	04/20/13 00:20	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/17/13 09:30	04/19/13 10:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/17/13 09:30	04/19/13 10:12	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000020	mg/L		04/17/13 13:00	04/18/13 09:05	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0063	mg/Kg	☼	04/09/13 14:15	04/10/13 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.33		0.200	0.200	SU			04/09/13 20:24	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B04 (2-4)
Date Collected: 04/03/13 12:55
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-3
Matrix: Solid
Percent Solids: 82.2

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.8		5.8	1.2	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Vinyl chloride	<5.8		5.8	1.2	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Bromomethane	<5.8		5.8	1.7	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Chloroethane	<5.8		5.8	1.6	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
1,1-Dichloroethene	<5.8		5.8	0.93	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Carbon disulfide	<5.8		5.8	0.86	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Acetone	<5.8		5.8	2.5	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Methylene Chloride	<5.8		5.8	1.6	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
trans-1,2-Dichloroethene	<5.8		5.8	0.79	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Methyl tert-butyl ether	<5.8		5.8	0.95	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
1,1-Dichloroethane	<5.8		5.8	0.91	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
cis-1,2-Dichloroethene	<5.8		5.8	0.82	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Methyl Ethyl Ketone	<5.8		5.8	2.1	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Chloroform	<5.8		5.8	0.66	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
1,1,1-Trichloroethane	<5.8		5.8	0.86	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Carbon tetrachloride	<5.8		5.8	1.1	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Benzene	<5.8		5.8	0.79	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
1,2-Dichloroethane	<5.8		5.8	0.86	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Trichloroethene	<5.8		5.8	0.95	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
1,2-Dichloropropane	<5.8		5.8	0.88	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Bromodichloromethane	<5.8		5.8	0.99	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
cis-1,3-Dichloropropene	<5.8		5.8	0.76	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
methyl isobutyl ketone	<5.8		5.8	1.5	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Toluene	<5.8		5.8	0.81	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
trans-1,3-Dichloropropene	<5.8		5.8	1.0	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
1,1,2-Trichloroethane	<5.8		5.8	0.79	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Tetrachloroethene	<5.8		5.8	0.88	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
2-Hexanone	<5.8		5.8	1.7	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Dibromochloromethane	<5.8		5.8	1.0	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Chlorobenzene	<5.8		5.8	0.59	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Ethylbenzene	<5.8		5.8	1.2	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Styrene	<5.8		5.8	0.76	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Bromoform	<5.8		5.8	1.3	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
1,1,2,2-Tetrachloroethane	<5.8		5.8	1.2	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
Xylenes, Total	<12		12	0.52	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1
1,3-Dichloropropene, Total	<5.8		5.8	0.76	ug/Kg	☼	04/03/13 12:55	04/09/13 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 134*	*04/03/13 12:55*	*04/09/13 14:35*	*1*
Toluene-d8 (Surr)	*109*		*75 - 122*	*04/03/13 12:55*	*04/09/13 14:35*	*1*
4-Bromofluorobenzene (Surr)	*107*		*70 - 122*	*04/03/13 12:55*	*04/09/13 14:35*	*1*
Dibromofluoromethane	*108*		*75 - 120*	*04/03/13 12:55*	*04/09/13 14:35*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	64	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Bis(2-chloroethyl)ether	<200		200	60	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
1,3-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
1,4-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
1,2-Dichlorobenzene	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B04 (2-4)
Date Collected: 04/03/13 12:55
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-3
Matrix: Solid
Percent Solids: 82.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	53	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2,2'-oxybis[1-chloropropane]	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
N-Nitrosodi-n-propylamine	<200		200	51	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Hexachloroethane	<200		200	43	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2-Chlorophenol	<200		200	57	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Nitrobenzene	<40		40	12	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Bis(2-chloroethoxy)methane	<200		200	44	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
1,2,4-Trichlorobenzene	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Isophorone	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2,4-Dimethylphenol	<400		400	130	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Hexachlorobutadiene	<200		200	53	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Naphthalene	<40		40	7.7	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2,4-Dichlorophenol	<400		400	120	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
4-Chloroaniline	<810		810	120	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2,4,6-Trichlorophenol	<400		400	50	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2,4,5-Trichlorophenol	<400		400	110	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Hexachlorocyclopentadiene	<810		810	190	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2-Methylnaphthalene	<200		200	52	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2-Nitroaniline	<200		200	72	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2-Chloronaphthalene	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
4-Chloro-3-methylphenol	<400		400	190	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2,6-Dinitrotoluene	<200		200	48	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2-Nitrophenol	<400		400	63	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
3-Nitroaniline	<400		400	78	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Dimethyl phthalate	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2,4-Dinitrophenol	<810		810	210	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Acenaphthylene	<40		40	9.2	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
2,4-Dinitrotoluene	<200		200	62	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Acenaphthene	<40		40	12	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Dibenzofuran	<200		200	48	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
4-Nitrophenol	<810		810	220	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Fluorene	<40		40	9.1	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
4-Nitroaniline	<400		400	82	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
4-Bromophenyl phenyl ether	<200		200	45	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Hexachlorobenzene	<81		81	7.9	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Diethyl phthalate	<200		200	67	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
4-Chlorophenyl phenyl ether	<200		200	63	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Pentachlorophenol	<810		810	200	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
N-Nitrosodiphenylamine	<200		200	54	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
4,6-Dinitro-2-methylphenol	<400		400	97	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Phenanthrene	<40		40	17	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Anthracene	<40		40	9.4	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Carbazole	<200		200	56	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Di-n-butyl phthalate	<200		200	51	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Fluoranthene	<40		40	16	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Pyrene	<40		40	15	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Butyl benzyl phthalate	<200		200	50	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Benzo[a]anthracene	<40		40	8.4	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Chrysene	<40		40	9.1	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B04 (2-4)
Date Collected: 04/03/13 12:55
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-3
Matrix: Solid
Percent Solids: 82.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	34	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Bis(2-ethylhexyl) phthalate	<200		200	53	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Di-n-octyl phthalate	<200		200	82	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Benzo[b]fluoranthene	<40		40	7.8	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Benzo[k]fluoranthene	<40		40	9.6	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Benzo[a]pyrene	<40		40	7.3	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Indeno[1,2,3-cd]pyrene	<40		40	14	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Dibenz(a,h)anthracene	<40		40	11	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
Benzo[g,h,i]perylene	<40		40	14	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1
3 & 4 Methylphenol	<200		200	76	ug/Kg	☼	04/08/13 17:02	04/12/13 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*40*		*30 - 110*	*04/08/13 17:02*	*04/12/13 16:07*	*1*
Phenol-d5	*42*		*31 - 110*	*04/08/13 17:02*	*04/12/13 16:07*	*1*
Nitrobenzene-d5	*44*		*30 - 115*	*04/08/13 17:02*	*04/12/13 16:07*	*1*
2-Fluorobiphenyl	*48*		*30 - 119*	*04/08/13 17:02*	*04/12/13 16:07*	*1*
2,4,6-Tribromophenol	*53*		*35 - 137*	*04/08/13 17:02*	*04/12/13 16:07*	*1*
Terphenyl-d14	*44*		*36 - 134*	*04/08/13 17:02*	*04/12/13 16:07*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Arsenic	7.0		0.61	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Barium	88	B	0.61	0.072	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Beryllium	0.76		0.24	0.018	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Cadmium	0.30		0.12	0.030	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Chromium	18		0.61	0.10	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Cobalt	7.4		0.30	0.032	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Copper	14		0.61	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Iron	20000		11	4.8	mg/Kg	☼	04/15/13 09:41	04/16/13 19:32	1
Lead	9.7		0.30	0.10	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Magnesium	2700	B	6.1	1.2	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Manganese	520		0.61	0.086	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Nickel	18		0.61	0.13	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Selenium	0.72		0.61	0.17	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Silver	<0.30		0.30	0.036	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Thallium	0.53	J	0.61	0.16	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Vanadium	36		0.30	0.046	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1
Zinc	37		1.2	0.42	mg/Kg	☼	04/05/13 13:00	04/13/13 04:10	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 06:03	1
Barium	0.41	J	0.50	0.010	mg/L		04/17/13 09:30	04/18/13 06:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/17/13 09:30	04/18/13 06:03	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/17/13 09:30	04/18/13 06:03	1
Chromium	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:03	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:03	1
Copper	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:03	1
Iron	<0.20		0.20	0.20	mg/L		04/17/13 09:30	04/18/13 06:03	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Client Sample ID: E4823B04 (2-4)
Date Collected: 04/03/13 12:55
Date Received: 04/05/13 09:30

Lab Sample ID: 500-55780-3
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/17/13 09:30	04/18/13 06:03	1
Manganese	0.011	J	0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:03	1
Nickel	<0.025		0.025	0.010	mg/L		04/17/13 09:30	04/18/13 06:03	1
Selenium	<0.050		0.050	0.010	mg/L		04/17/13 09:30	04/18/13 06:03	1
Silver	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:03	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/17/13 09:30	04/18/13 06:03	1
Zinc	0.044	J	0.10	0.020	mg/L		04/17/13 09:30	04/18/13 06:03	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/17/13 09:30	04/19/13 10:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/17/13 09:30	04/19/13 10:13	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000032	J	0.00020	0.000020	mg/L		04/17/13 13:00	04/18/13 09:07	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.044		0.019	0.0073	mg/Kg	☼	04/09/13 14:15	04/10/13 10:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.73		0.200	0.200	SU			04/09/13 20:30	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55780-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-14
Illinois	NELAP	5	100201	04-30-14
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-30-14
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-14
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	07-15-13

TestAmerica
THE LEADER IN ENVIRONMENTAL
2417 Bond Street, University Park, IL 604[illegible]
Phone: 708.534.5200 Fax: 708.534.5[illegible]

500-55780 COC

Report To (optional)
Contact: Sherri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55780
Chain of Custody Number: E748-08
Page 1 of 1
Temperature °C of Cooler: (3.5) (4.4)

Client: Ecology / Environment
Client Project #: EE-004330-0001-01770
Project Name: IL 31
Project Location/State: McHenry Co, IL
Lab Project #: 50007151
Sampler: Scott Coup
Lab PM: Dick Wright

Preservative Key: 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	TCLP/SPLP TAL metals	pH/%S.l.d.					Comments
1		E4823B05 (0-2)	4-3-13	1235	2	S	X	X	X	X	X					
2		E4823B05 (8-10)	4-3-13	1240	2	S	X	X	X	X	X					
3		E4823B04 (2-4)	4-3-13	1255	2	S	X	X	X	X	X					
4		E4822B01 (0-2)	4-3-13	1400	2	S	X	X	X	X	X					
5		E4822B01 (6-8)	4-3-13	1405	2	S	X	X	X	X	X					
6		E4822B03 (2-4)	4-3-13	1435	2	S	X	X	X	X	X					
7		E4822B03 (4-6)	4-3-13	1440	2	S	X	X	X	X	X					
8		E4822B02 (0-2)	4-3-13	1455	2	S	X	X	X	X	X					
9		E4822B02 (4-6)	4-3-13	1500	2	S	X	X	X	X	X					

4-3-13

Turnaround Time Required (Business Days): ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days ___ Other
Requested Due Date

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time	
[signature]	E&E	4-3-13	1645	Cooler	E&E	4-3-13	1645	Seal # 149607
Cooler	E&E	4-4-13	0700	[signature]	E&E	4-4-13	0700	
[signature]	E&E	4-4-13	1315	[signature]	TA	4/4/13	1315	

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key: WW – Wastewater, W – Water, S – Soil, SL – Sludge, MS – Miscellaneous, OL – Oil, A – Air, SE – Sediment, SO – Soil, L – Leachate, WI – Wipe, DW – Drinking Water, O – Other

[signature] TA 4/4/13 1640

Client Comments: rel. Jeff Tamer 4/5/13 0930

Lab Comments: [signature] TA 4/5/13 0830
REC'd by: [signature] TA 4/5/13 0930

4/22/2013

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: Sherri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55780
Chain of Custody Number: E748-09
Page 1 of 1
Temperature °C of Cooler:

Client: Ecology : Environment
Client Project #: EE-004330-0001-01TTO
Project Name: IL 31
Project Location/State: McHenry Co, IL
Lab Project #: 50007751
Sampler: Scott Coop
Lab PM: Dick Wright

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL metals	TCLP/SPLP TAL metals	pH/% solids					Comments
10		E4820B01(2-4)	4-4-13	0915	2	S	X	X	X	X	X					
11		E4821B02(0-2)	4-4-13	1010	2	S	X	X	X	X	X					
12		E4821B02(4-6)	4-4-13	1015	2	S	X	X	X	X	X					
13		E4821B01 (2-4)	4-4-13	1100	2	S	X	X	X	X	X					
14		E4821B01 (6-8)	4-4-13	1105	2	S	X	X	X	X	X					
15		E4821B03(2-4)	4-4-13	1130	2	S	X	X	X	X	X					
16		E4821B03(4-6)	4-4-13	1135	2	S	X	X	X	X	X					

4-4-13

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days ___ Other
Requested Due Date ______

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E+E	4-4-13	1314	[signature]	TA	4/4/13	13:15
[signature]	TA	4/4/13	1640	[signature]	Jones	4/5/13	0830
[signature]		4/5/13	0930	[signature]	TA	4/5/13	0930

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

Page 129 of 130

4/22/2013

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification
by Licensed Professional Engineer or Licensed Professional Geologist
for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation
LPC-663
Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd. Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
8400-8600 block of IL 31

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20462 (Decimal Degrees) Longitude: -88.28597 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☒ Map Interpolation ☐ Photo Interpolation ☐ Survey ☐ Other

IEPA Site Number(s), If assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner		Site Operator	
Name:	Illinois Department of Transportation	Name:	
Street Address:	201 West Center Court	Street Address:	
PO Box:		PO Box:	
City:	Schaumburg State: IL	City:	State:
Zip Code:	60196-1096 Phone: 847-705-4159	Zip Code:	Phone:
Contact:	Sam Mead	Contact:	
Email, If available:	Sam.Mead@illinois.gov	Email, If available:	

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

IL 532-2922
LPC 663 Rev. 8/2012

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd

Latitude: 42.20462 Longitude: -88.28597

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations E4824B01, E4824B03, E4824B05, and E4824B06 were sampled within the construction zone adjacent to ISGS #1227V-24. Refer to PSI Report Section 4.2.1 and Section 4.3.1 ISGS #1227V-24 (Agricultural Land and Wooded Areas), Table 4-3, and Figures 4-3, 4-4, and 4-5.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages 500-55131-1 and 500-55194-1.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8/9/13
Date:

STEVEN GOBELMAN
196-000598
LICENSED
PROFESSIONAL
GEOLOGIST
STATE OF ILLINOIS

P.E. or L.P.G. Seal:

Analytical Data Summary
PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

Key to Data Tables

µg/kg = Micrograms per kilogram.
MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
mg/kg = Milligrams per kilogram.
mg/L = Milligrams per liter.
MSA = Metropolitan Statistical Area
TCLP = Toxicity Characteristic Leaching Procedure.
SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
SPLP = Synthetic Precipitation Leaching Procedure.
ND = Not detected.
NA = Not analyzed.
J = Estimated value.
B = Also present in blank.
U = Analyte was analyzed for but not detected.

Criteria Qualifiers

\# = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
† = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical Areas.
* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is considered to exceed the MAC.
= Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
= Soil concentration exceeds the applicable MAC.

PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

CONTAMINANTS OF CONCERN

SITE	ISGS #1227V-24 (Agricultural Land and Wooded Areas)										Comparison Criteria			
BORING	E4824B01		E4824B03			E4824B05			E4824B06		MACs			TACO
SAMPLE	E4824B01 (4-6)	E4824B01 (10-12)	E4824B03 (2-4)	E4824B03 (6-8)		E4824B05 (2-4)	E4824B05 (8-10)		E4824B06 (2-4)	E4824B06D (2-4)	Most Stringent	Within an MSA		
MATRIX	Soil	Soil	Soil	Soil		Soil	Soil		Soil	Soil				
DEPTH (m)	1.2-1.8	3.1-3.7	0.6-1.2	1.8-2.4		0.6-1.2	2.4-3.1		0.6-1.2	0.6-1.2				
pH	8.21	7.83	7.46	7.93		7.36	7.74		7.25	6.95				SCGIER
VOCs (µg/kg) - None Detected														
SVOCs (µg/kg) - None Detected														
Inorganics (mg/kg)														
Arsenic	1.0	6.4	5.8	4.4		3.9	4.0		7.3	7.3	11.3	13		--
Barium	17 BJ	69 BJ	50	16		24	29		120	130	1,500	--		--
Beryllium	0.31	0.76	0.53	0.30		0.36	0.42		0.78	0.82	22	--		--
Cadmium	ND U	ND U	0.18	0.26		0.32	0.33		0.047 J	0.061 J	5.2	--		--
Chromium	4.4	14	11	5.2		6.9	7.2		20	21	21	--		--
Cobalt	1.9	7.2	5.6	3.1		3.9	4.2		8.8	9.1	20	--		--
Copper	1.2	13	13	11		9.3	12		17	18	2,900	--		--
Iron	4,000	16,000 tm	14,000	8,300		8,200	9,800		20,000 tm	21,000 tm	15,000	15,900		--
Lead	1.7	8.8	9.1	4.9		4.7	5.9		12	13	107	--		--
Magnesium	550	2,400	12,000 BJ	43,000 BJ		53,000 BJ	45,000 BJ		3,600 BJ	4,000 BJ	325,000	--		--
Manganese	120	780 tm	410	260		380	410		440	410	630	636		--
Mercury	ND U	0.027	0.023	ND U		0.0079 J	0.013 J		0.046	0.049	0.89	--		--
Nickel	3.6	16	12	7.1		8.5	9.3		19	20	100	--		--
Selenium	0.18 J	0.21 J	0.32 J	ND U		ND U	ND U		0.61	0.65	1.3	--		--
Thallium	ND U	0.66	ND U	ND U		ND U	0.28 J		0.44 J	0.34 J	2.6	--		--
Vanadium	9.8	32	23	12		15	17		34	36	550	--		--
Zinc	6.7	37	27	24		24	25		46	50	5,100	--		--
TCLP Metals (mg/L)														
Antimony	ND U	ND U	ND U	ND U		0.0034 J	0.0032 J		ND U	ND U	--	--		0.006
Barium	0.26 J	0.34 J	0.33 J	0.16 J		0.26 J	0.30 J		0.53	0.53	--	--		2
Manganese	0.032	ND U	0.81	0.86		0.89	0.89		ND U	ND U	--	--		0.15
Nickel	ND U	ND U	ND U	0.010 J		ND U	ND U		ND U	ND U	--	--		0.1
Vanadium	ND U	ND U	0.0053 J	ND U		ND U	ND U		ND U	ND U	--	--		0.049
SPLP Metals (mg/L)														
Manganese	NA	NA	0.075	ND U		0.086	0.010 J		NA	NA	--	--		0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55131-1
Client Project/Site: IDOT - Algonquin - WO 48

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
3/25/2013 9:22:32 AM

Richard Wright
Project Manager II
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4824B01 (4-6)
Date Collected: 03/11/13 12:30
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-2
Matrix: Solid
Percent Solids: 95.8

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.7		4.7	0.98	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Vinyl chloride	<4.7		4.7	0.98	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Bromomethane	<4.7		4.7	1.4	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Chloroethane	<4.7		4.7	1.3	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
1,1-Dichloroethene	<4.7		4.7	0.75	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Carbon disulfide	<4.7		4.7	0.70	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Acetone	<4.7		4.7	2.0	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Methylene Chloride	<4.7		4.7	1.3	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
trans-1,2-Dichloroethene	<4.7		4.7	0.64	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Methyl tert-butyl ether	<4.7		4.7	0.77	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
1,1-Dichloroethane	<4.7		4.7	0.74	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
cis-1,2-Dichloroethene	<4.7		4.7	0.66	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Methyl Ethyl Ketone	<4.7		4.7	1.7	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Chloroform	<4.7		4.7	0.54	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
1,1,1-Trichloroethane	<4.7		4.7	0.70	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Carbon tetrachloride	<4.7		4.7	0.85	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Benzene	<4.7		4.7	0.64	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
1,2-Dichloroethane	<4.7		4.7	0.69	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Trichloroethene	<4.7		4.7	0.77	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
1,2-Dichloropropane	<4.7		4.7	0.71	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Bromodichloromethane	<4.7		4.7	0.80	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
cis-1,3-Dichloropropene	<4.7		4.7	0.61	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
methyl isobutyl ketone	<4.7		4.7	1.2	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Toluene	<4.7		4.7	0.65	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
trans-1,3-Dichloropropene	<4.7		4.7	0.84	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
1,1,2-Trichloroethane	<4.7		4.7	0.64	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Tetrachloroethene	<4.7		4.7	0.71	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
2-Hexanone	<4.7		4.7	1.3	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Dibromochloromethane	<4.7		4.7	0.81	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Chlorobenzene	<4.7		4.7	0.47	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Ethylbenzene	<4.7		4.7	0.94	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Styrene	<4.7		4.7	0.61	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Bromoform	<4.7		4.7	1.1	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
1,1,2,2-Tetrachloroethane	<4.7		4.7	0.94	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
Xylenes, Total	<9.3		9.3	0.42	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1
1,3-Dichloropropene, Total	<4.7		4.7	0.61	ug/Kg	☼	03/11/13 12:30	03/14/13 11:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 134*	*03/11/13 12:30*	*03/14/13 11:19*	*1*
Toluene-d8 (Surr)	*101*		*75 - 122*	*03/11/13 12:30*	*03/14/13 11:19*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 122*	*03/11/13 12:30*	*03/14/13 11:19*	*1*
Dibromofluoromethane	*99*		*75 - 120*	*03/11/13 12:30*	*03/14/13 11:19*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<170		170	54	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Bis(2-chloroethyl)ether	<170		170	50	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
1,3-Dichlorobenzene	<170		170	36	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
1,4-Dichlorobenzene	<170		170	36	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
1,2-Dichlorobenzene	<170		170	37	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4824B01 (4-6)
Date Collected: 03/11/13 12:30
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-2
Matrix: Solid
Percent Solids: 95.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<170		170	45	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2,2'-oxybis[1-chloropropane]	<170		170	38	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
N-Nitrosodi-n-propylamine	<170		170	43	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Hexachloroethane	<170		170	36	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2-Chlorophenol	<170		170	48	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Nitrobenzene	<34		34	11	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Bis(2-chloroethoxy)methane	<170		170	37	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
1,2,4-Trichlorobenzene	<170		170	38	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Isophorone	<170		170	38	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2,4-Dimethylphenol	<340		340	110	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Hexachlorobutadiene	<170		170	44	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Naphthalene	<34		34	6.5	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2,4-Dichlorophenol	<340		340	100	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
4-Chloroaniline	<680		680	100	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2,4,6-Trichlorophenol	<340		340	43	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2,4,5-Trichlorophenol	<340		340	97	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Hexachlorocyclopentadiene	<680		680	160	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2-Methylnaphthalene	<170		170	44	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2-Nitroaniline	<170		170	61	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2-Chloronaphthalene	<170		170	38	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
4-Chloro-3-methylphenol	<340		340	160	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2,6-Dinitrotoluene	<170		170	40	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2-Nitrophenol	<340		340	53	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
3-Nitroaniline	<340		340	65	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Dimethyl phthalate	<170		170	42	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2,4-Dinitrophenol	<680		680	170	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Acenaphthylene	<34		34	7.8	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
2,4-Dinitrotoluene	<170		170	52	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Acenaphthene	<34		34	10	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Dibenzofuran	<170		170	41	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
4-Nitrophenol	<680		680	180	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Fluorene	<34		34	7.7	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
4-Nitroaniline	<340		340	69	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
4-Bromophenyl phenyl ether	<170		170	38	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Hexachlorobenzene	<68		68	6.7	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Diethyl phthalate	<170		170	56	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
4-Chlorophenyl phenyl ether	<170		170	53	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Pentachlorophenol	<680		680	170	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
N-Nitrosodiphenylamine	<170		170	46	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
4,6-Dinitro-2-methylphenol	<340		340	82	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Phenanthrene	<34		34	14	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Anthracene	<34		34	8.0	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Carbazole	<170		170	48	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Di-n-butyl phthalate	<170		170	43	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Fluoranthene	<34		34	14	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Pyrene	<34		34	12	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Butyl benzyl phthalate	<170		170	42	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Benzo[a]anthracene	<34		34	7.1	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Chrysene	<34		34	7.6	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4824B01 (4-6)
Date Collected: 03/11/13 12:30
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-2
Matrix: Solid
Percent Solids: 95.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<170		170	28	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Bis(2-ethylhexyl) phthalate	<170		170	45	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Di-n-octyl phthalate	<170		170	69	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Benzo[b]fluoranthene	<34		34	6.6	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Benzo[k]fluoranthene	<34		34	8.1	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Benzo[a]pyrene	<34		34	6.2	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Indeno[1,2,3-cd]pyrene	<34		34	11	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Dibenz(a,h)anthracene	<34		34	9.5	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
Benzo[g,h,i]perylene	<34		34	11	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1
3 & 4 Methylphenol	<170		170	64	ug/Kg	☼	03/13/13 07:16	03/13/13 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*68*		*30 - 110*	*03/13/13 07:16*	*03/13/13 22:05*	*1*
Phenol-d5	*73*		*31 - 110*	*03/13/13 07:16*	*03/13/13 22:05*	*1*
Nitrobenzene-d5	*72*		*30 - 115*	*03/13/13 07:16*	*03/13/13 22:05*	*1*
2-Fluorobiphenyl	*90*		*30 - 119*	*03/13/13 07:16*	*03/13/13 22:05*	*1*
2,4,6-Tribromophenol	*72*		*35 - 137*	*03/13/13 07:16*	*03/13/13 22:05*	*1*
Terphenyl-d14	*63*		*36 - 134*	*03/13/13 07:16*	*03/13/13 22:05*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.14	J B	1.0	0.14	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Arsenic	1.0		0.52	0.11	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Barium	17	B	0.52	0.062	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Beryllium	0.31		0.21	0.015	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Cadmium	<0.10		0.10	0.026	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Chromium	4.4		0.52	0.087	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Cobalt	1.9		0.26	0.027	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Copper	1.2		0.52	0.14	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Iron	4000		10	4.5	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Lead	1.7		0.26	0.089	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Magnesium	550		5.2	1.0	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Manganese	120		0.52	0.073	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Nickel	3.6		0.52	0.11	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Selenium	0.18	J	0.52	0.15	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Silver	<0.26		0.26	0.031	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Thallium	<0.52		0.52	0.13	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Vanadium	9.8		0.26	0.039	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1
Zinc	6.7		1.0	0.36	mg/Kg	☼	03/13/13 10:40	03/14/13 17:26	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/20/13 10:15	03/21/13 03:05	1
Barium	0.26	J	0.50	0.010	mg/L		03/20/13 10:15	03/21/13 03:05	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/20/13 10:15	03/21/13 03:05	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/20/13 10:15	03/21/13 03:05	1
Chromium	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:05	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 03:05	1
Copper	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:05	1
Iron	<0.20		0.20	0.20	mg/L		03/20/13 10:15	03/21/13 03:05	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4824B01 (4-6)
Date Collected: 03/11/13 12:30
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-2
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/20/13 10:15	03/21/13 03:05	1
Manganese	0.032		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:05	1
Nickel	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:05	1
Selenium	<0.050		0.050	0.010	mg/L		03/20/13 10:15	03/21/13 03:05	1
Silver	<0.025		0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 03:05	1
Vanadium	<0.025		0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 03:05	1
Zinc	<0.10		0.10	0.020	mg/L		03/20/13 10:15	03/21/13 03:05	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		03/20/13 10:15	03/20/13 18:06	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/20/13 10:15	03/20/13 18:06	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000021	J B	0.00020	0.000020	mg/L		03/20/13 14:30	03/21/13 10:08	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0065	mg/Kg	☼	03/13/13 14:45	03/14/13 09:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.21		0.200	0.200	SU			03/16/13 12:34	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4824B01 (10-12)
Date Collected: 03/11/13 12:35
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-3
Matrix: Solid
Percent Solids: 82.5

