APPENDIX B

BORING LOGS

R 2531V-13-01

PAGE 1 OF 1

Huff & Huff Assault of CZA Conference and Inc.	BORING NUMBER
CLIENT Illinois Department of Transportation, District One	PROJECT NAME IL Route 59 & US Route 20 PSI
PPO IECT NI IMBED PTB 178 008 / Work Order 02	PPO IECT I OCATION Bartlett Cook County II

DATE STARTED <u>8/8/17</u> **COMPLETED** <u>8/8/17</u> GROUND ELEVATION 795 +/- 2 HOLE SIZE 2 inches DRILLING CONTRACTOR GSG Consultants, Inc. TIME DEPTH CASING STAB DATE **GROUND WATER** DRILLING METHOD Direct Push 8/8/2017 DD DRY 10 N/A LEVELS (ft, bgs): LOGGED BY AMH CHECKED BY JJR DRILL RIG 7822DT Track Geoprobe

O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)	
		Surface: 2-inch black TOPSOIL (FILL) S-1: Hard, lean CLAY (CL), low plasticity; with Sand, fine- to coarse-grained; little Gravel, fine-grained; black brown, moist (FILL)	c and	1	S-1 (0-5)	0.0	4		
#Ld3Q 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.		S-2: Soft, lean CLAY (CL), low plasticity; with Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown (FILL)	n, moist	2	S-2 (5-9)	0.0	4		
7.5 	7.5 : End of boring at 9' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil cuttings								
R E N 2. Sampled 0-5 feet at 1107 2. Sampled 5-9 feet at 1110 N 3 Sampled									

NG NUMBER 2531V-13-02 PAGE 1 OF 1

Huff & Huff, in corporate d	BORII
CLIENT Illinois Department of Transportation, District One	PROJECT NAME IL Route 59

CLIENT _Illinois Department of Transportation, District One	PROJECT NAME IL Route 59 & US Route 20 PSI								
PROJECT NUMBER PTB 178 008 / Work Order 02	PROJECT LOCATION Bartlett, Cook County, IL								
DATE STARTED <u>8/8/17</u> COMPLETED <u>8/8/17</u>	GROUND ELEVATION 796 +/- 2 HOLE SIZE 2 inches								
DRILLING CONTRACTOR GSG Consultants, Inc.		DATE	TIME	DEPTH	CASING	STAB			
DRILLING METHOD Direct Push	GROUND WATER	8/8/2017	DD DD	DRY	10	N/A			
LOGGED BY AMH CHECKED BY JJR	LEVELS (ft, bgs):								

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN.
0.0	\(\frac{1}{24}\)\frac{1}{18}\cdot\(\frac{1}{2}\)	Surface: 2-inch black TOPSOIL (FILL)							
 	-	S-1: Hard, lean CLAY (CL), low plasticity; with Sand, fine- to coarse-grained; little Gravel, fine brown, moist (FILL)	e-grained; bl	ack and	1	S-1 (0-5)	0.0	4	
2.5		S-2: Soft, lean CLAY (CL), low plasticity; with Sand, fine- to coarse-grained; trace Gravel, fine (FILL)	e-grained; gr	rey, moist	2	S-2 (5-9)	0.0	4	
	1////	: End of boring at 9' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped cuttings	d with remai	ning soil	1		1		<u>. </u>
R 1 E M A R K S	. Samp	led 0-5 feet at 1102 led 5-9 feet at 1105							

DRILL RIG 7822DT Track Geoprobe

BORING NUMBER 2531V-13-03

	F	Tuff	& Hi	$\inf_{\mathbf{e} \in \mathbf{d}}$								DUKI	NG N	OIVIE) [-R 253		-13- E 1 C	
4	A S	ubsidiary of GZ	A GeoEnvironme	ntal, Inc.			5												
	CLIENT Illinois Department of Transportation, District One																		
	PROJECT NUMBER PTB 178 008 / Work Order 02 DATE STARTED 8/8/17 COMPLETED 8/8/17					PROJECT LOCATION Bartlett, Cook County, IL													
								ED <u>8/8/</u>	17	_ GROUND ELE	EVATIO	ON <u>798 +</u>	/- 2	HOLE	: S	IZE 2 inc	nes		
					GSG Co	onsultar	nts, Inc.			_		DATE	TIME	DEP	ТН	CASING	, ST	AB	
					ct Push					_ GROUND WA LEVELS (ft, b)		8/8/2017	DD	DR'	Y	10	N	/A	
			AMH				IECKED	BY JJR		_	J - ,								
DF	DRILL RIG 7822DT Track Geoprobe																		
0.04_BORING LOGS.GPJ DEPTH	REMARKS SAMPLE TYPE NUMBER (Depth Interval) PID RESULTS (PPM) RECOVERY (feet)								POCKET PEN. (tsf)										
LAB.GDT	5 -		S-1: H brown	lard, lea	ick and gre	CL), lovey, mois	v plasticity t (FILL)			parse-grained; trace					22	S-1 (0-5)	0.0	4	
COLUMN W/ RE		<u>////}</u>	: End cuttin		ıg at 9' BG	SS. Borii	ng immedi	iately bacl	kfilled with 3/8	8" bentonite chips ar	nd cap	oed with ren	naining soil						
ENVIRONMENTAL BH			ed 0-5 i ed 5-9 i			l duplica	ate sampl	e (2531V	/-DUP-07) cc	ollected at this inter	rval								

BORING NUMBER 2531V-13-04

PAGE 1 OF 1

Huff & Huff
CLIENT Illinois Department of Transportation, District One

CLIENT Illinois Department of Transportation, District One	PROJECT NAME IL Route 59 & US Route 20 PSI
PROJECT NUMBER PTB 178 008 / Work Order 02	PROJECT LOCATION Bartlett, Cook County, IL

DATE STARTED 8/8/17 COMPLETED 8/8/17 GROUND ELEVATION 799 +/- 2 HOLE SIZE 2 inches DRILLING CONTRACTOR GSG Consultants, Inc.

TIME DEPTH CASING **STAB** DATE **GROUND WATER** DRILLING METHOD Direct Push 8/8/2017 DD DRY 10 N/A LEVELS (ft, bgs): LOGGED BY AMH **CHECKED BY** JJR

DRILL RIG 7822DT Track Geoprobe

O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)		
	27. 2	Surface: 3-inch black TOPSOIL (FILL) S-1: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; black and brown, moist (FILL)	1	S-1 (0-5)	0.0	4			
#Ldad 0.0 		S-2: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; black and grey, moist (FILL)	2	S-2 (5-9)	0.0	4			
R 1.	: End of boring at 9' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil cuttings 1. Sampled 0-5 feet at 1030 2. Sampled 5-9 feet at 1033								

BORING NUMBER 2531V-14-01

4453	
	Huff & Huff,
Va	incorporated A Subsidiary of GZA GeoEnvironmental, Inc.

ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J.'81.0220509.04 IDOT 178008-02A - US 20 @ IL 59/REPORTS/BORINGS LOGS/81.0220509.04 BORING LOGS.GPJ

Huff & Huff)F 1		
A Subsidiary of	Assistatory of GZA Gostiminamental, Inc. CLIENTIllinois Department of Transportation, District OnePROJECT NAMEIL Route 59 & US Route 20 PSI										
		3 008 / Work Order 02	PROJECT LOCATION Bartlett, Cook County, IL								
		COMPLETED 8/7/17						ZE 2 inch	nes		
DRILLING (CONTRACTOR G	SG Consultants, Inc.		DATE	TIME	DED.	гш	CASING	ет	AB_	
DRILLING N	METHOD Direct P	rush	GROUND WATER	8/7/2017	DD	DR'		10		/A	
LOGGED B	Y AMH	CHECKED BY JJR	LEVELS (ft, bgs):								
DRILL RIG	7822DT Track Ge	eoprobe									
GRAPHIC LOG		MATERIAL DESC	CRIPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
<u> </u>	Surface: 2-inch b	olack TOPSOIL (FILL)									
	S-1: Loose, well- (FILL)	graded SAND (SW), fine- to coarse-grained; s	some Clay; trace Gravel, fine	e-grained; br	own, moist		1	S-1 (0-5)	0.0	4	
2.5 	: End of boring a	CLAY (CL), low plasticity; with Sand, fine- to or				pist	2	S-2 (5-9)	0.0		
	cuttings	5 250. Doining minroducity backing with 5	Sometime omps and cap	pod mulioli							
R E 1. Sam 2. Sam A R K	A R										

R 2531V-14-02

PAGE 1 OF 1

Huff & Huff As State of As	BORING NUMBER
CLIENT _Illinois Department of Transportation, District One	PROJECT NAME _IL Route 59 & US Route 20 PSI
PROJECT NUMBER PTB 178 008 / Work Order 02	PROJECT LOCATION Bartlett, Cook County, IL

DRILLING CONTRACTOR GSG Consultants, Inc. GROUND WATER LEVELS (ft, bgs): DRILLING METHOD Direct Push LOGGED BY AMH CHECKED BY JJR

DRILL RIG 7822DT Track Geoprobe

DATE STARTED <u>8/7/17</u> **COMPLETED** <u>8/7/17</u>

DATE	TIME	DEPTH	CASING	STAB
8/7/2017	DD	DRY	20	N/A

GROUND ELEVATION 799 +/- 2 HOLE SIZE 2 inches

L		_								
.04_BORING LOGS.GPJ	O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION					PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
020			Surface: 2-inch black TOPSOIL (FILL)			4	0.4	0.0	_	
NW FEMARKS - GINT STD US LAB GDT - 8/15/17 10:21 - J/81.0220509.04 IDOT 178008-02A - US 20 @ IL 59/REPORTS/BORINGS LOGS/81 0220509.04 BORING LOGS GPJ	5		S-1: Hard, lean sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; broken sandy CLAY (CL-SC), low plasticity; some sandy CLAY (CL-SC), l	own, mois	t (FILL)	1	S-1 (0-6)	0.0	3	
:21 - J:\81.0220509.04 IDO1 178008-02A - US 20	10		S-2: Hard, lean sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; bridge of the sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-graine	own, mois	t (FILL)	2	S-2 (6-12)	0.0	4	
/ REMARKS - GIN I S ID US LAB.GD I - 8/15/1/ 10:	15		S-3: Hard, lean sandy CLAY (CL-SC), low plasticity; some Silt; trace Gravel, fine-grained; gn			3	S-3 (12-18)	0.0	4	
≥			: End of boring at 18' BGS. Boring immediately backfilled with 3/8" bentonite chips and capp	ed with re	maining soil	I				

cuttings

- Sampled 0-6 feet at 0950
 Sampled 6-12 feet at 0953
 Sampled 12-18 feet at 0956

ENVIRONMENTAL BH COLUMN R E M A R K S

R 2531V-14-03

PAGE 1 OF 1

Huff & Huff Assistance of Assistance of Control of Cont	BORING NUMBER
CLIENT Illinois Department of Transportation, District One	PROJECT NAME IL Route 59 & US Route 20 PSI
PROJECT NUMBER PTB 178 008 / Work Order 02	PROJECT LOCATION Bartlett, Cook County, IL

DATE STARTED 8/7/17 COMPLETED 8/7/17 GROUND ELEVATION 799 +/- 2 HOLE SIZE 2 inches DRILLING CONTRACTOR GSG Consultants, Inc. **GROUND WATER** DRILLING METHOD Direct Push LEVELS (ft, bgs):

DRILL RIG 7822DT Track Geoprobe

LOGGED BY AMH

CHECKED BY JJR

DATE	TIME	DEPTH	CASING	STAB
8/7/2017	DD	DRY	20	N/A

O DEPTH (ft) GRAPHIC	MATERIAL DESCRIPTION	REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
	Surface: 2-inch black TOPSOIL (FILL) S-1: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown, moist (FILL)	1	S-1 (0-6)	0.0	4	
5	S-2: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown and grey, moist (FILL)	2	S-2 (6-12)	0.0	5	
DEPTH (ft) (ft) (ft) (ft) (ft) (ft) (ft) (ft)	S-3: Medium stiff, lean CLAY (CL), low plasticity; little Sand, fine- to coarse-grained; trace Gravel, fine-grained; brownish black and grey, moist	3	S-3 (12-18)	0.0	5	
R 1. San E 2. San	: End of boring at 18' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil cuttings spled 0-6 feet at 1005 spled 6-12 feet at 1009 spled 6-12 feet at 1013 and duplicate sample (2531V-DUP-03) collected at this interval					

- Sampled 0-6 feet at 1005
 Sampled 6-12 feet at 1009
 Sampled 12-18 feet at 1013 and duplicate sample (2531V-DUP-03) collected at this interval

R 2531V-15-01

HOLE SIZE 2 inches

PAGE 1 OF 1

Huff & Huff As State of CAA Confirmment Inc.	BORING NUMBER
CLIENT Illinois Department of Transportation, District One	PROJECT NAME _IL Route 59 & US Route 20 PSI
PROJECT NUMBER PTB 178 008 / Work Order 02	PROJECT LOCATION Bartlett, Cook County, IL

DRILLING CONTRACTOR GSG Consultants, Inc. GROU!

_____ COMPLETED _8/7/17

DRILLING METHOD Direct Push LOGGED BY AMH CHECKED BY JJR

DRILL RIG 7822DT Track Geoprobe

DATE STARTED 8/7/17

	DATE	TIME	DEPTH	CASING	STAB
JND WATER	8/7/2017	DD	DRY	20	N/A
LS (ft, bgs):					

GROUND ELEVATION 799 +/- 2

O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
	-	Surface: 2-inch black TOPSOIL (FILL) S-1: Very stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; black, moist (FILL)	1	S-1 (0-6)	0.0	3	
7.0220509.04 IDOI 178008-02A - US 20 @ IL 5	-	S-2: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown and grey, moist (FILL)	2	S-2 (6-12)	0.0	5	
NW KEMARKS - GINT STO US LAB. GDT - 8/19/17 10:21 - 1:81. UZZUSUSU. 4 IDOT 178008-UZA - US 20 (@ IL SUKEPURI SIBURINGS LUGSUSU. 4 EDRING LUGS. GFD DEPTH	-	S-3: Medium stiff, lean CLAY (CL), low plasticity; little Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown and grey, moist : End of boring at 18' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil	3	S-3 (12-18)	0.0	6	

cuttings

- Sampled 0-6 feet at 1019
 Sampled 6-12 feet at 1023
 Sampled 12-18 feet at 1026

ENVIRONMENTAL BH COLUMN R E M A R K S

R 2531V-15-02

PAGE 1 OF 1

Huff & Huff Incorporated Assidua of CZA Colliminated Inc	BORING NUMBER
CLIENT Illinois Department of Transportation, District One	PROJECT NAME _IL Route 59 & US Route 20 PSI
PROJECT NUMBER PTB 178 008 / Work Order 02	PROJECT LOCATION Bartlett, Cook County, IL

DATE STARTED 8/7/17 COMPLETED 8/7/17 GROUND ELEVATION 799 +/- 2 HOLE SIZE 2 inches DRILLING CONTRACTOR GSG Consultants, Inc. **GROUND WATER** DRILLING METHOD Direct Push

LEVELS (ft, bgs): LOGGED BY AMH CHECKED BY JJR

DRILL RIG 7822DT Track Geoprobe

DATE	TIME	DEPTH	CASING	STAB
8/7/2017	DD	DRY	20	N/A

o DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
		Surface: 2-inch black TOPSOIL (FILL) S-1: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; black and brown, moist (FILL)	1	S-1 (0-6)	0.0	4	
5		S-2: Soft, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown and grey, moist (FILL)	2	S-2 (6-12)	0.0	4	
10		S-3: Medium stiff, lean CLAY (CL), low plasticity; little Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown and grey, moist	3	S-3 (12-18)	0.0	4	
L 2.	. Samp	: End of boring at 18' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil cuttings lled 0-6 feet at 1035 lled 6-12 feet at 1038 lled 12-18 feet at 1042					

- Sampled 0-6 feet at 1035
 Sampled 6-12 feet at 1038
 Sampled 12-18 feet at 1042

	Huff incon A Subsidiary of 6	C& Huff, porated ZZA Gosffrironnental, lice			BORII	NG NI	JMBI	ER 253	81V- PAGE		
CLIE	NT _IIIi	nois Department of Transportat	ion, District One	PROJECT NAME _	L Route 59	& US Rou	te 20 PS				
PROJ	ECT N	UMBER PTB 178 008 / Work	Order 02	PROJECT LOCATIO	N Bartlett	, Cook Cou	unty, IL				
DATE	DATE STARTED <u>8/8/17</u> COMPLETED <u>8/8/17</u> G				ON _799 +/	- 2	HOLES	SIZE 2 incl	nes		
DRILLING CONTRACTOR GSG Consultants, Inc. DRILLING METHOD Direct Push LOGGED BY AMH CHECKED BY JJR DRILL RIG 7822DT Track Geoprobe				GROUND WATER LEVELS (ft, bgs):	DATE 8/8/2017	TIME DD					
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION					REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
8/81.0220509	<u> </u>	Surface: 3-inch black TOPSOIL (FILL) S-1: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown,						S-1 (0-5)	0.0	4	

moist (FILL) ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:81.0220509.04 IDOT 178008-02A - US 20 @ IL 59/REPORTS/BORINGS LOGS 5.0 S-2 (5-9) 0.0 $S-2: Soft, lean\ CLAY\ (CL), low\ plasticity; trace\ Sand, fine-\ to\ coarse-grained; trace\ Gravel, fine-grained; brown\ and\ black,\ moist\ (FILL)$ 4 7.5

: End of boring at 9' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil cuttings