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.8		4.8	1.0	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Vinyl chloride	<4.8		4.8	1.0	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Bromomethane	<4.8		4.8	1.5	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Chloroethane	<4.8		4.8	1.3	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
1,1-Dichloroethene	<4.8		4.8	0.78	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Carbon disulfide	<4.8		4.8	0.72	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Acetone	<4.8		4.8	2.1	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Methylene Chloride	<4.8		4.8	1.3	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
trans-1,2-Dichloroethene	<4.8		4.8	0.67	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Methyl tert-butyl ether	<4.8		4.8	0.80	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
1,1-Dichloroethane	<4.8		4.8	0.77	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
cis-1,2-Dichloroethene	<4.8		4.8	0.68	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Methyl Ethyl Ketone	<4.8		4.8	1.8	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Chloroform	<4.8		4.8	0.56	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
1,1,1-Trichloroethane	<4.8		4.8	0.72	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Carbon tetrachloride	<4.8		4.8	0.88	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Benzene	<4.8		4.8	0.66	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
1,2-Dichloroethane	<4.8		4.8	0.72	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Trichloroethene	<4.8		4.8	0.80	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
1,2-Dichloropropane	<4.8		4.8	0.73	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Bromodichloromethane	<4.8		4.8	0.83	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
cis-1,3-Dichloropropene	<4.8		4.8	0.63	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
methyl isobutyl ketone	<4.8		4.8	1.3	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Toluene	<4.8		4.8	0.68	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
trans-1,3-Dichloropropene	<4.8		4.8	0.87	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
1,1,2-Trichloroethane	<4.8		4.8	0.66	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Tetrachloroethene	<4.8		4.8	0.74	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
2-Hexanone	<4.8		4.8	1.4	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Dibromochloromethane	<4.8		4.8	0.84	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Chlorobenzene	<4.8		4.8	0.49	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Ethylbenzene	<4.8		4.8	0.98	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Styrene	<4.8		4.8	0.63	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Bromoform	<4.8		4.8	1.1	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
1,1,2,2-Tetrachloroethane	<4.8		4.8	0.98	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
Xylenes, Total	<9.7		9.7	0.44	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1
1,3-Dichloropropene, Total	<4.8		4.8	0.63	ug/Kg	☼	03/11/13 12:35	03/14/13 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 134*	*03/11/13 12:35*	*03/14/13 11:43*	*1*
Toluene-d8 (Surr)	*102*		*75 - 122*	*03/11/13 12:35*	*03/14/13 11:43*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 122*	*03/11/13 12:35*	*03/14/13 11:43*	*1*
Dibromofluoromethane	*101*		*75 - 120*	*03/11/13 12:35*	*03/14/13 11:43*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	63	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Bis(2-chloroethyl)ether	<200		200	58	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
1,3-Dichlorobenzene	<200		200	41	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
1,4-Dichlorobenzene	<200		200	41	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
1,2-Dichlorobenzene	<200		200	43	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4824B01 (10-12)
Date Collected: 03/11/13 12:35
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-3
Matrix: Solid
Percent Solids: 82.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	52	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2,2'-oxybis[1-chloropropane]	<200		200	44	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
N-Nitrosodi-n-propylamine	<200		200	50	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Hexachloroethane	<200		200	42	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2-Chlorophenol	<200		200	56	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Nitrobenzene	<39		39	12	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Bis(2-chloroethoxy)methane	<200		200	44	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
1,2,4-Trichlorobenzene	<200		200	45	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Isophorone	<200		200	44	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2,4-Dimethylphenol	<390		390	120	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Hexachlorobutadiene	<200		200	52	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Naphthalene	<39		39	7.6	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2,4-Dichlorophenol	<390		390	120	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
4-Chloroaniline	<800		800	120	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2,4,6-Trichlorophenol	<390		390	50	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2,4,5-Trichlorophenol	<390		390	110	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Hexachlorocyclopentadiene	<800		800	180	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2-Methylnaphthalene	<200		200	51	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2-Nitroaniline	<200		200	71	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2-Chloronaphthalene	<200		200	44	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
4-Chloro-3-methylphenol	<390		390	190	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2,6-Dinitrotoluene	<200		200	47	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2-Nitrophenol	<390		390	62	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
3-Nitroaniline	<390		390	76	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Dimethyl phthalate	<200		200	49	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2,4-Dinitrophenol	<800		800	200	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Acenaphthylene	<39		39	9.1	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
2,4-Dinitrotoluene	<200		200	61	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Acenaphthene	<39		39	12	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Dibenzofuran	<200		200	47	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
4-Nitrophenol	<800		800	210	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Fluorene	<39		39	9.0	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
4-Nitroaniline	<390		390	81	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
4-Bromophenyl phenyl ether	<200		200	44	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Hexachlorobenzene	<80		80	7.8	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Diethyl phthalate	<200		200	66	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
4-Chlorophenyl phenyl ether	<200		200	62	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Pentachlorophenol	<800		800	200	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
N-Nitrosodiphenylamine	<200		200	53	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
4,6-Dinitro-2-methylphenol	<390		390	96	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Phenanthrene	<39		39	17	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Anthracene	<39		39	9.3	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Carbazole	<200		200	56	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Di-n-butyl phthalate	<200		200	50	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Fluoranthene	<39		39	16	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Pyrene	<39		39	14	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Butyl benzyl phthalate	<200		200	49	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Benzo[a]anthracene	<39		39	8.3	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Chrysene	<39		39	8.9	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4824B01 (10-12)
Date Collected: 03/11/13 12:35
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-3
Matrix: Solid
Percent Solids: 82.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	33	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Bis(2-ethylhexyl) phthalate	<200		200	52	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Di-n-octyl phthalate	<200		200	80	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Benzo[b]fluoranthene	<39		39	7.7	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Benzo[k]fluoranthene	<39		39	9.4	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Benzo[a]pyrene	<39		39	7.2	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Indeno[1,2,3-cd]pyrene	<39		39	13	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Dibenz(a,h)anthracene	<39		39	11	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
Benzo[g,h,i]perylene	<39		39	13	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1
3 & 4 Methylphenol	<200		200	75	ug/Kg	☼	03/13/13 07:16	03/13/13 22:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*55*		*30 - 110*	*03/13/13 07:16*	*03/13/13 22:27*	*1*
Phenol-d5	*58*		*31 - 110*	*03/13/13 07:16*	*03/13/13 22:27*	*1*
Nitrobenzene-d5	*63*		*30 - 115*	*03/13/13 07:16*	*03/13/13 22:27*	*1*
2-Fluorobiphenyl	*75*		*30 - 119*	*03/13/13 07:16*	*03/13/13 22:27*	*1*
2,4,6-Tribromophenol	*66*		*35 - 137*	*03/13/13 07:16*	*03/13/13 22:27*	*1*
Terphenyl-d14	*63*		*36 - 134*	*03/13/13 07:16*	*03/13/13 22:27*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.15	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Arsenic	6.4		0.58	0.13	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Barium	69	B	0.58	0.069	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Beryllium	0.76		0.23	0.017	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Cadmium	<0.12		0.12	0.029	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Chromium	14		0.58	0.097	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Cobalt	7.2		0.29	0.030	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Copper	13		0.58	0.16	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Iron	16000		12	5.0	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Lead	8.8		0.29	0.10	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Magnesium	2400		5.8	1.1	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Manganese	780		5.8	0.82	mg/Kg	☼	03/13/13 10:40	03/15/13 11:54	10
Nickel	16		0.58	0.13	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Selenium	0.21	J	0.58	0.17	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Silver	<0.29		0.29	0.035	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Thallium	0.66		0.58	0.15	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Vanadium	32		0.29	0.044	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1
Zinc	37		1.2	0.40	mg/Kg	☼	03/13/13 10:40	03/14/13 17:32	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/20/13 10:15	03/21/13 03:12	1
Barium	0.34	J	0.50	0.010	mg/L		03/20/13 10:15	03/21/13 03:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/20/13 10:15	03/21/13 03:12	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/20/13 10:15	03/21/13 03:12	1
Chromium	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:12	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 03:12	1
Copper	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:12	1
Iron	<0.20		0.20	0.20	mg/L		03/20/13 10:15	03/21/13 03:12	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4824B01 (10-12)
Date Collected: 03/11/13 12:35
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-3
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/20/13 10:15	03/21/13 03:12	1
Manganese	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:12	1
Nickel	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 03:12	1
Selenium	<0.050		0.050	0.010	mg/L		03/20/13 10:15	03/21/13 03:12	1
Silver	<0.025		0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 03:12	1
Vanadium	<0.025		0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 03:12	1
Zinc	<0.10		0.10	0.020	mg/L		03/20/13 10:15	03/21/13 03:12	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		03/20/13 10:15	03/20/13 18:07	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/20/13 10:15	03/20/13 18:07	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000020	mg/L		03/20/13 14:30	03/21/13 10:14	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.018	0.0070	mg/Kg	☼	03/13/13 14:45	03/14/13 09:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.83		0.200	0.200	SU			03/16/13 12:38	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	Duplicate RPD exceeds the control limit
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-11-13
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: Sherri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55131
Chain of Custody Number: E748-01
Page 1 of 1
Temperature °C of Cooler: 3.5

Client: Ecology & Environment
Client Project #: EE-004330-0001-DTTO
Project Name: IL 31
Project Location/State: McHenry Co, IL
Lab Project #: 50007751
Sampler: Scott Cooper
Lab PM: Dick Wright

Preservative Key: 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL metals	TCLP/SPLP TAL metals	pH/% solids					Comments
1		E4825B02 (0-2)	3-11-13	1145	2	S	X	X	X	X	X					
2		E4824B01 (4-6)	3-11-13	1230	2	S	X	X	X	X	X					
3		E4824B01 (10-12)	3-11-13	1235	2	S	X	X	X	X	X					
4		E4818B01 (0-2)	3-11-13	1255	2	S	X	X	X	X	X					
5		E4823B01 (0-2)	3-11-13	1335	2	S	X	X	X	X	X					
6		E4819B01 (0-2)	3-11-13	1500	2	S	X	X	X	X	X					
7		E4819B01 (4-6)	3-11-13	1505	2	S	X	X	X	X	X					
8		E4819B05 (0-2)	3-11-13	1525	2	S	X	X	X	X	X					
9		E4819B05 (10-12)	3-11-13	1530	2	S	X	X	X	X	X					
10		E4819B03 (0-2)	3-11-13	1550	2	S	X	X	X	X	X					

Turnaround Time Required (Business Days)
__ 1 Day __ 2 Days __ 5 Days __ 7 Days __ 10 Days __ 15 Days __ Other
Requested Due Date ____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for __ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E&E	3/12/13	1005	[signature]	TAC	3-12-13	1005
[signature]	TAC	3-12-13	1041	[signature]	TA	3/12/13	1041

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

3/25/2013

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Lab Job #: 500-55131
Chain of Custody Number: E748-02
Page 1 of 1
Temperature °C of Cooler:

Report To (optional)
Contact: Sherri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Client: Ecology Environment
Client Project #: EE-004330-0001-01770
Project Name: IL 31
Project Location/State: McHenry Co, FL
Lab Project #: 50007751
Sampler: Scott Cooper
Lab PM: Dick Wright

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL metals	TCLP/SPLP TAL metals	pH/% Solids					Comments
11		E4819B03(4-6)	3-11-13	1555	2	S	X	X	X	X	X					

3-11-13

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days ___ Other
Requested Due Date ___

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E&E	3/12/13	1005	[signature]	TAL	3-12-13	1005
[signature]	TAL	3-12-13	1041	[signature]	TA	3/12/13	1041

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55194-1
Client Project/Site: IDOT - Algonquin - WO 48
Revision: 1

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
3/28/2013 4:01:17 PM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B05 (2-4)
Date Collected: 03/13/13 09:40
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-2
Matrix: Solid
Percent Solids: 89.5

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.2		5.2	1.1	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Vinyl chloride	<5.2		5.2	1.1	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Bromomethane	<5.2		5.2	1.6	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Chloroethane	<5.2		5.2	1.4	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
1,1-Dichloroethene	<5.2		5.2	0.83	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Carbon disulfide	<5.2		5.2	0.77	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Acetone	<5.2		5.2	2.2	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Methylene Chloride	<5.2		5.2	1.4	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
trans-1,2-Dichloroethene	<5.2		5.2	0.71	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Methyl tert-butyl ether	<5.2		5.2	0.85	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
1,1-Dichloroethane	<5.2		5.2	0.82	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
cis-1,2-Dichloroethene	<5.2		5.2	0.73	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Methyl Ethyl Ketone	<5.2		5.2	1.9	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Chloroform	<5.2		5.2	0.59	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
1,1,1-Trichloroethane	<5.2		5.2	0.77	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Carbon tetrachloride	<5.2		5.2	0.94	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Benzene	<5.2		5.2	0.71	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
1,2-Dichloroethane	<5.2		5.2	0.76	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Trichloroethene	<5.2		5.2	0.85	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
1,2-Dichloropropane	<5.2		5.2	0.78	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Bromodichloromethane	<5.2		5.2	0.89	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
cis-1,3-Dichloropropene	<5.2		5.2	0.68	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
methyl isobutyl ketone	<5.2		5.2	1.4	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Toluene	<5.2		5.2	0.72	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
trans-1,3-Dichloropropene	<5.2		5.2	0.92	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
1,1,2-Trichloroethane	<5.2		5.2	0.70	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Tetrachloroethene	<5.2		5.2	0.79	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
2-Hexanone	<5.2		5.2	1.5	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Dibromochloromethane	<5.2		5.2	0.90	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Chlorobenzene	<5.2		5.2	0.52	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Ethylbenzene	<5.2		5.2	1.0	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Styrene	<5.2		5.2	0.68	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Bromoform	<5.2		5.2	1.2	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
1,1,2,2-Tetrachloroethane	<5.2		5.2	1.0	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
Xylenes, Total	<10		10	0.47	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1
1,3-Dichloropropene, Total	<5.2		5.2	0.68	ug/Kg	☼	03/13/13 09:40	03/18/13 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 134*	*03/13/13 09:40*	*03/18/13 19:33*	*1*
Toluene-d8 (Surr)	*104*		*75 - 122*	*03/13/13 09:40*	*03/18/13 19:33*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 122*	*03/13/13 09:40*	*03/18/13 19:33*	*1*
Dibromofluoromethane	*100*		*75 - 120*	*03/13/13 09:40*	*03/18/13 19:33*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<190		190	59	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Bis(2-chloroethyl)ether	<190		190	55	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
1,3-Dichlorobenzene	<190		190	39	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
1,4-Dichlorobenzene	<190		190	39	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
1,2-Dichlorobenzene	<190		190	40	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B05 (2-4)
Date Collected: 03/13/13 09:40
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-2
Matrix: Solid
Percent Solids: 89.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<190		190	49	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2,2'-oxybis[1-chloropropane]	<190		190	41	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
N-Nitrosodi-n-propylamine	<190		190	47	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Hexachloroethane	<190		190	39	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2-Chlorophenol	<190		190	53	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Nitrobenzene	<37		37	11	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Bis(2-chloroethoxy)methane	<190		190	41	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
1,2,4-Trichlorobenzene	<190		190	42	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Isophorone	<190		190	41	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2,4-Dimethylphenol	<370		370	120	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Hexachlorobutadiene	<190		190	48	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Naphthalene	<37		37	7.1	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2,4-Dichlorophenol	<370		370	110	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
4-Chloroaniline	<750		750	110	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2,4,6-Trichlorophenol	<370		370	46	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2,4,5-Trichlorophenol	<370		370	110	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Hexachlorocyclopentadiene	<750		750	170	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2-Methylnaphthalene	<190		190	48	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2-Nitroaniline	<190		190	67	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2-Chloronaphthalene	<190		190	42	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
4-Chloro-3-methylphenol	<370		370	180	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2,6-Dinitrotoluene	<190		190	44	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2-Nitrophenol	<370		370	58	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
3-Nitroaniline	<370		370	71	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Dimethyl phthalate	<190		190	46	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2,4-Dinitrophenol	<750		750	190	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Acenaphthylene	<37		37	8.5	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
2,4-Dinitrotoluene	<190		190	57	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Acenaphthene	<37		37	11	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Dibenzofuran	<190		190	44	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
4-Nitrophenol	<750		750	200	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Fluorene	<37		37	8.4	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
4-Nitroaniline	<370		370	76	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
4-Bromophenyl phenyl ether	<190		190	41	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Hexachlorobenzene	<75		75	7.3	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Diethyl phthalate	<190		190	62	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
4-Chlorophenyl phenyl ether	<190		190	58	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Pentachlorophenol	<750		750	190	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
N-Nitrosodiphenylamine	<190		190	50	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
4,6-Dinitro-2-methylphenol	<370		370	90	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Phenanthrene	<37		37	15	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Anthracene	<37		37	8.7	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Carbazole	<190		190	52	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Di-n-butyl phthalate	<190		190	47	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Fluoranthene	<37		37	15	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Pyrene	<37		37	13	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Butyl benzyl phthalate	<190		190	46	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Benzo[a]anthracene	<37		37	7.7	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Chrysene	<37		37	8.3	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B05 (2-4)
Date Collected: 03/13/13 09:40
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-2
Matrix: Solid
Percent Solids: 89.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<190		190	31	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Bis(2-ethylhexyl) phthalate	<190		190	49	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Di-n-octyl phthalate	<190		190	75	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Benzo[b]fluoranthene	<37		37	7.2	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Benzo[k]fluoranthene	<37		37	8.8	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Benzo[a]pyrene	<37		37	6.7	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Indeno[1,2,3-cd]pyrene	<37		37	12	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Dibenz(a,h)anthracene	<37		37	10	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
Benzo[g,h,i]perylene	<37		37	12	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1
3 & 4 Methylphenol	<190		190	70	ug/Kg	☼	03/18/13 07:56	03/19/13 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*77*		*30 - 110*	*03/18/13 07:56*	*03/19/13 16:08*	*1*
Phenol-d5	*75*		*31 - 110*	*03/18/13 07:56*	*03/19/13 16:08*	*1*
Nitrobenzene-d5	*72*		*30 - 115*	*03/18/13 07:56*	*03/19/13 16:08*	*1*
2-Fluorobiphenyl	*72*		*30 - 119*	*03/18/13 07:56*	*03/19/13 16:08*	*1*
2,4,6-Tribromophenol	*89*		*35 - 137*	*03/18/13 07:56*	*03/19/13 16:08*	*1*
Terphenyl-d14	*84*		*36 - 134*	*03/18/13 07:56*	*03/19/13 16:08*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Arsenic	3.9		0.55	0.12	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Barium	24		0.55	0.066	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Beryllium	0.36		0.22	0.016	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Cadmium	0.32		0.11	0.027	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Chromium	6.9		0.55	0.092	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Cobalt	3.9		0.28	0.029	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Copper	9.3		0.55	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Iron	8200		11	4.8	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Lead	4.7		0.28	0.095	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Magnesium	53000	B	5.5	1.1	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Manganese	380		0.55	0.078	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Nickel	8.5		0.55	0.12	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Selenium	<0.55		0.55	0.16	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Silver	<0.28		0.28	0.033	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Thallium	<0.55		0.55	0.14	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Vanadium	15		0.28	0.042	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1
Zinc	24		1.1	0.38	mg/Kg	☼	03/14/13 16:30	03/16/13 02:04	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 01:23	1
Barium	0.26	J	0.50	0.010	mg/L		03/22/13 15:00	03/25/13 01:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/22/13 15:00	03/25/13 01:23	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/22/13 15:00	03/25/13 01:23	1
Chromium	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:23	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:23	1
Copper	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:23	1
Iron	<0.20		0.20	0.20	mg/L		03/22/13 15:00	03/25/13 01:23	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B05 (2-4)
Date Collected: 03/13/13 09:40
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-2
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/22/13 15:00	03/25/13 01:23	1
Manganese	0.89		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:23	1
Nickel	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:23	1
Selenium	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 01:23	1
Silver	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:23	1
Vanadium	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:23	1
Zinc	<0.10		0.10	0.020	mg/L		03/22/13 15:00	03/25/13 01:23	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.086		0.025	0.010	mg/L		03/26/13 10:30	03/27/13 01:25	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0034	J	0.0060	0.0030	mg/L		03/22/13 15:00	03/27/13 17:37	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/22/13 15:00	03/27/13 17:37	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000020	mg/L		03/22/13 14:00	03/25/13 10:59	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0079	J	0.018	0.0067	mg/Kg	☼	03/15/13 15:30	03/18/13 10:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.36		0.200	0.200	SU			03/26/13 12:32	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B05 (8-10)
Date Collected: 03/13/13 09:45
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-3
Matrix: Solid
Percent Solids: 85.0

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.5		5.5	1.2	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Vinyl chloride	<5.5		5.5	1.2	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Bromomethane	<5.5		5.5	1.7	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Chloroethane	<5.5		5.5	1.5	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
1,1-Dichloroethene	<5.5		5.5	0.89	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Carbon disulfide	<5.5		5.5	0.82	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Acetone	<5.5		5.5	2.4	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Methylene Chloride	<5.5		5.5	1.5	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
trans-1,2-Dichloroethene	<5.5		5.5	0.76	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Methyl tert-butyl ether	<5.5		5.5	0.91	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
1,1-Dichloroethane	<5.5		5.5	0.87	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
cis-1,2-Dichloroethene	<5.5		5.5	0.78	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Methyl Ethyl Ketone	<5.5		5.5	2.0	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Chloroform	<5.5		5.5	0.63	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
1,1,1-Trichloroethane	<5.5		5.5	0.82	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Carbon tetrachloride	<5.5		5.5	1.0	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Benzene	<5.5		5.5	0.75	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
1,2-Dichloroethane	<5.5		5.5	0.81	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Trichloroethene	<5.5		5.5	0.91	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
1,2-Dichloropropane	<5.5		5.5	0.83	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Bromodichloromethane	<5.5		5.5	0.95	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
cis-1,3-Dichloropropene	<5.5		5.5	0.72	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
methyl isobutyl ketone	<5.5		5.5	1.4	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Toluene	<5.5		5.5	0.77	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
trans-1,3-Dichloropropene	<5.5		5.5	0.99	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
1,1,2-Trichloroethane	<5.5		5.5	0.75	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Tetrachloroethene	<5.5		5.5	0.84	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
2-Hexanone	<5.5		5.5	1.6	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Dibromochloromethane	<5.5		5.5	0.96	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Chlorobenzene	<5.5		5.5	0.56	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Ethylbenzene	<5.5		5.5	1.1	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Styrene	<5.5		5.5	0.72	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Bromoform	<5.5		5.5	1.3	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
1,1,2,2-Tetrachloroethane	<5.5		5.5	1.1	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
Xylenes, Total	<11		11	0.50	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1
1,3-Dichloropropene, Total	<5.5		5.5	0.72	ug/Kg	☼	03/13/13 09:45	03/18/13 23:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 134*	*03/13/13 09:45*	*03/18/13 23:36*	*1*
Toluene-d8 (Surr)	*106*		*75 - 122*	*03/13/13 09:45*	*03/18/13 23:36*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 122*	*03/13/13 09:45*	*03/18/13 23:36*	*1*
Dibromofluoromethane	*98*		*75 - 120*	*03/13/13 09:45*	*03/18/13 23:36*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<190		190	61	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Bis(2-chloroethyl)ether	<190		190	57	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
1,3-Dichlorobenzene	<190		190	40	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
1,4-Dichlorobenzene	<190		190	40	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
1,2-Dichlorobenzene	<190		190	42	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B05 (8-10)
Date Collected: 03/13/13 09:45
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-3
Matrix: Solid
Percent Solids: 85.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<190		190	51	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2,2'-oxybis[1-chloropropane]	<190		190	42	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
N-Nitrosodi-n-propylamine	<190		190	49	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Hexachloroethane	<190		190	41	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2-Chlorophenol	<190		190	55	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Nitrobenzene	<38		38	12	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Bis(2-chloroethoxy)methane	<190		190	42	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
1,2,4-Trichlorobenzene	<190		190	43	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Isophorone	<190		190	43	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2,4-Dimethylphenol	<380		380	120	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Hexachlorobutadiene	<190		190	50	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Naphthalene	<38		38	7.4	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2,4-Dichlorophenol	<380		380	120	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
4-Chloroaniline	<770		770	120	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2,4,6-Trichlorophenol	<380		380	48	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2,4,5-Trichlorophenol	<380		380	110	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Hexachlorocyclopentadiene	<770		770	180	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2-Methylnaphthalene	<190		190	50	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2-Nitroaniline	<190		190	69	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2-Chloronaphthalene	<190		190	43	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
4-Chloro-3-methylphenol	<380		380	180	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2,6-Dinitrotoluene	<190		190	45	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2-Nitrophenol	<380		380	60	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
3-Nitroaniline	<380		380	74	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Dimethyl phthalate	<190		190	48	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2,4-Dinitrophenol	<770		770	200	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Acenaphthylene	<38		38	8.8	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
2,4-Dinitrotoluene	<190		190	59	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Acenaphthene	<38		38	11	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Dibenzofuran	<190		190	46	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
4-Nitrophenol	<770		770	210	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Fluorene	<38		38	8.7	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
4-Nitroaniline	<380		380	78	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
4-Bromophenyl phenyl ether	<190		190	43	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Hexachlorobenzene	<77		77	7.5	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Diethyl phthalate	<190		190	64	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
4-Chlorophenyl phenyl ether	<190		190	60	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Pentachlorophenol	<770		770	190	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
N-Nitrosodiphenylamine	<190		190	52	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
4,6-Dinitro-2-methylphenol	<380		380	93	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Phenanthrene	<38		38	16	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Anthracene	<38		38	9.0	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Carbazole	<190		190	54	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Di-n-butyl phthalate	<190		190	48	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Fluoranthene	<38		38	16	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Pyrene	<38		38	14	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Butyl benzyl phthalate	<190		190	48	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Benzo[a]anthracene	<38		38	8.0	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Chrysene	<38		38	8.6	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B05 (8-10)
Date Collected: 03/13/13 09:45
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-3
Matrix: Solid
Percent Solids: 85.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<190		190	32	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Bis(2-ethylhexyl) phthalate	<190		190	51	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Di-n-octyl phthalate	<190		190	78	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Benzo[b]fluoranthene	<38		38	7.4	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Benzo[k]fluoranthene	<38		38	9.1	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Benzo[a]pyrene	<38		38	7.0	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Indeno[1,2,3-cd]pyrene	<38		38	13	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Dibenz(a,h)anthracene	<38		38	11	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
Benzo[g,h,i]perylene	<38		38	13	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1
3 & 4 Methylphenol	<190		190	72	ug/Kg	☼	03/18/13 07:56	03/19/13 16:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*58*		*30 - 110*	*03/18/13 07:56*	*03/19/13 16:28*	*1*
Phenol-d5	*58*		*31 - 110*	*03/18/13 07:56*	*03/19/13 16:28*	*1*
Nitrobenzene-d5	*51*		*30 - 115*	*03/18/13 07:56*	*03/19/13 16:28*	*1*
2-Fluorobiphenyl	*48*		*30 - 119*	*03/18/13 07:56*	*03/19/13 16:28*	*1*
2,4,6-Tribromophenol	*73*		*35 - 137*	*03/18/13 07:56*	*03/19/13 16:28*	*1*
Terphenyl-d14	*75*		*36 - 134*	*03/18/13 07:56*	*03/19/13 16:28*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Arsenic	4.0		0.56	0.12	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Barium	29		0.56	0.066	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Beryllium	0.42		0.22	0.016	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Cadmium	0.33		0.11	0.028	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Chromium	7.2		0.56	0.093	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Cobalt	4.2		0.28	0.029	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Copper	12		0.56	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Iron	9800		11	4.8	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Lead	5.9		0.28	0.096	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Magnesium	45000	B	5.6	1.1	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Manganese	410		0.56	0.079	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Nickel	9.3		0.56	0.12	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Selenium	<0.56		0.56	0.16	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Silver	<0.28		0.28	0.034	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Thallium	0.28	J	0.56	0.14	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Vanadium	17		0.28	0.042	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1
Zinc	25		1.1	0.38	mg/Kg	☼	03/14/13 16:30	03/16/13 02:10	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 01:29	1
Barium	0.30	J	0.50	0.010	mg/L		03/22/13 15:00	03/25/13 01:29	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/22/13 15:00	03/25/13 01:29	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/22/13 15:00	03/25/13 01:29	1
Chromium	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:29	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:29	1
Copper	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:29	1
Iron	<0.20		0.20	0.20	mg/L		03/22/13 15:00	03/25/13 01:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B05 (8-10)
Date Collected: 03/13/13 09:45
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-3
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/22/13 15:00	03/25/13 01:29	1
Manganese	0.89		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:29	1
Nickel	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:29	1
Selenium	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 01:29	1
Silver	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:29	1
Vanadium	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:29	1
Zinc	<0.10		0.10	0.020	mg/L		03/22/13 15:00	03/25/13 01:29	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.010	J	0.025	0.010	mg/L		03/26/13 10:30	03/27/13 01:50	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0032	J	0.0060	0.0030	mg/L		03/22/13 15:00	03/27/13 17:38	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/22/13 15:00	03/27/13 17:38	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000020	mg/L		03/22/13 14:00	03/25/13 11:01	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.018	0.0069	mg/Kg	☼	03/15/13 15:30	03/18/13 10:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.74		0.200	0.200	SU			03/26/13 12:34	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B06 (2-4)
Date Collected: 03/13/13 10:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-4
Matrix: Solid
Percent Solids: 81.4