R E M A R K S

Sampled 0-5 feet at 1039
 Sampled 5-9 feet at 1042

BORING NUMBER 2531V-16-02 PAGE 1 OF 1

Huff & Huff, in corporated				
			5 6	

A Subsidiary of GZA GeoEnvironmental, Inc.												
CLIENT Illinois Department of Transportation, District One	PROJECT NAME IL Route 59 & US Route 20 PSI											
PROJECT NUMBER PTB 178 008 / Work Order 02	PROJECT LOCATION Bartlett, Cook County, IL											
DATE STARTED <u>8/8/17</u> COMPLETED <u>8/8/17</u>	GROUND ELEVATION _796 +/- 2 HOLE SIZE _2 inches											
DRILLING CONTRACTOR GSG Consultants, Inc.		DATE	TIME	DEPTH	CASING	CTAL	,					
DRILLING METHOD Direct Push	GROUND WATER	8/8/2017	DD DD	DRY	10	STAE N/A						
LOGGED BY AMH CHECKED BY JJR	LEVELS (ft, bgs):											
DRILL RIG 7822DT Track Geoprobe												
						-	_					

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN.
0.0	74 1× 1/1	Surface: 4-inch black TOPSOIL (FILL)					
 		S-1: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; black and brown, moist (FILL)	1	S-1 (0-5)	0.0	4	
#Ld3Q 0.0		S-2: Soft, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown, moist (FiLL)	2	S-2 (5-9)	0.0	4	
R 1 2 A R K S	<u> </u>	: End of boring at 9' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil					
		cuttings					
R 1 E M 2 A R K S	. Samp	oled 0-5 feet at 1030 oled 5-9 feet at 1033					

PAGE 1 OF 1

Huff & Huff, in corporate d			BORII	NG NI	JMBE		1V-1 7 PAGE 1						
CLIENT Illinois Department of Tr	ansportation, District One	PROJECT NAME IL Route 59 & US Route 20 PSI											
PROJECT NUMBER PTB 178 0	08 / Work Order 02	PROJECT LOCATIO	N Bartlett	, Cook Coi	unty, IL								
DATE STARTED 8/8/17	COMPLETED _8/8/17	GROUND ELEVATION	ON _796 +/	- 2	HOLE SIZ	ZE 2 inch	es						
DRILLING CONTRACTOR GSG	Consultants, Inc.		DATE	TIME	DEPTH	CASING	STAB						
DRILLING METHOD Direct Push	1	GROUND WATER	8/8/2017	DD	DRY	10	N/A						
LOGGED BY AMH	CHECKED BY LIR	LEVELS (ft, bgs):											

CHECKED BY JJR

LOGGED BY AMH

DRILL RIG 7822DT Track Geoprobe										ı
O DEPTH O (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION				KEMAKKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN.
 	21/2: 31	Surface: 3-inch black TOPSOIL (FILL) S-1: Very stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Grabrown, moist (FILL)	avel, fine-gr	ained; black	and	1	S-1 (0-5)	0.0	4	
0.0 OEbdth (#) 2.5 5.0 7.5										
5.0 		S-2: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace and grey, moist (FILL)	Gravel, fine	e-grained; br	own	2	S-2 (5-9)	0.0	4	
7.5										
	<u> </u>	: End of boring at 9' BGS. Boring immediately backfilled with 3/8" bentonite chips and capp cuttings	ed with ren	naining soil				<u> </u>		
R E 1. 2. A R K S	Samp Samp	led 0-5 feet at 1021 led 5-9 feet at 1024								

BORING NUMBER 2531V-18-01

16.4	Huff & Huff											OIVIE) [IK 250		E 1 0		
	Care	A Subsidiary of G	ZA GeoEnvironme	ntal, Inc.														
- 1								One		_								
- 1					178 008 /					PROJECT LOCATI			-					
			TED _8/					8 /8/17		GROUND ELEVAT	ION <u>797 +</u>	/- 2	HOLE	S	IZE 2 inc	hes		
					GSG Co	onsultant	s, Inc.				DATE	TIME	DEP	ΓН	CASING	ST	AB	
					ct Push					GROUND WATER LEVELS (ft, bgs):	8/8/2017	DD	DR	<u> </u>	10	N	//A	
			AMH				CKED B	Y JJR		- (', ' 3 -',								
L	DRILL RIG _7822DT Track Geoprobe																	
.04_BORING LOGS.GPJ	0.0 (#)	GRAPHIC LOG						MATERIA	AL DESCRIF	PTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
:0509:04 IDOT 178008-02A - US 20 @ IL 59	2.5 - - - - 5.0		S-1: H brown	lard, le n, mois	t (FILL)	CL), low p	olasticity;			se-grained; trace Grave			u	2	S-1 (0-5) S-2 (5-9)	0.0	4	
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81.022	2 2 4 8 6	. Samp	cuttin	gs feet at	1010 and			-		pentonite chips and cap ected at this interval	oped with rer	naining soil						

BORING NUMBER 2531V-18-02

Huff	Huff & Huff												
A Subsidiary of G	ZA GeoEnvironmental, Inc.												
		tion, District One											
	JMBER PTB 178 008 / Work		PROJECT LOCATIO										
		OMPLETED 8/8/17	GROUND ELEVATION	/9/ +/	<u>- 2</u>	HOLI	= 5	ZE ZINC	nes				
1	ONTRACTOR GSG Consultation ETHOD Direct Push	arits, inc.	GROUND WATER					CASING	I				
1		HECKED BY JJR	LEVELS (ft, bgs):	8/8/2017	DD	DR	Υ	10	N/A				
	7822DT Track Geoprobe	TIEGRED DT	-										
<u> </u>	7022BT Track Geoprobe		-				1						
OA BORING LOGS.GF OB DEPTH OGRAPHIC LOG		MATERIAL DESCRI	PTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)		
2 2 2	Surface: 2-inch black TOPSO	IL (FILL)											
KINGS LOGS/81.022	S-1: Medium stiff, lean CLAY moist (FILL)	(CL), low plasticity; trace Sand, fine-	to coarse-grained; trace	Gravel, fine	e-grained; b	lack,	1	S-1 (0-5)	0.0	3			
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.CDT - 8/15/17 10:21 - J:81.0220509.04 IDDT 178008-02A - US 20 @ IL S9IREPORTS\BORNINGS LOGS\B1.0220509.04 BORING LOGS\B1.0220509.04 BORING LOGS\B1.021-G	: End of boring at 9' BGS. Bor	CLAY (CL-SC), low plasticity; trace				LL)	2	S-2 (5-9)	0.0	3			
NMO	cuttings		ompo and oapp	. 50 mai 1011									
COLL													
R 1. Samp A 2. Samp K 5. Samp S 8. Samp	led 0-5 feet at 1002 led 5-9 feet at 1005												

BORING NUMBER 2531V-18-03 PAGE 1 OF 1

1000	
	Huff & Huff,
Va .	incorporated A Subsidiary of GZA GeoEnvironmental, Inc.

1		Huff n c o r Subsidiary of C	& Hu porate ZA GeoEnvironmental	$\prod_{i \in \mathbf{d}}$,													
c	CLIENT Illinois Department of Transportation, District One PROJECT NAME IL Route 59 & US																
					3 / Work Order			ON Bartlett	t, Cook Co	unty, II							
D	ATE	STAR	TED 8/8	3/17	COMPLE	ETED <u>8/8/17</u>	GROUND ELEVATION	ON _797 +/	'- 2	HOL	HOLE SIZE 2 inches						
D	RILL	ING C	ONTRAC	TOR GSG C	Consultants, Inc	C.		DATE TIME		DED	ты						
D	RILL	ING M	ETHOD	Direct Push			GROUND WATER	8/8/2017	TIME DD	1	DRY 10			/A			
L	OGG	ED B	AMH_		CHECKE	ED BY JJR	LEVELS (ft, bgs):										
D	RILL	RIG _	7822DT	Track Geopro	be								+				
9.04_BORING LOGS.GPJ	(#) 0.0	GRAPHIC LOG				MATERIAL DES	SCRIPTION	1			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)		
LAB.GDT - 8/15/17 10:21 - J.81.0220509.04 IDOT 178008-02A - US 20 @ IL 59	- - - 22.5 - - - - - - - - - - - - - - - - - - -		S-1: Me moist (edium stiff, lear FILL)		CL-SC), low plasticity; t	trace Silt; trace Gravel, fine-gr				2	S-1 (0-5)	0.0	4			
H COLUMN W/ F		<u> </u>	: End of cutting		GS. Boring imm	nediately backfilled with	3/8" bentonite chips and capp	ped with rem	naining soil				<u> </u>				
ENVIRONMENTAL BE W S S	2.	Samp Samp	oled 0-5 fe oled 5-9 fe	eet at 0953 eet at 0956													

	Huff & Huff											- 18- E 1 C				
	3	n c o r	porated GZA GeoEnvironmental, Inc.													
CI	LIEN	IT Illin	nois Department of Tra	insportation, District One	PROJECT NAME _	L Route 59	& US Rou	ite 20 P	SI							
PF	ROJ	ECT N	UMBER PTB 178 008	8 / Work Order 02	PROJECT LOCATION	N Bartlet	t, Cook Co	unty, IL								
D/	ATE	STAR	TED <u>8/8/17</u>	COMPLETED _8/8/17	GROUND ELEVATION	ON <u>798 +</u>	/- 2	HOLE	HOLE SIZE 2 inches							
DI	RILL	ING C	ONTRACTOR GSG	Consultants, Inc.		DATE	TIME DEI		ТН	CASING	i ST	AB				
DI	RILL	ING M	ETHOD Direct Push		GROUND WATER	8/8/2017		DR'		10		/A				
LC	OGG	ED B	/ AMH	CHECKED BY JJR	LEVELS (ft, bgs):											
DI	RILL	. RIG	7822DT Track Geopro	bbe												
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81 0220509.04 IDOT 178008-02A - US 20 @ IL 59\REPORTS\BORINGS LOGS\B1.0220509.04 BORING LOGS\SP1.0220509.04 BORING LOGS\SP1.0220509.		GRAPHIC LOG		MATERIAL DESC	RIPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)			
09:04	.0	74 1× .74	Surface: 2-inch black													
02206			CaCoo. 2 mon black													
3/81.0	_		S-1: Medium stiff, lea	n sandy CLAY (CL-SC), low plasticity; tra	ice Silt; trace Gravel, fine-gr	ained; brow	n, moist (Fl	LL)	1	S-1 (0-5)	0.0	4				
9 -	_									(0 0)						
VGS VGS																
<u>8</u>	-															
TS/B	_															
ROGI																
<u> 2</u>	.5															
1 2																
20 @ -	-															
- ns																
02A	-															
8008	_															
T 178																
<u> </u> -	-															
90.04																
2050	.0		S-2: Medium stiff, lea	n sandy CLAY (CL-SC), low plasticity; tra	ice Silt; trace Gravel, fine-gr	ained; brow	n, moist (FII	LL)	2	S-2	0.0	4				
31.02				(,	,,,,, 3	,	,	,		(5-9)						
٠. - -	-															
0:21	_															
/17 1																
8/15	-															
- L																
AB.G	-															
기 기 기 기	.5															
Ĭ	_															
S-G																
AR F	-															
REM																
<u> </u>		14/74/		3GS. Boring immediately backfilled with 3	/8" bentonite chips and capp	ped with ren	naining soil									
III I			cuttings													
S																
R E	1.	Samp	oled 0-5 feet at 0947													
	2.	Samp	oled 5-9 feet at 0950													
A RONM																
K K																
ت_ت																

MBER 2531V-18-05 PAGE 1 OF 1

Huff & Huff In corporated Assistance of GZA Gooff inventmental, the	BORING NUI
CLIENT Illinois Department of Transportation, District One	PROJECT NAME IL Route 59 & US Route 2
	-

CLIENT Illinois Department of Transportation, District One	PROJECT NAME IL Route 59 & US Route 20 PSI											
PROJECT NUMBER PTB 178 008 / Work Order 02	PROJECT LOCATION Bartlett, Cook County, IL											
DATE STARTED 8/8/17 COMPLETED 8/8/17	GROUND ELEVATION _796 +/- 2 HOLE SIZE _2 inches											
DRILLING CONTRACTOR GSG Consultants, Inc.		DATE	TIME	DEPTH	CASING	STAB						
DRILLING METHOD Direct Push	GROUND WATER	8/8/2017	DD	DRY	10	N/A						
LOGGED BY AMH CHECKED BY JJR	LEVELS (ft, bgs):											
DRILL RIG _7822DT Track Geoprobe												

DEРТН (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN.
	<u></u>	Surface: 2-inch black TOPSOIL (FILL) S-1: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace C and brown, moist (FILL)	Gravel, fine	-grained; bla	ck 1	S-1 (0-5)	0.0	3	
2.5 - 5.0 - 7.5		S-2: Medium stiff, lean sandy CLAY (CL-SC), low plasticity; trace Silt; trace Gravel, fine- to c moist (FILL)	oarse-graii	ned; brown,	2	S-2 (5-9)	0.0	4	
R 1 2 A R K S	. Samp	: End of boring at 9' BGS. Boring immediately backfilled with 3/8" bentonite chips and cappe cuttings sled 0-5 feet at 0938 sled 5-9 feet at 0941	ed with rem	naining soil					

BORING NUMBER 2531V-18-06

16		Huff	& Huff,						DUKI	NG N	UIVII	DE	-K 253		E 1 C	
1	ale	A Subsidiary of G	ZA GeoEnvironmental, Inc.													
				B 178 008 / '			7	PROJECT LOCATIO					17E 2 inc	hoo		
				R GSG Cor			<u> </u>	GROUND ELEVATION	JN <u>790 +/</u>	<u>- Z</u>	HOL	ES	<u> </u>	iies		
			ETHOD Dir		isuitarits, iric	·-		GROUND WATER	DATE	TIME			CASING		AB	
				COLT USIT	CHECKE	D BY JJR		LEVELS (ft, bgs):	8/8/2017	DD	DF	KY_	10	I N	/A	
				ck Geoprobe		<u> </u>										
- ⊢		GRAPHIC LOG				MATER	IIAL DESCRIP	TION	ı			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
LAB.GDT - 8/15/17 10:21 - J/81.0220509.04 IDOT 178008-02A - US 20 @ IL 59	- - 2.5 - - 5.0 - - 7.5		S-1: Mediu and brown	a, moist (FILL)	CLAY (CL), Iow	v plasticity; tra		to coarse-grained; trace oarse-grained; trace Gra				2	S-1 (0-5)	0.0	4	
VIRONMENTAL BH COLUMN W	1. 1. 2.	Samp	: End of bo cuttings oled 0-5 feet a oled 5-9 feet a	at 0930	s. Boring Imm	euiately backf	iiilea with 3/8" b	entonite chips and capp	oea with ren	naining soil						
Σ S	5															

BORING NUMBER 2531V-18-07 PAGE 1 OF 1

Huff & Huff	_
incorporated A Subsidiary of GZA GeoEnvironmental, Inc.	

ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J.'81.0220509.04 IDOT 178008-02A - US 20 @ IL 59!REPORTS\BORINGS LOGS\81.0220509.04 EORING LOGS\GPJ

5	Huff	& Huff,							1 70		,, ,
CLIEN	A Subsidiary of C	nois Department of Transp	portation, District One	PROJECT NAME	L Route 59	& US Route	e 20 PSI				
		JMBER PTB 178 008 / V									
		TED <u>8/7/17</u>					_	SIZE 2 inc	hes		
DRILL	ING C	ONTRACTOR GSG Cor	nsultants, Inc.		DATE	TIME	DEDTU	CACINIC		•	
DRILL	ING M	ETHOD Direct Push		GROUND WATER	DATE 8/7/2017	TIME DD	DRY	CASING 20		AB /A	
LOGO	SED BY	AMH	CHECKED BY JJR	LEVELS (ft, bgs):							
DRILL	RIG _	7822DT Track Geoprobe								_	
o DEPTH (ft)	GRAPHIC LOG		MATERIAL DES	CRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
		Surface: 2-inch black TC S-1: Hard, lean CLAY (C (FILL)	DPSOIL (FILL) CL), low plasticity; little Sand, fine- to	coarse-grained; trace Gravel,	fine-grained	; brown, moi	ist 1	S-1 (0-6)	0.0	6	
5		S-2: Hard, lean sandy Cl	LAY (CL-SC), low plasticity; trace Sil	lt; trace Gravel, fine-grained; t	orown, moist	(FILL)	2	S-2 (6-12)	0.0	6	
10		S-3: Hard, lean sandy Cl	LAY (CL-SC), low plasticity; trace Sil	lt; trace Gravel, fine-grained; t	orown, moist	(FILL)	3	S-3 (12-18)	0.0	4	
		: End of boring at 18' BG cuttings	SS. Boring immediately backfilled with	h 3/8" bentonite chips and ca	pped with rei	maining soil					
Б 2	. Samp	oled 0-6 feet at 0910 oled 6-12 at 0915 oled 12-18 feet at 0918									

BORING NUMBER 2531V-18-08 PAGE 1 OF 1

1	F AS	Huff n c o r subsidiary of C	& Hi porat ZA GeoEnvironmen	lff, e d, _{tal, Inc.}												
С	LIENT	Γ Illir	ois Dep	artment of Tra	ansportation, [District Or	ne	PROJECT NAME	IL Route 59	& US Rou	ıte 20 I	PSI				
				PTB 178 00					ON Bartlet	t, Cook Co	unty, I	L				
D	ATE S	STAR	TED _8/	9/17	COMP	LETED _	8/9/17	GROUND ELEVAT	ION _790 +	/- 2	HOL	E S	SIZE 2 incl	hes		
D	RILLI	NG C	ONTRAC	CTOR GSG	Consultants, I	Inc.			DATE	TIME	DEE	тц	CASING	ет	AB	
D	RILLI	NG M	ETHOD	Direct Push				GROUND WATER	8/9/2017		DF		5		/A	
L	OGGE	ED BY	AMH		CHECI	KED BY	JJR	LEVELS (ft, bgs):								
D	RILL	rig _	7822DT	Track Geopro	obe								-			
.04_BORING LOGS.GPJ	0 (#)	GRAPHIC LOG				M	ATERIAL DESC	CRIPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81,0220509.04 IDOT 178008-02A - US 20 @ IL 59/REPORTS\BORINGS LOGS\B1.0220509.04 BORING LOGS\GPJ SARBER S9/REPORTS\BORINGS LOGS\B1.0220509.04 IDOT 178008-02A - US 20 @ IL 59/REPORTS\BORINGS LOGS\B1.0220509.04 BORING LOGS\GPJ DEPTH	1		browr	n, moist (FILL);	trace concrete			parse-grained; trace Gravel				1	S-1 (0-1)	0.0	1	
OLUM																
BHC	.			_												
ENVIRONMENTAL I	'-	Samp	led 0-1 t	eet at 0908												