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.1		6.1	1.3	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Vinyl chloride	<6.1		6.1	1.3	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Bromomethane	<6.1		6.1	1.9	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Chloroethane	<6.1		6.1	1.7	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
1,1-Dichloroethene	<6.1		6.1	0.99	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Carbon disulfide	<6.1		6.1	0.92	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Acetone	<6.1		6.1	2.7	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Methylene Chloride	<6.1		6.1	1.7	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
trans-1,2-Dichloroethene	<6.1		6.1	0.85	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Methyl tert-butyl ether	<6.1		6.1	1.0	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
1,1-Dichloroethane	<6.1		6.1	0.97	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
cis-1,2-Dichloroethene	<6.1		6.1	0.87	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Methyl Ethyl Ketone	<6.1		6.1	2.2	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Chloroform	<6.1		6.1	0.71	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
1,1,1-Trichloroethane	<6.1		6.1	0.92	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Carbon tetrachloride	<6.1		6.1	1.1	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Benzene	<6.1		6.1	0.84	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
1,2-Dichloroethane	<6.1		6.1	0.91	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Trichloroethene	<6.1		6.1	1.0	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
1,2-Dichloropropane	<6.1		6.1	0.93	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Bromodichloromethane	<6.1		6.1	1.1	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
cis-1,3-Dichloropropene	<6.1		6.1	0.81	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
methyl isobutyl ketone	<6.1		6.1	1.6	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Toluene	<6.1		6.1	0.86	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
trans-1,3-Dichloropropene	<6.1		6.1	1.1	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
1,1,2-Trichloroethane	<6.1		6.1	0.84	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Tetrachloroethene	<6.1		6.1	0.94	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
2-Hexanone	<6.1		6.1	1.8	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Dibromochloromethane	<6.1		6.1	1.1	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Chlorobenzene	<6.1		6.1	0.62	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Ethylbenzene	<6.1		6.1	1.2	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Styrene	<6.1		6.1	0.81	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Bromoform	<6.1		6.1	1.4	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
1,1,2,2-Tetrachloroethane	<6.1		6.1	1.2	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
Xylenes, Total	<12		12	0.56	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1
1,3-Dichloropropene, Total	<6.1		6.1	0.81	ug/Kg	☼	03/13/13 10:10	03/18/13 23:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 134*	*03/13/13 10:10*	*03/18/13 23:59*	*1*
Toluene-d8 (Surr)	*104*		*75 - 122*	*03/13/13 10:10*	*03/18/13 23:59*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 122*	*03/13/13 10:10*	*03/18/13 23:59*	*1*
Dibromofluoromethane	*103*		*75 - 120*	*03/13/13 10:10*	*03/18/13 23:59*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	64	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Bis(2-chloroethyl)ether	<200		200	60	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
1,3-Dichlorobenzene	<200		200	43	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
1,4-Dichlorobenzene	<200		200	43	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
1,2-Dichlorobenzene	<200		200	44	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B06 (2-4)
Date Collected: 03/13/13 10:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-4
Matrix: Solid
Percent Solids: 81.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	54	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2,2'-oxybis[1-chloropropane]	<200		200	45	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
N-Nitrosodi-n-propylamine	<200		200	52	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Hexachloroethane	<200		200	43	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2-Chlorophenol	<200		200	58	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Nitrobenzene	<40		40	13	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Bis(2-chloroethoxy)methane	<200		200	45	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
1,2,4-Trichlorobenzene	<200		200	46	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Isophorone	<200		200	45	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2,4-Dimethylphenol	<400		400	130	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Hexachlorobutadiene	<200		200	53	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Naphthalene	<40		40	7.8	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2,4-Dichlorophenol	<400		400	120	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
4-Chloroaniline	<820		820	120	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2,4,6-Trichlorophenol	<400		400	51	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2,4,5-Trichlorophenol	<400		400	120	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Hexachlorocyclopentadiene	<820		820	190	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2-Methylnaphthalene	<200		200	53	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2-Nitroaniline	<200		200	73	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2-Chloronaphthalene	<200		200	46	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
4-Chloro-3-methylphenol	<400		400	190	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2,6-Dinitrotoluene	<200		200	48	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2-Nitrophenol	<400		400	64	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
3-Nitroaniline	<400		400	79	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Dimethyl phthalate	<200		200	51	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2,4-Dinitrophenol	<820		820	210	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Acenaphthylene	<40		40	9.3	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
2,4-Dinitrotoluene	<200		200	62	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Acenaphthene	<40		40	12	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Dibenzofuran	<200		200	49	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
4-Nitrophenol	<820		820	220	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Fluorene	<40		40	9.3	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
4-Nitroaniline	<400		400	83	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
4-Bromophenyl phenyl ether	<200		200	45	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Hexachlorobenzene	<82		82	8.0	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Diethyl phthalate	<200		200	68	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
4-Chlorophenyl phenyl ether	<200		200	64	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Pentachlorophenol	<820		820	210	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
N-Nitrosodiphenylamine	<200		200	55	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
4,6-Dinitro-2-methylphenol	<400		400	99	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Phenanthrene	<40		40	17	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Anthracene	<40		40	9.6	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Carbazole	<200		200	57	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Di-n-butyl phthalate	<200		200	51	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Fluoranthene	<40		40	17	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Pyrene	<40		40	15	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Butyl benzyl phthalate	<200		200	51	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Benzo[a]anthracene	<40		40	8.5	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Chrysene	<40		40	9.2	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B06 (2-4)
Date Collected: 03/13/13 10:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-4
Matrix: Solid
Percent Solids: 81.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	34	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Bis(2-ethylhexyl) phthalate	<200		200	54	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Di-n-octyl phthalate	<200		200	83	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Benzo[b]fluoranthene	<40		40	7.9	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Benzo[k]fluoranthene	<40		40	9.7	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Benzo[a]pyrene	<40		40	7.4	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Indeno[1,2,3-cd]pyrene	<40		40	14	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Dibenz(a,h)anthracene	<40		40	11	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
Benzo[g,h,i]perylene	<40		40	14	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1
3 & 4 Methylphenol	<200		200	77	ug/Kg	☼	03/18/13 07:56	03/19/13 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*57*		*30 - 110*	*03/18/13 07:56*	*03/19/13 16:48*	*1*
Phenol-d5	*55*		*31 - 110*	*03/18/13 07:56*	*03/19/13 16:48*	*1*
Nitrobenzene-d5	*52*		*30 - 115*	*03/18/13 07:56*	*03/19/13 16:48*	*1*
2-Fluorobiphenyl	*52*		*30 - 119*	*03/18/13 07:56*	*03/19/13 16:48*	*1*
2,4,6-Tribromophenol	*74*		*35 - 137*	*03/18/13 07:56*	*03/19/13 16:48*	*1*
Terphenyl-d14	*71*		*36 - 134*	*03/18/13 07:56*	*03/19/13 16:48*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Arsenic	7.3		0.57	0.12	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Barium	120		0.57	0.068	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Beryllium	0.78		0.23	0.017	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Cadmium	0.047	J	0.11	0.028	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Chromium	20		0.57	0.095	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Cobalt	8.8		0.28	0.030	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Copper	17		0.57	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Iron	20000		11	4.9	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Lead	12		0.28	0.098	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Magnesium	3600	B	5.7	1.1	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Manganese	440		0.57	0.080	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Nickel	19		0.57	0.12	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Selenium	0.61		0.57	0.16	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Silver	<0.28		0.28	0.034	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Thallium	0.44	J	0.57	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Vanadium	34		0.28	0.043	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1
Zinc	46		1.1	0.39	mg/Kg	☼	03/14/13 16:30	03/16/13 02:16	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 01:36	1
Barium	0.53		0.50	0.010	mg/L		03/22/13 15:00	03/25/13 01:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/22/13 15:00	03/25/13 01:36	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/22/13 15:00	03/25/13 01:36	1
Chromium	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:36	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:36	1
Copper	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:36	1
Iron	<0.20		0.20	0.20	mg/L		03/22/13 15:00	03/25/13 01:36	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B06 (2-4)
Date Collected: 03/13/13 10:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-4
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/22/13 15:00	03/25/13 01:36	1
Manganese	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:36	1
Nickel	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:36	1
Selenium	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 01:36	1
Silver	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:36	1
Vanadium	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:36	1
Zinc	<0.10		0.10	0.020	mg/L		03/22/13 15:00	03/25/13 01:36	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		03/22/13 15:00	03/27/13 17:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/22/13 15:00	03/27/13 17:39	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000020	mg/L		03/22/13 14:00	03/25/13 11:03	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046		0.018	0.0067	mg/Kg	☼	03/15/13 15:30	03/18/13 10:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.25		0.200	0.200	SU			03/26/13 12:36	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B06D (2-4)
Date Collected: 03/13/13 10:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-5
Matrix: Solid
Percent Solids: 80.0

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.3		6.3	1.3	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Vinyl chloride	<6.3		6.3	1.3	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Bromomethane	<6.3		6.3	1.9	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Chloroethane	<6.3		6.3	1.7	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
1,1-Dichloroethene	<6.3		6.3	1.0	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Carbon disulfide	<6.3		6.3	0.95	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Acetone	<6.3		6.3	2.7	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Methylene Chloride	<6.3		6.3	1.7	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
trans-1,2-Dichloroethene	<6.3		6.3	0.87	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Methyl tert-butyl ether	<6.3		6.3	1.0	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
1,1-Dichloroethane	<6.3		6.3	1.0	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
cis-1,2-Dichloroethene	<6.3		6.3	0.90	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Methyl Ethyl Ketone	<6.3		6.3	2.3	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Chloroform	<6.3		6.3	0.73	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
1,1,1-Trichloroethane	<6.3		6.3	0.95	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Carbon tetrachloride	<6.3		6.3	1.2	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Benzene	<6.3		6.3	0.87	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
1,2-Dichloroethane	<6.3		6.3	0.94	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Trichloroethene	<6.3		6.3	1.0	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
1,2-Dichloropropane	<6.3		6.3	0.96	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Bromodichloromethane	<6.3		6.3	1.1	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
cis-1,3-Dichloropropene	<6.3		6.3	0.83	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
methyl isobutyl ketone	<6.3		6.3	1.7	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Toluene	<6.3		6.3	0.89	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
trans-1,3-Dichloropropene	<6.3		6.3	1.1	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
1,1,2-Trichloroethane	<6.3		6.3	0.87	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Tetrachloroethene	<6.3		6.3	0.97	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
2-Hexanone	<6.3		6.3	1.8	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Dibromochloromethane	<6.3		6.3	1.1	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Chlorobenzene	<6.3		6.3	0.64	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Ethylbenzene	<6.3		6.3	1.3	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Styrene	<6.3		6.3	0.83	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Bromoform	<6.3		6.3	1.5	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
1,1,2,2-Tetrachloroethane	<6.3		6.3	1.3	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
Xylenes, Total	<13		13	0.58	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1
1,3-Dichloropropene, Total	<6.3		6.3	0.83	ug/Kg	☼	03/13/13 10:10	03/19/13 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 134*	*03/13/13 10:10*	*03/19/13 00:23*	*1*
Toluene-d8 (Surr)	*104*		*75 - 122*	*03/13/13 10:10*	*03/19/13 00:23*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 122*	*03/13/13 10:10*	*03/19/13 00:23*	*1*
Dibromofluoromethane	*103*		*75 - 120*	*03/13/13 10:10*	*03/19/13 00:23*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<210		210	65	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Bis(2-chloroethyl)ether	<210		210	61	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
1,3-Dichlorobenzene	<210		210	43	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
1,4-Dichlorobenzene	<210		210	43	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
1,2-Dichlorobenzene	<210		210	45	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B06D (2-4)
Date Collected: 03/13/13 10:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-5
Matrix: Solid
Percent Solids: 80.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<210		210	54	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2,2'-oxybis[1-chloropropane]	<210		210	45	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
N-Nitrosodi-n-propylamine	<210		210	52	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Hexachloroethane	<210		210	44	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2-Chlorophenol	<210		210	59	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Nitrobenzene	<41		41	13	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Bis(2-chloroethoxy)methane	<210		210	45	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
1,2,4-Trichlorobenzene	<210		210	46	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Isophorone	<210		210	46	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2,4-Dimethylphenol	<410		410	130	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Hexachlorobutadiene	<210		210	54	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Naphthalene	<41		41	7.9	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2,4-Dichlorophenol	<410		410	120	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
4-Chloroaniline	<830		830	120	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2,4,6-Trichlorophenol	<410		410	51	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2,4,5-Trichlorophenol	<410		410	120	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Hexachlorocyclopentadiene	<830		830	190	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2-Methylnaphthalene	<210		210	53	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2-Nitroaniline	<210		210	74	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2-Chloronaphthalene	<210		210	46	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
4-Chloro-3-methylphenol	<410		410	200	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2,6-Dinitrotoluene	<210		210	49	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2-Nitrophenol	<410		410	64	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
3-Nitroaniline	<410		410	79	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Dimethyl phthalate	<210		210	51	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2,4-Dinitrophenol	<830		830	210	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Acenaphthylene	<41		41	9.4	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
2,4-Dinitrotoluene	<210		210	63	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Acenaphthene	<41		41	12	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Dibenzofuran	<210		210	49	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
4-Nitrophenol	<830		830	220	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Fluorene	<41		41	9.3	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
4-Nitroaniline	<410		410	84	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
4-Bromophenyl phenyl ether	<210		210	46	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Hexachlorobenzene	<83		83	8.1	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Diethyl phthalate	<210		210	68	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
4-Chlorophenyl phenyl ether	<210		210	64	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Pentachlorophenol	<830		830	210	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
N-Nitrosodiphenylamine	<210		210	55	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
4,6-Dinitro-2-methylphenol	<410		410	99	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Phenanthrene	<41		41	17	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Anthracene	<41		41	9.6	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Carbazole	<210		210	58	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Di-n-butyl phthalate	<210		210	52	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Fluoranthene	<41		41	17	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Pyrene	<41		41	15	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Butyl benzyl phthalate	<210		210	51	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Benzo[a]anthracene	<41		41	8.6	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Chrysene	<41		41	9.2	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B06D (2-4)
Date Collected: 03/13/13 10:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-5
Matrix: Solid
Percent Solids: 80.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<210		210	34	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Bis(2-ethylhexyl) phthalate	<210		210	54	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Di-n-octyl phthalate	<210		210	83	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Benzo[b]fluoranthene	<41		41	8.0	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Benzo[k]fluoranthene	<41		41	9.8	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Benzo[a]pyrene	<41		41	7.5	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Indeno[1,2,3-cd]pyrene	<41		41	14	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Dibenz(a,h)anthracene	<41		41	11	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
Benzo[g,h,i]perylene	<41		41	14	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1
3 & 4 Methylphenol	<210		210	78	ug/Kg	☼	03/18/13 07:56	03/19/13 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*57*		*30 - 110*	*03/18/13 07:56*	*03/19/13 17:08*	*1*
Phenol-d5	*56*		*31 - 110*	*03/18/13 07:56*	*03/19/13 17:08*	*1*
Nitrobenzene-d5	*51*		*30 - 115*	*03/18/13 07:56*	*03/19/13 17:08*	*1*
2-Fluorobiphenyl	*52*		*30 - 119*	*03/18/13 07:56*	*03/19/13 17:08*	*1*
2,4,6-Tribromophenol	*77*		*35 - 137*	*03/18/13 07:56*	*03/19/13 17:08*	*1*
Terphenyl-d14	*81*		*36 - 134*	*03/18/13 07:56*	*03/19/13 17:08*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.16	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Arsenic	7.3		0.60	0.13	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Barium	130		0.60	0.072	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Beryllium	0.82		0.24	0.018	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Cadmium	0.061	J	0.12	0.030	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Chromium	21		0.60	0.10	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Cobalt	9.1		0.30	0.032	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Copper	18		0.60	0.16	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Iron	21000		12	5.2	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Lead	13		0.30	0.10	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Magnesium	4000	B	6.0	1.2	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Manganese	410		0.60	0.085	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Nickel	20		0.60	0.13	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Selenium	0.65		0.60	0.17	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Silver	<0.30		0.30	0.036	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Thallium	0.34	J	0.60	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Vanadium	36		0.30	0.046	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1
Zinc	50		1.2	0.41	mg/Kg	☼	03/14/13 16:30	03/16/13 02:23	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 01:42	1
Barium	0.53		0.50	0.010	mg/L		03/22/13 15:00	03/25/13 01:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/22/13 15:00	03/25/13 01:42	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/22/13 15:00	03/25/13 01:42	1
Chromium	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:42	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:42	1
Copper	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:42	1
Iron	<0.20		0.20	0.20	mg/L		03/22/13 15:00	03/25/13 01:42	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B06D (2-4)
Date Collected: 03/13/13 10:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-5
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/22/13 15:00	03/25/13 01:42	1
Manganese	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:42	1
Nickel	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 01:42	1
Selenium	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 01:42	1
Silver	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:42	1
Vanadium	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 01:42	1
Zinc	<0.10		0.10	0.020	mg/L		03/22/13 15:00	03/25/13 01:42	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		03/22/13 15:00	03/27/13 17:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/22/13 15:00	03/27/13 17:40	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000020	mg/L		03/22/13 14:00	03/25/13 11:05	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.021	0.0079	mg/Kg	☼	03/15/13 15:30	03/18/13 10:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.95		0.200	0.200	SU			03/26/13 12:39	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B03 (2-4)
Date Collected: 03/13/13 15:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-18
Matrix: Solid
Percent Solids: 84.4

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.0		5.0	1.1	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Vinyl chloride	<5.0		5.0	1.1	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Bromomethane	<5.0		5.0	1.5	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Chloroethane	<5.0		5.0	1.4	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
1,1-Dichloroethene	<5.0		5.0	0.81	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Carbon disulfide	<5.0		5.0	0.75	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Acetone	<5.0		5.0	2.2	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Methylene Chloride	<5.0		5.0	1.4	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
trans-1,2-Dichloroethene	<5.0		5.0	0.69	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Methyl tert-butyl ether	<5.0		5.0	0.83	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
1,1-Dichloroethane	<5.0		5.0	0.80	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
cis-1,2-Dichloroethene	<5.0		5.0	0.71	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Methyl Ethyl Ketone	<5.0		5.0	1.8	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Chloroform	<5.0		5.0	0.58	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
1,1,1-Trichloroethane	<5.0		5.0	0.75	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Carbon tetrachloride	<5.0		5.0	0.92	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Benzene	<5.0		5.0	0.69	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
1,2-Dichloroethane	<5.0		5.0	0.75	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Trichloroethene	<5.0		5.0	0.83	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
1,2-Dichloropropane	<5.0		5.0	0.77	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Bromodichloromethane	<5.0		5.0	0.87	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
cis-1,3-Dichloropropene	<5.0		5.0	0.66	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
methyl isobutyl ketone	<5.0		5.0	1.3	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Toluene	<5.0		5.0	0.71	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
trans-1,3-Dichloropropene	<5.0		5.0	0.90	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
1,1,2-Trichloroethane	<5.0		5.0	0.69	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Tetrachloroethene	<5.0		5.0	0.77	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
2-Hexanone	<5.0		5.0	1.5	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Dibromochloromethane	<5.0		5.0	0.88	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Chlorobenzene	<5.0		5.0	0.51	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Ethylbenzene	<5.0		5.0	1.0	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Styrene	<5.0		5.0	0.66	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Bromoform	<5.0		5.0	1.2	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
1,1,2,2-Tetrachloroethane	<5.0		5.0	1.0	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
Xylenes, Total	<10		10	0.46	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1
1,3-Dichloropropene, Total	<5.0		5.0	0.66	ug/Kg	☼	03/13/13 15:10	03/19/13 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 134*	*03/13/13 15:10*	*03/19/13 19:13*	*1*
Toluene-d8 (Surr)	*107*		*75 - 122*	*03/13/13 15:10*	*03/19/13 19:13*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 122*	*03/13/13 15:10*	*03/19/13 19:13*	*1*
Dibromofluoromethane	*98*		*75 - 120*	*03/13/13 15:10*	*03/19/13 19:13*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<190		190	61	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Bis(2-chloroethyl)ether	<190		190	57	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
1,3-Dichlorobenzene	<190		190	41	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
1,4-Dichlorobenzene	<190		190	41	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
1,2-Dichlorobenzene	<190		190	42	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B03 (2-4)
Date Collected: 03/13/13 15:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-18
Matrix: Solid
Percent Solids: 84.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<190		190	51	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2,2'-oxybis[1-chloropropane]	<190		190	43	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
N-Nitrosodi-n-propylamine	<190		190	49	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Hexachloroethane	<190		190	41	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2-Chlorophenol	<190		190	55	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Nitrobenzene	<39		39	12	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Bis(2-chloroethoxy)methane	<190		190	43	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
1,2,4-Trichlorobenzene	<190		190	44	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Isophorone	<190		190	43	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2,4-Dimethylphenol	<390		390	120	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Hexachlorobutadiene	<190		190	51	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Naphthalene	<39		39	7.5	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2,4-Dichlorophenol	<390		390	120	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
4-Chloroaniline	<780		780	120	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2,4,6-Trichlorophenol	<390		390	49	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2,4,5-Trichlorophenol	<390		390	110	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Hexachlorocyclopentadiene	<780		780	180	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2-Methylnaphthalene	<190		190	50	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2-Nitroaniline	<190		190	70	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2-Chloronaphthalene	<190		190	44	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
4-Chloro-3-methylphenol	<390		390	190	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2,6-Dinitrotoluene	<190		190	46	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2-Nitrophenol	<390		390	61	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
3-Nitroaniline	<390		390	75	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Dimethyl phthalate	<190		190	48	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2,4-Dinitrophenol	<780		780	200	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Acenaphthylene	<39		39	8.9	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
2,4-Dinitrotoluene	<190		190	59	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Acenaphthene	<39		39	12	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Dibenzofuran	<190		190	47	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
4-Nitrophenol	<780		780	210	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Fluorene	<39		39	8.8	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
4-Nitroaniline	<390		390	79	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
4-Bromophenyl phenyl ether	<190		190	43	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Hexachlorobenzene	<78		78	7.6	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Diethyl phthalate	<190		190	65	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
4-Chlorophenyl phenyl ether	<190		190	61	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Pentachlorophenol	<780		780	200	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
N-Nitrosodiphenylamine	<190		190	52	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
4,6-Dinitro-2-methylphenol	<390		390	94	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Phenanthrene	<39		39	16	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Anthracene	<39		39	9.1	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Carbazole	<190		190	54	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Di-n-butyl phthalate	<190		190	49	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Fluoranthene	<39		39	16	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Pyrene	<39		39	14	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Butyl benzyl phthalate	<190		190	49	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Benzo[a]anthracene	<39		39	8.1	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Chrysene	<39		39	8.8	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B03 (2-4)
Date Collected: 03/13/13 15:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-18
Matrix: Solid
Percent Solids: 84.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<190		190	32	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Bis(2-ethylhexyl) phthalate	<190		190	51	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Di-n-octyl phthalate	<190		190	79	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Benzo[b]fluoranthene	<39		39	7.5	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Benzo[k]fluoranthene	<39		39	9.2	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Benzo[a]pyrene	<39		39	7.1	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Indeno[1,2,3-cd]pyrene	<39		39	13	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Dibenz(a,h)anthracene	<39		39	11	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
Benzo[g,h,i]perylene	<39		39	13	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1
3 & 4 Methylphenol	<190		190	73	ug/Kg	☼	03/18/13 07:56	03/19/13 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*72*		*30 - 110*	*03/18/13 07:56*	*03/19/13 21:32*	*1*
Phenol-d5	*76*		*31 - 110*	*03/18/13 07:56*	*03/19/13 21:32*	*1*
Nitrobenzene-d5	*68*		*30 - 115*	*03/18/13 07:56*	*03/19/13 21:32*	*1*
2-Fluorobiphenyl	*75*		*30 - 119*	*03/18/13 07:56*	*03/19/13 21:32*	*1*
2,4,6-Tribromophenol	*107*		*35 - 137*	*03/18/13 07:56*	*03/19/13 21:32*	*1*
Terphenyl-d14	*109*		*36 - 134*	*03/18/13 07:56*	*03/19/13 21:32*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Arsenic	5.8		0.58	0.13	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Barium	50		0.58	0.069	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Beryllium	0.53		0.23	0.017	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Cadmium	0.18		0.12	0.029	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Chromium	11		0.58	0.097	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Cobalt	5.6		0.29	0.031	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Copper	13		0.58	0.16	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Iron	14000		12	5.1	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Lead	9.1		0.29	0.10	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Magnesium	12000	B	5.8	1.1	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Manganese	410		0.58	0.082	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Nickel	12		0.58	0.13	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Selenium	0.32	J	0.58	0.17	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Silver	<0.29		0.29	0.035	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Thallium	<0.58		0.58	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Vanadium	23		0.29	0.044	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1
Zinc	27		1.2	0.40	mg/Kg	☼	03/14/13 16:30	03/16/13 03:58	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 03:55	1
Barium	0.33	J	0.50	0.010	mg/L		03/22/13 15:00	03/25/13 03:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/22/13 15:00	03/25/13 03:55	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/22/13 15:00	03/25/13 03:55	1
Chromium	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 03:55	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 03:55	1
Copper	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 03:55	1
Iron	<0.20		0.20	0.20	mg/L		03/22/13 15:00	03/25/13 03:55	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B03 (2-4)
Date Collected: 03/13/13 15:10
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-18
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/22/13 15:00	03/25/13 03:55	1
Manganese	0.81		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 03:55	1
Nickel	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 03:55	1
Selenium	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 03:55	1
Silver	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 03:55	1
Vanadium	0.0053	J	0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 03:55	1
Zinc	<0.10		0.10	0.020	mg/L		03/22/13 15:00	03/25/13 03:55	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.075		0.025	0.010	mg/L		03/26/13 10:30	03/27/13 03:01	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		03/22/13 15:00	03/27/13 17:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/22/13 15:00	03/27/13 17:58	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000020	mg/L		03/22/13 14:00	03/25/13 11:38	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.019	0.0074	mg/Kg	☼	03/15/13 15:30	03/18/13 11:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.46		0.200	0.200	SU			03/26/13 13:09	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B03 (6-8)
Date Collected: 03/13/13 15:15
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-19
Matrix: Solid
Percent Solids: 93.7

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.3		4.3	0.89	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Vinyl chloride	<4.3		4.3	0.89	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Bromomethane	<4.3		4.3	1.3	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Chloroethane	<4.3		4.3	1.2	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
1,1-Dichloroethene	<4.3		4.3	0.69	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Carbon disulfide	<4.3		4.3	0.64	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Acetone	<4.3		4.3	1.8	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Methylene Chloride	<4.3		4.3	1.1	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
trans-1,2-Dichloroethene	<4.3		4.3	0.58	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Methyl tert-butyl ether	<4.3		4.3	0.70	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
1,1-Dichloroethane	<4.3		4.3	0.67	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
cis-1,2-Dichloroethene	<4.3		4.3	0.60	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Methyl Ethyl Ketone	<4.3		4.3	1.5	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Chloroform	<4.3		4.3	0.49	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
1,1,1-Trichloroethane	<4.3		4.3	0.64	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Carbon tetrachloride	<4.3		4.3	0.77	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Benzene	<4.3		4.3	0.58	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
1,2-Dichloroethane	<4.3		4.3	0.63	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Trichloroethene	<4.3		4.3	0.70	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
1,2-Dichloropropane	<4.3		4.3	0.65	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Bromodichloromethane	<4.3		4.3	0.73	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
cis-1,3-Dichloropropene	<4.3		4.3	0.56	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
methyl isobutyl ketone	<4.3		4.3	1.1	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Toluene	<4.3		4.3	0.60	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
trans-1,3-Dichloropropene	<4.3		4.3	0.76	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
1,1,2-Trichloroethane	<4.3		4.3	0.58	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Tetrachloroethene	<4.3		4.3	0.65	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
2-Hexanone	<4.3		4.3	1.2	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Dibromochloromethane	<4.3		4.3	0.74	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Chlorobenzene	<4.3		4.3	0.43	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Ethylbenzene	<4.3		4.3	0.86	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Styrene	<4.3		4.3	0.56	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Bromoform	<4.3		4.3	0.98	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
1,1,2,2-Tetrachloroethane	<4.3		4.3	0.86	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
Xylenes, Total	<8.5		8.5	0.39	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1
1,3-Dichloropropene, Total	<4.3		4.3	0.56	ug/Kg	☼	03/13/13 15:15	03/19/13 05:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 134*	*03/13/13 15:15*	*03/19/13 05:45*	*1*
Toluene-d8 (Surr)	*101*		*75 - 122*	*03/13/13 15:15*	*03/19/13 05:45*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 122*	*03/13/13 15:15*	*03/19/13 05:45*	*1*
Dibromofluoromethane	*100*		*75 - 120*	*03/13/13 15:15*	*03/19/13 05:45*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<170		170	55	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Bis(2-chloroethyl)ether	<170		170	51	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
1,3-Dichlorobenzene	<170		170	36	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
1,4-Dichlorobenzene	<170		170	36	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
1,2-Dichlorobenzene	<170		170	38	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B03 (6-8)
Date Collected: 03/13/13 15:15
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-19
Matrix: Solid
Percent Solids: 93.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<170		170	46	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2,2'-oxybis[1-chloropropane]	<170		170	38	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
N-Nitrosodi-n-propylamine	<170		170	44	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Hexachloroethane	<170		170	37	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2-Chlorophenol	<170		170	50	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Nitrobenzene	<34		34	11	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Bis(2-chloroethoxy)methane	<170		170	38	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
1,2,4-Trichlorobenzene	<170		170	39	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Isophorone	<170		170	39	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2,4-Dimethylphenol	<340		340	110	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Hexachlorobutadiene	<170		170	45	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Naphthalene	<34		34	6.7	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2,4-Dichlorophenol	<340		340	110	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
4-Chloroaniline	<700		700	110	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2,4,6-Trichlorophenol	<340		340	44	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2,4,5-Trichlorophenol	<340		340	99	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Hexachlorocyclopentadiene	<700		700	160	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2-Methylnaphthalene	<170		170	45	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2-Nitroaniline	<170		170	62	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2-Chloronaphthalene	<170		170	39	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
4-Chloro-3-methylphenol	<340		340	170	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2,6-Dinitrotoluene	<170		170	41	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2-Nitrophenol	<340		340	54	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
3-Nitroaniline	<340		340	67	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Dimethyl phthalate	<170		170	43	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2,4-Dinitrophenol	<700		700	180	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Acenaphthylene	<34		34	8.0	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
2,4-Dinitrotoluene	<170		170	53	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Acenaphthene	<34		34	10	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Dibenzofuran	<170		170	42	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
4-Nitrophenol	<700		700	190	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Fluorene	<34		34	7.9	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
4-Nitroaniline	<340		340	71	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
4-Bromophenyl phenyl ether	<170		170	39	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Hexachlorobenzene	<70		70	6.8	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Diethyl phthalate	<170		170	58	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
4-Chlorophenyl phenyl ether	<170		170	55	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Pentachlorophenol	<700		700	180	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
N-Nitrosodiphenylamine	<170		170	47	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
4,6-Dinitro-2-methylphenol	<340		340	84	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Phenanthrene	<34		34	15	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Anthracene	<34		34	8.2	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Carbazole	<170		170	49	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Di-n-butyl phthalate	<170		170	44	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Fluoranthene	<34		34	14	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Pyrene	<34		34	13	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Butyl benzyl phthalate	<170		170	43	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Benzo[a]anthracene	<34		34	7.3	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Chrysene	<34		34	7.8	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B03 (6-8)
Date Collected: 03/13/13 15:15
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-19
Matrix: Solid
Percent Solids: 93.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<170		170	29	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Bis(2-ethylhexyl) phthalate	<170		170	46	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Di-n-octyl phthalate	<170		170	70	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Benzo[b]fluoranthene	<34		34	6.7	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Benzo[k]fluoranthene	<34		34	8.3	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Benzo[a]pyrene	<34		34	6.3	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Indeno[1,2,3-cd]pyrene	<34		34	12	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Dibenz(a,h)anthracene	<34		34	9.7	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
Benzo[g,h,i]perylene	<34		34	12	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1
3 & 4 Methylphenol	<170		170	66	ug/Kg	☼	03/18/13 07:56	03/19/13 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*63*		*30 - 110*	*03/18/13 07:56*	*03/19/13 21:52*	*1*
Phenol-d5	*60*		*31 - 110*	*03/18/13 07:56*	*03/19/13 21:52*	*1*
Nitrobenzene-d5	*61*		*30 - 115*	*03/18/13 07:56*	*03/19/13 21:52*	*1*
2-Fluorobiphenyl	*61*		*30 - 119*	*03/18/13 07:56*	*03/19/13 21:52*	*1*
2,4,6-Tribromophenol	*78*		*35 - 137*	*03/18/13 07:56*	*03/19/13 21:52*	*1*
Terphenyl-d14	*81*		*36 - 134*	*03/18/13 07:56*	*03/19/13 21:52*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.14	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Arsenic	4.4		0.51	0.11	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Barium	16		0.51	0.061	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Beryllium	0.30		0.20	0.015	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Cadmium	0.26		0.10	0.025	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Chromium	5.2		0.51	0.085	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Cobalt	3.1		0.26	0.027	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Copper	11		0.51	0.14	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Iron	8300		10	4.4	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Lead	4.9		0.26	0.088	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Magnesium	43000	B	5.1	0.99	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Manganese	260		0.51	0.072	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Nickel	7.1		0.51	0.11	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Selenium	<0.51		0.51	0.15	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Silver	<0.26		0.26	0.031	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Thallium	<0.51		0.51	0.13	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Vanadium	12		0.26	0.039	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1
Zinc	24		1.0	0.35	mg/Kg	☼	03/14/13 16:30	03/16/13 04:19	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 04:02	1
Barium	0.16	J	0.50	0.010	mg/L		03/22/13 15:00	03/25/13 04:02	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/22/13 15:00	03/25/13 04:02	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/22/13 15:00	03/25/13 04:02	1
Chromium	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 04:02	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 04:02	1
Copper	<0.025		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 04:02	1
Iron	<0.20		0.20	0.20	mg/L		03/22/13 15:00	03/25/13 04:02	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Client Sample ID: E4824B03 (6-8)
Date Collected: 03/13/13 15:15
Date Received: 03/14/13 10:10