BORING NUMBER 2531V-23-01

		Huff	& Huff.				<u>-</u>			PAG	_ 0	OF 1
١,	CLIEN	Subsidiary of G	ois Department of Transportation, District One	PROJECT NAME _	II Poute 50	& LIS Pout	△ 20 D	SI.				
		<u></u>	JMBER PTB 178 008 / Work Order 02	DD0 1505 1 00 4 514								
- 1			FED <u>8/8/17</u> COMPLETED <u>8/8/17</u>				-		= 2 incl	hes		
ļ	DRILL	ING CO	ONTRACTOR GSG Consultants, Inc.		DATE	TIME	DEDT	ъ.	CASING	ет	ΛD	
þ	DRILL	ING MI	ETHOD Direct Push	GROUND WATER	8/8/2017	DD	DRY		5		/A	
- 1			AMH CHECKED BY JJR	LEVELS (ft, bgs):								
Ľ	DRILL	RIG _	7822DT Track Geoprobe									
	o DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIF Surface: 3-inch black TOPSOIL (FILL)	PTION				REMARKS SAMPLE TYPE	SAMPLE ITPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
COCCUMINATIVE MANAGES OF THE STORES OF THE S	-		S-1: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- and brown, moist (FILL) : End of boring at 1' BGS. Boring immediately backfilled with 3/8" b				ack	1	S-1 (0-1)	0.0	1	
201			cuttings	,		J						
7	R 1.	Samp	led 0-1 feet at 1305									
A LACIN	R 1. E M A R K S											

		Huff	& Huff					BORI	NG N	UMI	BE	R 253		- 23 - E 1 C	
	0	incor A Subsidiary of C	porated ZA GeoEnvironmental, Inc.												
	CLIE	NT Illir	nois Department o	of Transport	ation, District	One	PROJECT NAME _	L Route 59	& US Rou	te 20	PSI				
	PRO.	JECT N	JMBER PTB 17				PROJECT LOCATIO	N Bartlet	t, Cook Co	unty, I	L				
	DAT	E STAR	TED _8/8/17		COMPLETED	8/8/17	GROUND ELEVATION	ON <u>836</u> +	/- 2	HOL	E S	IZE 2 inc	hes		
	DRIL	LING C	ONTRACTOR _G	SSG Consu	Itants, Inc.		<u> </u>	DATE	TIME	DEF	PΤΗ	CASING	ST	AB	
- 1			ETHOD Direct F				GROUND WATER LEVELS (ft, bgs):	8/8/2017	DD	DF		5	- 1	/A	
- 1			AMH		CHECKED B	Y JJR									
L	DRIL	L RIG _	7822DT Track Ge	eoprobe											
4_BORING LOGS.GPJ	O DEPTH	GRAPHIC LOG				MATERIAL DESCI	RIPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J.18/1 02205:09.04 IDOT 178008-02A - US 20 @ IL 59/REPORTS/BORINGS LOGS/81.02205:09.04_BORING LOGS.GPJ			and brown, mois	ff, lean CLA' st (FILL)	Y (CL), low plas		ne- to coarse-grained; trace			lack	1	S-1 (0-1)	0.0	1	
NVIRONMENTAL BH COL	R E M A R K S	1. Samp	oled 0-1 feet at 14	05											

DF LC	ROJE ATE RILL RILL DGG	T Illing STAR ING CO	TED 8/8/17 COMPLETED 8/8/17 ONTRACTOR GSG Consultants, Inc. IETHOD Direct Push C AMH CHECKED BY JJR	PROJECT NAME _!! PROJECT LOCATIO	L Route 59	& US Route	e 20 PS nty, IL HOLE	SIZE 2 inc	PAG	E 1 C	
-	(ft)	GRAPHIC LOG	7822DT Track Geoprobe MATERIAL DES	CRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J. 81 0220509.04 IDOT 178008-02A - US 20 @ IL 59REPORTS BORINGS LOGS 81.0220509.04 BORING LOGS GFJ			S-1: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, and brown, moist (FILL) : End of boring at 1' BGS. Boring immediately backfilled with				ack 1	S-1 (0-1)	0.0	1	
S X X Y X Y X Y X X X X X X X X X X X X	1.	Samp	oled 0-1 feet at 1402								

BORING NUMBER 2531V-23-04

	Huff	& Huff				DONI	NG NC	JIVIL	JL	.N 200		E 1 0	
C. C.	A Subsidiary of C	p O I a t e d ZA GeoEnvironmental, Inc.											
		nois Department of Transpo)									
		UMBER PTB 178 008 / W			PROJECT LOCATIO			_					
1		TED <u>8/8/17</u>			GROUND ELEVATION	ON <u>830 +/</u>	- 2	HOL	E S	IZE 2 inc	hes		
		ONTRACTOR GSG Cons	sultants, Inc.			DATE	TIME	DEP	TH	CASING	ST	AB	
		ETHOD Direct Push			GROUND WATER LEVELS (ft, bgs):	8/8/2017	DD	DR	Y_	5	N	/A	
1		AMH	CHECKED BY _J	IJR									
	L RIG _	7822DT Track Geoprobe			-								
DEPTH (#)	GRAPHIC LOG		MAT	TERIAL DESCRIF	PTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
NEMARKS - GIN STD US LAB.GD -8/19/17 10/21 - J. NO. 10/21 -		Surface: 3-inch black TOF S-1: Medium stiff, lean CL and brown, moist (FILL)	AY (CL), low plasticity					ack	1	S-1 (0-1)	0.0	1	
		: End of boring at 1' BGS. cuttings	Boring immediately b	packfilled with 3/8"	bentonite chips and capp	oed with ren	naining soil						
NVIKONMEN AL BH COLUMN W/ REMARKS	. Samp	oled 0-1 feet at 1400											

K.		H. cc	Q IIIIff				BORI	NG N	JME	3E	:R 253		- 32- E 1 C	
150	0		Q HUII, porated ZA GeoEnvironmental, Inc.											
	CLIEN	IT Illin	nois Department of Transp	oortation, District One	F	PROJECT NAME _	L Route 59	& US Rou	te 20 F	PSI				
	PROJ	ECT N	UMBER PTB 178 008 / \	Work Order 02	F	PROJECT LOCATION	N Bartlet	t, Cook Cou	unty, II	_				
1	DATE	STAR	TED <u>8/8/17</u>	COMPLETED 8/8/17	7 (GROUND ELEVATION	ON 832 +	/- 2	HOL	E S	IZE 2 inc	hes		
[DRILL	ING C	ONTRACTOR GSG Con	sultants, Inc.			DATE	TIME	DEP	тн	CASING	ST	AB	
-			<u> </u>			GROUND WATER LEVELS (ft, bgs):	8/8/2017		DR		5		/A	
			AMH	_ CHECKED BY JJR										
Ľ	DRILL	RIG _	7822DT Track Geoprobe											
04_BORING LOGS.GPJ	O DEPIH	GRAPHIC LOG		MATERI	IAL DESCRIPTI	ON				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
	0	7. · 1/2	Surface: 3-inch black TC	PSOIL (FILL)										
ENVIRONMENTAL BH COLUMN W/ REMARKS - GIN I STD US LAB.GDT - 8/15/17 10/21 - 3/18/10/24/DDT 17/8008-0ZA - US ZU Q IL SUIREPURINGS LUGS BT.0ZZUSUS.04_BDRING LUGS.GF2	-		and brown, moist (FILL)	LAY (CL), low plasticity; tra					lack	1	S-1 (0-1)	0.0	1	
١			cuttings	. Doing ininectately backli	mica with 5/6 Del	norme origo and capp	Jou WILLIEL	nammy Sull						
INVIRCINIMENTAL BE	R 1	Samp	oled 0-1 feet at 1329											

	ia la	Huff incor A Subsidiary of G	& Huff. porated Cachementum		BORI	NG NI	JMI	BE	R 253		- 32- E 1 C	
	CLIE	NT Illir	nois Department of Transportation, District One	_ PROJECT NAME _	L Route 59	& US Rout	te 20 I	PSI				
			JMBER PTB 178 008 / Work Order 02	PROJECT LOCATION								
	DAT	E STAR	TED <u>8/8/17</u> COMPLETED <u>8/8/17</u>	GROUND ELEVATION	ON <u>821 +</u>	/- 2	HOL	E S	IZE 2 inc	hes		
	DRIL	LING C	ONTRACTOR GSG Consultants, Inc.	_	DATE	T184E	DE-	·	0.4.011.0			
	DRIL	LING M	ETHOD Direct Push	GROUND WATER	DATE 8/8/2017	TIME DD	DE		CASING 5		AB /A	
	LOG	GED BY	AMH CHECKED BY JJR	LEVELS (ft, bgs):								
	DRIL	L RIG _	7822DT Track Geoprobe	_								
04_BORING LOGS.GPJ	O DEPTH	GRAPHIC LOG	MATERIAL DESCR	RIPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
509.0	U	71 1/2 . 1/1	Surface: 3-inch black TOPSOIL (FILL)									
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81.0220509.04 IDOT 178008-02A - US 20 @ IL 59\REPORTS\BORINGS LOGS\\81.0220509.04 BORING LOGS\\61.0210509.04 BORING LOGS\\61.0220509.04 BORING LOGS\\61.0210509.04 BORING LOGS\\61.0210509			S-1: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fin and brown, moist (FILL) : End of boring at 1' BGS. Boring immediately backfilled with 3/8				ack	1	S-1 (0-1)	0.0	1	
LOMN			cuttings	,		0						
H CO												
ENVIRONMENTAL E	R E M A R K S	1. Samp	led 0-1 feet at 1342									

		H	& Huff			BORI	NG N	JMBI	ER 253		- 32 - E 1 C	
	10		porated A GeoEnvironmental, Inc.									
ď	CLIEN	NT Illin	ois Department of	Transportation, District One	PROJECT NAME _	L Route 59	8 US Rou	te 20 PS	<u> </u>			
	PROJ	ECT N	JMBER PTB 178	3 008 / Work Order 02	PROJECT LOCATION	N Bartlet	tt, Cook Cou	-				
	DATE	STAR	TED <u>8/8/17</u>	COMPLETED <u>8/8/17</u>	GROUND ELEVATION	ON <u>827 +</u>	/- 2	HOLE S	SIZE 2 inc	hes		
	DRILL	ING CO	ONTRACTOR G	SG Consultants, Inc.		DATE	TIME	DEPTH	CASING	ST	AB	
	DRILL	ING MI	ETHOD Direct P	ush	GROUND WATER	8/8/2017		DRY	5		/A	
	LOGG	SED BY	AMH	CHECKED BY JJR	LEVELS (ft, bgs):							
	DRILL	RIG _	7822DT Track Ge	eoprobe								
4_BORING LOGS.GPJ	O DEPTH (ft)	GRAPHIC LOG		MATERIAL DES	CRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81.0220509.04 IDOT 178008-02A - US 20 @ IL 59\REPORTS\BORINGS LOGS\81.0220509.04 BORING LOGS\GPJ	-		coarse-grained;	f, lean CLAY (CL), low plasticity; little Sand, f black and brown, moist (FILL)				1	S-1 (0-1)	0.0	1	
NVIRONMENTAL BH COL	R 1 E M A R K S	. Samp	led 0-1 feet at 134	‡ 5								

	Huff & Huff																	
13.0	d		Porated ZA GeoEnvironmental, Inc.															
c	LIEN	NT Illin	nois Department of Transp	oortation, District One		PROJECT NAME	L Route 59	& US Rou	te 20 F	PSI								
F	ROJ	ECT N	UMBER PTB 178 008 / \	Work Order 02		PROJECT LOCATIO	N Bartlet	t, Cook Cou	unty, II	<u>, IL</u>								
	ATE	STAR	TED _8/8/17	COMPLETED 8/8/	/17	GROUND ELEVATION	ON 821 +	/- 2	HOL	LE SIZE 2 inches								
[RILL	ING C	ONTRACTOR GSG Con	sultants, Inc.			DATE	TIME	DEP	EPTH CASING		ST	AB					
	RILL	ING M	ETHOD Direct Push			GROUND WATER LEVELS (ft, bgs):	8/8/2107		DR		5		/A					
- 1			AMH	CHECKED BY JJF	R	LLVLLS (II, bgs).												
L	RILL	RIG _	7822DT Track Geoprobe															
04_BORING LOGS.GFJ	O DEFIN	GRAPHIC LOG		MATE	ERIAL DESCRIP	TION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)				
.6000		· 74 18 · 74	Surface: 3-inch black TO	PSOIL (FILL)														
ENVIRONMENTAL BH COLUMN W/ KEMARKS - GIN I SID US LAB.GDI - 8/15/17 10:21 - 3:81 UZZUSUS:U4 IDOI 17/8008-UZA - US ZU @ IL SUKEPURISIBURINGS LUGS BI UZZUSUS:U4_BURING LUGS S.GFZ	-		S-1: Medium stiff, lean C and brown, moist (FILL)						ack	1	S-1 (0-1)	0.0	1					
- CMIZ			: End of boring at 1' BGS cuttings	i. Boring immediately bac	cktilled with 3/8" b	pentonite chips and capp	oed with ren	naining soil										
100																		
ENVIRONMENTAL BR	8	. Samp	oled 0-1 feet at 1313															

BORING NUMBER 2531V-33-02

10 6	6	Huff incor A Subsidiary of G	& Hi porat A GeoEnvironm	↓ ff, e d, ental, Inc.								BORI	NG NI	UIVI	BE	:K 25		- 33- E 1 C	
	CLIEN	NT Illin	ois Dep	artment of T	ranspor	tation, Dis	strict One	9		PROJEC	T NAME _	IL Route 59	& US Rou	ıte 20	PSI				
F	PROJ	ECT N	JMBER	PTB 178 0	008 / W	ork Order	02			PROJEC	T LOCATION	ON Bartlet	t, Cook Co	unty, I	IL				
	DATE	STAR	FED _8	/8/17		COMPLE	ETED _8/	/8/17		GROUNE	ELEVATI	ON <u>823</u> +	/- 2	HOL	E S	IZE 2 inc	hes		
	DRILL	ING C	ONTRA	CTOR GS	G Consu	ultants, Ind	C.					DATE	T11.4F	DE:		0.4.011.0			
	RILI	ING M	ETHOD	Direct Pus	sh					GROUND	WATER	DATE 8/8/2017	TIME DD	1	71 11	CASING 5	- 1	/A	
L	.ogc	SED BY	AMH			CHECKE	ED BY _J	JJR		LEVELS	(ft, bgs):								
	DRILL	RIG _	7822D	Track Geog	orobe														
FORING LOGS:GPJ	DEPIH (ft)	GRAPHIC LOG					MA	TERIAL [DESCRIF	PTION					REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL DE COLOMIN WY REMARKS - GIN 131D OS LABGOT - 6/19/17 10/21-3.16/17/22/0303/04 IDOT 17/00/05-02/A- CO 20/08/12 COLOMIN WY REMARKS - GIN 131D OS LABGOT - 6/19/17 10/21-3.16/17/22/0303/04 IDOT 17/00/05-02/A- CO 20/08/12 COLOMINGS LOGS/61/02/03/39/04 IDOT 17/00/05-02/A- CO 20/08/12 COLOMINGS LOGS/61/07/24 C	<u>-</u>		S-1: N	ce: 3-inch bla	ean CLA			ty; trace S	Sand, fine-	to coarse-g	rained; trace	e Gravel, fine	e-grained; b	olack	1	S-1 (0-1)	0.0	1	
NIN VA			: End cuttin	of boring at 1 gs	' BGS. E	Boring imm	nediately b	oackfilled	with 3/8" I	bentonite ch	ips and cap	ped with ren	naining soil		 !				
II COLL																			
ENVIRONMENTAL B	= ' N A R K	. Samp	led 0-1	feet at 1315															

PF D/ DI DI	ROJE ATE RILL RILL DGG	T Illin ECT NI STAR ING CO ING M	TED 8/8/17 COMPLETED 8/8/17 ONTRACTOR GSG Consultants, Inc. IETHOD Direct Push C AMH CHECKED BY JJR	PROJECT NAME _!! PROJECT LOCATIO	_ Route 59	& US Route	e 20 PS nty, IL HOLE	SIZE 2 inc	PAG	E 1 C	
-	(ft)	GRAPHIC LOG	7822DT Track Geoprobe MATERIAL DESC	CRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81 0220509.04 IDOT 178008-02A - US 20 @ IL 59REPORTS\BORINGS LOGS\81.0220509.04 BORING LOGS GFJ OS SPENDENTS\BORINGS LOGS\81.0220509.04 BORING LOGS\67.02 GFJ OS SPENDENTS\BORINGS LOGS\81.020509.04 BORING LOGS\67.020509.04 BORI			S-1: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, and brown, moist (FILL) : End of boring at 1' BGS. Boring immediately backfilled with				ack 1	S-1 (0-1)	0.0	1	
ENVIRONMENTAL BH COLU	1.	Samp	oled 0-1 feet at 1317								

100	a	Huff incor	& Huffl	ME	BE	R 253		- 33- E 1 C	
	CLIE	NT Illin	nois Department of Transportation, District One PROJECT NAME IL Route 59 & US Route	20 F	PSI				
- 1			IUMBER PTB 178 008 / Work Order 02 PROJECT LOCATION Bartlett, Cook Coul	nty, II	L				
[DATE	STAR	RTED <u>8/8/17</u> COMPLETED <u>8/8/17</u> GROUND ELEVATION <u>826 +/- 2</u>	HOL	E S	IZE 2 inc	nes		
1	DRILI	LING C	CONTRACTOR GSG Consultants, Inc. DATE TIME	DEP	тн	CASING	ет	۸R	
1	DRILI	LING M	METHOD Direct Push GROUND WATER 8/8/2017 DD	DR		5		/A	
ļι	LOGO	GED BY	Y AMH CHECKED BY JJR LEVELS (ft, bgs):						
L	DRILI	RIG _	7822DT Track Geoprobe						
4 BORING LOGS.GPJ	, DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81.0220509.04 IDOT 178008-02A - US 20 @ IL 59\REPORTS\BORINGS LOGS\81.0220509.04_BORING LOGS\81.			S-1: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; bla and brown, moist (FILL)	ck	1	S-1 (0-1)	0.0	1	
LOMN			: End of boring at 1' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil cuttings						
SH CO									
ENVIRONMENTAL E	R 1 E M A R K S	. Samp	pled 0-1 feet at 1320						

	100	Huff incor	& Huff.			BORI	NG N	UM	BE	ER 253		- 33- E 1 C	
	CLIF	NT Illir	nois Department of Transp	ortation, District One	PROJECT NAME II	L Route 59) & US Rou	ıte 20	PSI				
			UMBER _ PTB 178 008 / V										
- 1			TED 8/8/17							SIZE 2 inc	nes		
			·	sultants, Inc.		DATE	TIME						
	DRIL	LING M	IETHOD Direct Push		<u>21H</u> 27	CASING 5		AB /A					
	LOG	GED BY	/ AMH										
	DRIL	L RIG _	7822DT Track Geoprobe										
04_BORING LOGS.GPJ	O DEPTH	GRAPHIC LOG		MATERIAL DESCR	IPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\(\text{8}\) 10220509.04 IDOT 178008-02A - US 20 @ IL 59\REPORTS\(\text{BORINGS LOGS\(\text{8}\) 1,0220599.04 BORING LOGS\(\text{6}\) FOR SOME OF			and brown, moist (FILL) : End of boring at 1' BGS.	PSOIL (FILL) LAY (CL), low plasticity; trace Sand, fine.					1	S-1 (0-1)	0.0	1	
TAL BH COLUN	R /	1. Samp	cuttings pled 0-1 feet at 1323										
ENVIRONMENT	REMARKS	·											

		A Subsidiary of G		rtment of Trar				PROJECT NAME _I		& US Rou	te 20 I	PSI_	R 253		- 33- E 1 C				
								GROUND ELEVATION			-								
- 1							0/1/	_ ONCOME ELLVAIN	ON <u>002 17</u>		IIOL		<u> </u>	1103					
					onisultants,	IIIC.		- CROUND WATER	DATE	TIME			CASING						
- 1			_	Direct Push	01150			GROUND WATER LEVELS (ft, bgs):	8/8/2017	DD	DR	<u>Y</u>	5	N	/A				
- 1						KED BY J	JK	-											
Ľ	DRILL	RIG	7822DT	Track Geoprol	be			-											
04_BORING LOGS.GPJ	O DEPTH	GRAPHIC LOG				MAT	FERIAL DESCRI	PTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)			
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81.0220509.04 IDOT 178008-02A - US 20 @ IL 59\REPORTS\BORINGS LOGS\81.0220509.04_BORING LOGS\81.			and bro	own, moist (FIL	L)			- to coarse-grained; trace			lack	1	S-1 (0-1)	0.0	1				
ENVIRONMENTAL BH C	R 1 E M A R K S	. Samı	bled 0-1 fe	eet at 1058 an	nd duplicate s	sample (253	11V-DUP-09) coll	ected at this interval											

BORING NUMBER 2531V-34-01 PAGE 1 OF 1

	Huff incor	& Hi porat ZA GeoEnvironmer	lff, e d ₁tal, Inc.	
10	Huff incor	& Hi porat ZA GeoEnvironmer	ed, atal, Inc.	

ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J.'81.0220509.04 IDOT 178008-02A - US 20 @ IL 59!REPORTS\BORINGS LOGS\81.0220509.04 EORING LOGS\GPJ

	Huff	& Huff.							TAC	, L) 1
CLIEN	A Subsidiary of C	oois Denartment of Trans	portation, District One	PROJECT NAME	II Poute 50	& LIS Pour	to 20 D	21			
		UMBER _ PTB 178 008 / 1									
		TED _7/27/17					-	SIZE 2 i	nches		
			nsultants, Inc.							-40	
DRILL	ING M	ETHOD Direct Push		GROUND WATER	DATE 7/27/2017	TIME DD	DRY	H CASII 10		I/A	
LOGO	SED BY	AMH	CHECKED BY JJR	LEVELS (ft, bgs):							
DRILI	RIG _	7822DT Track Geoprobe									
O DEPTH O (ft)	GRAPHIC LOG		MATERIAL DES	CRIPTION				SAMPLE TYPE NUMBER	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
	<u> </u>	Surface: 4-inch black TC	OPSOIL (FILL)								
 		S-1: Hard, lean CLAY (C brown, moist (FILL)	CL), low plasticity; trace Sand, fine- to	o coarse-grained; trace Grave	I, fine-graine	d; black and	d	1 S-1 (0-5)	0.0	5	
2.5											
5.0		S-2: Hard, lean CLAY (C dark brown, moist (FILL)	cL), low plasticity; trace Sand, fine- to	o coarse-grained; trace Grave	I, fine-graine	d; black and	d ;	2 S-2 (5-9)	0.0	4	
	<u> </u>		6. Boring immediately backfilled with	3/8" bentonite chips and cap	ped with rem	naining soil			·		-
		cuttings									
R 1 E 2 A R K S	. Samp	oled 0-5 feet at 0948 oled 5-9 feet at 0950									

Г	A. A.				BODI	NO NI	IMAD		2417	24	^^
		Huff incor	C& Huff,		BURI	NG N	JIVIB	ER 25		• 34- ≣ 1 C	
	CLIEN	IT Illin	nois Department of Transportation, District One	PROJECT NAME	L Route 59	& US Rou	te 20 PS	I			
			UMBER _ PTB 178 008 / Work Order 02	PROJECT LOCATION							
			TED _7/27/17				-	SIZE 2 inc	hes		
	ORILL	ING C	ONTRACTOR GSG Consultants, Inc.	_							
			IETHOD Direct Push	GROUND WATER	DATE 7/27/2017	TIME DD	DEPTI	CASING 10	ST N	AB /A	
L	_OGG	ED BY	Y AMH CHECKED BY JJR	LEVELS (ft, bgs):				.,			
0	DRILL	RIG	7822DT Track Geoprobe	_							
04 BORING LOGS.GPJ	0.0 (#)	GRAPHIC LOG	MATERIAL DESCR	IPTION	1		REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
2206.	0.0	1	Surface: 2-inch black TOPSOIL (FILL)								
STD US LAB.GDT - 8/15/17 10:21 - J:\81,0220509.04 IDOT 178008-02A - US 20 @ IL 59\REPORTS\BC	2.5 - - 5.0 - 7.5 - - - - - - - - - - - - - - - - - - -		S-1: Loose, well-graded SAND (SW), fine- to coarse-grained; tra brown and grey, moist (FILL) S-2: Very Stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to moist (Possible FILL)					(0-7)	0.0	5	
'IRONMENTAL BH COLUMN W/ REMARKS - GII	12.5 - - R R K	Samp Samp	: End of boring at 14' BGS. Boring immediately backfilled with 3/ cuttings bled 0-7 feet at 0953 bled 7-14 feet at 0956	8" bentonite chips and ca	pped with re	maining soi	I				

BORING NUMBER 2531V-34-03 PAGE 1 OF 1

Huff & Huff in corporate d

I I	Huff n c o r Subsidiary of G	& Huff, porated ZA GeoEnvironmental, Inc.											
CLIENT	T Illir	ois Departme	ent of Transpo	ortation, District	One	PROJECT NAME	L Route 59	& US Rou	te 20 P	SI			
				Vork Order 02									
DATES	STAR	TED _7/27/17	7	COMPLETED		GROUND ELEVATION	ON _782 +/	- 2	HOLE	SIZE 2 in	nches		
DRILLI	NG C	ONTRACTOR	GSG Cons	sultants, Inc.		_	DATE	TIME	DEDT	L CACIN	ıc 61	· A D	
DRILLI	NG M	ETHOD Dire	ect Push			_ GROUND WATER	DATE 7/27/2017	TIME DD	DRY	H CASIN 5		I/A	
LOGGE	ED BY	AMH		CHECKED B	Y JJR	LEVELS (ft, bgs):							
DRILL	RIG _	7822DT Trac	k Geoprobe			_							
DEPTH (ft)	GRAPHIC LOG	Surface: 4-i	nch black TOF		MATERIAL DESCR	IPTION				SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN.
(H) 0 DEPARTMENT OF THE PROPERTY OF THE PROPER		S-1: Loose, moist (FILL)	well-graded S	SAND (SW), fine-	to coarse-grained; so	me Clay; little Gravel, fine	grained; bla	ack and gre	∋ y,	S-1 (0-3.5)	0.0	4	
	<u>* </u>	: End of bori cuttings	ing at 3.5' BG	S. Boring immedi	iately backfilled with 3.	/8" bentonite chips and ca	apped with re	emaining so	oil				1
R E M A R K S	Samp	led 0-3.5 feet	at 1003										

	la	Huff incor	C& Huff. porated		BORI	NG NU	JMI	BE	R 253		34- E 1 C	
- ,	CLIEN	VT Illir	nois Department of Transportation, District One	PROJECT NAME	L Route 59	& US Rout	e 20	PSI				
- 1			UMBER _ PTB 178 008 / Work Order 02	PROJECT LOCATION								
- 1			TED 8/8/17 COMPLETED 8/8/17						IZE 2 incl	hes		
- 1			ONTRACTOR GSG Consultants, Inc.	_								
- 1			IETHOD Direct Push	GROUND WATER	DATE 8/8/2017	TIME DD	DEF DF		CASING 15		AB /A	
			/ AMH CHECKED BY JJR	LEVELS (ft, bgs):	0/0/2017	00	וֹם	<u> </u>	10			
- 1			7822DT Track Geoprobe	_								
04_BORING LOGS.GPJ	O DEPTH	GRAPHIC LOG	MATERIAL DESCR	IIPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
STD US LAB.GDT - 8/1	2.5 		Surface: 2-inch black TOPSOIL (FILL) S-1: Very Stiff, lean CLAY (CL), low plasticity; trace Sand, fine-to brown, moist (FILL) S-2: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to cor (Possible FILL)					2	S-1 (0-7)	0.0	5	
IRONMENTAL BH COLUMN V	R 1. E M 2.		: End of boring at 14' BGS. Boring immediately backfilled with 3/ cuttings pled 0-7 feet at 12115 pled 7-14 feet at 1218	8 bentonite chips and cap	opea with re	maining soil						

R 2531V-34-05

PAGE 1 OF 1

Huff & Huff, Incorporated Assimilary of GZA Gotfinnenment, Isc	BORING NUMBER
CLIENT Illinois Department of Transportation, District One	PROJECT NAME _ IL Route 59 & US Route 20 PSI

PROJECT NUMBER PTB 178 008 / Work Order 02 PROJECT LOCATION Bartlett, Cook County, IL DATE STARTED 8/8/17 _____ COMPLETED <u>8/8/17</u> GROUND ELEVATION 805 +/- 2 HOLE SIZE 2 inches DRILLING CONTRACTOR GSG Consultants, Inc. TIME DEPTH CASING STAB DATE **GROUND WATER** DRILLING METHOD Direct Push 8/8/2017 DD DRY N/A 15 LEVELS (ft, bgs): LOGGED BY AMH ____ CHECKED BY JJR DRILL RIG 7822DT Track Geoprobe

O DEPTH	GRAPHIC LOG	MATERIAL DESCRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN.
	3.7/2.33	Surface: 3-inch black TOPSOIL (FILL) S-1: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grayer, moist (FILL)	rained; brown a	and	1	S-1 (0-7)	0.0	6	
2.5									
5.0									
7.5		S-2: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-gr (Possible FILL)	moist	2	S-2 (7-14)	0.0	6		
10.0									
12.5									
		: End of boring at 14' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with cuttings	ith remaining so	Dil					
R 1. 2. M A R K	. Samp . Samp	oled 0-7 feet at 1227 oled 7-14 feet at 1230 and duplicate sample (2531V-DUP-08) collected at this interval							

BORING NUMBER 2531V-34-06 PAGE 1 OF 1

1 n	uff & Huff

ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J.'81.0220509.04 IDOT 178008-02A - US 20 @ IL 59!REPORTS\BORINGS LOGS\81.0220509.04 EORING LOGS\GPJ

5	Huff	& Huff,							1 70		,, ,
CLIEN	A Subsidiary of C	nois Department of Transp	portation, District One	PROJECT NAME _	IL Route 59	& US Rout	e 20 PS	I			
		UMBER PTB 178 008 / 1									
		TED <u>8/8/17</u>					-	SIZE 2 inc	hes		
			nsultants, Inc.				DEDT				
DRILL	ING M	ETHOD Direct Push		GROUND WATER	8/8/2017	TIME DD	DRY	15		AB /A	
LOG	SED BY	AMH	CHECKED BY JJR	LEVELS (ft, bgs):							
DRILL	RIG	7822DT Track Geoprobe									
O DEPTH (ft)	GRAPHIC LOG		MATERIAL DES	SCRIPTION	1		REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
_	1////	Surface: 4-inch black TC	OPSOIL (FILL)							_	
 		S-1: Hard, lean CLAY (C black, moist (FILL)	CL), low plasticity; trace Sand, fine- to	o coarse-grained; trace Gravel	I, fine-graine	d; brown and	d 1	S-1 (0-7)	0.0	5	
2.5 5.0 											
7.5		S-2: Hard, lean CLAY (C (Possible FILL)	CL), low plasticity; trace Sand, fine- to	o coarse-grained; trace Gravel	I, fine-graine	d; brown, m	oist 2	S-2 (7-14)	0.0	6	
_12.5 											
		: End of boring at 14' BG cuttings	SS. Boring immediately backfilled with	n 3/8" bentonite chips and ca	pped with re	maining soil					
R E 1 M A R K	. Samp . Samp	oled 0-7 feet at 1240 oled 7-14 feet at 1245									

		Huff i n c o i	C& Huff, porated 222 Confinemental Inc.			BORI	NG NI	JMB	ER 25		-34- E 1 C	
	CLIE	NT IIIi	nois Department of Trans	portation, District One	PROJECT NAME	I Route 59	& US Rou	te 20 PS	SI .			
			UMBER _ PTB 178 008 /		PROJECT LOCATION							
- 1				COMPLETED 8/8/17					SIZE 2 inc	ches		
	ORILI	LING C	ONTRACTOR GSG Co	nsultants, Inc.		DATE	T184E	DEDT				
[DRILI	LING N	IETHOD Direct Push		GROUND WATER	DATE 8/8/2017	TIME DD	DRY	H CASING		/A	
L	.og	GED B	/ _AMH	CHECKED BY JJR	LEVELS (ft, bgs):							
[DRILI	L RIG	7822DT Track Geoprobe)	<u> </u>							
9.04_BORING LUGS.GPJ	O UEP IH (#)	GRAPHIC LOG	Surface: 3-inch black T0	MATERIAL DESC	RIPTION			DEMADKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINTSTUDS LAB.GDT - 8/15/17/10/21 - J.:81/02/05/04/1DOT 1/8008-02A - US 20 @ IL 59/REPORTS/BORINGS LOGS/81.0220509.04_BORING LOGS/GPJ	<u>.</u>		and brown, moist (FILL	CLAY (CL), low plasticity; trace Sand, f				alack 1	S-1 (0-1)	0.0	1	
NVIRONMENIAL BH COL	7 1 M A R K	. Samı	oled 0-1 feet at 1305									

	13		& Huff			BURI	NG NC	IMBI	ER 253		- 34- E 1 C	
	CLIE	NT Illin	ois Department of Transp	portation, District One	PROJECT NAME _	L Route 59	& US Route	e 20 PS	I			
			JMBER PTB 178 008 / \		PROJECT LOCATION							
- 1			TED _8/8/17					-	SIZE 2 inc	hes		
- 1			ONTRACTOR GSG Con									
- 1			ETHOD Direct Push		GROUND WATER	DATE 8/8/2017	TIME DD	DEPTI DRY	CASING 5		AB /A	
- 1				CHECKED BY JJR	LEVELS (ft, bgs):	0/0/2017		DRI	3	IN	/A	
- 1			7822DT Track Geoprobe									
04_BORING LOGS.GPJ	O DEPTH (ft)	GRAPHIC LOG		MATERIAL DESC	RIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J. 18/10220509.04 IDOT 178008-02A - US 20 @ IL 59/REPORTS/BORINGS LOGS/81.0220599.04 BORING LOGS/GFJ	1		brown, moist (FILL)	L), low plasticity; trace Sand, fine- to c				1	S-1 (0-1)	0.0	1	
NVIRONMENTAL BH COLUM	R 1 M A R K S	. Samp	cuttings lled 0-1 feet at 1310									