Lab Sample ID: 500-55194-19
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/22/13 15:00	03/25/13 04:02	1
Manganese	0.86		0.025	0.010	mg/L		03/22/13 15:00	03/25/13 04:02	1
Nickel	0.010	J	0.025	0.010	mg/L		03/22/13 15:00	03/25/13 04:02	1
Selenium	<0.050		0.050	0.010	mg/L		03/22/13 15:00	03/25/13 04:02	1
Silver	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 04:02	1
Vanadium	<0.025		0.025	0.0050	mg/L		03/22/13 15:00	03/25/13 04:02	1
Zinc	<0.10		0.10	0.020	mg/L		03/22/13 15:00	03/25/13 04:02	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		03/26/13 10:30	03/27/13 03:07	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		03/22/13 15:00	03/27/13 17:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/22/13 15:00	03/27/13 17:59	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000020	mg/L		03/22/13 14:00	03/25/13 11:40	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0066	mg/Kg	☼	03/15/13 15:30	03/18/13 11:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.93		0.200	0.200	SU			03/26/13 13:11	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	Duplicate RPD exceeds the control limit
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55194-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-11-13
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: Chern Johns
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55194
Chain of Custody Number: E748-03
Page 1 of 1
Temperature °C of Cooler: (3.4) (3.2)

Client: Ecology & Environment
Client Project #: EE-004330-0001-01TTO
Project Name: IL 31
Project Location/State: McHenry County, IL
Lab Project #: 50007751
Sampler: Scott Cooper
Lab PM: Dick Wright

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	TCLP/SPLP TAL Metals	pH/% Solids					Comments
1		E4824B04 (0-2)	3-13-13	0920	2	S	X	X	X	X	X					
2		E4824B05 (2-4)	3-13-13	0946	2	S	X	X	X	X	X					
3		E4824B05 (E20)	3-13-13	0945	2	S	X	X	X	X	X					
4		E4824B06 (2-4)	3-13-13	1010	2	S	X	X	X	X	X					
5		E4824B06D (2-4)	3-13-13	1010	2	S	X	X	X	X	X					
6		E4816B01 (2-4)	3-13-13	1040	2	S	X	X	X	X	X					
7		E4819B04 (0-2)	3-13-13	1110	2	S	X	X	X	X	X					
8		E4819B04 (2-4)	3-13-13	1115	2	S	X	X	X	X	X					
9		E4819B02 (0-2)	3-13-13	1135	2	S	X	X	X	X	X					
10		E4819B02 (4-6)	3-13-13	1140	2	S	X	X	X	X	X					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days ___ Other
Requested Due Date ___

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time	
[signature]	E&E	3-14-13	0835	[signature]	TestAmerica	03/14/13	0835	Lab Courier: TA
[signature]	TestAmerica	03/14/13	1010	[signature]	TA	3/14/13	1010	Shipped:
								Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

3/28/2013

TAL-4124-500 (1209)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: Marc Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55194
Chain of Custody Number: E748-04
Page 1 of 1
Temperature °C of Cooler:

Client: Ecology Environment
Client Project #: EE-004331-0001-01TTC
Project Name: IL 31
Lab Project #: 50007751
Project Location/State: McHenry Co, IL
Sampler: Scott Cooper
Lab PM: Dick Wright

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	TCLP/SPLP TAL Metals	pH/[illegible]	Comments
11		E4813B01 (0-2)	3-13-13	1225	2	S	X	X	X	X	X	
12		E4813B01 (4-6)	3-13-13	1230	2	S	X	X	X	X	X	
13		E4813B02 (0-2)	3-13-13	1305	2	S	X	X	X	X	X	
14		E4816B03 (2-4)	3-13-13	1315	2	S	X	X	X	X	X	
15		E4816B02 (0-2)	3-13-13	1335	2	S	X	X	X	X	X	
16		E4824B02 (2-4)	3-13-13	1420	2	S	X	X	X	X	X	
17		E4824B02 (6-8)	3-13-13	1425	2	S	X	X	X	X	X	
18		E4824B03 (2-4)	3-13-13	1510	2	S	X	X	X	X	X	
19		E4824B03 (6-8)	3-13-13	1515	2	S	X	X	X	X	X	

3-13-13

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days ___ Other
Requested Due Date ______

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E-E	3-14-13	0835	[signature]	TestAmerica	03/14/13	0835
[signature]	TestAmerica	03/14/13	1010	[signature]	TA	3/14/13	1010

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification
by Licensed Professional Engineer or Licensed Professional Geologist
for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation
LPC-663
Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd. Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
8613 IL 31

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20097 (Decimal Degrees) Longitude: -88.28701 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☒ Map Interpolation ☐ Photo Interpolation ☐ Survey ☐ Other

IEPA Site Number(s), if assigned: BOL: 1110105095 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

	Site Owner		Site Operator
Name:	Illinois Department of Transportation	Name:	
Street Address:	201 West Center Court	Street Address:	
PO Box:		PO Box:	
City:	Schaumburg State: IL	City:	State:
Zip Code:	60196-1096 Phone: 847-705-4159	Zip Code:	Phone:
Contact:	Sam Mead	Contact:	
Email, if available:	Sam.Mead@illinois.gov	Email, if available:	

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

IL 532-2922
LPC 663 Rev. 8/2012

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd

Latitude: 42.20097 Longitude: -88.28701

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations E4825B01, E4825B02, E4825B03, and E4825B05 were sampled within the construction zone adjacent to ISGS #1227V-25. Refer to PSI Report Section 4.2.1 and Section 4.3.1 ISGS #1227V-25 (Commercial and Residential Buildings), Table 4-3, and Figure 4-5.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages 500-55724-1 and 500-55131-1.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8/9/13
Date:

STEVEN GOBELMAN
196-000598
LICENSED
PROFESSIONAL
GEOLOGIST
STATE OF ILLINOIS

P.E. or P.G. Seal:

Analytical Data Summary
PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

Key to Data Tables

µg/kg = Micrograms per kilogram.
MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
mg/kg = Milligrams per kilogram.
mg/L = Milligrams per liter.
MSA = Metropolitan Statistical Area
TCLP = Toxicity Characteristic Leaching Procedure.
SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
SPLP = Synthetic Precipitation Leaching Procedure.
ND = Not detected.
NA = Not analyzed.
J = Estimated value.
B = Also present in blank.
U = Analyte was analyzed for but not detected.

Criteria Qualifiers

\# = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
† = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical Areas.
* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is considered to exceed the MAC.
= Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
= Soil concentration exceeds the applicable MAC.

PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09
CONTAMINANTS OF CONCERN

SITE	ISGS #1227V-25 (Commercial and Residential Buildings)										Comparison Criteria			
BORING	E4825B01		E4825B02		E4825B03		E4825B05				MACs			TACO
SAMPLE	E4825B01 (0-2)	E4825B01 (4-6)	E4825B02 (0-2)		E4825B03 (0-2)		E4825B05 (4-6)							
MATRIX	Soil	Soil	Soil		Soil		Soil				Most Stringent	Within an MSA		
DEPTH (m)	0.0-0.6	1.2-1.8	0.0-0.6		0.0-0.6		1.2-1.8							
pH	7.38	7.98	8.06		7.17		7.89							SCGIER
VOCs (µg/kg)														
Acetone	ND	U	ND	U	ND	U	**4.0**	**J**			25,000	--		--
SVOCs (µg/kg) - None Detected														
Inorganics (mg/kg)														
Arsenic	**7.9**		**5.1**		**4.7**		**5.9**		**5.1**		11.3	13		--
Barium	**86**		13		**58**	**BJ**	**210**		17		1,500	--		--
Beryllium	**0.85**		**0.31**		**0.52**		**0.81**		**0.30**		22	--		--
Cadmium	**0.17**		**0.39**		**0.19**		**0.33**		**0.38**		5.2	--		--
Chromium	**18**		**5.3**		11		**15**		**5.1**		21	--		--
Cobalt	**8.1**		**4.1**		**4.3**		**7.4**		**2.8**		20	--		--
Copper	22		12		11		16		12		2,900	--		--
Iron	**20,000**	**tm**	**9,000**		11,000		15,000		**9,500**		15,000	15,900		--
Lead	**12**	**BJ**	**4.9**	**BJ**	13		25	**BJ**	**6.3**	**BJ**	107	--		--
Magnesium	**3,000**		**42,000**		22,000		2,700		**44,000**		325,000	--		--
Manganese	**890**	**tm**	**270**		**400**		1,400	**tm**	**220**		630	636		--
Mercury	**0.035**		**0.013**	**J**	ND	U	**0.071**		ND	U	0.89	--		--
Nickel	**18**		**8.2**		**9.4**		13		**6.8**		100	--		--
Thallium	**0.48**	**J**	ND	U	**0.34**	**J**	**0.50**	**J**	ND	U	2.6	--		--
Vanadium	**36**		11		**20**		27		11		550	--		--
Zinc	**38**	**BJ**	**26**	**BJ**	**35**		70	**BJ**	**20**	**BJ**	5,100	--		--
TCLP Metals (mg/L)														
Barium	**0.28**	**J**	**0.13**	**J**	**0.49**	**J**	**0.47**	**J**	**0.19**	**J**	--	--		2
Cobalt	ND	U	ND	U	ND	U	ND	U	**0.029**		--	--		1
Iron	**0.27**		ND	U	ND	U	**0.53**		1.6		--	--		5
Manganese	**0.019**	**J**	**0.66**		**1.2**		**0.027**		**3.1**		--	--		0.15
Mercury	**0.000038**	**J**	**0.000027**	**J**	ND	U	**0.000048**	**J**	**0.000028**	**J**	--	--		0.002
Nickel	ND	U	ND	U	ND	U	ND	U	**0.032**		--	--		0.1
Vanadium	ND	U	ND	U	**0.0050**	**J**	ND	U	ND	U	--	--		0.049
Zinc	ND	U	ND	U	**0.020**	**J**	**0.037**	**J**	**0.024**	**J**	--	--		5
SPLP Metals (mg/L)														
Manganese	NA		ND	U	0.14		NA		ND	U	--	--		0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55131-1
Client Project/Site: IDOT - Algonquin - WO 48

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
3/25/2013 9:22:32 AM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4825B02 (0-2)
Date Collected: 03/11/13 11:45
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-1
Matrix: Solid
Percent Solids: 86.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<110		110	26	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Vinyl chloride	<14		14	5.8	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Bromomethane	<110		110	38	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Chloroethane	<110		110	24	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
1,1-Dichloroethene	<56		56	17	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Carbon disulfide	<280		280	24	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Acetone	<280	*	280	73	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Methylene Chloride	<280		280	38	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
trans-1,2-Dichloroethene	<56		56	14	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Methyl tert-butyl ether	<110		110	24	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
1,1-Dichloroethane	<56		56	10	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
cis-1,2-Dichloroethene	<56		56	6.9	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Methyl Ethyl Ketone	<280		280	83	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Chloroform	<56		56	12	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
1,1,1-Trichloroethane	<56		56	11	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Carbon tetrachloride	<56		56	14	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Benzene	<14		14	4.2	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
1,2-Dichloroethane	<56		56	16	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Trichloroethene	<28		28	10	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
1,2-Dichloropropane	<56		56	11	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Bromodichloromethane	<110		110	19	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
cis-1,3-Dichloropropene	<56		56	10	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
methyl isobutyl ketone	<280		280	19	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Toluene	<14		14	6.5	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
trans-1,3-Dichloropropene	<56		56	12	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
1,1,2-Trichloroethane	<56		56	16	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Tetrachloroethene	<56		56	9.4	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
2-Hexanone	<280		280	32	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Dibromochloromethane	<110		110	19	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Chlorobenzene	<56		56	8.0	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Ethylbenzene	<14		14	7.1	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Styrene	<56		56	5.5	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Bromoform	<110		110	25	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
1,1,2,2-Tetrachloroethane	<56		56	13	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
Xylenes, Total	<28		28	3.8	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50
1,3-Dichloropropene, Total	<56		56	10	ug/Kg	☼	03/11/13 11:45	03/18/13 18:52	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*75 - 125*	*03/11/13 11:45*	*03/18/13 18:52*	*50*
Toluene-d8 (Surr)	*94*		*75 - 120*	*03/11/13 11:45*	*03/18/13 18:52*	*50*
4-Bromofluorobenzene (Surr)	*89*		*75 - 120*	*03/11/13 11:45*	*03/18/13 18:52*	*50*
Dibromofluoromethane	*95*		*75 - 120*	*03/11/13 11:45*	*03/18/13 18:52*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<190		190	60	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Bis(2-chloroethyl)ether	<190		190	56	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
1,3-Dichlorobenzene	<190		190	40	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
1,4-Dichlorobenzene	<190		190	40	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
1,2-Dichlorobenzene	<190		190	42	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4825B02 (0-2)
Date Collected: 03/11/13 11:45
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-1
Matrix: Solid
Percent Solids: 86.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<190		190	50	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2,2'-oxybis[1-chloropropane]	<190		190	42	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
N-Nitrosodi-n-propylamine	<190		190	48	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Hexachloroethane	<190		190	41	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2-Chlorophenol	<190		190	54	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Nitrobenzene	<38		38	12	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Bis(2-chloroethoxy)methane	<190		190	42	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
1,2,4-Trichlorobenzene	<190		190	43	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Isophorone	<190		190	42	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2,4-Dimethylphenol	<380		380	120	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Hexachlorobutadiene	<190		190	50	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Naphthalene	<38		38	7.3	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2,4-Dichlorophenol	<380		380	120	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
4-Chloroaniline	<770		770	120	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2,4,6-Trichlorophenol	<380		380	48	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2,4,5-Trichlorophenol	<380		380	110	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Hexachlorocyclopentadiene	<770		770	180	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2-Methylnaphthalene	<190		190	49	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2-Nitroaniline	<190		190	68	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2-Chloronaphthalene	<190		190	43	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
4-Chloro-3-methylphenol	<380		380	180	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2,6-Dinitrotoluene	<190		190	45	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2-Nitrophenol	<380		380	60	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
3-Nitroaniline	<380		380	73	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Dimethyl phthalate	<190		190	47	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2,4-Dinitrophenol	<770		770	190	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Acenaphthylene	<38		38	8.7	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
2,4-Dinitrotoluene	<190		190	58	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Acenaphthene	<38		38	11	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Dibenzofuran	<190		190	46	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
4-Nitrophenol	<770		770	200	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Fluorene	<38		38	8.6	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
4-Nitroaniline	<380		380	78	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
4-Bromophenyl phenyl ether	<190		190	42	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Hexachlorobenzene	<77		77	7.5	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Diethyl phthalate	<190		190	63	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
4-Chlorophenyl phenyl ether	<190		190	60	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Pentachlorophenol	<770		770	190	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
N-Nitrosodiphenylamine	<190		190	51	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
4,6-Dinitro-2-methylphenol	<380		380	92	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Phenanthrene	<38		38	16	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Anthracene	<38		38	8.9	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Carbazole	<190		190	53	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Di-n-butyl phthalate	<190		190	48	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Fluoranthene	<38		38	16	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Pyrene	<38		38	14	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Butyl benzyl phthalate	<190		190	48	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Benzo[a]anthracene	<38		38	8.0	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Chrysene	<38		38	8.6	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4825B02 (0-2)
Date Collected: 03/11/13 11:45
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-1
Matrix: Solid
Percent Solids: 86.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<190		190	32	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Bis(2-ethylhexyl) phthalate	<190		190	50	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Di-n-octyl phthalate	<190		190	77	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Benzo[b]fluoranthene	<38		38	7.4	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Benzo[k]fluoranthene	<38		38	9.1	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Benzo[a]pyrene	<38		38	6.9	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Indeno[1,2,3-cd]pyrene	<38		38	13	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Dibenz(a,h)anthracene	<38		38	11	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
Benzo[g,h,i]perylene	<38		38	13	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1
3 & 4 Methylphenol	<190		190	72	ug/Kg	☼	03/13/13 07:16	03/13/13 21:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*39*		*30 - 110*	*03/13/13 07:16*	*03/13/13 21:43*	*1*
Phenol-d5	*45*		*31 - 110*	*03/13/13 07:16*	*03/13/13 21:43*	*1*
Nitrobenzene-d5	*45*		*30 - 115*	*03/13/13 07:16*	*03/13/13 21:43*	*1*
2-Fluorobiphenyl	*57*		*30 - 119*	*03/13/13 07:16*	*03/13/13 21:43*	*1*
2,4,6-Tribromophenol	*50*		*35 - 137*	*03/13/13 07:16*	*03/13/13 21:43*	*1*
Terphenyl-d14	*50*		*36 - 134*	*03/13/13 07:16*	*03/13/13 21:43*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.15	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Arsenic	4.7		0.56	0.12	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Barium	58	B	0.56	0.066	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Beryllium	0.52		0.22	0.016	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Cadmium	0.19		0.11	0.028	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Chromium	11		0.56	0.093	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Cobalt	4.3		0.28	0.029	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Copper	11		0.56	0.15	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Iron	11000		11	4.8	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Lead	13		0.28	0.096	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Magnesium	22000		5.6	1.1	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Manganese	400		0.56	0.078	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Nickel	9.4		0.56	0.12	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Selenium	<0.56		0.56	0.16	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Silver	<0.28		0.28	0.033	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Thallium	0.34	J	0.56	0.14	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Vanadium	20		0.28	0.042	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1
Zinc	35		1.1	0.38	mg/Kg	☼	03/13/13 10:40	03/14/13 16:55	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/20/13 10:15	03/21/13 02:40	1
Barium	0.49	J	0.50	0.010	mg/L		03/20/13 10:15	03/21/13 02:40	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/20/13 10:15	03/21/13 02:40	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/20/13 10:15	03/21/13 02:40	1
Chromium	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 02:40	1
Cobalt	<0.025		0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 02:40	1
Copper	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 02:40	1
Iron	<0.20		0.20	0.20	mg/L		03/20/13 10:15	03/21/13 02:40	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Client Sample ID: E4825B02 (0-2)
Date Collected: 03/11/13 11:45
Date Received: 03/12/13 10:41

Lab Sample ID: 500-55131-1
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		03/20/13 10:15	03/21/13 02:40	1
Manganese	1.2		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 02:40	1
Nickel	<0.025		0.025	0.010	mg/L		03/20/13 10:15	03/21/13 02:40	1
Selenium	<0.050		0.050	0.010	mg/L		03/20/13 10:15	03/21/13 02:40	1
Silver	<0.025		0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 02:40	1
Vanadium	0.0050	J	0.025	0.0050	mg/L		03/20/13 10:15	03/21/13 02:40	1
Zinc	0.020	J	0.10	0.020	mg/L		03/20/13 10:15	03/21/13 02:40	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.14		0.025	0.010	mg/L		03/23/13 13:00	03/24/13 12:48	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		03/20/13 10:15	03/20/13 18:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/20/13 10:15	03/20/13 18:02	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000020	mg/L		03/20/13 14:30	03/21/13 10:06	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0065	mg/Kg	☼	03/13/13 14:45	03/14/13 09:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.06		0.200	0.200	SU			03/16/13 12:31	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	Duplicate RPD exceeds the control limit
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55131-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-11-13
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Lab Job #: 500-55131
Chain of Custody Number: E748-01
Page 1 of 1
Temperature °C of Cooler: 3.5

Report To (optional)	Bill To (optional)
Contact: Sherri Johnson	Contact:
Company:	Company:
Address:	Address:
Address:	Address:
Phone:	Phone:
Fax:	Fax:
E-Mail:	PO#/Reference#

Client	Client Project #	Preservative
Ecology / Environment	EE-004330-0001-01770	
Project Name: FL 31		Parameter
Project Location/State: McHenry Co, IL	Lab Project #: 500007751	
Sampler: Scott Cooper	Lab PM: Dick Wright	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	Total TAL Pesticides	PAH's					Comments
1		E4825B02(0-2)	3-11-13	1145	2	S	X	X	X	X	X					
2		E4824B01(4-6)	3-11-13	1230	2	S	X	X	X	X	X					
3		E4824B01(10-12)	3-11-13	1235	2	S	X	X	X	X	X					
4		E4818B01(0-2)	3-11-13	1255	2	S	X	X	X	X	X					
5		E4828B01(0-2)	3-11-13	1335	2	S	X	X	X	X	X					
6		E4819B01(0-2)	3-11-13	1500	2	S	X	X	X	X	X					
7		E4819B01(4-6)	3-11-13	1505	2	S	X	X	X	X	X					
8		E4819B05(0-2)	3-11-13	1525	2	S	X	X	X	X	X					
9		E4819B05(10-12)	3-11-13	1530	2	S	X	X	X	X	X					
10		E4819B03(0-2)	3-11-13	1550	2	S	X	X	X	X	X					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

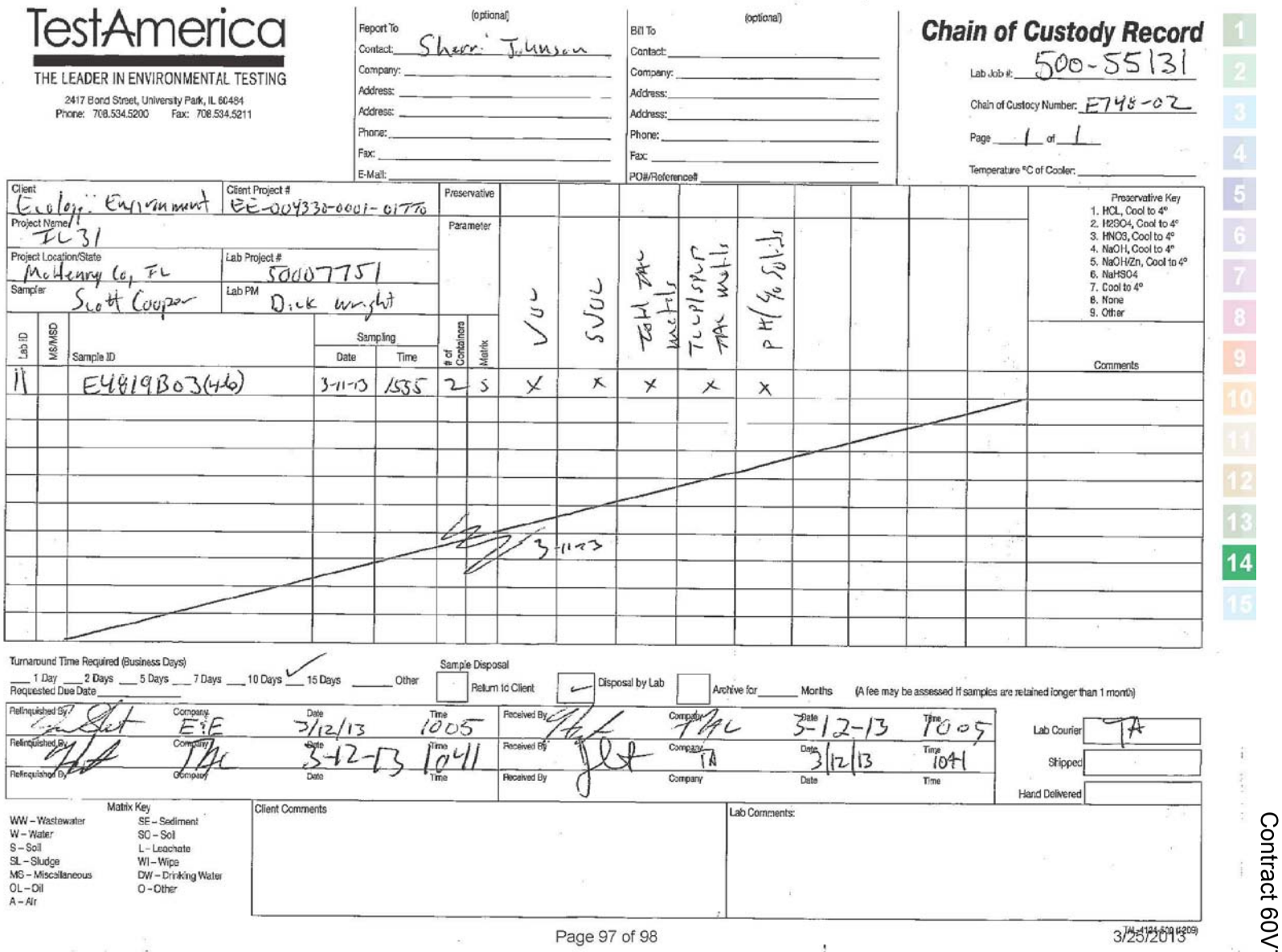
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	E&E	3/12/13	1005		TAL	3-12-13	1005
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TAL	3-12-13	1041		TA	3/12/13	1041
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Report To (optional)
Contact: Sherri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Lab Job #: 500-55131
Chain of Custody Number: E748-02
Page 1 of 1
Temperature °C of Cooler:

Client: Ecology Environment
Client Project #: EE-004330-0001-01TT0
Project Name: IL 31
Project Location/State: McHenry Co, IL
Lab Project #: 50007751
Sampler: Scott Cooper
Lab PM: Dick Wright

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Parameter: VOC	SVOC	Total TAL metals	TCLP SPLP TAL metals	PH/% Solids					Comments
11		E4819B03(4-6)	3-11-13	1555	2	S	X	X	X	X	X					

3-11-13

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

	Company	Date	Time		Company	Date	Time
Relinquished By	E&E	3/12/13	1005	Received By	TAL	3-12-13	1005
Relinquished By	TAL	3-12-13	1041	Received By	TA	3/12/13	1041
Relinquished By				Received By			

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-539 (0209)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55724-1
Client Project/Site: IDOT - Algonquin - WO 48

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
4/16/2013 11:22:28 AM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

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Visit us at: www.testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B01 (0-2)
Date Collected: 04/03/13 09:40
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-1
Matrix: Solid
Percent Solids: 81.2