*		Huff n c o r Subsidiary of G	& Huff, porated, 2.6.Getermonal, Inc.		BORI	NG NI	JMB	ER 25		-34- E 1 C	
С	LIEN	T Illir	nois Department of Transportation, District One	PROJECT NAME	L Route 59	& US Rou	te 20 PS	SI			
- 1			JMBER PTB 178 008 / Work Order 02								
- 1			TED 8/8/17 COMPLETED 8/8/17				-	SIZE 2 in	ches		
			ONTRACTOR GSG Consultants, Inc.	_							
			ETHOD _ Direct Push	GROUND WATER	DATE 8/8/2017	TIME DD	DEPT DRY	H CASING		AB I/A	
			AMH CHECKED BY JJR	LEVELS (ft, bgs):	0/0/2017		Ditt	10			
			7822DT Track Geoprobe	_							
.04_BORING LOGS.GPJ		GRAPHIC LOG	MATERIAL DESCRI	IPTION			DEMADE	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
0209		<u> </u>	Surface: 3-inch black TOPSOIL (FILL)								
STD US LAB.GDT - 8/15/17 10.21 - J:\81.0220509.04 IDOT 178008-02A - US 20 @ IL 59IREPORTS\BC	0.0							S-1 (0-7)	0.0	7	
-VMN W/-	r	<u>////</u>	: End of boring at 14' BGS. Boring immediately backfilled with 3/8 cuttings	8" bentonite chips and cap	ped with re	maining soi	I		ļ	-	<u> </u>
H COL											
ENVIRONMENTAL BI		Samp Samp	oled 0-7 feet at 1205 oled 7-14 feet at 1208								

Huff & Huff incorporated A Scholary of GZA Geoffminmental, Inc.							PAGE 1	OF 1
CLIENT Illinois Department of Transp	ortation, District One	PROJECT NAME	L Route 59	& US Rou	te 20 PSI			
PROJECT NUMBER PTB 178 008 / V	Vork Order 02	PROJECT LOCATION	N Bartlett,	Cook Co	unty, IL			
DATE STARTED 7/27/17	COMPLETED 7/27/17	GROUND ELEVATION	ON 800 +/-	2	HOLE SIZ	ZE 2 inche	es	
DRILLING CONTRACTOR GSG Con	sultants, Inc.		DATE	TIME	DEPTH	CASING	STAB	_
DRILLING METHOD Direct Push		GROUND WATER	7/27/2017	DD	DRY	10	N/A	
LOGGED BY AMH	CHECKED BY JJR	LEVELS (ft, bgs):						
DRILL RIG _7822DT Track Geoprobe								

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN.
<u>0.0</u> 		Surface: 2-inch black TOPSOIL (FILL) S-1: Medium stiff, lean sandy CLAY (CL-SC), low plasticity; trace Silt; trace Gravel, fine-gra (FILL)	ined; light b	orown, moist	1	S-1 (0-5)	0.0	3	
2.5 		S-2: Loose, well-graded SAND (SW), fine- to coarse-grained; trace Gravel, finegrained; lig	ht brown, n	noist (FILL)	2	S-2 (5-9)	0.0	2	
R 1 2 A R K	. Sampl	: End of boring at 9' BGS. Boring immediately backfilled with 3/8" bentonite chips and capprouttings led 0-5 feet at 0940 and duplicate sample (2531V-DUP-01) collected at this interval led 5-9 feet at 0943	ed with rem	aining soil					

		2. Lluff			BORI	NG NU	JMB	ER 253		- 35- E 1 C	
10	inco:	porated									
CLI	ENT IIIi	nois Department of Tra	nsportation, District One	PROJECT NAME _	L Route 59	& US Rout	e 20 PS	l			
PRO	DJECT N	UMBER PTB 178 00	8 / Work Order 02	PROJECT LOCATIO	ON Bartlet	t, Cook Cou	ınty, IL				
DAT	TE STAF	TED _7/27/17	COMPLETED _7/27/17	GROUND ELEVATION	ON 802 +	/- 2	HOLE	SIZE 2 inc	hes		
DRI	LLING C	ONTRACTOR GSG	Consultants, Inc.		DATE	TIME	DEPTI	- CASING	: ст	AB	
DRI	LLING N	ETHOD Direct Push		GROUND WATER	7/27/2017		DRY	5		/A	
LO	GGED B	AMH	CHECKED BY _JJR	LEVELS (ft, bgs):							
DRI	LL RIG	7822DT Track Geopro	bbe								
O DEPTH	GRAPHIC LOG		MATERIAL DESC	RIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - 3:81 0220509.04 IDOT 178008-02A - US 20 @ IL 59NE-PORTS/BORINGS LOGS/81/0220509.04 BORING LOGS/GFD S A 3 P M B A C DEPTH C A A C A C A A C A		: End of boring at 3.5 cuttings	' (CL), low plasticity; with Sand, fine- to co					S-1 (0-3.5)	0.0	4	
REMARKS	1. Sam	oled 0-3.5 feet at 0937									

	5	Huff	& Huff			BORII	NG NI	JME	BEI	R 253		. 36- ≣ 1 C	
1	CLIEN	A Subsidiary of C	nois Department of Transportation, District	One	DRO IECT NAME	I Pouto FO	9 LIC Dour	to 20 D	CI.				
			JMBER PTB 178 008 / Work Order 02		PROJECT NAME								
- 1			TED _7/27/17 COMPLETED							'F 2 incl	hes		
			ONTRACTOR GSG Consultants, Inc.		OROGNO ELLVAIN	<u> </u>		HOLL	- 012		100		
			ETHOD _Direct Push		GROUND WATER	DATE 7/27/2017	TIME DD	DEP		CASING 10	ST.		
- 1			AMH CHECKED BY	Y JJR	LEVELS (ft, bgs):	112112011	טט	DK	ı	10	IN/	A	
			7822DT Track Geoprobe										
⊢			•										
4_BORING LOGS.GF	DEPTH (ff)	GRAPHIC LOG		MATERIAL DESCRIP	PTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
208.0	0.0	74 1× . 74	Surface: 4-inch black TOPSOIL (FILL)										
DOT 178008-02A - US 20 @ IL 59\REPORTS\BORINGS LOGS\81.0220509.04_BORING LOGS.GPJ	- - - 2.5		S-1: Medium stiff, lean sandy CLAY (CL-So (FILL)	orown, mois	st	1	S-1 (0-5)	0.0	5				
	5.0		S-2: Medium stiff, lean sandy CLAY (CL-St (FILL)	Medium stiff, lean sandy CLAY (CL-SC), low plasticity; trace Silt; trace Gravel, fine-grained; light brown, moist L)									
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81.0220509:04	7.5 -		: End of boring at 9' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil cuttings										
3H COLUMIT			cuttings										
ENVIRONMENTAL	R 1 E 2 M 2 A R K S		oled 0-5 feet at 0927 oled 5-9 feet at 0930										

		Huff	& Huff.						PAG	E 1 C)F 1
	CLIE	A Subsidiary of C	nois Department of Transportation, District One	PROJECT NAME _!	I. Douto EO	9 LIS Dou	to 20 D	21			
		-	UMBER PTB 178 008 / Work Order 02	PROJECT NAME				<u> </u>			
			TED 7/27/17 COMPLETED 7/27/17					SIZE 2 inc	hes		
			ONTRACTOR GSG Consultants, Inc.		DATE	TIME	DEDT	H CASING	• ет	AB	
	DRIL	LING M	ETHOD _Direct Push	GROUND WATER	7/27/2017		DRY			/A	
			/ AMH CHECKED BY JJR	LEVELS (ft, bgs):							
	DRIL	L RIG _	7822DT Track Geoprobe	_							
.04_BORING LOGS.GPJ	O DEPTH	GRAPHIC LOG	MATERIAL DESCF	RIPTION			DEMADE	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
COLUMN W/ REMARKS - GIN S1D US LAB.GD - 8/15/1/ 10:21 - J.:81.0220509.04 IDO 1/8008-02A - US 20 @ IL 591REPOR IS1BURINGS LUGS181.022050	- 1 1 - 2 - 3 - 3		S-1: Medium stiff, lean sandy CLAY (CL-SC), low plasticity; trac (FILL) : End of boring at 3.5' BGS. Boring immediately backfilled with 3 cuttings					S-1 (0-3.5)	0.0	4	
ENVIRONMENTAL BH	R E M A R K S	I. Samp	oled 0-3.5 feet at 0920								

*		Huff incor A Subsidiary of C	& Huff. porated		BORI	NG NI	UMBE	ER 25		- 36- E 1 C	
С	LIEN	IT Illir	nois Department of Transportation, District One	PROJECT NAME	L Route 59	& US Rou	te 20 PSI				
P	ROJ	ECT N	UMBER PTB 178 008 / Work Order 02	_ PROJECT LOCATIO	N Bartlet	t, Cook Co	unty, IL				
D	ATE	STAR	TED _7/27/17	_ GROUND ELEVATION	ON <u>806</u> +	/- 2	HOLE S	SIZE 2 inc	hes		
D	RILL	ING C	ONTRACTOR GSG Consultants, Inc.	_	DATE	TIME	DEPTH	CASING	S ST	AB	
			ETHOD Direct Push	_ GROUND WATER LEVELS (ft, bgs):	7/24/2017		DRY	5		/A	
- 1			AMH CHECKED BY JJR								
-	RILL	RIG _	7822DT Track Geoprobe	_							
4 BORING LOGS.GPJ		GRAPHIC LOG	MATERIAL DESCR	IPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
509.04	0	7.1%.7	Surface: 4-inch black TOPSOIL (FILL)								
ENVIRONMENTAL BH COLUMN W/REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81.02205009.04 IDOT 178008-02A - US 20 @ IL 59/REPORTS\BORINGS LOGS\B1.0220509.04 BORING LOGS\GP)	- 1 		S-1: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coamoist (FILL)	arse-grained; trace Gravel	, fine-graine	d; light brov	wn, 1	S-1 (0-3.5)	0.0	4	
ENVIRONMENTAL BH COLUMN S Y & W B W	A C	. Samp	: End of boring at 3.5' BGS. Boring immediately backfilled with 3/cuttings bled 0-3.5 feet at 0918								

	5	Huff	& Huff.			10 110			PAGI	E 1 0)F 1
	CLIEN	Subsidiary of G	nois Department of Transportation, District One	PROJECT NAME II	I Route 59	& US Route	20 PSI				
			UMBER PTB 178 008 / Work Order 02								
			TED 7/27/17 COMPLETED 7/27/17					IZE 2 incl	hes		
	DRILL	ING C	ONTRACTOR GSG Consultants, Inc.		DATE	TIME	DEPTH	CASING	ст	ΔR	
	DRILL	ING M	ETHOD _Direct Push	GROUND WATER LEVELS (ft, bgs):	7/27/2017	DD	DRY	5		/A	
			CHECKED BY JJR	LLVLLO (II, bgs).							
	DRILL	. RIG _	7822DT Track Geoprobe								
.u4_BORING LOGS.GPJ	o DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIF	PTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
OLUMIN W/ KEMARKS - GINTSTD US LAB.GDT - 8/15/17 10:21 - J:81.0Z20509:04 IDOT 178008-0ZA - US 20 @ IL 59/REPORTS/BORINGS LOGS/81.0Z2050			S-1: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coar moist (FILL) : End of boring at 3.5' BGS. Boring immediately backfilled with 3/8 cuttings				1	S-1 (0-3.5)	0.0	4	
ENVIRONMENTAL BH CC	R E M A R K S	Samp	oled 0-3.5 feet at 0915								

		Huff	& Huff.						PAG	E 1 0)F 1
	CLIEN	Subsidiary of G	nois Department of Transportation, District One	PRO IECT NAME II	I Route 50	& US Rout	a 20 PS				
- 1			UMBER PTB 178 008 / Work Order 02								
- 1			TED 7/27/17 COMPLETED 7/27/17					SIZE 2 inc	hes		
	DRILL	ING C	ONTRACTOR GSG Consultants, Inc.		DATE	TIME	DEPTH	CASING	ST	ΔR	
	DRILL	ING M	ETHOD Direct Push	GROUND WATER LEVELS (ft, bgs):	7/27/2017	DD	DRY	5		/A	
- 1			CHECKED BY JJR	LLVLLO (II, bgs).							
L	DRILL	. RIG _	7822DT Track Geoprobe								
.04_BORING LOGS.GPJ	O DEPTH	GRAPHIC LOG	MATERIAL DESCRIF	PTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
W. KEMARKS - GIN STD US LAB.GD - 8/15/17 10:21 - 0:81 UZZD509.04 IDO 178008-US-20 @ IL 59/REPORTIS/BORINGS LOGS/81/UZZD500			Surface: 2-inch black TOPSOIL (FILL) S-1: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coar brown, moist (FILL) : End of boring at 3.5' BGS. Boring immediately backfilled with 3/8					S-1 (0-3.5)	0.0	4	
N KONIN	R 1. E M A R K	Samp	cuttings pled 0-3.5 feet at 0912								

	HU i n c	ff & F orpora	luff, ted				BORI	NG NU	JIVIBI	=R 25		- 3/- E 1 C	
CL	IENT	Illinois De	epartment of Tr	ransportation Distr	ict One	PROJECT NAME _	l Route 59	& US Rout	te 20 PS				
				08 / Work Order 02									
		ARTED _				GROUND ELEVATION			-	SIZE 2 inc	hes		
				Consultants, Inc.			<u> </u>				7100		
			D Direct Push			GROUND WATER	DATE	TIME		CASING			
			<u>- Блесет ися</u> Н		BY JJR	LEVELS (ft, bgs):	7/27/2017	DD	DRY	5	I	/A	
- 1			Track Geop		<u> </u>								
-	GRAPHIC				MATERIAL DESC	CRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTALEH COLUMN W. KEMARKA - GIN SID US LAB.GOT - 8/1977 10:21 - 3/18/10/22/05/03/4 - US 2/4 @ IL SUKEPOKTIS/BOKTINGS LOGS/87/04_BOKTING LOGS/GFD S A A B W M M M M M M M M M M M M M M M M M M		S-1: bro	Hard, lean CLA			coarse-grained; trace Gravel				S-1 (0-3.5)	0.0	4	
S X X Y Y M B I B I C	1. Sa	mpled 0-	3.5 feet at 0910	0									

	H	& Huff			BORI	NG NI	UMBE	ER 253		- 37 -	
là	incor	porated ZA GeoEnvironmental, Inc.									
CLIE	NT Illir	nois Department of Tra	ansportation, District One	PROJECT NAME _	IL Route 59	& US Rou	te 20 PSI				
PRO.	JECT N	JMBER PTB 178 00	08 / Work Order 02	PROJECT LOCATION	ON Bartlet	t, Cook Co	unty, IL				
			COMPLETED _7/27/17	GROUND ELEVATI	ON 813 +	/- 2	HOLE S	SIZE 2 inc	hes		
		ONTRACTOR GSG			DATE	TIME	DEPTH	CASING	S ST	AB	
1		ETHOD Direct Push		GROUND WATER LEVELS (ft, bgs):	7/27/2017	' DD	DRY	5	N	/A	
		AMH									
-	L RIG _	7822DT Track Geopr	obe								
OEPTH O(ft)	GRAPHIC LOG		MATERIAL D	ESCRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
HLdag 0 1 20 - VZG-00001 1 20 1 1 20 1 1 20 1 1 20 1 20 1		Surface: 3-inch black	k TOPSOIL (FILL) Y (CL), low plasticity; trace Sand, fine	- to coarse-grained; trace Grave	I, fine-graine	ed; dark bro	_{wn,} 1	S-1 (0-3.5)	0.0	4	
		: End of boring at 3.5 cuttings	5' BGS. Boring immediately backfilled	with 3/8" bentonite chips and ca	apped with re	emaining so	oil				
R E M A R K S	1. Samp	oled 0-3.5 feet at 0905	5								

		Huff & Huff										-41- E 1 C	
	ACT.	A Subsidiary of G	ZA GeoEnvironmental, Inc.		220 1207 1111			00.5	201				
				portation, District One									
			UMBER <u>PTB 178 008 /</u> TED <u>8</u> /7/17							IZF 2 incl	200		
			·	nsultants, Inc.		JN _702 1	<u> </u>						
			ETHOD Direct Push	Touristing, more	GROUND WATER	DATE 8/7/2017	TIME DD	DEP DR		CASING 5		AB /A	
- 1				CHECKED BY JJR	LEVELS (ft, bgs):	0/1/2017	DD	רוט			IN		
			7822DT Track Geoprobe		_								
04_BORING LOGS.GPJ	o DEPTH (ft)	GRAPHIC LOG		MATERIAL DESCR	IPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - 3:\81.0220509.04 IDOT 178008-02A - US 20 @ IL 59\REPORTS\BORINGS LOGS\81.0220509.04 BORING LOGS\GPJ			brown, moist (FILL)	PSOIL (FILL) Y (CL), low plasticity; trace Sand, fine- to				and	1	S-1 (0-1)	0.0	1	
NVIRONMENTAL BH COLUI	R E 1.	. Samp	oled 0-1 feet at 1315										