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.4		6.4	1.3	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Vinyl chloride	<6.4		6.4	1.3	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Bromomethane	<6.4		6.4	1.9	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Chloroethane	<6.4		6.4	1.7	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
1,1-Dichloroethene	<6.4		6.4	1.0	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Carbon disulfide	<6.4		6.4	0.95	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Acetone	<6.4		6.4	2.8	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Methylene Chloride	<6.4		6.4	1.7	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
trans-1,2-Dichloroethene	<6.4		6.4	0.88	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Methyl tert-butyl ether	<6.4		6.4	1.1	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
1,1-Dichloroethane	<6.4		6.4	1.0	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
cis-1,2-Dichloroethene	<6.4		6.4	0.90	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Methyl Ethyl Ketone	<6.4		6.4	2.3	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Chloroform	<6.4		6.4	0.73	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
1,1,1-Trichloroethane	<6.4		6.4	0.95	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Carbon tetrachloride	<6.4		6.4	1.2	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Benzene	<6.4		6.4	0.87	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
1,2-Dichloroethane	<6.4		6.4	0.95	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Trichloroethene	<6.4		6.4	1.1	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
1,2-Dichloropropane	<6.4		6.4	0.97	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Bromodichloromethane	<6.4		6.4	1.1	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
cis-1,3-Dichloropropene	<6.4		6.4	0.84	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
methyl isobutyl ketone	<6.4		6.4	1.7	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Toluene	<6.4		6.4	0.89	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
trans-1,3-Dichloropropene	<6.4		6.4	1.1	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
1,1,2-Trichloroethane	<6.4		6.4	0.87	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Tetrachloroethene	<6.4		6.4	0.97	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
2-Hexanone	<6.4		6.4	1.8	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Dibromochloromethane	<6.4		6.4	1.1	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Chlorobenzene	<6.4		6.4	0.65	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Ethylbenzene	<6.4		6.4	1.3	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Styrene	<6.4		6.4	0.84	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Bromoform	<6.4		6.4	1.5	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
1,1,2,2-Tetrachloroethane	<6.4		6.4	1.3	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
Xylenes, Total	<13		13	0.58	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1
1,3-Dichloropropene, Total	<6.4		6.4	0.84	ug/Kg	☼	04/03/13 09:40	04/09/13 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 134*	*04/03/13 09:40*	*04/09/13 11:57*	*1*
Toluene-d8 (Surr)	*99*		*75 - 122*	*04/03/13 09:40*	*04/09/13 11:57*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 122*	*04/03/13 09:40*	*04/09/13 11:57*	*1*
Dibromofluoromethane	*101*		*75 - 120*	*04/03/13 09:40*	*04/09/13 11:57*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	61	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Bis(2-chloroethyl)ether	<200		200	57	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
1,3-Dichlorobenzene	<200		200	41	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
1,4-Dichlorobenzene	<200		200	41	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
1,2-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B01 (0-2)
Date Collected: 04/03/13 09:40
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-1
Matrix: Solid
Percent Solids: 81.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	52	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2,2'-oxybis[1-chloropropane]	<200		200	43	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
N-Nitrosodi-n-propylamine	<200		200	49	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Hexachloroethane	<200		200	41	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2-Chlorophenol	<200		200	56	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Nitrobenzene	<39		39	12	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Bis(2-chloroethoxy)methane	<200		200	43	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
1,2,4-Trichlorobenzene	<200		200	44	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Isophorone	<200		200	43	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2,4-Dimethylphenol	<390		390	120	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Hexachlorobutadiene	<200		200	51	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Naphthalene	<39		39	7.5	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2,4-Dichlorophenol	<390		390	120	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
4-Chloroaniline	<780		780	120	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2,4,6-Trichlorophenol	<390		390	49	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2,4,5-Trichlorophenol	<390		390	110	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Hexachlorocyclopentadiene	<780		780	180	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2-Methylnaphthalene	<200		200	50	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2-Nitroaniline	<200		200	70	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2-Chloronaphthalene	<200		200	44	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
4-Chloro-3-methylphenol	<390		390	190	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2,6-Dinitrotoluene	<200		200	46	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2-Nitrophenol	<390		390	61	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
3-Nitroaniline	<390		390	75	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Dimethyl phthalate	<200		200	48	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2,4-Dinitrophenol	<780	*	780	200	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Acenaphthylene	<39		39	8.9	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
2,4-Dinitrotoluene	<200		200	59	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Acenaphthene	<39		39	12	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Dibenzofuran	<200		200	47	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
4-Nitrophenol	<780		780	210	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Fluorene	<39		39	8.8	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
4-Nitroaniline	<390		390	80	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
4-Bromophenyl phenyl ether	<200		200	43	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Hexachlorobenzene	<78		78	7.6	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Diethyl phthalate	<200		200	65	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
4-Chlorophenyl phenyl ether	<200		200	61	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Pentachlorophenol	<780		780	200	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
N-Nitrosodiphenylamine	<200		200	52	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
4,6-Dinitro-2-methylphenol	<390		390	94	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Phenanthrene	<39		39	16	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Anthracene	<39		39	9.1	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Carbazole	<200		200	55	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Di-n-butyl phthalate	<200		200	49	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Fluoranthene	<39		39	16	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Pyrene	<39		39	14	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Butyl benzyl phthalate	<200		200	49	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Benzo[a]anthracene	<39		39	8.1	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Chrysene	<39		39	8.8	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B01 (0-2)
Date Collected: 04/03/13 09:40
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-1
Matrix: Solid
Percent Solids: 81.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	32	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Bis(2-ethylhexyl) phthalate	<200		200	51	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Di-n-octyl phthalate	<200		200	79	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Benzo[b]fluoranthene	<39		39	7.5	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Benzo[k]fluoranthene	<39		39	9.3	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Benzo[a]pyrene	<39		39	7.1	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Indeno[1,2,3-cd]pyrene	<39		39	13	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Dibenz(a,h)anthracene	<39		39	11	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
Benzo[g,h,i]perylene	<39		39	13	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1
3 & 4 Methylphenol	<200		200	73	ug/Kg	☼	04/04/13 18:12	04/05/13 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*58*		*30 - 110*	*04/04/13 18:12*	*04/05/13 14:40*	*1*
Phenol-d5	*64*		*31 - 110*	*04/04/13 18:12*	*04/05/13 14:40*	*1*
Nitrobenzene-d5	*59*		*30 - 115*	*04/04/13 18:12*	*04/05/13 14:40*	*1*
2-Fluorobiphenyl	*67*		*30 - 119*	*04/04/13 18:12*	*04/05/13 14:40*	*1*
2,4,6-Tribromophenol	*76*		*35 - 137*	*04/04/13 18:12*	*04/05/13 14:40*	*1*
Terphenyl-d14	*57*		*36 - 134*	*04/04/13 18:12*	*04/05/13 14:40*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.16	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Arsenic	7.9		0.59	0.13	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Barium	86		0.59	0.070	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Beryllium	0.85		0.23	0.017	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Cadmium	0.17		0.12	0.029	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Chromium	18		0.59	0.098	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Cobalt	8.1		0.29	0.031	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Copper	22		0.59	0.16	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Iron	20000		12	5.1	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Lead	12	B	0.29	0.10	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Magnesium	3000		5.9	1.1	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Manganese	890		5.9	0.83	mg/Kg	☼	04/04/13 07:47	04/10/13 19:39	10
Nickel	18		0.59	0.13	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Selenium	<0.59		0.59	0.17	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Silver	<0.29		0.29	0.035	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Thallium	0.48	J	0.59	0.15	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Vanadium	36		0.29	0.044	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1
Zinc	38	B	1.2	0.40	mg/Kg	☼	04/04/13 07:47	04/09/13 14:37	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:04	1
Barium	0.28	J	0.50	0.010	mg/L		04/10/13 08:05	04/10/13 21:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/13 08:05	04/10/13 21:04	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/10/13 08:05	04/10/13 21:04	1
Chromium	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:04	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:04	1
Copper	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:04	1
Iron	0.27		0.20	0.20	mg/L		04/10/13 08:05	04/10/13 21:04	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B01 (0-2)
Date Collected: 04/03/13 09:40
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-1
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/10/13 08:05	04/10/13 21:04	1
Manganese	0.019	J	0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:04	1
Nickel	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:04	1
Selenium	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:04	1
Silver	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:04	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:04	1
Zinc	<0.10		0.10	0.020	mg/L		04/10/13 08:05	04/10/13 21:04	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/10/13 08:05	04/10/13 18:11	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/10/13 08:05	04/10/13 18:11	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000038	J	0.00020	0.000020	mg/L		04/10/13 15:30	04/11/13 10:56	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.018	0.0068	mg/Kg	☼	04/08/13 18:00	04/09/13 13:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.38		0.200	0.200	SU			04/08/13 21:25	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B01 (4-6)
Date Collected: 04/03/13 09:45
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-2
Matrix: Solid
Percent Solids: 93.9

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.8		4.8	1.0	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Vinyl chloride	<4.8		4.8	1.0	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Bromomethane	<4.8		4.8	1.4	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Chloroethane	<4.8		4.8	1.3	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
1,1-Dichloroethene	<4.8		4.8	0.77	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Carbon disulfide	<4.8		4.8	0.71	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Acetone	<4.8		4.8	2.1	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Methylene Chloride	<4.8		4.8	1.3	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
trans-1,2-Dichloroethene	<4.8		4.8	0.65	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Methyl tert-butyl ether	<4.8		4.8	0.79	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
1,1-Dichloroethane	<4.8		4.8	0.75	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
cis-1,2-Dichloroethene	<4.8		4.8	0.67	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Methyl Ethyl Ketone	<4.8		4.8	1.7	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Chloroform	<4.8		4.8	0.55	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
1,1,1-Trichloroethane	<4.8		4.8	0.71	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Carbon tetrachloride	<4.8		4.8	0.87	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Benzene	<4.8		4.8	0.65	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
1,2-Dichloroethane	<4.8		4.8	0.70	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Trichloroethene	<4.8		4.8	0.78	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
1,2-Dichloropropane	<4.8		4.8	0.72	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Bromodichloromethane	<4.8		4.8	0.82	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
cis-1,3-Dichloropropene	<4.8		4.8	0.62	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
methyl isobutyl ketone	<4.8		4.8	1.2	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Toluene	<4.8		4.8	0.67	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
trans-1,3-Dichloropropene	<4.8		4.8	0.85	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
1,1,2-Trichloroethane	<4.8		4.8	0.65	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Tetrachloroethene	<4.8		4.8	0.73	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
2-Hexanone	<4.8		4.8	1.4	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Dibromochloromethane	<4.8		4.8	0.83	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Chlorobenzene	<4.8		4.8	0.48	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Ethylbenzene	<4.8		4.8	0.96	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Styrene	<4.8		4.8	0.62	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Bromoform	<4.8		4.8	1.1	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
1,1,2,2-Tetrachloroethane	<4.8		4.8	0.98	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
Xylenes, Total	<9.5		9.5	0.43	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1
1,3-Dichloropropene, Total	<4.8		4.8	0.62	ug/Kg	☼	04/03/13 09:45	04/09/13 12:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 134*	*04/03/13 09:45*	*04/09/13 12:20*	*1*
Toluene-d8 (Surr)	*100*		*75 - 122*	*04/03/13 09:45*	*04/09/13 12:20*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 122*	*04/03/13 09:45*	*04/09/13 12:20*	*1*
Dibromofluoromethane	*92*		*75 - 120*	*04/03/13 09:45*	*04/09/13 12:20*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<170		170	54	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Bis(2-chloroethyl)ether	<170		170	50	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
1,3-Dichlorobenzene	<170		170	36	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
1,4-Dichlorobenzene	<170		170	36	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
1,2-Dichlorobenzene	<170		170	37	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B01 (4-6)
Date Collected: 04/03/13 09:45
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-2
Matrix: Solid
Percent Solids: 93.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<170		170	45	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2,2'-oxybis[1-chloropropane]	<170		170	38	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
N-Nitrosodi-n-propylamine	<170		170	43	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Hexachloroethane	<170		170	36	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2-Chlorophenol	<170		170	48	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Nitrobenzene	<34		34	11	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Bis(2-chloroethoxy)methane	<170		170	37	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
1,2,4-Trichlorobenzene	<170		170	38	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Isophorone	<170		170	38	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2,4-Dimethylphenol	<340		340	110	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Hexachlorobutadiene	<170		170	44	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Naphthalene	<34		34	6.5	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2,4-Dichlorophenol	<340		340	100	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
4-Chloroaniline	<680		680	100	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2,4,6-Trichlorophenol	<340		340	43	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2,4,5-Trichlorophenol	<340		340	97	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Hexachlorocyclopentadiene	<680		680	160	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2-Methylnaphthalene	<170		170	44	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2-Nitroaniline	<170		170	61	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2-Chloronaphthalene	<170		170	38	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
4-Chloro-3-methylphenol	<340		340	160	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2,6-Dinitrotoluene	<170		170	40	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2-Nitrophenol	<340		340	53	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
3-Nitroaniline	<340		340	65	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Dimethyl phthalate	<170		170	42	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2,4-Dinitrophenol	<680	*	680	170	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Acenaphthylene	<34		34	7.8	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
2,4-Dinitrotoluene	<170		170	52	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Acenaphthene	<34		34	10	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Dibenzofuran	<170		170	41	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
4-Nitrophenol	<680		680	180	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Fluorene	<34		34	7.7	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
4-Nitroaniline	<340		340	70	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
4-Bromophenyl phenyl ether	<170		170	38	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Hexachlorobenzene	<68		68	6.7	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Diethyl phthalate	<170		170	57	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
4-Chlorophenyl phenyl ether	<170		170	53	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Pentachlorophenol	<680		680	170	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
N-Nitrosodiphenylamine	<170		170	46	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
4,6-Dinitro-2-methylphenol	<340		340	82	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Phenanthrene	<34		34	14	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Anthracene	<34		34	8.0	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Carbazole	<170		170	48	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Di-n-butyl phthalate	<170		170	43	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Fluoranthene	<34		34	14	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Pyrene	<34		34	12	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Butyl benzyl phthalate	<170		170	42	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Benzo[a]anthracene	<34		34	7.1	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Chrysene	<34		34	7.7	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B01 (4-6)
Date Collected: 04/03/13 09:45
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-2
Matrix: Solid
Percent Solids: 93.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<170		170	28	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Bis(2-ethylhexyl) phthalate	<170		170	45	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Di-n-octyl phthalate	<170		170	69	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Benzo[b]fluoranthene	<34		34	6.6	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Benzo[k]fluoranthene	<34		34	8.1	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Benzo[a]pyrene	<34		34	6.2	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Indeno[1,2,3-cd]pyrene	<34		34	11	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Dibenz(a,h)anthracene	<34		34	9.5	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
Benzo[g,h,i]perylene	<34		34	11	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1
3 & 4 Methylphenol	<170		170	64	ug/Kg	☼	04/04/13 18:12	04/05/13 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*44*		*30 - 110*	*04/04/13 18:12*	*04/05/13 15:00*	*1*
Phenol-d5	*50*		*31 - 110*	*04/04/13 18:12*	*04/05/13 15:00*	*1*
Nitrobenzene-d5	*54*		*30 - 115*	*04/04/13 18:12*	*04/05/13 15:00*	*1*
2-Fluorobiphenyl	*60*		*30 - 119*	*04/04/13 18:12*	*04/05/13 15:00*	*1*
2,4,6-Tribromophenol	*59*		*35 - 137*	*04/04/13 18:12*	*04/05/13 15:00*	*1*
Terphenyl-d14	*51*		*36 - 134*	*04/04/13 18:12*	*04/05/13 15:00*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.14	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Arsenic	5.1		0.52	0.11	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Barium	13		0.52	0.062	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Beryllium	0.31		0.21	0.015	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Cadmium	0.39		0.10	0.026	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Chromium	5.3		0.52	0.087	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Cobalt	4.1		0.26	0.027	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Copper	12		0.52	0.14	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Iron	9000		10	4.5	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Lead	4.9	B	0.26	0.089	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Magnesium	42000		5.2	1.0	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Manganese	270		0.52	0.073	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Nickel	8.2		0.52	0.11	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Selenium	<0.52		0.52	0.15	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Silver	<0.26		0.26	0.031	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Thallium	<0.52		0.52	0.13	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Vanadium	11		0.26	0.039	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1
Zinc	26	B	1.0	0.36	mg/Kg	☼	04/04/13 07:47	04/09/13 14:43	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:10	1
Barium	0.13	J	0.50	0.010	mg/L		04/10/13 08:05	04/10/13 21:10	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/13 08:05	04/10/13 21:10	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/10/13 08:05	04/10/13 21:10	1
Chromium	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:10	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:10	1
Copper	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:10	1
Iron	<0.20		0.20	0.20	mg/L		04/10/13 08:05	04/10/13 21:10	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B01 (4-6)
Date Collected: 04/03/13 09:45
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-2
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/10/13 08:05	04/10/13 21:10	1
Manganese	0.66		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:10	1
Nickel	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:10	1
Selenium	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:10	1
Silver	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:10	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:10	1
Zinc	<0.10		0.10	0.020	mg/L		04/10/13 08:05	04/10/13 21:10	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		04/15/13 08:30	04/15/13 18:47	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/10/13 08:05	04/10/13 18:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/10/13 08:05	04/10/13 18:12	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000027	J	0.00020	0.000020	mg/L		04/10/13 15:30	04/11/13 11:08	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.017	0.0064	mg/Kg	☼	04/08/13 18:00	04/09/13 13:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.98		0.200	0.200	SU			04/08/13 21:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B03 (0-2)
Date Collected: 04/03/13 10:10
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-3
Matrix: Solid
Percent Solids: 75.5

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<7.2		7.2	1.5	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Vinyl chloride	<7.2		7.2	1.5	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Bromomethane	<7.2		7.2	2.2	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Chloroethane	<7.2		7.2	1.9	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
1,1-Dichloroethene	<7.2		7.2	1.2	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Carbon disulfide	<7.2		7.2	1.1	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Acetone	<7.2		7.2	3.1	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Methylene Chloride	<7.2		7.2	1.9	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
trans-1,2-Dichloroethene	<7.2		7.2	0.99	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Methyl tert-butyl ether	<7.2		7.2	1.2	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
1,1-Dichloroethane	<7.2		7.2	1.1	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
cis-1,2-Dichloroethene	<7.2		7.2	1.0	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Methyl Ethyl Ketone	<7.2		7.2	2.6	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Chloroform	<7.2		7.2	0.82	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
1,1,1-Trichloroethane	<7.2		7.2	1.1	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Carbon tetrachloride	<7.2		7.2	1.3	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Benzene	<7.2		7.2	0.98	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
1,2-Dichloroethane	<7.2		7.2	1.1	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Trichloroethene	<7.2		7.2	1.2	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
1,2-Dichloropropane	<7.2		7.2	1.1	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Bromodichloromethane	<7.2		7.2	1.2	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
cis-1,3-Dichloropropene	<7.2		7.2	0.94	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
methyl isobutyl ketone	<7.2		7.2	1.9	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Toluene	<7.2		7.2	1.0	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
trans-1,3-Dichloropropene	<7.2		7.2	1.3	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
1,1,2-Trichloroethane	<7.2		7.2	0.98	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Tetrachloroethene	<7.2		7.2	1.1	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
2-Hexanone	<7.2		7.2	2.1	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Dibromochloromethane	<7.2		7.2	1.2	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Chlorobenzene	<7.2		7.2	0.73	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Ethylbenzene	<7.2		7.2	1.4	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Styrene	<7.2		7.2	0.94	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Bromoform	<7.2		7.2	1.6	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
1,1,2,2-Tetrachloroethane	<7.2		7.2	1.4	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
Xylenes, Total	<14		14	0.65	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1
1,3-Dichloropropene, Total	<7.2		7.2	0.94	ug/Kg	☼	04/03/13 10:10	04/09/13 12:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 134*	*04/03/13 10:10*	*04/09/13 12:43*	*1*
Toluene-d8 (Surr)	*99*		*75 - 122*	*04/03/13 10:10*	*04/09/13 12:43*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 122*	*04/03/13 10:10*	*04/09/13 12:43*	*1*
Dibromofluoromethane	*101*		*75 - 120*	*04/03/13 10:10*	*04/09/13 12:43*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<210		210	67	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Bis(2-chloroethyl)ether	<210		210	63	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
1,3-Dichlorobenzene	<210		210	44	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
1,4-Dichlorobenzene	<210		210	44	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
1,2-Dichlorobenzene	<210		210	46	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B03 (0-2)
Date Collected: 04/03/13 10:10
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-3
Matrix: Solid
Percent Solids: 75.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<210		210	56	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2,2'-oxybis[1-chloropropane]	<210		210	47	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
N-Nitrosodi-n-propylamine	<210		210	54	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Hexachloroethane	<210		210	45	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2-Chlorophenol	<210		210	61	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Nitrobenzene	<42		42	13	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Bis(2-chloroethoxy)methane	<210		210	47	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
1,2,4-Trichlorobenzene	<210		210	48	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Isophorone	<210		210	47	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2,4-Dimethylphenol	<420		420	130	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Hexachlorobutadiene	<210		210	55	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Naphthalene	<42		42	8.2	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2,4-Dichlorophenol	<420		420	130	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
4-Chloroaniline	<850		850	130	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2,4,6-Trichlorophenol	<420		420	53	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2,4,5-Trichlorophenol	<420		420	120	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Hexachlorocyclopentadiene	<850		850	200	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2-Methylnaphthalene	<210		210	55	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2-Nitroaniline	<210		210	76	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2-Chloronaphthalene	<210		210	48	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
4-Chloro-3-methylphenol	<420		420	200	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2,6-Dinitrotoluene	<210		210	50	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2-Nitrophenol	<420		420	66	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
3-Nitroaniline	<420		420	82	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Dimethyl phthalate	<210		210	53	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2,4-Dinitrophenol	<850	*	850	220	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Acenaphthylene	<42		42	9.7	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
2,4-Dinitrotoluene	<210		210	65	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Acenaphthene	<42		42	13	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Dibenzofuran	<210		210	51	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
4-Nitrophenol	<850		850	230	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Fluorene	<42		42	9.6	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
4-Nitroaniline	<420		420	87	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
4-Bromophenyl phenyl ether	<210		210	47	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Hexachlorobenzene	<85		85	8.3	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Diethyl phthalate	<210		210	71	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
4-Chlorophenyl phenyl ether	<210		210	67	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Pentachlorophenol	<850		850	220	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
N-Nitrosodiphenylamine	<210		210	57	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
4,6-Dinitro-2-methylphenol	<420		420	100	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Phenanthrene	<42		42	18	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Anthracene	<42		42	10	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Carbazole	<210		210	59	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Di-n-butyl phthalate	<210		210	53	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Fluoranthene	<42		42	17	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Pyrene	<42		42	15	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Butyl benzyl phthalate	<210		210	53	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Benzo[a]anthracene	<42		42	8.9	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Chrysene	<42		42	9.6	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B03 (0-2)
Date Collected: 04/03/13 10:10
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-3
Matrix: Solid
Percent Solids: 75.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<210		210	35	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Bis(2-ethylhexyl) phthalate	<210		210	56	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Di-n-octyl phthalate	<210		210	86	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Benzo[b]fluoranthene	<42		42	8.2	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Benzo[k]fluoranthene	<42		42	10	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Benzo[a]pyrene	<42		42	7.7	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Indeno[1,2,3-cd]pyrene	<42		42	14	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Dibenz(a,h)anthracene	<42		42	12	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
Benzo[g,h,i]perylene	<42		42	14	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1
3 & 4 Methylphenol	<210		210	80	ug/Kg	☼	04/04/13 18:12	04/05/13 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*31*		*30 - 110*	*04/04/13 18:12*	*04/05/13 15:21*	*1*
Phenol-d5	*34*		*31 - 110*	*04/04/13 18:12*	*04/05/13 15:21*	*1*
Nitrobenzene-d5	*35*		*30 - 115*	*04/04/13 18:12*	*04/05/13 15:21*	*1*
2-Fluorobiphenyl	*37*		*30 - 119*	*04/04/13 18:12*	*04/05/13 15:21*	*1*
2,4,6-Tribromophenol	*48*		*35 - 137*	*04/04/13 18:12*	*04/05/13 15:21*	*1*
Terphenyl-d14	*38*		*36 - 134*	*04/04/13 18:12*	*04/05/13 15:21*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.3		1.3	0.17	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Arsenic	5.9		0.64	0.14	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Barium	210		0.64	0.076	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Beryllium	0.81		0.26	0.019	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Cadmium	0.33		0.13	0.032	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Chromium	15		0.64	0.11	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Cobalt	7.4		0.32	0.034	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Copper	16		0.64	0.17	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Iron	15000		13	5.6	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Lead	25	B	0.32	0.11	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Magnesium	2700		6.4	1.2	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Manganese	1400		6.4	0.91	mg/Kg	☼	04/04/13 07:47	04/10/13 19:51	10
Nickel	13		0.64	0.14	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Selenium	<0.64		0.64	0.18	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Silver	<0.32		0.32	0.039	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Thallium	0.50	J	0.64	0.16	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Vanadium	27		0.32	0.049	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1
Zinc	70	B	1.3	0.44	mg/Kg	☼	04/04/13 07:47	04/09/13 15:14	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:17	1
Barium	0.47	J	0.50	0.010	mg/L		04/10/13 08:05	04/10/13 21:17	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/13 08:05	04/10/13 21:17	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/10/13 08:05	04/10/13 21:17	1
Chromium	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:17	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:17	1
Copper	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:17	1
Iron	0.53		0.20	0.20	mg/L		04/10/13 08:05	04/10/13 21:17	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B03 (0-2)
Date Collected: 04/03/13 10:10
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-3
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/10/13 08:05	04/10/13 21:17	1
Manganese	0.027		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:17	1
Nickel	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:17	1
Selenium	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:17	1
Silver	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:17	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:17	1
Zinc	0.037	J	0.10	0.020	mg/L		04/10/13 08:05	04/10/13 21:17	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/10/13 08:05	04/10/13 18:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/10/13 08:05	04/10/13 18:13	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000048	J	0.00020	0.000020	mg/L		04/10/13 15:30	04/11/13 11:11	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.071		0.020	0.0078	mg/Kg	☼	04/08/13 18:00	04/09/13 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.17		0.200	0.200	SU			04/08/13 21:33	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B05 (4-6)
Date Collected: 04/03/13 10:35
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-4
Matrix: Solid
Percent Solids: 90.9

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.3		4.3	0.91	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Vinyl chloride	<4.3		4.3	0.91	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Bromomethane	<4.3		4.3	1.3	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Chloroethane	<4.3		4.3	1.2	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
1,1-Dichloroethene	<4.3		4.3	0.70	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Carbon disulfide	<4.3		4.3	0.64	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Acetone	4.0	J	4.3	1.9	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Methylene Chloride	<4.3		4.3	1.2	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
trans-1,2-Dichloroethene	<4.3		4.3	0.59	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Methyl tert-butyl ether	<4.3		4.3	0.71	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
1,1-Dichloroethane	<4.3		4.3	0.68	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
cis-1,2-Dichloroethene	<4.3		4.3	0.61	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Methyl Ethyl Ketone	<4.3		4.3	1.6	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Chloroform	<4.3		4.3	0.50	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
1,1,1-Trichloroethane	<4.3		4.3	0.64	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Carbon tetrachloride	<4.3		4.3	0.79	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Benzene	<4.3		4.3	0.59	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
1,2-Dichloroethane	<4.3		4.3	0.64	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Trichloroethene	<4.3		4.3	0.71	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
1,2-Dichloropropane	<4.3		4.3	0.66	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Bromodichloromethane	<4.3		4.3	0.74	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
cis-1,3-Dichloropropene	<4.3		4.3	0.57	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
methyl isobutyl ketone	<4.3		4.3	1.1	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Toluene	<4.3		4.3	0.60	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
trans-1,3-Dichloropropene	<4.3		4.3	0.77	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
1,1,2-Trichloroethane	<4.3	*	4.3	0.59	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Tetrachloroethene	<4.3		4.3	0.66	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
2-Hexanone	<4.3		4.3	1.2	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Dibromochloromethane	<4.3		4.3	0.75	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Chlorobenzene	<4.3		4.3	0.44	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Ethylbenzene	<4.3		4.3	0.87	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Styrene	<4.3		4.3	0.57	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Bromoform	<4.3		4.3	0.99	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
1,1,2,2-Tetrachloroethane	<4.3		4.3	0.87	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
Xylenes, Total	<8.6		8.6	0.39	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1
1,3-Dichloropropene, Total	<4.3		4.3	0.57	ug/Kg	☼	04/03/13 10:35	04/10/13 12:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 134*	*04/03/13 10:35*	*04/10/13 12:13*	*1*
Toluene-d8 (Surr)	*111*		*75 - 122*	*04/03/13 10:35*	*04/10/13 12:13*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 122*	*04/03/13 10:35*	*04/10/13 12:13*	*1*
Dibromofluoromethane	*98*		*75 - 120*	*04/03/13 10:35*	*04/10/13 12:13*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<180		180	57	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Bis(2-chloroethyl)ether	<180		180	53	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
1,3-Dichlorobenzene	<180		180	38	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
1,4-Dichlorobenzene	<180		180	38	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
1,2-Dichlorobenzene	<180		180	39	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B05 (4-6)
Date Collected: 04/03/13 10:35
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-4
Matrix: Solid
Percent Solids: 90.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<180		180	48	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2,2'-oxybis[1-chloropropane]	<180		180	40	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
N-Nitrosodi-n-propylamine	<180		180	46	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Hexachloroethane	<180		180	38	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2-Chlorophenol	<180		180	51	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Nitrobenzene	<36		36	11	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Bis(2-chloroethoxy)methane	<180		180	40	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
1,2,4-Trichlorobenzene	<180		180	41	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Isophorone	<180		180	40	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2,4-Dimethylphenol	<360		360	110	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Hexachlorobutadiene	<180		180	47	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Naphthalene	<36		36	6.9	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2,4-Dichlorophenol	<360		360	110	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
4-Chloroaniline	<720		720	110	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2,4,6-Trichlorophenol	<360		360	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2,4,5-Trichlorophenol	<360		360	100	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Hexachlorocyclopentadiene	<720		720	170	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2-Methylnaphthalene	<180		180	47	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2-Nitroaniline	<180		180	65	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2-Chloronaphthalene	<180		180	40	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
4-Chloro-3-methylphenol	<360		360	170	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2,6-Dinitrotoluene	<180		180	43	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2-Nitrophenol	<360		360	56	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
3-Nitroaniline	<360		360	69	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Dimethyl phthalate	<180		180	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2,4-Dinitrophenol	<720	*	720	180	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Acenaphthylene	<36		36	8.3	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
2,4-Dinitrotoluene	<180		180	55	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Acenaphthene	<36		36	11	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Dibenzofuran	<180		180	43	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
4-Nitrophenol	<720		720	190	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Fluorene	<36		36	8.2	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
4-Nitroaniline	<360		360	74	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
4-Bromophenyl phenyl ether	<180		180	40	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Hexachlorobenzene	<72		72	7.1	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Diethyl phthalate	<180		180	60	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
4-Chlorophenyl phenyl ether	<180		180	57	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Pentachlorophenol	<720		720	180	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
N-Nitrosodiphenylamine	<180		180	49	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
4,6-Dinitro-2-methylphenol	<360		360	87	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Phenanthrene	<36		36	15	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Anthracene	<36		36	8.5	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Carbazole	<180		180	51	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Di-n-butyl phthalate	<180		180	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Fluoranthene	<36		36	15	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Pyrene	<36		36	13	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Butyl benzyl phthalate	<180		180	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Benzo[a]anthracene	<36		36	7.5	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Chrysene	<36		36	8.1	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B05 (4-6)
Date Collected: 04/03/13 10:35
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-4
Matrix: Solid
Percent Solids: 90.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<180		180	30	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Bis(2-ethylhexyl) phthalate	<180		180	48	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Di-n-octyl phthalate	<180		180	73	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Benzo[b]fluoranthene	<36		36	7.0	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Benzo[k]fluoranthene	<36		36	8.6	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Benzo[a]pyrene	<36		36	6.5	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Indeno[1,2,3-cd]pyrene	<36		36	12	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Dibenz(a,h)anthracene	<36		36	10	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
Benzo[g,h,i]perylene	<36		36	12	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1
3 & 4 Methylphenol	<180		180	68	ug/Kg	☼	04/04/13 18:12	04/05/13 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*42*		*30 - 110*	*04/04/13 18:12*	*04/05/13 19:08*	*1*
Phenol-d5	*44*		*31 - 110*	*04/04/13 18:12*	*04/05/13 19:08*	*1*
Nitrobenzene-d5	*44*		*30 - 115*	*04/04/13 18:12*	*04/05/13 19:08*	*1*
2-Fluorobiphenyl	*49*		*30 - 119*	*04/04/13 18:12*	*04/05/13 19:08*	*1*
2,4,6-Tribromophenol	*46*		*35 - 137*	*04/04/13 18:12*	*04/05/13 19:08*	*1*
Terphenyl-d14	*43*		*36 - 134*	*04/04/13 18:12*	*04/05/13 19:08*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.14	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Arsenic	5.1		0.53	0.11	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Barium	17		0.53	0.063	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Beryllium	0.30		0.21	0.015	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Cadmium	0.38		0.11	0.026	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Chromium	5.1		0.53	0.088	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Cobalt	2.8		0.26	0.028	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Copper	12		0.53	0.14	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Iron	9500		11	4.6	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Lead	6.3	B	0.26	0.091	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Magnesium	44000		5.3	1.0	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Manganese	220		0.53	0.074	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Nickel	6.8		0.53	0.12	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Selenium	<0.53		0.53	0.15	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Silver	<0.26		0.26	0.032	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Thallium	<0.53		0.53	0.14	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Vanadium	11		0.26	0.040	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1
Zinc	20	B	1.1	0.36	mg/Kg	☼	04/04/13 07:47	04/09/13 15:20	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:23	1
Barium	0.19	J	0.50	0.010	mg/L		04/10/13 08:05	04/10/13 21:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/13 08:05	04/10/13 21:23	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/10/13 08:05	04/10/13 21:23	1
Chromium	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:23	1
Cobalt	0.029		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:23	1
Copper	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:23	1
Iron	1.6		0.20	0.20	mg/L		04/10/13 08:05	04/10/13 21:23	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4825B05 (4-6)
Date Collected: 04/03/13 10:35
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-4
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/10/13 08:05	04/10/13 21:23	1
Manganese	3.1		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:23	1
Nickel	0.032		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:23	1
Selenium	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:23	1
Silver	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:23	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:23	1
Zinc	0.024	J	0.10	0.020	mg/L		04/10/13 08:05	04/10/13 21:23	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		04/15/13 08:30	04/15/13 18:51	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/10/13 08:05	04/10/13 18:14	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/10/13 08:05	04/10/13 18:14	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000028	J	0.00020	0.000020	mg/L		04/10/13 15:30	04/11/13 11:13	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018		0.018	0.0069	mg/Kg	☼	04/08/13 18:00	04/09/13 13:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.89		0.200	0.200	SU			04/08/13 21:37	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
F	MS or MSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	Duplicate RPD exceeds the control limit
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-30-14
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-14
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6(
Phone: 708.534.5200 Fax: 708.53(