16.0		Huff incol	S& Huff			BORI	NG NI	JME	BE	R 253		-41- E 1 C	
	W.	A Subsidiary of	nois Department of Transport	ortation District One	DDO JECT NAME	II. Doute FO	9 LIC Day	to 20 D	iCI				
- 1					PROJECT NAME _								
				Vork Order 02				-		7 5 0 in a	h		
			RTED <u>8/7/17</u>		GROUND ELEVATION	ON <u>/82 +/</u>	- 2	HOLE	: 51	ZE 2 inc	nes		
				sultants, Inc.		DATE	TIME	DEP	ΓН	CASING	ST	AB	
			IETHOD Direct Push		GROUND WATER LEVELS (ft, bgs):	8/7/2017	DD	DR'		5		/A	
L	.OG	GED B	Y AMH	CHECKED BY JJR									
	RIL	L RIG	7822DT Track Geoprobe										
8	0 UEP.IH	GRAPHIC LOG		MATERIAL DI	ESCRIPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J.:81.0220509.04 IDOT 178008-02A - US 20 @ IL 59REPORTS/BORINGS LOGS/81.0220509.04	1		: End of boring at 1' BGS.	(CL), low plasticity; trace Sand,	fine- to coarse-grained; trace Graiting in the coarse-graiting in the coarse-grait			and	1	S-1 (0-1)	0.0	1	
ENVIRONMENTAL BH COLUM	E ' M A R	. Samı	cuttings pled 0-1 feet at 1312										

	13	Huff Huff	C& Huff.	NG NU	JMB	ER 25		-41- E 1 C			
	CLIEN	A Subsidiary of C	nois Department of Transportation, District One	PROJECT NAME	I Route 59	& US Rout	e 20 PS	SI			
			UMBER PTB 178 008 / Work Order 02					<u> </u>			
			TED 7/27/17 COMPLETED 7/27/17				•	SIZE 2 in	ches		
	DRILI	ING C	ONTRACTOR GSG Consultants, Inc.	_	DATE	TIME	DEDT	H CASIN	G 91	AB	
	DRILI	ING M	IETHOD Direct Push	GROUND WATER	7/27/2017		DRY			I/A	
	LOGO	SED BY	Y AMH CHECKED BY JJR	LEVELS (ft, bgs):					-		
	DRILI	RIG _	7822DT Track Geoprobe								
04_BORING LOGS.GPJ	O DEPTH	GRAPHIC LOG	MATERIAL DESCI	RIPTION			DEMADKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:81.0220509.04 IDOT 178008-02A - US 20 @ IL 59 REPORTS\BORINGS LOGS\B1.0220509.04 IDORING LOGS\CPJ	2.5 - - - - - - - - - - - - - - - - - - -		Surface: 2-inch black TOPSOIL (FILL) S-1: Very stiff, lean CLAY (CL), low plasticity; trace Sand, fine-brown and black, moist (FILL) S-2: Very stiff, lean CLAY (CL), low plasticity; little Sand, fine-to-blue-ish grey, moist (Possible FILL)				and 2	(0-7)	0.0	7	
OLUMN W/ R		<u> </u>	: End of boring at 14' BGS. Boring immediately backfilled with 3 cuttings	3/8" bentonite chips and cap	oped with re	maining soil					<u> </u>
ENVIRONMENTAL BH C	R 1 E 2 M A R K S		oled 0-7 feet at 1020 oled 7-14 feet at 1023								

		Huff	& Huff.							PAG	E 1 O	F 1
	CLIEN	A Subsidiary of GZ	ois Department of Transportation, District One	PROJECT NAME	II Poute 50	& LIS Pouts	20 E	120				
			JMBER PTB 178 008 / Work Order 02	_								
			TED 7/27/17 COMPLETED 7/27/17						IZE 2 incl	hes		
	DRILL	ING CO	ONTRACTOR GSG Consultants, Inc.	-	DATE	TIME	DEP.	ТН	CASING	ST	AB	
			ETHOD Direct Push	GROUND WATER LEVELS (ft, bgs):	7/27/2017	DD	DR'		5		/A	
			_AMH CHECKED BY _JJR									
إ	DRILL	RIG _	7822DT Track Geoprobe	-								
3S.GP		l _o						တ္သ	SAMPLE TYPE NUMBER (Depth Interval)	LTS	≿	Ë.
o LOC	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRII	PTION				REMARKS	LE T MBEI Intel	RESUL (PPM)	OVEI eet)	ET P tsf)
RCKIN		GR/ L						REN	AMPI NUN epth	PID RI	RECOVERY (feet)	POCKET PEN. (tsf)
2 4	0								S)	۵	_	ď
220509		17:31:	Surface: 3-inch black TOPSOIL (FILL)									
.0.187												
25 CO												
NGS			S-1: Very stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to	coarse-grained; trace Gr	avel, fine-gra	ained; dark		1	S-1	0.0	2	
SIBOR			brown, moist (FILL)		_				(0-3.5)			
אַל												
9/KE	1											
(Ø)												
02.50												
7. AZ												
2008												
21												
04 D												
20509.	2											
81.02												
:C - L2												
10.												
8/15/												
- GD -												
SLAB												
SID US	3											
N I												
- CYS												
ZEMAK												
<u>`</u>		<u>/////</u>	: End of boring at 3.5' BGS. Boring immediately backfilled with 3/8	3" bentonite chips and ca	apped with re	emaining soil						
COLUMN			cuttings									
žΙ												
MENIALE	R E M	. Samp	ed 0-3.5 feet at 1035									
JNME.	M A R											
ENVIK	K S											

	6	Huff incor	& Hi porat ZA GeoEnvironme	aff, e d										DURI	NG N	UIVII	DE	-R 253		- 41- E 1 C	
۱,	CLIEN	NT Illir	ois Den	artm	ent of T	ranspor	tation I	District	One			PROJECT NA	AME I	I Route 59	& US Rou	ıte 20 l	PSI				
- 1			JMBER						Ono			PROJECT LO									
- 1			TED _7			,007 VV			o _7/27/	17		GROUND EL						IZF 2 inc	hes		
			ONTRA											<u> </u>					1100		
			ETHOD				intaints,	1110.				GROUND WA	ΔTFR	DATE	TIME			CASING		AB	
			AMH		cot i us		CHEC	KED B	Y JJR			LEVELS (ft,		7/27/2017	DD	DF	(Y	5	l N	/A	
			7822DT				CITEO	KLD D	001												
⊢	JKILI	- NO _	102201	IIIa	JK GEUL	oi obe															
.04_BORING LOGS.GP.	o DEPTH (ft)	GRAPHIC LOG							MATER	RIAL DE:	SCRIPT	TION					REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:81.0220509.04 IDOT 178008-02A - US 20 @ IL 59/REPORTS/BORINGS LOGS/81.0220509.04 BORING LOGS.GPJ	2		S-1: \black	of bo	brown, r	CLAY (inoist (Fi	CL), low	plastic				parse-grained; t					1	S-1 (0-3.5)	0.0	2	
ENVIRONMENTAL BH COL	R 1 E M A R K	. Samp	led 0-3.	5 fee	et at 103	37 and d	luplicate	e samp	le (2531	V-DUP-	02) coll	lected at this ir	nterval								

The Res		Huff	& Huff.							PAG	E 1 C)F 1
۱,	CLIEN	Subsidiary of G	ois Department of Transportation, District One	PROJECT NAME _	II Route 59	& US Rout	e 20 P	PSI				
-			JMBER _PTB 178 008 / Work Order 02	PROJECT LOCATION								
			FED 8/9/17 COMPLETED 8/9/17				-		ZE 2 inc	hes		
	DRILL	ING CO	ONTRACTOR GSG Consultants, Inc.		DATE	TIME	DFP	тн	CASING	ST	ΔΒ	
ļ	DRILL	ING MI	ETHOD Direct Push	GROUND WATER LEVELS (ft, bgs):	8/9/2017	DD	DR'		5		/A	
			AMH CHECKED BY JJR	LEVELS (II, bgs).								
Ľ	DRILL	RIG _	7822DT Track Geoprobe									
	O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIF	PTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
COCCUMINATIVE MANAGES OF THE STORE OF THE ST			S-1: Very stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to obrown, moist (FILL) : End of boring at 1' BGS. Boring immediately backfilled with 3/8" b				and	1	S-1 (0-1)	0.0	1	
2			cuttings	,		J						
3												
1 7	R 1.	Samp	led 0-1 feet at 1035									
	R 1. E M A R K S											

15 0	9	Huff incor	& Hi porat	uff, e d ntal, Inc.							BORII	NG N	וואוע	BE	:R 253		- 43- E 1 C	
	CLIE	NT Illin	ois Dep	artment of Ti	ransporta	ation, Distri	ct One		_ PROJECT N	AME _	L Route 59	& US Rou	te 20	PSI				
F	PROJ	ECT NU	JMBER	PTB 178 0	08 / Worl	k Order 02			PROJECT L	OCATIO	N Bartlett	, Cook Cou	unty, I	L				
[DATE	STAR	T ED _8	/9/17	c	OMPLETE	ED <u>8/9/17</u>	7	_ GROUND EL	LEVATIO	ON _799 +/	- 2	HOL	E S	IZE 2 inc	hes		
0	DRILI	ING CO	ONTRA	CTOR GSG	G Consult	ants, Inc.			_		DATE	T15.4E	חרו	·	0.4.011.0			
	DRILI	ING MI	ETHOD	Direct Pusi	h				GROUND W	ATER	DATE 8/9/2017	TIME DD	l	<u>гіп</u> ?Y	CASING 5	- 1	/A	
L	.og	SED BY	AMH		c	CHECKED	BY JJR		LEVELS (ft,	bgs):								
	DRILI	RIG _	7822D	Track Geop	robe				_									
4 BOKING LOGS.GPJ	O DEPIH (ft)	GRAPHIC LOG					MATERI	IAL DESCRI	IPTION					REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL DI COLCUMIN WY REMIARRO - GIN 1 SID OS LAB.GDT - S/19/17 10.2 L - J./61.022/0303.04 IDCT 1/30006-02A - CO ZU (@. L 39/RETOR 1/3DDNINGS LOGS/61/022/0303.04 IDCT 1/30006-02A - CO ZU (@. L 39/RETOR 1/3DDNINGS LOGS/61/022/0303.04 IDCT 1/30006-02A - CO ZU (@. L 39/RETOR 1/3DDNINGS LOGS/61/022/0303.04 IDCT 1/30006-02A - CO ZU (@. L 39/RETOR 1/3DDNINGS LOGS/61/02 IDCT 1/3006-02A - CO ZU (@. L 39/RETOR 1/3DDNINGS LOGS/61/02 IDCT 1/3DDNINGS LOG	-		brow	n, moist (FILL))				coarse-grained;				and	1	S-1 (0-1)	0.0	1	
ENVIRONMENTAL BH CO	= ' M A R K	. Samp	led 0-1	feet at 0919														

		Huff incor A Subsidiary of G	f & Huff.	IG NUN	ИВЕ	ER 253		-43- E 1 C	
	CLIEN	NT Illin	inois Department of Transportation, District One PROJECT NAME IL Route 59 &	US Route 2	0 PSI				
- 1			NUMBER PTB 178 008 / Work Order 02 PROJECT LOCATION Bartlett, C	Cook County	, IL				
- 1			RTED <u>8/9/17</u> COMPLETED <u>8/9/17</u> GROUND ELEVATION <u>791 +/- 2</u>	2 H O	DLE S	SIZE 2 inc	hes		
	RILL	ING C	CONTRACTOR GSG Consultants, Inc.	D	EDTI				
0	RILL	ING M	METHOD _Direct Push GROUND WATER 8/9/2017		<u>EPIH</u> DRY	CASING 5		AB /A	
L	.og	ED BY	Y AMH CHECKED BY JJR LEVELS (ft, bgs):						
	ORILL	RIG _	7822DT Track Geoprobe						
04_BORING LOGS.GPJ	O UEP IH	GRAPHIC LOG	MATERIAL DESCRIPTION		REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81.0220509.04 IDOT 178008-02A - US 20 @ IL 59/REPORTS\BORINGS LOGS\81.0220509.04_BORING LOGS\GPJ	<u> </u>		S-1: Very stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grain brown, moist (FILL)		1 1	S-1 (0-1)	0.0	1	
OLUMN			: End of boring at 1' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remain cuttings	ming 3011					
ENVIRONMENTAL BH C	M A R	. Samp	apled 0-1 feet at 0925 and duplicate sample (2531V-DUP-10) collected at this interval						

T.		Huff n c o r	& Hi porat	uff, e d								DUKI	NG N	OIVII	DE	IK 25.		- 43- E 1 C	
С	LIEN	IT Illin	ois Dep	artment	of Transp	oortation,	, District	One		PROJE	CT NAME _	IL Route 59	& US Rou	ute 20	PSI				
P	ROJI	ECT NU	JMBER	PTB 17	78 008 / 1	Work Or	der 02				CT LOCATION								
- 1			Γ ED _8					8/9/17	7		ND ELEVATI					IZE 2 inc	hes		
- 1				CTOR _						_				•					
				Direct		To direction rec	,			— GROUN	ID WATER	DATE 8/9/2017	TIME			CASING	- 1	AB	
			AMH		uon	CHE	CKED B	Y JJR			S (ft, bgs):	6/9/2017	DD	Ur	RY	5	IN	I/A	
								001		_									
-	NILL	. KIG _	702201	Track G	еоргоре													\longrightarrow	
04_BORING LOGS.GPJ	0 (#)	GRAPHIC LOG						MATER	IAL DESCF	RIPTION					REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:81 0220509.04 IDOT 178008-02A - US 20 @ IL 59NEPORTSBORINGS LOGS/81.0220509.04 BORING LOGS/GFD	1	\$4.7.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	: End cuttin	n, moist (I	at 1' BGS						ned; trace Gra				1	S-1 (0-1)	0.0	1	

		Huff incor	& Huff,			BORI	NG NI	JME	3E	R 253		-43- E 1 0	
c	LIE	NT Illir	nois Department of Tra	nsportation, District One	PROJECT NAME	L Route 59	& US Rou	te 20 F	PSI				
				8 / Work Order 02									
D	ATE	STAR	TED 8/7/17	COMPLETED <u>8/7/17</u>	GROUND ELEVATION	ON 791 +	/- 2	HOL	E S	IZE 2 inc	hes		
D	RIL	LING C	ONTRACTOR GSG	Consultants, Inc.		DATE	TIME	DED	тн	CASING	: ст	AB	
D	RIL	LING M	ETHOD Direct Push		GROUND WATER	8/7/2017		DR		10		/A	
L	.OG	GED BY	/ AMH	CHECKED BY JJR	LEVELS (ft, bgs):								
D	RIL	L RIG _	7822DT Track Geopro	bbe									
.04_BORING LOGS.GPJ	0.0 (#)	GRAPHIC LOG		MATERIAL DES	SCRIPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
20509		7/1// 7/1///	Surface: 2-inch black	TOPSOIL (FILL)									
REPORTS/BORINGS LOGS/81.02	2.5		S-1: Very stiff, lean C brownish-grey, moist	LAY (CL), low plasticity; little Sand, fine t (FILL)	- to coarse-grained; trace Gra	vel, fine-gra	ined; black	and	1	S-1 (0-5)	0.0	4	
.04 IDOT 178008-02A - US 20 @ IL 59/F	2.5												
LAB.GDT - 8/15/17 10:21 - J:\81.02206	7.5		S-2: Medium stiff, lea and grey, moist (FILL	n CLAY (CL), low plasticity; little Sand, -)	fine- to coarse-grained; trace (Gravel, fine	-grained; bro	own	2	S-2 (5-9)	0.0	3	
W/ REMARKS - GINT STD L			: End of boring at 9' R	BGS. Boring immediately backfilled with	3/8" bentonite chips and capr	oed with ren	naining soil						
BH COLUMN	_ 1		cuttings		John Singo und Supp	. Sa marroll							
ENVIRONMENTAL S X X X X X X X X X X X X X X X X X X	8	. Samp . Samp	oled 0-5 feet at 1213 oled 5-9 feet at 1216										

- Sampled 0-5 feet at 1213
 Sampled 5-9 feet at 1216

		H	Q. Lluff			BORI	NG NI	UME	3E	R 253		-43- E 1 C	
1	0	ncor Subsidiary of C	Porated iZA GeoEnvironmental, Inc.										
CI	LIEN	IT <u>Illir</u>	nois Department of Tra	nsportation, District One	PROJECT NAME _	L Route 59	& US Rou	te 20 P	SI				
PF	ROJ	ECT N	UMBER PTB 178 008	3 / Work Order 02	PROJECT LOCATION	ON Bartlet	t, Cook Co	unty, IL					
D	ATE	STAR	TED <u>8/7/17</u>	COMPLETED _8/7/17	GROUND ELEVATION	ON <u>786 +</u>	/- 2	HOLE	SIZ	ZE 2 inc	hes		
- 1			ONTRACTOR GSG (DATE	TIME	DEPT	ГН	CASING	ST	AB	
- 1			ETHOD Direct Push		GROUND WATER LEVELS (ft, bgs):	8/7/2017	DD	DR'	<u> </u>	10	N	/A	
- 1			AMH										
_	RILL	. RIG _	7822DT Track Geopro	be									
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81 0220508 04 DOT 178008-02A - US 20 @ L S9/REPORTS/BORINGS LOGS/81 0220509 04 BORING LOGS/GFJ BORING LOGS/G		GRAPHIC LOG		MATERIAL DESC	CRIPTION				KEMAKKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
09.04	0.0	. 74 1× . 74	Surface: 3-inch black	TOPSOIL (FILL)									
2205			Suriace. S-IIICH DIACK	TOT JOIL (TILL)									
S/81.0	-			LAY (CL), low plasticity; little Sand, fine-	to coarse-grained; little Grav	/el, fine-grai	ned; black a	and	1	S-1 (0-5)	0.0	5	
00 -	_		brown, moist (FILL)							(0 0)			
NGS													
BOR	-												
RTS	_												
EPO ,													
29/8	2.5												
8													
15 20	_												
- A2	-												
08-03													
1780	-												
	_												
9.04	. ^												
2050	5.0		S-2: Hard, lean sandy	/ CLAY (CL-SC), low plasticity; trace Silt;	trace Gravel, fine-grained; b	orown, mois	t (FILL)		2	S-2	0.0	4	
81.02	_		•				, ,			(5-9)			
<u>-</u>													
10:2	-												
15/17													
/8-T	_												
B.GD	-												
Y P	'.5												
	_												
S - 6													
MAR -	-												
<u> </u>													
S Z Z			: End of boring at 9' B cuttings	GS. Boring immediately backfilled with 3	8/8" bentonite chips and cap	ped with rer	naining soil						
SH COLU			-										
ENTAL B B B B M	1.			nd duplicate sample (2531V-DUP-05)	collected at this interval								
M HE	2.	Samp	oled 5-9 feet at 1231										
A RONE													
≧ s													

	Huff & Huff
ta	incorporated A Subsidiary of GZA GeoEnvironmental, Inc.

ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:81.022669.04 IDOT 178008-02a - US 20 @ IL 69IREPORTS/BORINGS LOGS/81.022669.04_BORING LOGS/GPJ

5	Huff	& Huff	? 1									PAG	E 1 C)F 1
CLIEN	A Subsidiary of C	nois Denarti	ment of Trans	enortation Dietri	ct One	PROJECT NAME _	II Route 50	& US Rou	ıte 20 I	PSI				
				/ Work Order 02										
					ED 8/7/17				-		IZE 2 inc	hes		
DRILL	ING C	ONTRACT	OR GSG Co	onsultants, Inc.		_	DATE	T13.4F	DE-	·	0.4.011.0		4.5	
			Direct Push			GROUND WATER	8/7/2017	TIME DD	DEF		CASING 10		AB /A	
LOGO	SED BY	' AMH		CHECKED	BY JJR	LEVELS (ft, bgs):								
DRILI	RIG _	7822DT Tr	ack Geoprob	е		_								
							•				n e	S		ż
Ξ	º ,									3KS	TYP ER terva	(PPM)	RECOVERY (feet)	PEN.
DEPTH (ft)	GRAPHIC LOG				MATERIAL DESCRI	PTION				REMARKS	PLE JMB th Ini	PPN	COVE (feet)	KET (tsf)
	p									R	SAMPLE TYPE NUMBER (Depth Interval)	PID I	RE(POCKET (tsf)
0.0	[3 L. 3	0 (<u> </u>								00 =			ш
	<u> </u>	Surface:	3-inch black i	OPSOIL (FILL)										
		S-1: Very	stiff, lean CLA	AY (CL), low plast	ticity; trace Sand, fine- to	coarse-grained; trace Gr	avel, fine-gra	ained; black	k and	1	S-1 (0-5)	0.0	2	
		brown, m	noist (FILL)								(0-3)			
2.5														
2.5														
5.0														
0.0		S-2: Med	ium stiff, lean	sandy CLAY (CL-	-SC), low plasticity; trace	Silt; trace Gravel, fine-gr	rained; brown	n, moist (FII	LL)	2	S-2 (5-9)	0.0	2	
											(3-9)			
7.5														
		: End of h	oring at 9' BG	S. Borina immed	iately backfilled with 3/8"	bentonite chips and cap	ped with rem	naining soil		Ш				
		cuttings	g at 0 DC		saskinoa mur o/o	_ s.noto oringo and oap	maiioli	ig 00ll						
M 2	. Samp . Samp	oled 0-5 fee oled 5-9 fee	t at 1242 t at 1247											
A R K														
S														

		Huff	& Huff.		BORI	NG N	UME	ЗE	R 253		-43- E 1 C	
	CLIE	A Subsidiary of G	ZZA GotTovinomental, Inc.	DDO IECT NAME	I Pouto 50	& LIS Do	ıto 20 E	DCI				
			nois Department of Transportation, District One UMBER PTB 178 008 / Work Order 02									
			TED 8/9/17 COMPLETED 8/9/17						IZE 2 inc	hes		
			ONTRACTOR GSG Consultants, Inc.									
			ETHOD _Direct Push	GROUND WATER	DATE 8/9/2017	TIME DD	DEP DR		CASING 5		AB /A	
	LOG	GED BY	AMH CHECKED BY JJR	LEVELS (ft, bgs):								
	DRIL	L RIG _	7822DT Track Geoprobe									
4_BORING LOGS.GPJ	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRI	PTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - 3:181.0220509.04 IDOT 178008-02A - US 20 @ IL 59IREPORTS\BORINGS LOGS\B1.0220509.04_BORING LOGS\GPJ			Surface: 2-inch black TOPSOIL (FILL) S-1: Medium stiff, lean CLAY (CL), low plasticity; little Sand, fine-medium-grained; black and brown, moist (FILL)	to coarse-grained; little G	Gravel, fine- t	0		1	S-1 (0-1)	0.0	1	
COLUMN W/			: End of boring at 1' BGS. Boring immediately backfilled with 3/8" cuttings	bentonite chips and capp	oed with rem	aining soil	•			•		•
ENVIRONMENTAL BH	R 1 E M A R K	. Samp	oled 0-1 feet at 0916									

	Huff	& Huff.				DONI	NG NC	JIVIL	JL	.N 200		E 1 C	
Als .	A Subsidiary of C	jZA GeoEnvironmental, Inc.											
1		nois Department of Transpo											
		UMBER PTB 178 008 / W			PROJECT LOCATIO								
		TED <u>8/8/17</u>			GROUND ELEVATION	ON <u>787 +/</u>	- 2	HOL	E S	IZE 2 inc	hes		
		ONTRACTOR GSG Cons	sultants, Inc.		_	DATE	TIME	DEP	тн	CASING	ST	AB	
		ETHOD Direct Push			GROUND WATER LEVELS (ft, bgs):	8/8/2017	DD	DR	Υ	5	N	/A	
		AMH	CHECKED BY JJF	₹	-								
DRIL	L RIG _	7822DT Track Geoprobe			-								
DEPTH (ft)	GRAPHIC LOG		MATE	ERIAL DESCRIF	PTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
NEMARKS - GINT STD US L'AB. GDT - 6/19/17 10.2 I - J. 16/10/2 US US GD		Surface: 3-inch black TOF S-1: Very stiff, lean CLAY brown, moist (FILL)		e Sand, fine- to	coarse-grained; trace Gra	avel, fine-gra	ained; black	and	1	S-1 (0-1)	0.0	1	
		: End of boring at 1' BGS. cuttings	Boring immediately bac	ckfilled with 3/8"	bentonite chips and capp	oed with rem	naining soil						
NVIKCONMENIAL BH COLOMN WY REMARKS	. Samp	oled 0-1 feet at 1155											

BORING NUMBER 2531V-43-10 PAGE 1 OF 1

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1	Huff & Huff
Val	incorporated [*] A Subsidiary of GZA GeoEnvironmental, Inc.
de	The second second

CLIENT Illinois Department of Transportation, District One

PROJECT NUMBER PTB 178 008 / Work Order 02

DATE STARTED 8/7/17 COMPLETED 8/7/17

CHECKED BY JJR

DRILLING CONTRACTOR GSG Consultants, Inc.

DRILLING METHOD Direct Push

LOGGED BY AMH

DRILL RIG _7822DT Track Geoprobe

PROJECT NAME <u>IL Route 59 & US Route 20 PSI</u>

PROJECT LOCATION Bartlett, Cook County, IL

GROUND ELEVATION 780 +/- 2 HOLE SIZE 2 inches

TIME DEPTH CASING DATE **STAB GROUND WATER** 8/7/2017 DD DRY N/A LEVELS (ft, bgs):

O DEPTH (ft) GRAPHIC	MATERIAL DESCRIPTION	REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN.
	S-1: Very stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; black and brown, moist (FILL) : End of boring at 1' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil	1	S-1 (0-1)	0.0	1	
R E M A R K S	cuttings pled 0-1 feet at 1325					

	5	Huff incor	BORING Of & Huff. Of GZA Gredeniummental, Inc.						3E	R 253		- 43 - E 1 C	
	CLIEN	VT Illin	ois Department of Transportation, Distric	ct One	PROJECT NAME	L Route 59	& US Rou	ite 20 P	SI				
			JMBER PTB 178 008 / Work Order 02										
[DATE	STAR	TED _8/7/17					-		IZE 2 inc	hes		
[ORILI	ING C	ONTRACTOR GSG Consultants, Inc.					DED		0.4.011.10			
[ORILI	ING M	ETHOD _Direct Push		GROUND WATER	DATE 8/7/2017	TIME DD	DR		CASING 10		/A	
L	_OGC	SED BY	AMH CHECKED	BY JJR	LEVELS (ft, bgs):								
[ORILI	RIG	7822DT Track Geoprobe										
.04_BORING LOGS.GPJ	o DEPTH o (ff)	GRAPHIC LOG		MATERIAL DESCRIF	PTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
0509.		71/2. 1/1	Surface: 3-inch black TOPSOIL (FILL)										
NGS LOGS/81.022	-		S-1: Very stiff, lean CLAY (CL), low plast moist (FILL)	icity; little Sand, fine- to co	oarse-grained; little Grav	vel, fine-grai	ned; brown,	,	1	S-1 (0-5)	0.0	5	
LAB.GDT - 8/15/17 10:21 - J:\81.0220509.04 IDOT 178008-02A - US 20 @ IL 59	2.5 - - 5.0 - - - -		S-2: Hard, lean CLAY (CL), low plasticity moist (FILL) : End of boring at 9' BGS. Boring immedia					,	2	S-2 (5-9)	0.0	4	
NMU			cuttings	iately backlilled Willi 3/6	periorite crips and capp	peu wiiii ieli	naning soll						
100 1													
ENVIRONMENTAL BE	R 1 E 2 M 2 A R K S	1. Sampled 0-5 feet at 1250 2. Sampled 5-9 feet at 1252											

		Huff	& Huff.		DOM	110 110	J 1 V 1 L		200	PAG	E 1 C)F 1
١,	CLIEN	A Subsidiary of G	ois Department of Transportation, District One	PROJECT NAME	II. Pouto 50	& LIS Dout	0.00	261				
			JMBER _ PTB 178 008 / Work Order 02	PROJECT LOCATION								
			FED 8/9/17 COMPLETED 8/9/17						IZE 2 incl	hes		
ŀ	DRILL	ING CO	ONTRACTOR GSG Consultants, Inc.		DATE	TIME	DEP	тн	CASING	ст	ΔR	
			ETHOD Direct Push	GROUND WATER LEVELS (ft, bgs):	8/9/2017	DD	DR		5		/A	
			AMH CHECKED BY JJR	ELVELO (II, bgs).								
_ _	DRILL	RIG _	7822DT Track Geoprobe									
.04_BORING LOGS.GP.	O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIF	PTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
MIN W. KEMARNS - GINT S ID OS 448.601 - 819/17 10:21 - 3:81 (0.226093.04 IDOT 178009.24 - OS 20 @ IL 39/KEFOR 150 CKINGS LOGS/81.02	-		S-1: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coard brown, moist (FILL) : End of boring at 1' BGS. Boring immediately backfilled with 3/8" toutings				1	1	S-1 (0-1)	0.0	1	
NON P	R 1. E M A R K S	Samp	led 0-1 feet at 1137									

			& Huff					BORI	NG NI	UMI	BE	R 253		- 55- E 1 C	
	O	incor	porated ZA GeoEnvironmental, Inc.												
	CLIE	NT Illir	ois Departn	nent of Trans	portation, Distric	ct One	PROJECT NAME _	L Route 59	& US Rou	te 20	PSI				
	PRO	JECT N	JMBER P	TB 178 008 /	Work Order 02		PROJECT LOCATIO	N Bartlet	t, Cook Co	unty, I	L				
	DATI	E STAR	TED <u>8/9/1</u>	7	COMPLETE	ED <u>8/9/17</u>	GROUND ELEVATION	ON <u>787 +</u>	/- 2	HOL	E S	IZE 2 inc	hes		
	DRIL	LING C	ONTRACTO	OR GSG Co	nsultants, Inc.			DATE	TIME	DEF	тн	CASING	i ST	AB	
	DRIL	LING M	ETHOD Di	irect Push			_ GROUND WATER LEVELS (ft, bgs):	8/9/2017		DF		5		/A	
	LOG	GED BY	AMH		_ CHECKED	BY JJR	— — — — — — — — — — — — — — — — — — —								
	DRIL	L RIG _	7822DT Tra	ack Geoprobe	,		_								
4_BORING LOGS.GPJ	DEPTH (ft)	GRAPHIC LOG				MATERIAL DESCR	RIPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J.W1 (0220509.04 IDOT 178008-02A - US 20 @ IL 59/REPORTS/BORINGS LOGS/81,0220509.04 BORING LOGS GPJ			S-1: Hard, brown, mo	, lean CLAY ((oist (FILL)			parse-grained; trace Gravel			d	1	S-1 (0-1)	0.0	1	
				-	-	-			-						
잉															
ENVIRONMENTAL B	R E M A R K S	1. Samp	led 0-1 feet	at 1134											

R 2531V-56-01

PAGE 1 OF 1

STAB

N/A

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Huff & Huff Asheday of GZA Gentlementers at Inc.	BORING NUMBER
CLIENT Illinois Department of Transportation, District One	PROJECT NAME IL Route 59 & US Route 20 PSI
PROJECT NUMBER PTB 178 008 / Work Order 02	PROJECT LOCATION Bartlett, Cook County, IL

DATE STARTED 8/9/17 COMPLETED 8/9/17 GROUND ELEVATION 791 +/- 2 HOLE SIZE 2 inches DRILLING CONTRACTOR GSG Consultants, Inc. DEPTH CASING DATE TIME **GROUND WATER** DRILLING METHOD Direct Push 8/9/2017 DD DRY LEVELS (ft, bgs):

CHECKED BY JJR

DRILL RIG 7822DT Track Geoprobe

LOGGED BY AMH

O DEPTH	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
		Surface: 2-inch black TOPSOIL (FILL) S-1: Hard, lean CLAY (CL), low plasticity; little Sand, fine- to coarse-grained; trace Gravel, fine-grained; black and brown, moist (FILL)	1	S-1 (0-6)	0.0	5	
HLdad 0		S-2: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; black and brownish-grey, moist (FILL)	2	S-2 (6-12)	0.0	5	
		S-3: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown and grey, moist	3	S-3 (12-18)	0.0	5	
		: End of boring at 18' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil					
<u>L</u> 2	. Samp	led 0-6 feet at 1123 and duplicate sample (2531V-DUP-14) collected at this interval led 6-12 feet at 1126 led 12-18 feet at 1129					

		Huff	& Huff			BORI	NG NI	JME	3E	R 253		- 56 -							
	PROJ	ECT N	UMBER PTB 178 008	sportation, District One / Work Order 02 COMPLETED _8/9/17	PROJECT LOCATION	ON Bartlett	, Cook Co	unty, IL		IZE 2 inc	hes								
	DRILI DRILI LOGO	ING C ING M SED BY		CHECKED BY _JJR		DATE 8/9/2017	TIME DD		TH	CASING 20	S ST	AB /A							
04_BORING LOGS.GPJ	O DEPTH (ft)	GRAPHIC LOG	- Caracter Cooperation	MATERIAL DES	SCRIPTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)						
TS/BORINGS LOGS/81.0220509.	 		Surface: 2-inch black T S-1: Very stiff, lean CL/ moist (FILL)	OPSOIL (FILL) AY (CL), low plasticity; trace Sand, fin	e- to coarse-grained; trace Gr	avel, fine-gra	ained; brow	n,	1	S-1 (0-6)	0.0	4							
04 IDOT 178008-02A - US 20 @ IL 59\REPORTS\BORINGS LOGS\81.0220509.04_BORING LOGS.GPJ			S-2: Very stiff, lean CL/ moist (FILL)	AY (CL), low plasticity; trace Sand, fin	e- to coarse-grained; trace Gr	avel, fine-gra	ained; brow	n,	2	S-2 (6-12)	0.0	5							
ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:181.0220509.04	10 -		S-3: Very stiff, lean CL brown, moist (Possible	AY (CL), low plasticity; little Sand, fine PFILL)	⊱ to coarse-grained; little Grav	vel, fine- to m	edium-grai	ned;	3	S-3 (12-18)	0.0	4							
JMN W/ REMARKS - GINT STD			: End of boring at 18' B cuttings	GS. Boring immediately backfilled wit	th 3/8" bentonite chips and ca	pped with re	maining soi	il											
ENVIRONMENTAL BH COLL	m 2	. Samp	oled 0-6 feet at 1059 oled 6-12 feet at 1102 oled 12-18 feet at 1105 a	and duplicate sample (2531V-DUP-	13) collected at this interval														

- Sampled 0-6 feet at 1059
 Sampled 6-12 feet at 1102
 Sampled 12-18 feet at 1105 and duplicate sample (2531V-DUP-13) collected at this interval

Huff & Huff incorporated Assimilary of GZA GeoEnvironmental, Inc.							PAGE I C	<i>,</i>
CLIENT Illinois Department of Tra	ansportation, District One	PROJECT NAME	L Route 59	& US Rou	ite 20 PSI			
PROJECT NUMBER PTB 178 00	8 / Work Order 02	PROJECT LOCATION	N Bartlett	, Cook Co	unty, IL			
DATE STARTED 8/9/17	COMPLETED _8/9/17	GROUND ELEVATION	ON 797 +/	- 2	HOLE SIZ	ZE 2 inche	es	
DRILLING CONTRACTOR GSG	Consultants, Inc.		DATE	TIME	DEDTU	CACING	CTAD	
DRILLING METHOD Direct Push		GROUND WATER	8/9/2017	TIME DD	DEPTH DRY	CASING 20	STAB N/A	
LOCCED BY AMIL	CHECKED BY TID	LEVELS (ft, bgs):						