500-55724 COC

Chain of Custody Record

Lab Job #: 500-55724

Chain of Custody Number: E748-07

Page 1 of 1

Temperature °C of Cooler: 3.8

Report To (optional)
Contact: Sherr. Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Client: Ecology & Environment
Client Project #: EE-004330-0001-01170
Project Name: IL 31
Project Location/State: McHenry Co IL
Lab Project #: 50007751
Sampler: Scott Cooper
Lab PM: Dick Wright

Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total TAL metals	TCLP/SPLP TAL metals	pH/% solids
1		E4825B01 (0-2)	4-3-13	0940	2	S	X	X	X	X	X
2		E4825B01 (4-6)	4-3-13	0945	2	S	X	X	X	X	X
3		E4825B03 (0-2)	4-3-13	1010	2	S	X	X	X	X	X
4		E4825B05 (4-6)	4-3-13	1035	2	S	X	X	X	X	X
5		E4826B02 (2-4)	4-3-13	1050	2	S	X	X	X	X	X
6		E4826B02D (2-4)	4-3-13	1050	2	S	X	X	X	X	X
7		E4826B02 (10-12)	4-3-13	1100	2	S	X	X	X	X	X
8		E4825B04 (0-2)	4-3-13	1130	2	S	X	X	X	X	X
9		E4823B06 (0-2)	4-3-13	1200	2	S	X	X	X	X	X
10		E4823B06 (2-4)	4-3-13	1205	2	S	X	X	X	X	X

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days ___ Other
Requested Due Date ___

Sample Disposal
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E&E	4-3-13	1400	[signature]	TA	4/3/13	1400
[signature]	TA	4/3/13	1530	Sherri Scott	TA-CHI	4/3/13	1530

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

4/16/2013

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification
by Licensed Professional Engineer or Licensed Professional Geologist
for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation
LPC-663
Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (I) is uncontaminated soil and (II) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd. Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
8617 IL 31

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20023 (Decimal Degrees) Longitude: -88.28705 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☒ Map Interpolation ☐ Photo Interpolation ☐ Survey ☐ Other

IEPA Site Number(s), If assigned: BOL: 1110105078 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

	Site Owner		Site Operator
Name:	Illinois Department of Transportation	Name:	
Street Address:	201 West Center Court	Street Address:	
PO Box:		PO Box:	
City:	Schaumburg State: IL	City:	State:
Zip Code:	60196-1096 Phone: 847-705-4159	Zip Code:	Phone:
Contact:	Sam Mead	Contact:	
Email, If available:	Sam.Mead@illinois.gov	Email, If available:	

IL 532-2922
LPC 663 Rev. 8/2012

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 860: IL Route 31 from Trinity Dr. to Rakow Rd

Latitude: 42.20023 Longitude: -88.28705

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations E4826B01 and E4826B02 were sampled within the construction zone adjacent to ISGS #1227V-26. Refer to PSI Report Section 4.2.1 and Section 4.3.1 ISGS #1227V-26 (Commercial and Residential Buildings), Table 4-3, and Figure 4-5.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages 500-55693-1 and 500-55724-1.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8/8/13
Date

STEVEN GOBELMAN
196-000598
LICENSED
PROFESSIONAL
GEOLOGIST
STATE OF ILLINOIS

P.E. or L.P.G. Seal:

Analytical Data Summary
PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

Key to Data Tables

µg/kg = Micrograms per kilogram.
MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
mg/kg = Milligrams per kilogram.
mg/L = Milligrams per liter.
MSA = Metropolitan Statistical Area
TCLP = Toxicity Characteristic Leaching Procedure.
SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
SPLP = Synthetic Precipitation Leaching Procedure.
ND = Not detected.
NA = Not analyzed.
J = Estimated value.
B = Also present in blank.

Criteria Qualifiers

\# = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
† = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical Areas.
* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is considered to exceed the MAC.
= Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
= Soil concentration exceeds the applicable MAC.

PTB #162-32; Work Order 48 - IDOT Job # D-91-254-09

CONTAMINANTS OF CONCERN

SITE	ISGS #1227V-26 (Commercial and Residential Buildings)					Comparison Criteria		
BORING	E4826B01		E4826B02			MACs		TACO
SAMPLE	E4826B01 (0-2)	E4826B01 (4-6)	E4826B02 (2-4)	E4826B02D (2-4)	E4826B02 (10-12)			
MATRIX	Soil	Soil	Soil	Soil	Soil			
DEPTH (m)	0.0-0.6	1.2-1.8	0.6-1.2	0.6-1.2	3.1-3.7			
pH	7.76	8.00	7.31	7.18	7.68	Most Stringent	Within an MSA	SCGIER
VOCs (µg/kg) - None Detected								
SVOCs (µg/kg)								
Anthracene	15 J	ND U	ND U	ND U	ND U	12,000,000	--	--
Benzo[a]anthracene	130	33 J	ND U	ND U	ND U	900	1,800	--
Benzo[a]pyrene	150 †	36	ND U	ND U	ND U	90	2,100	--
Benzo[b]fluoranthene	220	45	ND U	ND U	ND U	900	2,100	--
Benzo[g,h,i]perylene	140	26 J	ND U	ND U	ND U	--	--	--
Benzo[k]fluoranthene	100	28 J	ND U	ND U	ND U	9,000	--	--
Chrysene	140	37	ND U	ND U	ND U	88,000	--	--
Dibenzo(a,h)anthracene	20 J	ND U	ND U	ND U	ND U	90	420	--
Fluoranthene	260	95	ND U	ND U	ND U	3,100,000	--	--
Indeno[1,2,3-cd]pyrene	110	23 J	ND U	ND U	ND U	900	1,600	--
Phenanthrene	110	72	ND U	ND U	ND U	--	--	--
Pyrene	200	75	ND U	ND U	ND U	2,300,000	--	--
Inorganics (mg/kg)								
Antimony	0.43 J	0.61 J	ND U	ND U	ND U	5	--	--
Arsenic	4.8	4.3	5.8	7.4	7.3	11.3	13	--
Barium	32	14	130	140	82	1,500	--	--
Beryllium	0.21 J	0.099 J	0.81	0.84	0.70	22	--	--
Cadmium	0.19	0.14	0.14	0.17	0.39	5.2	--	--
Chromium	7.2	6.6	15	16	14	21	--	--
Cobalt	5.7	3.2	9.2	9.7	7.4	20	--	--
Copper	12	12	7.9	8.9	18	2,900	--	--
Iron	9,700	6,800	14,000	16,000 †m	18,000 †m	15,000	15,900	--
Lead	8.9	6.8	12 BJ	15 BJ	11 BJ	107	--	--
Magnesium	31,000 BJ	65,000 BJ	2,600	2,700	3,400	325,000	--	--
Manganese	310 BJ	250 BJ	1,200 †m	1,400 †m	520	630	636	--
Mercury	0.017 J	0.0092 J	0.040	0.035	0.029	0.89	--	--
Nickel	13	7.9	12	14	23	100	--	--
Selenium	ND U	0.26 J	0.24 J	0.22 J	ND U	1.3	--	--
Thallium	ND U	0.22 J	0.27 J	0.25 J	0.38 J	2.6	--	--
Vanadium	14	7.5	28	30	28	550	--	--
Zinc	36	29	44 BJ	45 BJ	50 BJ	5,100	--	--
TCLP Metals (mg/L)								
Barium	0.37 J	0.17 J	0.49 J	0.51	0.41 J	--	--	2
Cobalt	ND U	0.0051 J	ND U	ND U	ND U	--	--	1
Iron	ND U	ND U	0.60	0.22	ND U	--	--	5
Manganese	0.76	1.1	0.034	0.021 J	0.25	--	--	0.15
Mercury	ND JBU	ND JBU	0.000045 J	0.000029 J	0.000025 J	--	--	0.002
Nickel	ND U	0.014 J	ND U	ND U	0.014 J	--	--	0.1
Vanadium	ND U	ND U	ND U	ND U	0.0058 J	--	--	0.049
Zinc	0.057 J	ND U	ND U	0.020 J	ND U	--	--	5
SPLP Metals (mg/L)								
Manganese	0.064	ND U	NA	NA	0.029	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55693-1
Client Project/Site: IDOT - Algonquin - WO 48

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
4/17/2013 11:32:03 AM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4826B01 (0-2)
Date Collected: 04/02/13 13:35
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-13
Matrix: Solid
Percent Solids: 85.0

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<5.9		5.9	1.2	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Vinyl chloride	<5.9		5.9	1.2	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Bromomethane	<5.9		5.9	1.8	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Chloroethane	<5.9		5.9	1.6	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
1,1-Dichloroethene	<5.9		5.9	0.95	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Carbon disulfide	<5.9		5.9	0.87	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Acetone	<5.9	*	5.9	2.5	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Methylene Chloride	<5.9		5.9	1.6	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
trans-1,2-Dichloroethene	<5.9		5.9	0.81	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Methyl tert-butyl ether	<5.9		5.9	0.97	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
1,1-Dichloroethane	<5.9		5.9	0.93	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
cis-1,2-Dichloroethene	<5.9		5.9	0.83	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Methyl Ethyl Ketone	<5.9		5.9	2.1	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Chloroform	<5.9		5.9	0.67	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
1,1,1-Trichloroethane	<5.9		5.9	0.87	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Carbon tetrachloride	<5.9		5.9	1.1	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Benzene	<5.9		5.9	0.80	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
1,2-Dichloroethane	<5.9		5.9	0.87	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Trichloroethene	<5.9		5.9	0.97	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
1,2-Dichloropropane	<5.9		5.9	0.89	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Bromodichloromethane	<5.9		5.9	1.0	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
cis-1,3-Dichloropropene	<5.9		5.9	0.77	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
methyl isobutyl ketone	<5.9		5.9	1.5	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Toluene	<5.9		5.9	0.82	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
trans-1,3-Dichloropropene	<5.9		5.9	1.0	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
1,1,2-Trichloroethane	<5.9		5.9	0.80	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Tetrachloroethene	<5.9		5.9	0.89	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
2-Hexanone	<5.9		5.9	1.7	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Dibromochloromethane	<5.9		5.9	1.0	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Chlorobenzene	<5.9		5.9	0.59	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Ethylbenzene	<5.9		5.9	1.2	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Styrene	<5.9		5.9	0.77	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Bromoform	<5.9		5.9	1.3	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
1,1,2,2-Tetrachloroethane	<5.9		5.9	1.2	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
Xylenes, Total	<12		12	0.53	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1
1,3-Dichloropropene, Total	<5.9		5.9	0.77	ug/Kg	☼	04/02/13 13:35	04/08/13 18:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 134*	*04/02/13 13:35*	*04/08/13 18:20*	*1*
Toluene-d8 (Surr)	*103*		*75 - 122*	*04/02/13 13:35*	*04/08/13 18:20*	*1*
4-Bromofluorobenzene (Surr)	*108*		*70 - 122*	*04/02/13 13:35*	*04/08/13 18:20*	*1*
Dibromofluoromethane	*102*		*75 - 120*	*04/02/13 13:35*	*04/08/13 18:20*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	61	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Bis(2-chloroethyl)ether	<200		200	57	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
1,3-Dichlorobenzene	<200		200	41	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
1,4-Dichlorobenzene	<200		200	41	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
1,2-Dichlorobenzene	<200		200	42	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4826B01 (0-2)
Date Collected: 04/02/13 13:35
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-13
Matrix: Solid
Percent Solids: 85.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	52	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2,2'-oxybis[1-chloropropane]	<200		200	43	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
N-Nitrosodi-n-propylamine	<200		200	49	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Hexachloroethane	<200		200	41	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2-Chlorophenol	<200		200	56	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Nitrobenzene	<39		39	12	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Bis(2-chloroethoxy)methane	<200		200	43	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
1,2,4-Trichlorobenzene	<200		200	44	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Isophorone	<200		200	43	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2,4-Dimethylphenol	<390		390	120	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Hexachlorobutadiene	<200		200	51	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Naphthalene	<39		39	7.5	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2,4-Dichlorophenol	<390		390	120	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
4-Chloroaniline	<780		780	120	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2,4,6-Trichlorophenol	<390		390	49	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2,4,5-Trichlorophenol	<390		390	110	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Hexachlorocyclopentadiene	<780		780	180	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2-Methylnaphthalene	<200		200	50	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2-Nitroaniline	<200		200	70	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2-Chloronaphthalene	<200		200	44	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
4-Chloro-3-methylphenol	<390		390	190	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2,6-Dinitrotoluene	<200		200	46	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2-Nitrophenol	<390		390	61	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
3-Nitroaniline	<390		390	75	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Dimethyl phthalate	<200		200	48	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2,4-Dinitrophenol	<780		780	200	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Acenaphthylene	<39		39	8.9	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
2,4-Dinitrotoluene	<200		200	59	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Acenaphthene	<39		39	12	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Dibenzofuran	<200		200	47	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
4-Nitrophenol	<780		780	210	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Fluorene	<39		39	8.8	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
4-Nitroaniline	<390		390	80	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
4-Bromophenyl phenyl ether	<200		200	43	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Hexachlorobenzene	<78		78	7.6	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Diethyl phthalate	<200		200	65	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
4-Chlorophenyl phenyl ether	<200		200	61	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Pentachlorophenol	<780		780	200	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
N-Nitrosodiphenylamine	<200		200	52	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
4,6-Dinitro-2-methylphenol	<390		390	94	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Phenanthrene	110		39	16	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Anthracene	15	J	39	9.1	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Carbazole	<200		200	55	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Di-n-butyl phthalate	<200		200	49	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Fluoranthene	260		39	16	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Pyrene	200		39	14	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Butyl benzyl phthalate	<200		200	49	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Benzo[a]anthracene	130		39	8.1	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Chrysene	140		39	8.8	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4826B01 (0-2)
Date Collected: 04/02/13 13:35
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-13
Matrix: Solid
Percent Solids: 85.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	32	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Bis(2-ethylhexyl) phthalate	<200		200	51	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Di-n-octyl phthalate	<200		200	79	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Benzo[b]fluoranthene	220		39	7.5	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Benzo[k]fluoranthene	100		39	9.3	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Benzo[a]pyrene	150		39	7.1	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Indeno[1,2,3-cd]pyrene	110		39	13	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Dibenz(a,h)anthracene	20	J	39	11	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
Benzo[g,h,i]perylene	140		39	13	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1
3 & 4 Methylphenol	<200		200	74	ug/Kg	☼	04/04/13 07:22	04/08/13 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*64*		*30 - 110*	*04/04/13 07:22*	*04/08/13 20:35*	*1*
Phenol-d5	*63*		*31 - 110*	*04/04/13 07:22*	*04/08/13 20:35*	*1*
Nitrobenzene-d5	*58*		*30 - 115*	*04/04/13 07:22*	*04/08/13 20:35*	*1*
2-Fluorobiphenyl	*71*		*30 - 119*	*04/04/13 07:22*	*04/08/13 20:35*	*1*
2,4,6-Tribromophenol	*90*		*35 - 137*	*04/04/13 07:22*	*04/08/13 20:35*	*1*
Terphenyl-d14	*73*		*36 - 134*	*04/04/13 07:22*	*04/08/13 20:35*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.43	J	1.1	0.14	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Arsenic	4.8		0.55	0.12	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Barium	32		0.55	0.065	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Beryllium	0.21	J	0.22	0.016	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Cadmium	0.19		0.11	0.027	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Chromium	7.2		0.55	0.091	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Cobalt	5.7		0.27	0.029	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Copper	12		0.55	0.15	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Iron	9700		11	4.7	mg/Kg	☼	04/03/13 16:00	04/09/13 18:34	1
Lead	8.9		0.27	0.094	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Magnesium	31000	B	5.5	1.1	mg/Kg	☼	04/03/13 16:00	04/09/13 18:34	1
Manganese	310	B	0.55	0.077	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Nickel	13		0.55	0.12	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Selenium	<0.55		0.55	0.16	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Silver	<0.27		0.27	0.033	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Thallium	<0.55		0.55	0.14	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Vanadium	14		0.27	0.042	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1
Zinc	36		1.1	0.38	mg/Kg	☼	04/03/13 16:00	04/06/13 00:59	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 06:42	1
Barium	0.37	J	0.50	0.010	mg/L		04/11/13 11:20	04/12/13 06:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/13 11:20	04/12/13 06:42	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/13 11:20	04/12/13 06:42	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 06:42	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 06:42	1
Copper	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 06:42	1
Iron	<0.20		0.20	0.20	mg/L		04/11/13 11:20	04/12/13 06:42	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4826B01 (0-2)
Date Collected: 04/02/13 13:35
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-13
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/11/13 11:20	04/12/13 06:42	1
Manganese	0.76		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 06:42	1
Nickel	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 06:42	1
Selenium	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 06:42	1
Silver	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 06:42	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 06:42	1
Zinc	0.057	J	0.10	0.020	mg/L		04/11/13 11:20	04/12/13 06:42	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.064		0.025	0.010	mg/L		04/15/13 08:30	04/15/13 18:27	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/11/13 11:20	04/16/13 20:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/13 11:20	04/16/13 20:35	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000047	J B	0.00020	0.000020	mg/L		04/11/13 15:15	04/12/13 11:45	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.018	0.0067	mg/Kg	☼	04/04/13 16:30	04/05/13 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.76		0.200	0.200	SU			04/08/13 21:04	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4826B01 (4-6)
Date Collected: 04/02/13 13:40
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-14
Matrix: Solid
Percent Solids: 91.5

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.0		4.0	0.84	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Vinyl chloride	<4.0		4.0	0.84	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Bromomethane	<4.0		4.0	1.2	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Chloroethane	<4.0		4.0	1.1	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
1,1-Dichloroethene	<4.0		4.0	0.65	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Carbon disulfide	<4.0		4.0	0.60	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Acetone	<4.0	*	4.0	1.7	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Methylene Chloride	<4.0		4.0	1.1	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
trans-1,2-Dichloroethene	<4.0		4.0	0.55	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Methyl tert-butyl ether	<4.0		4.0	0.66	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
1,1-Dichloroethane	<4.0		4.0	0.63	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
cis-1,2-Dichloroethene	<4.0		4.0	0.57	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Methyl Ethyl Ketone	<4.0		4.0	1.4	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Chloroform	<4.0		4.0	0.46	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
1,1,1-Trichloroethane	<4.0		4.0	0.60	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Carbon tetrachloride	<4.0		4.0	0.73	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Benzene	<4.0		4.0	0.55	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
1,2-Dichloroethane	<4.0		4.0	0.59	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Trichloroethene	<4.0		4.0	0.66	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
1,2-Dichloropropane	<4.0		4.0	0.61	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Bromodichloromethane	<4.0		4.0	0.69	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
cis-1,3-Dichloropropene	<4.0		4.0	0.53	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
methyl isobutyl ketone	<4.0		4.0	1.0	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Toluene	<4.0		4.0	0.56	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
trans-1,3-Dichloropropene	<4.0		4.0	0.72	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
1,1,2-Trichloroethane	<4.0		4.0	0.55	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Tetrachloroethene	<4.0		4.0	0.61	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
2-Hexanone	<4.0		4.0	1.2	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Dibromochloromethane	<4.0		4.0	0.70	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Chlorobenzene	<4.0		4.0	0.41	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Ethylbenzene	<4.0		4.0	0.81	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Styrene	<4.0		4.0	0.53	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Bromoform	<4.0		4.0	0.92	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
1,1,2,2-Tetrachloroethane	<4.0		4.0	0.81	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
Xylenes, Total	<8.0		8.0	0.36	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1
1,3-Dichloropropene, Total	<4.0		4.0	0.53	ug/Kg	☼	04/02/13 13:40	04/08/13 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 134*	*04/02/13 13:40*	*04/08/13 18:43*	*1*
Toluene-d8 (Surr)	*98*		*75 - 122*	*04/02/13 13:40*	*04/08/13 18:43*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 122*	*04/02/13 13:40*	*04/08/13 18:43*	*1*
Dibromofluoromethane	*96*		*75 - 120*	*04/02/13 13:40*	*04/08/13 18:43*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<170		170	55	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Bis(2-chloroethyl)ether	<170		170	51	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
1,3-Dichlorobenzene	<170		170	36	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
1,4-Dichlorobenzene	<170		170	36	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
1,2-Dichlorobenzene	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4826B01 (4-6)
Date Collected: 04/02/13 13:40
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-14
Matrix: Solid
Percent Solids: 91.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<170		170	46	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2,2'-oxybis[1-chloropropane]	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
N-Nitrosodi-n-propylamine	<170		170	44	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Hexachloroethane	<170		170	37	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2-Chlorophenol	<170		170	49	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Nitrobenzene	<34		34	11	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Bis(2-chloroethoxy)methane	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
1,2,4-Trichlorobenzene	<170		170	39	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Isophorone	<170		170	38	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2,4-Dimethylphenol	<340		340	110	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Hexachlorobutadiene	<170		170	45	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Naphthalene	<34		34	6.7	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2,4-Dichlorophenol	<340		340	100	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
4-Chloroaniline	<700		700	100	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2,4,6-Trichlorophenol	<340		340	43	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2,4,5-Trichlorophenol	<340		340	99	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Hexachlorocyclopentadiene	<700		700	160	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2-Methylnaphthalene	<170		170	45	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2-Nitroaniline	<170		170	62	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2-Chloronaphthalene	<170		170	39	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
4-Chloro-3-methylphenol	<340		340	170	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2,6-Dinitrotoluene	<170		170	41	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2-Nitrophenol	<340		340	54	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
3-Nitroaniline	<340		340	67	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Dimethyl phthalate	<170		170	43	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2,4-Dinitrophenol	<700		700	180	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Acenaphthylene	<34		34	7.9	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
2,4-Dinitrotoluene	<170		170	53	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Acenaphthene	<34		34	10	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Dibenzofuran	<170		170	41	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
4-Nitrophenol	<700		700	190	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Fluorene	<34		34	7.8	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
4-Nitroaniline	<340		340	71	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
4-Bromophenyl phenyl ether	<170		170	39	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Hexachlorobenzene	<70		70	6.8	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Diethyl phthalate	<170		170	58	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
4-Chlorophenyl phenyl ether	<170		170	54	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Pentachlorophenol	<700		700	180	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
N-Nitrosodiphenylamine	<170		170	47	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
4,6-Dinitro-2-methylphenol	<340		340	84	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Phenanthrene	72		34	14	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Anthracene	<34		34	8.1	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Carbazole	<170		170	49	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Di-n-butyl phthalate	<170		170	44	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Fluoranthene	95		34	14	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Pyrene	75		34	12	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Butyl benzyl phthalate	<170		170	43	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Benzo[a]anthracene	33	J	34	7.2	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Chrysene	37		34	7.8	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4826B01 (4-6)
Date Collected: 04/02/13 13:40
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-14
Matrix: Solid
Percent Solids: 91.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<170		170	29	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Bis(2-ethylhexyl) phthalate	<170		170	46	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Di-n-octyl phthalate	<170		170	70	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Benzo[b]fluoranthene	45		34	6.7	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Benzo[k]fluoranthene	28	J	34	8.2	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Benzo[a]pyrene	36		34	6.3	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Indeno[1,2,3-cd]pyrene	23	J	34	12	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Dibenz(a,h)anthracene	<34		34	9.6	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
Benzo[g,h,i]perylene	26	J	34	12	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1
3 & 4 Methylphenol	<170		170	65	ug/Kg	☼	04/04/13 07:22	04/08/13 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*79*		*30 - 110*	*04/04/13 07:22*	*04/08/13 20:52*	*1*
Phenol-d5	*78*		*31 - 110*	*04/04/13 07:22*	*04/08/13 20:52*	*1*
Nitrobenzene-d5	*72*		*30 - 115*	*04/04/13 07:22*	*04/08/13 20:52*	*1*
2-Fluorobiphenyl	*82*		*30 - 119*	*04/04/13 07:22*	*04/08/13 20:52*	*1*
2,4,6-Tribromophenol	*116*		*35 - 137*	*04/04/13 07:22*	*04/08/13 20:52*	*1*
Terphenyl-d14	*99*		*36 - 134*	*04/04/13 07:22*	*04/08/13 20:52*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.61	J	1.0	0.13	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Arsenic	4.3		0.50	0.11	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Barium	14		0.50	0.060	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Beryllium	0.099	J	0.20	0.015	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Cadmium	0.14		0.10	0.025	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Chromium	6.6		0.50	0.084	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Cobalt	3.2		0.25	0.026	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Copper	12		0.50	0.14	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Iron	6800		10	4.4	mg/Kg	☼	04/03/13 16:00	04/09/13 18:55	1
Lead	6.8		0.25	0.087	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Magnesium	65000	B	50	9.8	mg/Kg	☼	04/03/13 16:00	04/10/13 20:07	10
Manganese	250	B	0.50	0.071	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Nickel	7.9		0.50	0.11	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Selenium	0.26	J	0.50	0.14	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Silver	<0.25		0.25	0.030	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Thallium	0.22	J	0.50	0.13	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Vanadium	7.5		0.25	0.038	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1
Zinc	29		1.0	0.35	mg/Kg	☼	04/03/13 16:00	04/06/13 01:04	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 06:48	1
Barium	0.17	J	0.50	0.010	mg/L		04/11/13 11:20	04/12/13 06:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/13 11:20	04/12/13 06:48	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/13 11:20	04/12/13 06:48	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 06:48	1
Cobalt	0.0051	J	0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 06:48	1
Copper	<0.025		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 06:48	1
Iron	<0.20		0.20	0.20	mg/L		04/11/13 11:20	04/12/13 06:48	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Client Sample ID: E4826B01 (4-6)
Date Collected: 04/02/13 13:40
Date Received: 04/03/13 10:00

Lab Sample ID: 500-55693-14
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/11/13 11:20	04/12/13 06:48	1
Manganese	1.1		0.025	0.010	mg/L		04/11/13 11:20	04/12/13 06:48	1
Nickel	0.014	J	0.025	0.010	mg/L		04/11/13 11:20	04/12/13 06:48	1
Selenium	<0.050		0.050	0.010	mg/L		04/11/13 11:20	04/12/13 06:48	1
Silver	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 06:48	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/11/13 11:20	04/12/13 06:48	1
Zinc	<0.10		0.10	0.020	mg/L		04/11/13 11:20	04/12/13 06:48	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		04/15/13 08:30	04/15/13 18:31	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/11/13 11:20	04/16/13 20:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/13 11:20	04/16/13 20:35	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000057	J B	0.00020	0.000020	mg/L		04/11/13 15:15	04/12/13 11:47	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0092	J	0.018	0.0067	mg/Kg	☼	04/04/13 16:30	04/05/13 11:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.00		0.200	0.200	SU			04/08/13 21:09	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F	Duplicate RPD exceeds the control limit
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55693-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-30-14
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-14
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

TestAmerica

THE LEADER IN ENVIRONMENT

2417 Bond Street, University Park, Il
Phone: 708.534.5200 Fax: 708

500-55693 COC

Chain of Custody Record

Report To (optional)
Contact: Sherri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Lab Job #: 500-55693
Chain of Custody Number: E748-05
Page 1 of 1
Temperature °C of Cooler: (3.8) (3.5)

Client: Ecology - Environment
Client Project #: EE-004336-0001-01TTS
Project Name: IL 31
Project Location/State: McHenry Co, IL
Lab Project #: 50007751
Sampler: Scott Cooper
Lab PM: Dick Wright