CHECKED BY JJR

LOGGED BY AMH

DRILL RIG	7822DT Track Geoprobe								
O DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION				KEMAKKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN.
	Surface: 2-inch black TOPSOIL (FILL) S-1: Medium stiff, lean sandy CLAY (CL-SC), low plasticity; with Clay; trace Gravel, fine-gramoist (FILL)	ained; blacl	k and brown	,	1	S-1 (0-6)	0.0	5	
	S-2: Loose, well-graded SAND (SW), fine- to coarse-grained; trace Gravel, fine-grained; br	own, moist	(FILL)		2	S-2 (6-12)	0.0	5	
	S-3: Loose, well-graded SAND (SW), fine- to coarse-grained; trace Gravel, fine-grained; bridge of the state o				3	S-3 (12-18)	0.0	4	
5 2. Sam	: End of boring at 18' BGS. Boring immediately backfilled with 3/8" bentonite chips and cap cuttings pled 0-6 feet at 1039 pled 6-12 feet at 1043	peu with fe	andining sol						
A 3. Sam R K S	pled 12-18 feet at 1046								

₹ 2531V-56-04

HOLE SIZE 2 inches

PAGE 1 OF 1

Huff & Huff. In corporated Assimilary of GZA Gos Freedmannensel, Inc.	BORING NUMBER
CLIENT Illinois Department of Transportation, District One	PROJECT NAME _IL Route 59 & US Route 20 PSI
PROJECT NUMBER PTB 178 008 / Work Order 02	PROJECT LOCATION Bartlett Cook County II

COMPLETED 8/9/17

CHECKED BY JJR

DRILLING CONTRACTOR GSG Consultants, Inc. DEPTH CASING DATE TIME **STAB GROUND WATER** DRILLING METHOD Direct Push 8/9/2017 DD DRY 20 N/A LEVELS (ft, bgs): LOGGED BY AMH

GROUND ELEVATION 787 +/- 2

DRILL RIG 7822DT Track Geoprobe

DATE STARTED 8/9/17

O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
SOREPORTS/BORINGS LOGS/81,022,050;		Surface: 2-inch black TOPSOIL (FILL) S-1: Very stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown and black, moist (FILL)	1	S-1 (0-6)	0.0	5	
NW/REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:81.0222609.04 IDOT 178008-02A - US 20 @ IL 59REPORTS/BORINGS LOGS/81.0220569.04 BORING LOGS.GFU DEPTH		S-2: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown, moist (FILL)	2	S-2 (6-12)	0.0	4	
W/ REMARKS - GIN S ID US LAB GDT - 8/19/17 10/21		S-3: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine- to medium-grained; brown, moist (Possible FILL) : End of boring at 18' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil	3	S-3 (12-18)	0.0	6	

cuttings

Sampled 0-6 feet at 1025 and duplicate sample (2531V-DUP-12) collected at this interval
 Sampled 6-12 feet at 1028
 Sampled 12-18 feet at 1034

ENVIRONMENTAL BH COLUMN W/ R E M A R K S

A STATE OF THE PARTY OF THE PAR	
	X
Tex	Huff & Huff,
	incorporated .
RITA	A Subsidiary of GZA GeoEnvironmental, Inc.

ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:81.022669.04 IDOT 178008-02a - US 20 @ IL 69IREPORTS/BORINGS LOGS/81.022669.04_BORING LOGS/GPJ

	Huff	& Huff,											PAG	E 1 C)F 1
CLIEN	A Subsidiary of C	nois Departme	ent of Trans	portation. Dist	rict One		PROJECT NAME _	IL Route 59	& US Rou	ıte 20 f	PSI				
	-			Work Order 0			_								
DATE	STAR	TED <u>8/9/17</u>		COMPLE	FED <u>8/9</u>	/17	GROUND ELEVATION	ON _796 +/	- 2	HOL	E S	IZE 2 incl	nes		
				nsultants, Inc.				DATE	TIME	DEP	тн	CASING	ST	AB	
		ETHOD <u>Dir</u> / AMH		CHECKE	DEV III		GROUND WATER LEVELS (ft, bgs):	8/9/2017	DD	DR	Y_	20	N.	/A	
		7822DT Trac			J B I	N.									
			•												
DEPTH (ft)	GRAPHIC LOG				MATE	ERIAL DESCRIF	PTION				REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
0	·	Surface: 3-	nch black To	OPSOIL (FILL)											
 			tiff, lean CLA	,	sticity; little	e Sand, fine- to o	oarse-grained; trace Gra	avel, fine-grai	ned; brown	n and	1	S-1 (0-6)	0.0	5	
5		S-2: Very s black, mois	tiff, lean CLA st (FILL); trac	Y (CL), low pla e asphalt	sticity; little	e Sand, fine- to o	oarse-grained; trace Gra	ivel, fine-grai	ned; brown	n and	2	S-2 (6-12)	0.0	4	
10							to coarse-grained; trace	e Gravel, fine	- to		3	S-3	0.0	6	
15 		medium-gr	ained; browr	n and black, mo	ist (Possit	ole FILL)	' bentonite chips and ca			il		(12-18)			
		cuttings		-					-						
L 2	. Samp	oled 0-6 feet a bled 6-12 feet bled 12-18 fee	at 1006												

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4		Huff incon	& Huff, porated GZA GeoEnvironmental, Inc.									PAG	EIC	JF 1
c	LIEN	IT Illii	nois Department of Trans	sportation, District Or	ne	PROJECT NAME	IL Route 59	& US Rou	te 20 I	PSI				
			UMBER PTB 178 008 /			PROJECT LOCATION								
			TED 8/9/17		8/9/17						IZE 2 inc	hes		
D	RILL	ING C	ONTRACTOR GSG Co	nsultants, Inc.										
- 1			ETHOD Direct Push			GROUND WATER	8/9/2017	TIME DD	DEF		CASING 20		AB /A	
			/ AMH	CHECKED BY	JJR	LEVELS (ft, bgs):	0/0/2011						,,,	
D	RILL	. RIG	7822DT Track Geoprobe	 e										
.0220509.04_BORING LOGS.GPJ	0 (#)	GRAPHIC	Surface: 2-inch black T S-1: Hard, lean CLAY ((OPSOIL (FILL)	ATERIAL DESCRIF	PTION rse-grained; trace Grave	I, fine-graine	ed; black an	d	1 REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	o PID RESULTS O (PPM)	G RECOVERY (feet)	POCKET PEN.
.0220509.04 IDOT 178008-02A - US 20 @ IL 59IREPORTS\BORINGS LOGS\B1.0220509.04_BORING LOGS.GPJ	- - - 5		brown, moist (FILL)	CLAY (CL), low plastic		- to coarse-grained; trace			S	2	(0-6) S-2 (6-12)	0.0	3	
LAB.GDT - 8/15/17 10:21 - J:\81	10 -		S-3: Hard, lean CLAY (0 blueish grey, moist (Po		ce Sand, fine- to coal	rse-grained; trace Grave	I, fine-graine	ed; brown ar	nd	3	S-3 (12-18)	0.0	4	
/ REM.														
× ×			: End of boring at 18' Bo cuttings	GS. Boring immediate	ly backfilled with 3/8	" bentonite chips and ca	pped with re	emaining so	il					
			Cuttings											
ۆ <u> </u> يظ														
ENVIRONMENTAL E	2. 3.	Sam	oled 0-6 feet at 0943 oled 6-12 feet at 0947 an oled 12-18 feet at 0950	d duplicate sample (2	2531V-DUP-11) co	llected at this interval								

BORING NUMBER 2531V-56-07 PAGE 1 OF 1

Huff & Huff,	
incorporated A Subsidiary of GZA GeoEnvironmental, Inc.	

ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J.'81.0220509.04 IDOT 178008-02A - US 20 @ IL 59!REPORTS\BORINGS LOGS\81.0220509.04 EORING LOGS\GPJ

13	Huff	& Huff,							1 70		,, ,
CLIFI	A Subsidiary of G	rois Department of Transr	portation, District One	PROJECT NAME	II Route 50	& LIS Rout	△ 20 PS	ı			
		JMBER <u>PTB 178 008 / \</u>						<u>I</u>			
		TED 8/9/17					_	SIZE 2 inc	hes		
		·	nsultants, Inc.								
DRILI	LING M	ETHOD Direct Push		GROUND WATER	TIME DD	DEPTE DRY	CASING 20				
LOGO	GED BY	AMH	CHECKED BY JJR	LEVELS (ft, bgs):							
DRILI	RIG _	7822DT Track Geoprobe								-	
o DEPTH (ft)	GRAPHIC LOG		MATERIAL DES	SCRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
		Surface: 2-inch black TC S-1: Hard, lean CLAY (C brown, moist (FILL)	DPSOIL (FILL) CL), low plasticity; trace Sand, fine- to	o coarse-grained; trace Gravel	l, fine-graine	d; black and	1 1	S-1 (0-6)	0.0	4	
<u>5</u> 		S-2: Medium stiff, lean sa	andy CLAY (CL-SC), low plasticity; t	trace Silt; trace Gravel, fine-gr	rained; browr	ı, moist (FIL	L) 2	S-2 (6-12)	0.0	3	
10		S-3: Very stiff, lean sand	ly CLAY (CL-SC), low plasticity; trac	e Silt; trace Gravel, fine-graine	ed; brown, m	oist (FILL)	3	S-3 (12-18)	0.0	6	
R		cuttings	SS. Boring immediately backfilled wit	th 3/8" bentonite chips and ca	pped with rei	maining soil					
M 2	. Samp	led 0-6 feet at 0934 led 6-12 feet at 0937 led 12-18 feet at 0940									

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N/A

Huff & Huff incorporated A Schoolary of GZA Goofferingeneral, Inc.		PAGE 1 OF 1
CLIENT Illinois Department of T	ransportation, District One	PROJECT NAME IL Route 59 & US Route 20 PSI
PROJECT NUMBER PTB 178 0	08 / Work Order 02	PROJECT LOCATION Bartlett, Cook County, IL
DATE STARTED 8/9/17	COMPLETED _8/9/17	GROUND ELEVATION _794 +/- 2 HOLE SIZE _2 inches
DRILLING CONTRACTOR GSC	G Consultants, Inc.	DATE TIME DEPTH CASING STAB

CHECKED BY JJR

GROUND WATER

LEVELS (ft, bgs):

8/7/2017

DD

DRILLING METHOD Direct Push

LOGGED BY AMH

DRILL	RIG _	7822DT Track Geoprobe							
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
 		Surface: 4-inch black TOPSOIL (FILL) S-1: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, brown, moist (FILL)	fine-graine	d; black and	1	S-1 (0-6)	0.0	4	
HLd30 0		S-2: Hard, lean sandy CLAY (CL-SC), low plasticity; trace Silt; trace Gravel, fine-grained; b	rown, moist	: (FILL)	2	S-2 (6-12)	0.0	3	
R 1. E M 3. R K S		S-3: Hard, lean sandy CLAY (CL-SC), low plasticity; trace Clay; trace Gravel, fine-grained;			3	S-3 (12-18)	0.0	6	
R 1.	. Samp	: End of boring at 18' BGS. Boring immediately backfilled with 3/8" bentonite chips and cap cuttings led 0-6 feet at 1150	ped with re	maining soil					
M 2. A 3. R K S	. Samp . Samp	led 6-12 feet at 1153 led 12-18 feet at 1156							

		Huff incor	2& Huff, porated				BORI	NG N	UME	ER 2	253		- 56- E 1 (
	CLIEN	NT Illin	nois Department of	Transportation, Dis	trict One	PROJECT NAME _	IL Route 59	& US Rou	ute 20 P	SI						
	PROJ	ECT N	UMBER PTB 178	008 / Work Order ()2	PROJECT LOCATION	ON Bartlet	t, Cook Co	ounty, IL							
	DATE	STAR	TED <u>8/9/17</u>	COMPLE	TED 8/9/17	GROUND ELEVATION	ON _795 +	/- 2	HOLE							
	DRILL	ING C	ONTRACTOR GS	G Consultants, Inc			DATE	TINAT	DEDI	ш са	CINIC					
	DRILL	ING M	ETHOD Direct Pu	sh		GROUND WATER	DATE 8/7/2017	TIME DD	DR	H CA	<u>3114G</u> 20		/A			
	LOGG	SED BY	AMH	CHECKE	D BY JJR	LEVELS (ft, bgs):										
	DRILL	RIG	7822DT Track Geo	probe						+						
.04_BORING LOGS.GPJ	O DEPTH	GRAPHIC LOG			MATERIAL DES	SCRIPTION				SAMPLE TYPE NI IMBER	(Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)		
ORINGS LOGS/81.0220509.			Surface: 4-inch black S-1: Very stiff, lear moist (FILL)	,	1 S- (0-		0.0	5								
1 IDOT 178008-02A - US 20 @ IL 59\REPORTS\BC	5 -		S-2: Loose, well-graded SAND (SW), fine- to coarse-grained; little Clay; little Gravel, fine-grained; brown, moist (FILL)									0.0	3			
ENVIRONMENTAL BH COLUMIN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J:\81.0220509.04 IDOT 178008-02A - US 20 @ IL 59 REPORTS\BORINGS LOGS\81.0220509.04 BORING LOGS\GF)	10		S-3: Medium stiff, (Possible FILL)	lean sandy CLAY (C	CL-SC), low plasticity;	trace Silt; trace Gravel, fine-gra	rained; brow	n, moist		3 S- (12-		0.0	3			
MENTAL BH COLUMN W/ REMARKS - GINT S	1VI 2	. Sam	: End of boring at cuttings oled 0-6 feet at 113 oled 6-12 feet at 11 oled 12-18 feet at 1	5 39	nediately backfilled wi	ith 3/8" bentonite chips and cap	pped with re	emaining sc	oil .							
ENVIRONMENT#	E 2	. Sam	oled 6-12 feet at 113	39												

2531V-56-10

PAGE 1 OF 1

		BORING NUMBER 2531
Huff & Huff, incorporated A Subsidiary of GZA GeoEnvironmental, Inc.		P/
CLIENT Illinois Department of Transpo	ortation, District One	PROJECT NAME IL Route 59 & US Route 20 PSI
PROJECT NUMBER PTB 178 008 / V	/ork Order 02	PROJECT LOCATION Bartlett, Cook County, IL
DATE STARTED 8/9/17	COMPLETED 8/9/17	GROUND ELEVATION 799 +/- 2 HOLE SIZE _2 inches

DRILLING CONTRACTOR GSG Consultants, Inc. TIME DEPTH CASING DATE **STAB GROUND WATER** DRILLING METHOD Direct Push 8/7/2017 DD DRY 20 N/A LEVELS (ft, bgs): LOGGED BY AMH CHECKED BY JJR DRILL RIG 7822DT Track Geoprobe

O DEPTH	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
		Surface: 1-inch black TOPSOIL (FILL) S-1: Hard, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; black, moist (FILL)	1	S-1 (0-6)	0.0	4	
HL(#) 0 10 15		S-2: Very stiff, lean CLAY (CL), low plasticity; some Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown, moist (FILL)	2	S-2 (6-12)	0.0	5	
I		S-3: Medium stiff, lean sandy CLAY (CL-SC), low plasticity; trace Silt; trace Gravel, fine-grained; brown, moist (Possible FILL)	3	S-3 (12-18)	0.0	3	
	<u> </u>	: End of boring at 18' BGS. Boring immediately backfilled with 3/8" bentonite chips and capped with remaining soil cuttings	1		<u>I</u>	<u> </u>	
[2	. Samp	led 0-6 feet at 1116 led 6-12 feet at 1119 and duplicate sample (2531V-DUP-04) collected at this interval led 12-18 feet at 1124					

BORING NUMBER 2531V-56-11 PAGE 1 OF 1

Huff & Huff incorporated

ENVIRONMENTAL BH COLUMN W/ REMARKS - GINT STD US LAB.GDT - 8/15/17 10:21 - J.'81.0220509.04 IDOT 178008-02A - US 20 @ IL 59!REPORTS\BORINGS LOGS\81.0220509.04 EORING LOGS\GPJ

5	Huff	& Huff.							1 70		,, ,
CLIEN	A Subsidiary of C	nois Department of Transr	portation, District One	PROJECT NAME _	I Route 59	& US Route	20 PSI				
		JMBER PTB 178 008 / \									
		TED <u>8/9/17</u>					_	IZE 2 inc	hes		
DRILL	ING C	ONTRACTOR GSG Cor	nsultants, Inc.		DEDTU	CASING	СТ	AD			
DRILL	ING M	ETHOD Direct Push		GROUND WATER	DATE 8/7/2017	TIME DD	DRY	CASING 20	STAB N/A		
LOGO	SED BY	AMH	CHECKED BY JJR	LEVELS (ft, bgs):							
DRILL	RIG _	7822DT Track Geoprobe								_	
O DEPTH (ft)	GRAPHIC LOG		MATERIAL DES	SCRIPTION			REMARKS	SAMPLE TYPE NUMBER (Depth Interval)	PID RESULTS (PPM)	RECOVERY (feet)	POCKET PEN. (tsf)
 		Surface: 1-inch black TC S-1: Hard, lean CLAY (C (FILL)	PSOIL (FILL) L), low plasticity; trace Sand, fine- to	o coarse-grained; trace Gravel	l, fine-graine	d; black, moi	st 1	S-1 (0-6)	0.0	4	
5		S-2: Medium stiff, lean CLAY (CL), low plasticity; trace Sand, fine- to coarse-grained; trace Gravel, fine-grained; brown, moist (FILL)									
		S-3: Soft, lean CLAY (CL moist (Possible FILL)	.), low plasticity; trace Sand, fine- to	coarse-grained; trace Gravel,	fine-grained	; brownish gi	rey, 3	S-3 (12-18)	0.0	4	
<u>15</u>		: End of boring at 18' BG cuttings	S. Boring immediately backfilled wit	th 3/8" bentonite chips and ca	pped with rei	maining soil					
L 2	. Samp	oled 0-6 feet at 1100 oled 6-12 feet at 1103 oled 12-18 feet at 1106									