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Voc	Svoc	Total TAL metals	TCLP/SPLP TAL metals	pH/% Solid	Comments
1		E4823B09 (2-4)	4-2-13	0935	2	S	X	X	X	X	X	
2		E4823B07 (0-2)	4-2-13	1010	2	S	X	X	X	X	X	
3		E4823B07 (6-8)	4-2-13	1015	2	S	X	X	X	X	X	
4		E4823B01 (0-2)	4-2-13	1115	2	S	X	X	X	X	X	
5		E4823B01 (8-10)	4-2-13	1120	2	S	X	X	X	X	X	
6		E4823B01D (8-10)	4-2-13	1120	2	S	X	X	X	X	X	
7		E4823B02 (0-2)	4-2-13	1155	2	S	X	X	X	X	X	
8		E4823B02 (2-4)	4-2-13	1200	2	S	X	X	X	X	X	
9		E4823B03 (0-2)	4-2-13	1220	2	S	X	X	X	X	X	
10		E4823B03 (4-6)	4-2-13	1225	2	S	X	X	X	X	X	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days): ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ✓ 15 Days ___ Other
Requested Due Date ______

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E+E	4-2-13	1435	[signature]	TA	4/2/13	1435
[signature]	TA	4/2/13	1630	[signature]	TA	4/3/13	1000

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

Page 130 of 132

4/17/2013

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THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: Sherri Johnson
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

Bill To (optional)
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-55693
Chain of Custody Number: E748-06
Page 1 of 1
Temperature °C of Cooler:

Client: Ecology & Environment
Client Project #: EE-004330-0001-01TTJ
Project Name: IL 31
Project Location/State: McHenry Co, IL
Lab Project #: 50007751
Sampler: Keith Coop
Lab PM: Dick Wright

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Voc	Svoc	Total TAL metals	TCLP/SPLP TAL metals	pH/Cyanide					Comments
11		E4823B08(2-4)	4-2-13	1305	2	S	X	X	X	X	X					
12		E4823B08(6-8)	4-2-13	1310	2	S	X	X	X	X	X					
13		E4826B01(0-2)	4-2-13	1335	2	S	X	X	X	X	X					
14		E4826B01(4-6)	4-2-13	1340	2	S	X	X	X	X	X					
15		E4827B01(0-2)	4-2-13	1425	2	S	X	X	X	X	X					
16		E4827B01(2-4)	4-2-13	1430	2	S	X	X	X	X	X					

4-2-13

Turnaround Time Required (Business Days)
__ 1 Day __ 2 Days __ 5 Days __ 7 Days __ 10 Days ✓ 15 Days __ Other
Requested Due Date ______

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	E&E	4-2-13	1435	[signature]	TA	4/2/13	1435
[signature]	TA	4/2/13	1630	[signature]	TA	4/3/13	1000

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

4/17/2013

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-55724-1
Client Project/Site: IDOT - Algonquin - WO 48

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 550
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Authorized for release by:
4/16/2013 11:22:28 AM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02 (2-4)
Date Collected: 04/03/13 10:50
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-5
Matrix: Solid
Percent Solids: 81.3

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<6.5		6.5	1.4	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Vinyl chloride	<6.5		6.5	1.4	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Bromomethane	<6.5		6.5	2.0	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Chloroethane	<6.5		6.5	1.8	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
1,1-Dichloroethene	<6.5		6.5	1.1	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Carbon disulfide	<6.5		6.5	0.98	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Acetone	<6.5		6.5	2.8	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Methylene Chloride	<6.5		6.5	1.8	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
trans-1,2-Dichloroethene	<6.5		6.5	0.90	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Methyl tert-butyl ether	<6.5		6.5	1.1	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
1,1-Dichloroethane	<6.5		6.5	1.0	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
cis-1,2-Dichloroethene	<6.5		6.5	0.92	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Methyl Ethyl Ketone	<6.5		6.5	2.4	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Chloroform	<6.5		6.5	0.75	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
1,1,1-Trichloroethane	<6.5		6.5	0.98	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Carbon tetrachloride	<6.5		6.5	1.2	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Benzene	<6.5		6.5	0.89	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
1,2-Dichloroethane	<6.5		6.5	0.97	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Trichloroethene	<6.5		6.5	1.1	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
1,2-Dichloropropane	<6.5		6.5	0.99	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Bromodichloromethane	<6.5		6.5	1.1	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
cis-1,3-Dichloropropene	<6.5		6.5	0.86	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
methyl isobutyl ketone	<6.5		6.5	1.7	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Toluene	<6.5		6.5	0.91	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
trans-1,3-Dichloropropene	<6.5		6.5	1.2	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
1,1,2-Trichloroethane	<6.5		6.5	0.89	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Tetrachloroethene	<6.5		6.5	1.0	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
2-Hexanone	<6.5		6.5	1.9	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Dibromochloromethane	<6.5		6.5	1.1	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Chlorobenzene	<6.5		6.5	0.66	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Ethylbenzene	<6.5		6.5	1.3	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Styrene	<6.5		6.5	0.86	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Bromoform	<6.5		6.5	1.5	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
1,1,2,2-Tetrachloroethane	<6.5		6.5	1.3	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
Xylenes, Total	<13		13	0.59	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1
1,3-Dichloropropene, Total	<6.5		6.5	0.86	ug/Kg	☼	04/03/13 10:50	04/09/13 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 134*	*04/03/13 10:50*	*04/09/13 13:28*	*1*
Toluene-d8 (Surr)	*101*		*75 - 122*	*04/03/13 10:50*	*04/09/13 13:28*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 122*	*04/03/13 10:50*	*04/09/13 13:28*	*1*
Dibromofluoromethane	*99*		*75 - 120*	*04/03/13 10:50*	*04/09/13 13:28*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<200		200	64	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Bis(2-chloroethyl)ether	<200		200	60	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
1,3-Dichlorobenzene	<200		200	43	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
1,4-Dichlorobenzene	<200		200	43	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
1,2-Dichlorobenzene	<200		200	44	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02 (2-4)
Date Collected: 04/03/13 10:50
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-5
Matrix: Solid
Percent Solids: 81.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<200		200	54	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2,2'-oxybis[1-chloropropane]	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
N-Nitrosodi-n-propylamine	<200		200	51	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Hexachloroethane	<200		200	43	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2-Chlorophenol	<200		200	58	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Nitrobenzene	<40		40	13	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Bis(2-chloroethoxy)methane	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
1,2,4-Trichlorobenzene	<200		200	46	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Isophorone	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2,4-Dimethylphenol	<400		400	130	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Hexachlorobutadiene	<200		200	53	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Naphthalene	<40		40	7.8	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2,4-Dichlorophenol	<400		400	120	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
4-Chloroaniline	<820		820	120	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2,4,6-Trichlorophenol	<400		400	51	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2,4,5-Trichlorophenol	<400		400	120	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Hexachlorocyclopentadiene	<820		820	190	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2-Methylnaphthalene	<200		200	53	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2-Nitroaniline	<200		200	73	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2-Chloronaphthalene	<200		200	46	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
4-Chloro-3-methylphenol	<400		400	190	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2,6-Dinitrotoluene	<200		200	48	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2-Nitrophenol	<400		400	64	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
3-Nitroaniline	<400		400	78	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Dimethyl phthalate	<200		200	51	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2,4-Dinitrophenol	<820	*	820	210	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Acenaphthylene	<40		40	9.3	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
2,4-Dinitrotoluene	<200		200	62	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Acenaphthene	<40		40	12	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Dibenzofuran	<200		200	49	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
4-Nitrophenol	<820		820	220	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Fluorene	<40		40	9.2	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
4-Nitroaniline	<400		400	83	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
4-Bromophenyl phenyl ether	<200		200	45	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Hexachlorobenzene	<82		82	8.0	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Diethyl phthalate	<200		200	68	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
4-Chlorophenyl phenyl ether	<200		200	64	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Pentachlorophenol	<820		820	210	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
N-Nitrosodiphenylamine	<200		200	55	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
4,6-Dinitro-2-methylphenol	<400		400	98	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Phenanthrene	<40		40	17	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Anthracene	<40		40	9.5	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Carbazole	<200		200	57	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Di-n-butyl phthalate	<200		200	51	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Fluoranthene	<40		40	17	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Pyrene	<40		40	15	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Butyl benzyl phthalate	<200		200	51	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Benzo[a]anthracene	<40		40	8.5	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Chrysene	<40		40	9.1	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02 (2-4)
Date Collected: 04/03/13 10:50
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-5
Matrix: Solid
Percent Solids: 81.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<200		200	34	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Bis(2-ethylhexyl) phthalate	<200		200	54	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Di-n-octyl phthalate	<200		200	82	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Benzo[b]fluoranthene	<40		40	7.9	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Benzo[k]fluoranthene	<40		40	9.7	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Benzo[a]pyrene	<40		40	7.4	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Indeno[1,2,3-cd]pyrene	<40		40	14	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Dibenz(a,h)anthracene	<40		40	11	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
Benzo[g,h,i]perylene	<40		40	14	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1
3 & 4 Methylphenol	<200		200	77	ug/Kg	☼	04/04/13 18:12	04/05/13 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*61*		*30 - 110*	*04/04/13 18:12*	*04/05/13 19:29*	*1*
Phenol-d5	*63*		*31 - 110*	*04/04/13 18:12*	*04/05/13 19:29*	*1*
Nitrobenzene-d5	*73*		*30 - 115*	*04/04/13 18:12*	*04/05/13 19:29*	*1*
2-Fluorobiphenyl	*79*		*30 - 119*	*04/04/13 18:12*	*04/05/13 19:29*	*1*
2,4,6-Tribromophenol	*78*		*35 - 137*	*04/04/13 18:12*	*04/05/13 19:29*	*1*
Terphenyl-d14	*58*		*36 - 134*	*04/04/13 18:12*	*04/05/13 19:29*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.16	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Arsenic	5.8		0.61	0.13	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Barium	130		0.61	0.073	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Beryllium	0.81		0.25	0.018	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Cadmium	0.14		0.12	0.030	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Chromium	15		0.61	0.10	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Cobalt	9.2		0.31	0.032	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Copper	7.9		0.61	0.17	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Iron	14000		12	5.3	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Lead	12	B	0.31	0.11	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Magnesium	2600		6.1	1.2	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Manganese	1200		6.1	0.87	mg/Kg	☼	04/04/13 07:47	04/10/13 19:55	10
Nickel	12		0.61	0.13	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Selenium	0.24	J	0.61	0.18	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Silver	<0.31		0.31	0.037	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Thallium	0.27	J	0.61	0.16	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Vanadium	28		0.31	0.047	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1
Zinc	44	B	1.2	0.42	mg/Kg	☼	04/04/13 07:47	04/09/13 15:40	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:29	1
Barium	0.49	J	0.50	0.010	mg/L		04/10/13 08:05	04/10/13 21:29	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/13 08:05	04/10/13 21:29	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/10/13 08:05	04/10/13 21:29	1
Chromium	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:29	1
Cobalt	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:29	1
Copper	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:29	1
Iron	0.60		0.20	0.20	mg/L		04/10/13 08:05	04/10/13 21:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Algonquin - WO 48

TestAmerica Job ID: 500-55724-1

Client Sample ID: E4826B02 (2-4)
Date Collected: 04/03/13 10:50
Date Received: 04/03/13 15:30

Lab Sample ID: 500-55724-5
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0050	mg/L		04/10/13 08:05	04/10/13 21:29	1
Manganese	0.034		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:29	1
Nickel	<0.025		0.025	0.010	mg/L		04/10/13 08:05	04/10/13 21:29	1
Selenium	<0.050		0.050	0.010	mg/L		04/10/13 08:05	04/10/13 21:29	1
Silver	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:29	1
Vanadium	<0.025		0.025	0.0050	mg/L		04/10/13 08:05	04/10/13 21:29	1
Zinc	<0.10		0.10	0.020	mg/L		04/10/13 08:05	04/10/13 21:29	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0030	mg/L		04/10/13 08:05	04/10/13 18:15	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/10/13 08:05	04/10/13 18:15	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000045	J	0.00020	0.000020	mg/L		04/10/13 15:30	04/11/13 11:16	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.040		0.019	0.0073	mg/Kg	☼	04/08/13 18:00	04/09/13 13:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.31		0.200	0.200	SU			04/08/13 21:41	1

SWPPP

Illinois Department of Transportation

Storm Water Pollution Prevention Plan

Route	FAU 3887	Marked Rte.	IL Route 31
Section	18W&RS-5 (12)	Project No.	
County	McHenry	Contract No.	60V72

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issued by the Illinois Environmental Protection Agency (IEPA) for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

John Fortmann, P.E.
Print Name

Deputy Director of Highways, Region One Engineer
Title

Illinois Department of Transportation
Agency

Signature

7-2-13
Date

I. Site Description:

A. Provide a description of the project location (include latitude and longitude):

This project is located along IL Route 31 in the Village of Cary in McHenry County. The limits of the project on Il Route 31 are from approximately 1,200 feet north of Trinity Drive to approximately 80 feet south of James R. Rakow Road, a total distance of approximately 4,660 feet. The project has a total length of 4,659.52 feet (0.88 miles).

No federally listed threatened/endangered species are know to occur in the project area based on coordination with the U.S. Fish and Wildlife Service. The Illinois Department of Natural Resources (IDNR) reviewed the Illinois Natural Heritage Database for threatened/endangered species and Natural Areas to be located within the vacinity of the project.

The Illinois Department of Natural Resources identified no Illinois Natural Areas in the project area. However, Larsen Prairie and Fen is located in the vacinity of the project area.

The entire Illinois Route 31 project are contained within the Fox River watershed. No wild and scenic rivers, candidates for wild and scenic river status, or navigable waterways are present in the study area as determined by the National Park Service. No biologically significant streams were identified within the study area by the Illinois Department of Natural Resources. There are no community water supply wells or wellhead protection areas within 200 feet of the project area. There are no regulated recharge areas established pursuant to section 17.3 of the Illinois Environmental Protection Act. There are many water supply wells within 600 feet of the project corridor. Since the project will not introduce any new routes (dry wells or borrow pits) and sources (bulk road or deicing salt storage facilities), there will be no violation of the wellhead setback requirements. The United States Environmental Protection Agency has not designated any sole source aquifers in Illinois.

All storm water will be accommodated by an enclosed storm sewer system or roadside swales that will outlet at existing locations. Construction of storm water systems will reduce the potential for change in groundwater quality and quantity.

B. Provide a description of the construction activity which is the subject of this plan:

The improvement includes reconstruction with portland cement concrete pavement from approximately 1,200 feet north of Trinity Drive to approximately 80 feet south of James R. Rakow Road. The cross section will concsist of two 12-foot lanes in each direction with a central landscaped raised median. Drainage will consist of a combination of open ditches and closed storm sewer system. Work also includes combination concrete curb and gutter, an asphalt bike path, pavement markings, and collateral work necessary to complete the project as shwon on the plans and described within the project specifications.

Means and methods for handling the excavated materials are to be determined by the contractor.

C. Provide the estimated duration of this project:

The project is expected to be completed within 6 months, during one construction season. Sediment controls will be installed prior to any land disturbance. Erosion and sedimentation controls will be maintained during construction, clearing, earthwork and excavation and remain in place place until permanent stabilization is established. Temporary stabilization will be installed within 7 days of areas to be idle more than 14 days, construction of structures, fine grading, and topsoil placement.

D. The total area of the construction site is estimated to be 17.8 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 13.5 acres.

E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

Average CN = 0.50 (Post Project)
Average CN = 0.55 (Pre Project)

F. List all soils found within project boundaries. Include map unit name, slope information, and erosivity:

Troxel silt loam (197A) - A well drained soil located in slight depressions on outwash plains, stream terraces, and till plain with slopes between two and four percent.

Warsaw loam (290B) - A well drained soil with moderate to very rapid permeability. This soil has low susceptibility to water and wind erosion with slopes that are between two and four percent.

Warsaw loam (290C2) - A well drained soil with moderate to very rapid permeability. This soil has low susceptibility to water and wind erosion with slopes that are between four and six percent.

Lorenzo loam (318C2) - A well drained soil formed in loamy outwash plains, kames, and end morraines. This soil has low susceptibility to water and wind erosion with slopes between four and six percent.

Lorenzo loam (318D2) - A well drained soil formed in loamy outwash over calcareous sand and gravel. This soil has low susceptibility to water and wind erosion with slopes between six and twelve percent.

Waupecan silt loam (369A) - A well drained soil formed in loamy outwash plains and stream terraces with slopes between zero and two percent.

Waupecan silt loam (369B) - A well drained soil formed in loamy outwash plains and stream terraces. This soil has low susceptibility to water and wind erosion with slopes between two and four percent.

Grundelein silt loam (526A) - A somewhat poorly drained, silty soil over loamy material formed in outwash plains and stream terraces over gravelly deposits with slopes between zero and two percent.

Casco-Rodman complex (969E2) - A somewhat excessively drained, slightly erodable soil formed in outwash plains, kames, and end morraines over gravelly deposits. This soil has moderate susceptibility to water erosion and low susceptibility to wind erosion with slopes between twelve and twenty percent.

G. Provide an aerial extent of wetland acreage at the site:

There are no known wetland areas with the project limits.

H. Provide a description of potentially erosive areas associated with this project:

There are two potentially erosive slope areas. The areas are ditch backslopes with slopes between 2:1 and 2.5:1 to meet existing grade. The slope length is typically between 20 to 30 feet. The first area is between Station 277+00 and 278+00 on the right side of the IL Route 31 and to Station 279+00 on the left side of IL Route 31. The second area is between Station 285+00 and 286+00 on the right side of IL Route 31.

Additionally, the ditch bottoms are potentially erosive areas.

I. The following is a description of soil disturbing activities by stages, their locations, and their erosive factors (e.g. steepness of slopes, length of slopes, etc):

The project involves grading work for its entire length. Roadside ditches will be constructed along both sides of IL Route 31. Most areas will have 3:1 slopes or flatter with the exception of the areas described in Item H. The slope lengths vary, from 5 feet to 30 feet to match existing ground.

J. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) and locations where storm water is discharged to surface water including wetlands.

K. Identify who owns the drainage system (municipality or agency) this project will drain into:

The Illinois Department of Transportation will own the drainage system for this project. Runoff at the north end of the project enters the Village of Crystal Lake's MS4.

L. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. The location of the receiving waters can be found on the erosion and sediment control plans:

The site directly discharges to receiving waters that are not listed as Biologically Significant Streams. The ultimate receiving water is the Fox River.

M. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes, highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc.

Areas of natural vegetation, including trees and shrubs, outside of the designated grading areas are to be protected and preserved. There are no other areas designated for additional or special protection.

N. The following sensitive environmental resources are associated with this project, and may have the potential to be impacted by the proposed development:

- ☐ Floodplain
- ☐ Wetland Riparian
- ☐ Threatened and Endangered Species
- ☐ Historic Preservation
- ☐ 303(d) Listed receiving waters for suspended solids, turbidity, or siltation
- ☐ Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity or siltation
- ☐ Applicable Federal, Tribal, State or Local Programs
- ☐ Other

1. 303(d) Listed receiving waters (fill out this section if checked above):

   a. The name(s) of the listed water body, and identification of all pollutants causing impairment:

   b. Provide a description of how erosion and sediment control practices will prevent a discharge of sediment resulting from a storm event equal to or greater than a twenty-five (25) year, twenty-four (24) hour rainfall event:

   c. Provide a description of the location(s) of direct discharge from the project site to the 303(d) water body:

   d. Provide a description of the location(s) of any dewatering discharges to the MS4 and/or water body:

2. TMDL (fill out this section if checked above)

   a. The name(s) of the listed water body:

   b. Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL:

   c. If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet that allocation:

O. The following pollutants of concern will be associated with this construction project:

☒	Soil Sediment	☒	Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)
☒	Concrete	☒	Antifreeze / Coolants
☒	Concrete Truck Waste	☒	Waste water from cleaning construction equipment
☒	Concrete Curing Compounds	☐	Other (specify)
☒	Solid Waste Debris	☐	Other (specify)
☒	Paints	☐	Other (specify)
☐	Solvents	☐	Other (specify)
☒	Fertilizers / Pesticides	☐	Other (specify)

II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in I.C. above and for all use areas, borrow sites, and waste sites. For each measure discussed, the Contractor will be responsible for its implementation as indicated. The Contractor shall provide to the Resident Engineer a plan for the implementation of the measures indicated. The Contractor, and subcontractors, will notify the Resident Engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the Permit ILR10. Each such Contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

A. Erosion and Sediment Controls

1. **Stabilized Practices:** Provided below is a description of interim and permanent stabilization practices, including site specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(A)(1)(a) and II(A)(3), stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than seven (7) days after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of fourteen (14) or more calendar days.

   Where the initiation of stabilization measures by the seventh day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

   The following stabilization practices will be used for this project:

☒	Preservation of Mature Vegetation	☒	Erosion Control Blanket / Mulching
☐	Vegetated Buffer Strips	☒	Sodding
☒	Protection of Trees	☐	Geotextiles
☒	Temporary Erosion Control Seeding	☐	Other (specify)
☐	Temporary Turf (Seeding, Class 7)	☐	Other (specify)
☒	Temporary Mulching	☐	Other (specify)
☒	Permanent Seeding	☐	Other (specify)

   Describe how the stabilization practices listed above will be utilized during construction:

Vegetation, including shrubs and trees, outside designated grading areas are to be preserved and protected as required in the project specifications. Temporary erosion control seeding will be used for all disturbed grading areas that will not receiev construction activities for 14 days or more, with mulch and erosion control blanket used in all seeding areas. Mulch Method 2 should be applied per the Standard Specifications over temporary seeding when seed germination is inhibited by freezing or summer heat. All temporary seeding areas will receive permanent seeding after completion of construction activities. Sod will be installed in all ditch bottoms.

Describe how the stabilization practices listed above will be utilized after construction activities have been completed:

All temporary stabilization measures will remain in place until permanent stabilization measures are established. Permenanent stabilization of Stage 1 shall be completed prior to shifting traffic for Stage 2, and Stage 2 permenent stabilization shall be completed prior to shifting traffic for Stage 3 work. At the RE's direction, maintenance of temporary stabilization measures shall be continued if traffic must shift prior to completing permenent stabilization.

2. **Structural Practices:** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The following structural practices will be used for this project:

☒	Perimeter Erosion Barrier	☒	Rock Outlet Protection
☒	Temporary Ditch Check	☐	Riprap
☒	Storm Drain Inlet Protection	☐	Gabions
☐	Sediment Trap	☐	Slope Mattress
☐	Temporary Pipe Slope Drain	☒	Retaining Walls
☐	Temporary Sediment Basin	☐	Slope Walls
☐	Temporary Stream Crossing	☐	Concrete Revetment Mats
☒	Stabilized Construction Exits	☐	Level Spreaders
☐	Turf Reinforcement Mats	☐	Other (specify)
☐	Permanent Check Dams	☐	Other (specify)
☒	Permanent Sediment Basin	☐	Other (specify)
☐	Aggregate Ditch	☐	Other (specify)
☐	Paved Ditch	☐	Other (specify)

Describe how the structural practices listed above will be utilized during construction:

Perimeter erosion barrier will be used along the proposed grading limits where slopes drain away from the project site or as requested by the Engineer to minimize erosion sediment runoff. Perimeter Erosion Barrier shall not be installed where the elevation off of the ROW is higher than the elevation of the work or across flow lines, where Temporary Ditch Checks shall be used instead. Temporary ditch checks, inlet protection and inlet filters will be used on all storm drain structures impacted by grading operations, as shown on the Erosion and Sediment Control Plans. Storm drain inlet protection shall consist of Temporary Ditch Checks, Temporary Seed, and Erosion Control Blanket at pipe inlets, and Inlet Filters at inlet grates. Permanent Sediment Basins shall be installed at the locations shown. Rock Outlet Protection shall be installed at all pipe outfalls, where shown. Stabilized construction exits will be used to limit soil from being tracked off the project site. A retaining wall will be installed from approximately Station 282+85 to 284+45 to reduce backslopes.

Describe how the structural practices listed above will be utilized after construction activities have been completed:

All practices, except the retaining wall, Rock Outlet Protection, and Permenent Sediment Basin, are temporary and will remain in place until permanent stabilization measures are established. Rolled Excelsior Temporary Ditch Checks can be left in place to decompose. The retaining wall is permanent and will remain in place after construction activities are completed. Permenent Sediment Basins shall be installed at the end of stage grading and immediately prior to permanent stabilization, at the locations shown.

3. **Storm Water Management:** Provided below is a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

   a. Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

      The practices selected for implementation were determined on the basis of the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT Bureau of Design and Environment Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.

   b. Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

   Description of storm water management controls:

   In addition to a closed, piped storm sewer system, vegetated ditches will be constructued throughout the project for stormwater conveyance and water quality. Oversized pipes will be used for detention storage and controlled by in-line restrictors to atenuate peak flows and provide water quality by allowing sediment to settle out into catch basins prior to leaving the site.

4. **Approved State or Local Laws:** The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under the Permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

   Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

   See Erosion and Sediment Control Plans and Landscaping Plans. All management practices, controls, and other provisions provided in this plan are in accordance with IDOT's "Standard Specifications for Road and Bridge COnstruction" and the "Illinois Urban Manual."

5. **Contractor Required Submittals:** Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342a.

   a. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:

      - Approximate duration of the project, including each stage of the project
      - Rainy season, dry season, and winter shutdown dates
      - Temporary stabilization measures to be employed by contract phases
      - Mobilization timeframe
      - Mass clearing and grubbing/roadside clearing dates
      - Deployment of Erosion Control Practices
      - Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
      - Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
      - Paving, saw-cutting, and any other pavement related operations
      - Major planned stockpiling operations
      - Timeframe for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.

- Permanent stabilization activities for each area of the project

b. The Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:

- Vehicle Entrances and Exits – Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
- Material Delivery, Storage and Use – Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
- Stockpile Management – Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
- Waste Disposal – Discuss methods of waste disposal that will be used for this project.
- Spill Prevention and Control – Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
- Concrete Residuals and Washout Wastes – Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
- Litter Management – Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
- Vehicle and Equipment Fueling – Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Vehicle and Equipment Cleaning and Maintenance – Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Additional measures indicated in the plan.

III. Maintenance:

When requested by the Contractor, the Resident Engineer will provide general maintenance guides to the Contractor for the practices associated with this project. The following additional procedures will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or pollution runoff in compliance with environmental law and EPA Water Quality Regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site. The construction field engineer on a bi-weekly basis shall inspect the project to determine that erosion control efforts are in place and effective and if any other control is necessary. Sediment collected during the construction by various temporary erosion systems shall be disposed on the site on a regular basis as directed by the Engineer.

All erosion control measures will be checked weekly and after each significant rainfall (0.5 inches or greater in a 24 hour period.)

All maintenance of the erosion control systems will be the responsibility of the contractor. All locations where vehicles enter and exit the construction site and all other areas subject to erosion should also be inspected periodically. Inspection of these areas shall be made at least once every seven days and within 24 hours of the end of each 0.5 inch or greater rainfall.

IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site using IDOT Storm Water Pollution Prevention Plan Erosion Control Inspection Report (BC 2259). Such inspections shall be conducted at least once every seven (7) calendar days and within twenty-four (24) hours of the end of a storm that is 0.5 inch or greater or equivalent snowfall.

If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer shall notify the appropriate IEPA Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within twenty-four (24) hours of the incident. The Resident Engineer shall then complete and submit an "Incidence of Non-Compliance" (ION) report for the identified violation within five (5) days of the incident. The Resident Engineer shall use forms provided by IEPA and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of non-compliance shall be signed by a responsible authority in accordance with Part VI. G of the Permit ILR10.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section

1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

V. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties under the Permit ILR10 which could be passed on to the Contractor.

Illinois Department of Transportation

Contractor Certification Statement

Prior to conducting any professional services at the site covered by this contract, the Contractor and every subcontractor must complete and return to the Resident Engineer the following certification. A separate certification must be submitted by each firm. Attach to this certification all items required by Section II.5 of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractor/subcontractor completing this form.

Route	FAU 3887	Marked Rte.	IL Route 31
Section	18W&RS-5 (12)	Project No.	
County	McHenry	Contract No.	60V72

This certification statement is a part of the SWPPP for the project described above, in accordance with the General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

I certify under penalty of law that I understand the terms of the Permit No. ILR 10 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

In addition, I have read and understand all of the information and requirements stated in the SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

☐ Contractor

☐ Sub-Contractor

Print Name	Signature
Title	Date
Name of Firm	Telephone
Street Address	City/State/ZIP

Items which this Contractor/subcontractor will be responsible for as required in Section II.5. of the SWPPP:

PROJECT LABOR AGREEMENT - QUARTERLY EMPLOYMENT REPORT

Public Act 97-0199 requires the Department to submit quarterly reports regarding the number of minorities and females employed under Project Labor Agreements. To assist in this reporting effort, the Contractor shall provide a quarterly workforce participation report for all minority and female employees working under the project labor agreement of this contract. The data shall be reported on Construction Form BC 820, Project Labor Agreement (PLA) Workforce Participation Quarterly Reporting Form available on the Department's website http://www.dot.il.gov/const/conforms.html.

The report shall be submitted no later than the 15th of the month following the end of each quarter (i.e. April 15 for the January – March reporting period). The form shall be emailed to DOT.PLA.Reporting@illinois.gov or faxed to (217) 524-4922.

Any costs associated with complying with this provision shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

Illinois Department of Transportation
PROJECT LABOR AGREEMENT

This Project Labor Agreement ("PLA" or "Agreement") is entered into this _____ day of _____, 2013, by and between the Illinois Department of Transportation ("IDOT" or "Department") in its proprietary capacity, and each relevant Illinois AFL-CIO Building Trades signatory hereto as determined by the Illinois AFL-CIO Statewide Project Labor Agreement Committee on behalf of each of its affiliated members (individually and collectively, the "Unions"). This PLA shall apply to Construction Work (as defined herein) to be performed by IDOT's Prime Contractor and each of its subcontractors of whatever tier ("Subcontractor" or "Subcontractors") on Contract No. **60V72** (hereinafter, the "Project").

ARTICLE 1 - INTENT AND PURPOSES

1.1 This PLA is entered into in accordance with the Project Labor Agreement Act ("Act", 30 ILCS 571). It is mutually understood and agreed that the terms and conditions of this PLA are intended to promote the public interest in obtaining timely and economical completion of the Project by encouraging productive and efficient construction operations; by establishing a spirit of harmony and cooperation among the parties; and by providing for peaceful and prompt settlement of any and all labor grievances or jurisdictional disputes of any kind without strikes, lockouts, slowdowns, delays, or other disruptions to the prosecution of the work. The parties acknowledge the obligations of the Contractors and Subcontractors to comply with the provisions of the Act. The parties will work with the Contractors and Subcontractors within the parameters of other statutory and regulatory requirements to implement the Act's goals and objectives.

1.2 As a condition of the award of the contract for performance of work on the Project, IDOT's Prime Contractor and each of its Subcontractors shall execute a "Contractor Letter of Assent", in the form attached hereto as Exhibit A, prior to commencing Construction Work on the Project. The Contractor shall submit a Subcontractor's Contractor Letter of Assent to the Department prior to the Subcontractor's performance of Construction Work on the Project. Upon request copies of the applicable collective bargaining agreements will be provided by the appropriate signatory labor organization consistent with this Agreement and at the pre-job conference referenced in Article III, Section 3.1.

1.3 Each Union affiliate and separate local representing workers engaged in Construction Work on the Project in accordance with this PLA are bound to this agreement by the Illinois AFL-CIO Statewide Project Labor Agreement Committee which is the central committee established with full authority to negotiate and sign PLAs with the State on behalf of all respective crafts. Upon their signing the Contractor Letter of Assent, the Prime Contractor, each Subcontractor, and the individual Unions shall thereafter be deemed a party to this PLA. No party signatory to this PLA shall, contract or subcontract, nor permit any other person, firm, company, or entity to contract or subcontract for the performance of Construction Work for the Project to any person, firm, company, or entity that does not agree in writing to become bound for the term of this Project by the terms of this PLA prior to commencing such work and to the applicable area-wide collective bargaining agreement(s) with the Union(s) signatory hereto.

1.4 It is understood that the Prime Contractor(s) and each Subcontractor will be considered and accepted by the Unions as separate employers for the purposes of collective bargaining, and it is further agreed that the employees working under this PLA shall

constitute a bargaining unit separate and distinct from all others. The parties hereto also agree that this PLA shall be applicable solely with respect to this Project, and shall have no bearing on the interpretation of any other collective bargaining agreement or as to the recognition of any bargaining unit other than for the specific purposes of this Project.

1.5 In the event of a variance or conflict, whether explicit or implicit, between the terms and conditions of this PLA and the provisions of any other applicable national, area, or local collective bargaining agreement, the terms and conditions of this PLA shall supersede and control. For any work performed under the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, the National Agreement of the International Union of Elevator Constructors, and for any instrument calibration work and loop checking performed under the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians, the preceding sentence shall apply only with respect to Articles I, II, V, VI, and VII.

1.6 Subject to the provisions of paragraph 1.5 of this Article, it is the parties' intent to respect the provisions of any other collective bargaining agreements that may now or hereafter pertain, whether between the Prime Contractor and one or more of the Unions or between a Subcontractor and one or more of the Unions. Accordingly, except and to the extent of any contrary provision set forth in this PLA, the Prime Contractor and each of its Subcontractors agrees to be bound and abide by the terms of the following in order of precedence: (a) the applicable collective bargaining agreement between the Prime Contractor and one or more of the Unions made signatory hereto; (b) the applicable collective bargaining agreement between a Subcontractor and one or more of the Unions made signatory hereto; or (c) the current applicable area collective bargaining agreement for the relevant Union that is the agreement certified by the Illinois Department of Labor for purposes of establishing the Prevailing Wage applicable to the Project. The Union will provide copies of the applicable collective bargaining agreements pursuant to part (c) of the preceding sentence to the Prime Contractor. Assignments by the Contractors or Subcontractors amongst the trades shall be consistent with area practices; in the event of unresolved disagreements as to the propriety of such assignments, the provisions of Article VI shall apply.

1.7 Subject to the limitations of paragraphs 1.4 to 1.6 of this Article, the terms of each applicable collective bargaining agreement as determined in accordance with paragraph 1.6 are incorporated herein by reference, and the terms of this PLA shall be deemed incorporated into such other applicable collective bargaining agreements only for purposes of their application to the Project.

1.8 To the extent necessary to comply with the requirements of any fringe benefit fund to which the Prime Contractor or Subcontractor is required to contribute under the terms of an applicable collective bargaining agreement pursuant to the preceding paragraph, the Prime Contractor or Subcontractor shall execute all "Participation Agreements" as may be reasonably required by the Union to accomplish such purpose; provided, however, that such Participation Agreements shall, when applicable to the Prime Contractor or Subcontractor solely as a result of this PLA, be amended as reasonably necessary to reflect such fact. Upon written notice in the form of a lien of a Contractor's or Subcontractor's delinquency from any applicable fringe benefit fund, IDOT will withhold from the Contractor's periodic pay request an amount sufficient to extinguish any delinquency obligation of the Contractor or Subcontractor arising out of the Project.

1.9 In the event that the applicable collective bargaining agreement between a Prime Contractor and the Union or between the Subcontractor and the Union expires prior to the completion of this Project, the expired applicable contract's terms will be maintained until a new applicable collective bargaining agreement is ratified. The wages and fringe benefits included in any new applicable collective bargaining agreement will apply on and after the effective date of the newly negotiated collective bargaining agreement, except to the extent wage and fringe benefit retroactivity is specifically agreed upon by the relevant bargaining parties.

ARTICLE II – APPLICABILITY, RECOGNITION, AND COMMITMENTS

2.1 The term Construction Work as used herein shall include all "construction, demolition, rehabilitation, renovation, or repair" work performed by a "laborer or mechanic" at the "site of the work" for the purpose of "building" the specific structures and improvements that constitute the Project. Terms appearing within quotation marks in the preceding sentence shall have the meaning ascribed to them pursuant to 29 CFR Part 5 and Illinois labor laws.

2.2 By executing the Letters of Assent, Prime Contractor and each of its Subcontractors recognizes the Unions signatory to this PLA as the sole and exclusive bargaining representatives for their craft employees employed on the jobsite for this Project. Unions who are signatory to this PLA will have recognition on the Project for their craft.

2.3 The Prime Contractor and each of its Subcontractors retains and shall be permitted to exercise full and exclusive authority and responsibility for the management of its operations, except as expressly limited by the terms of this PLA or by the terms and conditions of the applicable collective bargaining agreement.

2.4 Except to the extent contrary to an express provision of the relevant collective bargaining agreement, equipment or materials used in the Project may be pre-assembled or pre-fabricated, and there shall be no refusal by the Union to handle, transport, install, or connect such equipment or materials. Equipment or materials delivered to the job-site will be unloaded and handled promptly without regard to potential jurisdictional disputes; any such disputes shall be handled in accordance with the provisions of this PLA.

2.5 The parties are mutually committed to promoting a safe working environment for all personnel at the job-site. It shall be the responsibility of each employer to which this PLA applies to provide and maintain safe working conditions for its employees, and to comply with all applicable federal, state, and local health and safety laws and regulations.

2.6 The use or furnishing of alcohol or drugs and the conduct of any other illegal activity at the job-site is strictly prohibited. The parties shall take every practical measure consistent with the terms of applicable collective bargaining agreements to ensure that the job-site is free of alcohol and drugs.

2.7 All parties to this PLA agree that they will not discriminate against any employee based on race, creed, religion, color, national origin, union activity, age, gender or sexual orientation and shall comply with all applicable federal, state, and local laws.

2.8 In accordance with the Act and to promote diversity in employment, IDOT will establish, in cooperation with the other parties, the apprenticeship hours which are to be performed by minorities and females on the Project. IDOT shall consider the total hours to be performed by these underrepresented groups, as a percentage of the workforce, and create aspirational goals for each Project, based on the level of underutilization for the service area of the Project (together "Project Employment Objectives"). IDOT shall provide a quarterly report regarding the racial and gender composition of the workforce on the Project.

Persons currently lacking qualifications to enter apprenticeship programs will have the opportunity to obtain skills through basic training programs as have been established by the Department. The parties will endeavor to support such training programs to allow participants to obtain the requisite qualifications for the Project Employment Objectives.

The parties agree that all Contractors and Subcontractors working on the Project shall be encouraged to utilize the maximum number of apprentices as permitted under the terms of the applicable collective bargaining agreements to realize the Project Employment Objectives.

The Unions shall assist the Contractor and each Subcontractor in efforts to satisfy Project Employment Objectives. A Contractor or Subcontractor may request from a Union specific categories of workers necessary to satisfy Project Employment Objectives. The application of this section shall be consistent with all local Union collective bargaining agreements, and the hiring hall rules and regulations established for the hiring of personnel, as well as the apprenticeship standards set forth by each individual Union.

2.9 The parties hereto agree that engineering/architectural/surveying consultants' materials testing employees are subject to the terms of this PLA for Construction Work performed for a Contractor or Subcontractor on this Project. These workers shall be fully expected to objectively and responsibly perform their duties and obligations owed to the Department without regard to the potential union affiliation of such employees or of other employees on the Project.

2.10 This Agreement shall not apply to IDOT employees or employees of any other governmental entity.

ARTICLE III - ADMINISTRATION OF AGREEMENT

3.1 In order to assure that all parties have a clear understanding of the PLA, and to promote harmony, at the request of the Unions a post-award pre-job conference will be held among the Prime Contractor, all Subcontractors and Union representatives prior to the start of any Construction Work on the Project. No later than the conclusion of such pre-job conference, the parties shall, among other matters, provide to one another contact information for their respective representatives (including name, address, phone number, facsimile number, e-mail). Nothing herein shall be construed to limit the right of the Department to discuss or explain the purpose and intent of this PLA with prospective bidders or other interested parties prior to or following its award of the job.

3.2 Representatives of the Prime Contractor and the Unions shall meet as often as reasonably necessary following award until completion of the Project to assure the effective implementation of this PLA.

3.3 Any notice contemplated under Article VI and VII of this Agreement to a signatory labor organization shall be made in writing to the Local Union with copies to the local union's International Representative.

ARTICLE IV - HOURS OF WORK AND GENERAL CONDITIONS

4.1 The standard work day and work week for Construction Work on the Project shall be consistent with the respective collective bargaining agreements. In the event Project site or other job conditions dictate a change in the established starting time and/or a staggered lunch period for portions of the Project or for specific crafts, the Prime Contractor, relevant Subcontractors and business managers of the specific crafts involved shall confer and mutually agree to such changes as appropriate. If proposed work schedule changes cannot be mutually agreed upon between the parties, the hours fixed at the time of the pre-job meeting shall prevail.

4.2 Shift work may be established and directed by the Prime Contractor or relevant Subcontractor as reasonably necessary or appropriate to fulfill the terms of its contract with the Department. If used, shift hours, rates and conditions shall be as provided in the applicable collective bargaining agreement.

4.3 The parties agree that chronic and/or unexcused absenteeism is undesirable and must be controlled in accordance with procedures established by the applicable collective bargaining agreement. Any employee disciplined for absenteeism in accordance with such procedures shall be suspended from all work on the Project for not less than the maximum period permitted under the applicable collective bargaining agreement.

4.4 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, employment begins and ends at the Project site; employees shall be at their place of work at the starting time; and employees shall remain at their place of work until quitting time.

4.5 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, there shall be no limit on production by workmen, no restrictions on the full use of tools or equipment, and no restrictions on efficient use of manpower or techniques of construction other than as may be required by safety regulations.

4.6 The parties recognize that specialized or unusual equipment may be installed on the Project. In such cases, the Union recognizes the right of the Prime Contractor or Subcontractor to involve the equipment supplier or vendor's personnel in supervising the setting up of the equipment, making modifications and final alignment, and performing similar activities that may be reasonably necessary prior to and during the start-up procedure in order to protect factory warranties. The Prime Contractor or Subcontractor shall notify the Union representatives in advance of any work at the job-site by such vendor personnel in order to promote a harmonious relationship between the equipment vendor's personnel and other Project employees.

4.7 For the purpose of promoting full and effective implementation of this PLA, authorized Union representatives shall have access to the Project job-site during scheduled work hours. Such access shall be conditioned upon adherence to all reasonable visitor and security rules of general applicability that may be established for the Project site at the pre-job conference or from time to time thereafter.

ARTICLE V – GRIEVANCE PROCEDURES FOR DISPUTES ARISING UNDER A PARTICULAR COLLECTIVE BARGAINING AGREEMENT

5.1 In the event a dispute arises under a particular collective bargaining agreement specifically not including jurisdictional disputes referenced in Article VI below, said dispute shall be resolved by the Grievance/Arbitration procedure of the applicable collective bargaining agreement. The resulting determination from this process shall be final and binding on all parties bound to its process.

5.2 Employers covered under this Agreement shall have the right to discharge or discipline any employee who violates the provisions of this Agreement. Such discharge or discipline by a contractor or subcontractor shall be subject to Grievance/Arbitration procedure of the applicable collective bargaining agreement only as to the fact of such violation of this agreement. If such fact is established, the penalty imposed shall not be disturbed. Work at the Project site shall continue without disruption or hindrance of any kind as a result of a Grievance/Arbitration procedure under this Article.

5.3 In the event there is a deadlock in the foregoing procedure, the parties agree that the matter shall be submitted to arbitration for the selection and decision of an Arbitrator governed under paragraph 6.8.

ARTICLE VI –DISPUTES: GENERAL PRINCIPLES

6.1 This Agreement is entered into to prevent strikes, lost time, lockouts and to facilitate the peaceful adjustment of jurisdictional disputes in the building and construction industry and to prevent waste and unnecessary avoidable delays and expense, and for the further purpose of at all times securing for the employer sufficient skilled workers.

6.2 A panel of Permanent Arbitrators are attached as addendum (A) to this agreement. By mutual agreement between IDOT and the Unions, the parties can open this section of the agreement as needed to make changes to the list of permanent arbitrators.

6.3 The PLA Jurisdictional Dispute Resolution Process ("Process") sets forth the procedures below to resolve jurisdictional disputes between and among Contractors, Subcontractors, and Unions engaged in the building and construction industry. Further, the Process will be followed for any grievance or dispute arising out of the interpretation or application of this PLA by the parties except for the prohibition on attorneys contained in 6.11. All decisions made through the Process are final and binding upon all parties.

DISPUTE PROCESS

6.4 Administrative functions under the Process shall be performed through the offices of the President and/or Secretary-Treasurer of the Illinois State Federation of Labor, or their designated representative, called the Administrator. In no event shall any officer, employee, agent, attorney, or other representative of the Illinois Federation of Labor, AFL-CIO be subject to any subpoena to appear or testify at any jurisdictional dispute hearing.

6.5 There shall be no abandonment of work during any case participating in this Process or in violation of the arbitration decision. All parties to this Process release the Illinois State Federation of Labor ("Federation") from any liability arising from its action or inaction and covenant not to sue the Federation, nor its officers, employees, agents or attorneys.

6.6 In the event of a dispute relating to trade or work jurisdiction, all parties, including the employers, Contractors or Subcontractors, agree that a final and binding resolution of the dispute shall be resolved as follows:

(a) Representatives of the affected trades and the Contractor or Subcontractor shall meet on the job site within two (2) business days after receiving written notice in an effort to resolve the dispute. (In the event there is a dispute between local unions affiliated with the same International Union, the decision of the General President, or his/her designee, as the internal jurisdictional authority of that International Union, shall constitute a final and binding decision and determination as to the jurisdiction of work.)

(b) If no settlement is achieved subsequent to the preceding Paragraph, the matter shall be referred to the local area Building & Construction Trades Council, which shall meet with the affected trades within two (2) business days subsequent to receiving written notice. In the event the parties do not wish to avail themselves of the local Building & Construction Trades Council, the parties may elect to invoke the services of their respective International Representatives with no extension of the time limitations. An agreement reached at this Step shall be final and binding upon all parties.

(c) If no settlement agreement is reached during the proceedings contemplated by Paragraphs “a” or “b” above, the matter shall be immediately referred to the Illinois Jurisdictional Dispute Process for final and binding resolution of said dispute. Said referral submission shall be in writing and served upon the Illinois State Federation of Labor, or the Administrator, pursuant to paragraph 6.4 of this agreement. The Administrator shall, within three (3) days, provide for the selection of an available Arbitrator to hear said dispute within this time period. Upon good cause shown and determined by the Administrator, an additional three (3) day extension for said hearing shall be granted at the sole discretion of the Administrator. Only upon mutual agreement of all parties may the Administrator extend the hearing for a period in excess of the time frames contemplated under this Paragraph. Business days are defined as Monday through Friday, excluding contract holidays.

6.7 The primary concern of the Process shall be the adjustment of jurisdictional disputes arising out of the Project. A sufficient number of Arbitrators shall be selected from list of approved Arbitrators as referenced Sec. 6.2 and shall be assigned per Sec. 6.8. Decisions shall be only for the Project and shall become effective immediately upon issuance and complied with by all parties. The authority of the Arbitrator shall be restricted and limited specifically to the terms and provisions of Article VI and generally to this Agreement as a whole.

6.8 The Arbitrator chosen shall be randomly selected based on the list of Arbitrators in Sec. 6.2 and geographical location of the jurisdictional dispute and upon his/her availability, and ability to conduct a Hearing within two (2) business days of said notice. The Arbitrator may issue a “bench” decision immediately following the Hearing or he/she may elect to only issue a written decision, said decision must be issued within two (2) business days subsequent to the completion of the Hearing. Copies of all notices, pleadings, supporting memoranda, decisions, etc. shall be provided to all disputing parties and the Illinois State Federation of Labor.

Any written decision shall be in accordance with this Process and shall be final and binding upon all parties to the dispute and may be a “short form” decision. Fees and costs of the arbitrator shall be divided evenly between the contesting parties except that any party wishing a full opinion and decision beyond the short form decision shall bear the reasonable fees and costs of such full opinion. The decision of the Arbitrator shall be final and binding upon the parties hereto, their members, and affiliates.

In cases of jurisdictional disputes or other disputes between a signatory labor organization and another labor organization, both of which is an affiliate or member of the same International Union, the matter or dispute shall be settled in the manner set forth by their International Constitution and/or as determined by the International Union's General President whose decision shall be final and binding upon all parties. In no event shall there be an abandonment of work.

6.9 In rendering a decision, the Arbitrator shall determine:

(a) First, whether a previous agreement of record or applicable agreement, including a disclaimer agreement, between National or International Unions to the dispute or agreements between local unions involved in the dispute, governs;

(b) Only if the Arbitrator finds that the dispute is not covered by an appropriate or applicable agreement of record or agreement between the crafts to the dispute, he shall then consider the established trade practice in the industry and prevailing practice in the locality. Where there is a previous decision of record governing the case, the Arbitrator shall give equal weight to such decision of record, unless the prevailing practice in the locality in the past ten years favors one craft. In that case, the Arbitrator shall base his decision on the prevailing practice in the locality. Except, that if the Arbitrator finds that a craft has improperly obtained the prevailing practice in the locality through raiding, the undercutting of wages or by the use of vertical agreements, the Arbitrator shall rely on the decision of record and established trade practice in the industry rather than the prevailing practice in the locality; and,

(c) Only if none of the above criteria is found to exist, the Arbitrator shall then consider that because efficiency, cost or continuity and good management are essential to the well being of the industry, the interests of the consumer or the past practices of the employer shall not be ignored.

6.10 The Arbitrator shall set forth the basis for his/her decision and shall explain his/her findings regarding the applicability of the above criteria. If lower ranked criteria are relied upon, the Arbitrator shall explain why the higher-ranked criteria were not deemed applicable. The Arbitrator's decision shall only apply to the Project. Agreements of Record, for other PLA projects, are applicable only to those parties signatory to such agreements. Decisions of Record are those that were either attested to by the former Impartial Jurisdictional Disputes Board or adopted by the National Arbitration Panel.

6.11 All interested parties, as determined by the Arbitrator, shall be entitled to make presentations to the Arbitrator. Any interested labor organization affiliated to the PLA Committee and party present at the Hearing, whether making a presentation or not, by such presence shall be deemed to accept the jurisdiction of the Arbitrator and to agree to be bound by its decision. In addition to the representative of the local labor organization, a representative of the labor organization's International Union may appear on behalf of the parties. Each party is responsible for arranging for its witnesses. In the event an Arbitrator's subpoena is required, the party requiring said subpoena shall prepare the subpoena for the Arbitrator to execute. Service of the subpoena upon any witness shall be the responsibility of the issuing party.

Attorneys shall not be permitted to attend or participate in any portion of a Hearing.

The parties are encouraged to determine, prior to Hearing, documentary evidence which may be presented to the Arbitrator on a joint basis.

6.12 The Order of Presentation in all Hearings before an Arbitrator shall be

I. Identification and Stipulation of the Parties
II. Unions(s) claiming the disputed work presents its case
III. Union(s) assigned the disputed work presents its case
IV. Employer assigning the disputed work presents its case
V. Evidence from other interested parties (i.e., general contractor, project manager, owner)
VI. Rebuttal by union(s) claiming the disputed work
VII. Additional submissions permitted and requested by Arbitrator
VIII. Closing arguments by the parties

6.13 All parties bound to the provisions of this Process hereby release the Illinois State Federation of Labor and IDOT, their respective officers, agents, employees or designated representatives, specifically including any Arbitrator participating in said Process, from any and all liability or claim, of whatsoever nature, and specifically incorporating the protections provided in the Illinois Arbitration Act, as amended from time to time.

6.14 The Process, as an arbitration panel, nor its Administrator, shall have any authority to undertake any action to enforce its decision(s). Rather, it shall be the responsibility of the prevailing party to seek appropriate enforcement of a decision, including findings, orders or awards of the Arbitrator or Administrator determining non-compliance with a prior award or decision.

6.15 If at any time there is a question as to the jurisdiction of the Illinois Jurisdictional Dispute Resolution Process, the primary responsibility for any determination of the arbitrability of a dispute and the jurisdiction of the Arbitrator shall be borne by the party requesting the Arbitrator to hear the underlying jurisdictional dispute. The affected party or parties may proceed before the Arbitrator even in the absence or one or more stipulated parties with the issue of jurisdiction as an additional item to be decided by the Arbitrator. The Administrator may participate in proceedings seeking a declaration or determination that the underlying dispute is subject to the jurisdiction and process of the Illinois Jurisdictional Dispute Resolution Process. In any such proceedings, the non-prevailing party and/or the party challenging the jurisdiction of the Illinois Jurisdictional Dispute Resolution Process shall bear all the costs, expenses and attorneys' fees incurred by the Illinois Jurisdictional Dispute Resolution Process and/or its Administrator in establishing its jurisdiction.

ARTICLE VII - WORK STOPPAGES AND LOCKOUTS

7.1 During the term of this PLA, no Union or any of its members, officers, stewards, employees, agents or representatives shall instigate, support, sanction, maintain, or participate in any strike, picketing, walkout, work stoppage, slow down or other activity that interferes with the routine and timely prosecution of work at the Project site or at any other contractor's or supplier's facility that is necessary to performance of work at the Project site. Hand billing at the Project site during the designated lunch period and before commencement or following conclusion of the established standard workday shall not, in itself, be deemed an activity that interferes with the routine and timely prosecution of work on the Project.

7.2 Should any activity prohibited by paragraph 7.1 of this Article occur, the Union shall undertake all steps reasonably necessary to promptly end such prohibited activities.

7.2.A No Union complying with its obligations under this Article shall be liable for acts of employees for which it has no responsibility or for the unauthorized acts of employees it represents. Any employee who participates or encourages any activity prohibited by paragraph 7.1 shall be immediately suspended from all work on the Project for a period equal to the greater of (a) 60 days; or (b) the maximum disciplinary period allowed under the applicable collective bargaining agreement for engaging in comparable unauthorized or prohibited activity.

7.2.B Neither the PLA Committee nor its affiliates shall be liable for acts of employees for which it has no responsibility. The principal officer or officers of the PLA Committee will immediately instruct, order and use the best efforts of his office to cause the affiliated union or unions to cease any violations of this Article. The PLA Committee in its compliance with this obligation shall not liable for acts of its affiliates. The principal officer or officers of any involved affiliate will immediately instruct, order or use the best effort of his office to cause the employees the union represents to cease any violations of this Article. A union complying with this obligation shall not be liable for unauthorized acts of employees it represents. The failure of the Contractor to exercise its rights in any instance shall not be deemed a waiver of its rights in any other instance.

During the term of this PLA, the Prime Contractor and its Subcontractors shall not engage in any lockout at the Project site of employees covered by this Agreement.

7.3 Upon notification of violations of this Article, the principal officer or officers of the local area Building and Construction Trades Council, and the Illinois AFL-CIO Statewide Project Labor Agreement Committee as appropriate, will immediately instruct, order and use their best efforts to cause the affiliated union or unions to cease any violations of this Article. A Trades Council and the Committee otherwise in compliance with the obligations under this paragraph shall not be liable for unauthorized acts of its affiliates.

7.4 In the event that activities in violation of this Article are not immediately halted through the efforts of the parties, any aggrieved party may invoke the special arbitration provisions set forth in paragraph 7.5 of this Article.

7.5 Upon written notice to the other involved parties by the most expeditious means available, any aggrieved party may institute the following special arbitration procedure when a breech of this Article is alleged:

7.5.A The party invoking this procedure shall notify the individual designated as the Permanent Arbitrator pursuant to paragraph 6.8 of the nature of the alleged violation; such notice shall be by the most expeditious means possible. The initiating party may also furnish such additional factual information as may be reasonably necessary for the Permanent Arbitrator to understand the relevant circumstances. Copies of any written materials provided to the arbitrator shall also be contemporaneously provided by the most expeditious means possible to the party alleged to be in violation and to all other involved parties.

7.5.B Upon receipt of said notice the Permanent Arbitrator shall set and hold a hearing within twenty-four (24) hours if it is contended the violation is ongoing, but not before twenty-four (24) hours after the written notice to all parties involved as required above.

7.5.C The Permanent Arbitrator shall notify the parties by facsimile or any other effective written means, of the place and time chosen by the Permanent Arbitrator for this hearing. Said hearing shall be completed in one session. A failure of any party or parties to attend said hearing shall not delay the hearing of evidence or issuance of an Award by the Permanent Arbitrator.

7.5.D The sole issue at the hearing shall be whether a violation of this Article has, in fact, occurred. An Award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the Award. The Permanent Arbitrator may order cessation of the violation of this Article, and such Award shall be served on all parties by hand or registered mail upon issuance.

7.5.E Such Award may be enforced by any court of competent jurisdiction upon the filing of the Award and such other relevant documents as may be required. Facsimile or other hardcopy written notice of the filing of such enforcement proceedings shall be given to the other relevant parties. In a proceeding to obtain a temporary order enforcing the Permanent Arbitrator's Award as issued under this Article, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order of enforcement. The Court's order or orders enforcing the Permanent Arbitrator's Award shall be served on all parties by hand or by delivery to their last known address or by registered mail.

7.6 Individuals found to have violated the provisions of this Article are subject to immediate termination. In addition, IDOT reserves the right to terminate this PLA as to any party found to have violated the provisions of this Article.

7.7 Any rights created by statue or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance therewith are hereby waived by parties to whom they accrue.

7.8 The fees and expenses of the Permanent Arbitrator shall be borne by the party or parties found in violation, or in the event no violation is found, such fees and expenses shall be borne by the moving party.

ARTICLE VIII – TERMS OF AGREEMENT

8.1 If any Article or provision of this Agreement shall be declared invalid, inoperative or unenforceable by operation of law or by any of the above mentioned tribunals of competent jurisdiction, the remainder of this Agreement or the application of such Article or provision to persons or circumstances other than those as to which it has been held invalid, inoperative or unenforceable shall not be affected thereby.

8.2 This Agreement shall be in full force as of and from the date of the Notice of Award until the Project contract is closed.

8.3 This PLA may not be changed or modified except by the subsequent written agreement of the parties. All parties represent that they have the full legal authority to enter into this PLA. This PLA may be executed by the parties in one or more counterparts.

8.4 Any liability arising out of this PLA shall be several and not joint. IDOT shall not be liable to any person or other party for any violation of this PLA by any other party, and no Contractor or Union shall be liable for any violation of this PLA by any other Contractor or Union.

8.5 The failure or refusal of a party to exercise its rights hereunder in one or more instances shall not be deemed a waiver of any such rights in respect of a separate instance of the same or similar nature.

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Addendum A

IDOT Slate of Permanent Arbitrators

1. Bruce Feldacker
2. Thomas F. Gibbons
3. Edward J. Harrick
4. Brent L. Motchan
5. Robert Perkovich
6. Byron Yaffee
7. Glenn A. Zipp

Execution Page

Illinois Department of **Transportation**

_____
Omer Osman, Director of Highways

_____
Matthew Hughes, Director Finance & Administration

_____
Michael A. Forti, Chief Counsel

_____ _____
Ann L. Schneider, Secretary (Date)

Illinois AFL-CIO Statewide Project Labor Agreement Committee, representing the Unions listed below:

_____ _____
(Date)

List Unions:

****RETURN WITH BID****

Exhibit A - Contractor Letter of Assent

_____
(Date)

To All Parties:

In accordance with the terms and conditions of the contract for Construction Work on [Contract No. **60V72**], this Letter of Assent hereby confirms that the undersigned Prime Contractor or Subcontractor agrees to be bound by the terms and conditions of the Project Labor Agreement established and entered into by the Illinois Department of Transportation in connection with said Project.

It is the understanding and intent of the undersigned party that this Project Labor Agreement shall pertain only to the identified Project. In the event it is necessary for the undersigned party to become signatory to a collective bargaining agreement to which it is not otherwise a party in order that it may lawfully make certain required contributions to applicable fringe benefit funds, the undersigned party hereby expressly conditions its acceptance of and limits its participation in such collective bargaining agreement to its work on the Project.

_____
(Authorized Company Officer)

_____
(Company)

****RETURN WITH BID****

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. Davis-Bacon and Related Act Provisions

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a “Statement of Compliance,” signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for

debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded,"

as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the

certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision shall be the minimum paid by contractors and subcontractors to laborers and mechanics.

NOTICE

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at http://www.dot.state.il.us/desenv/delett.html.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at http://www.dot.state.il.us/desenv/subsc.html.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.