

Soil Classification Log and Notes

APPENDIX

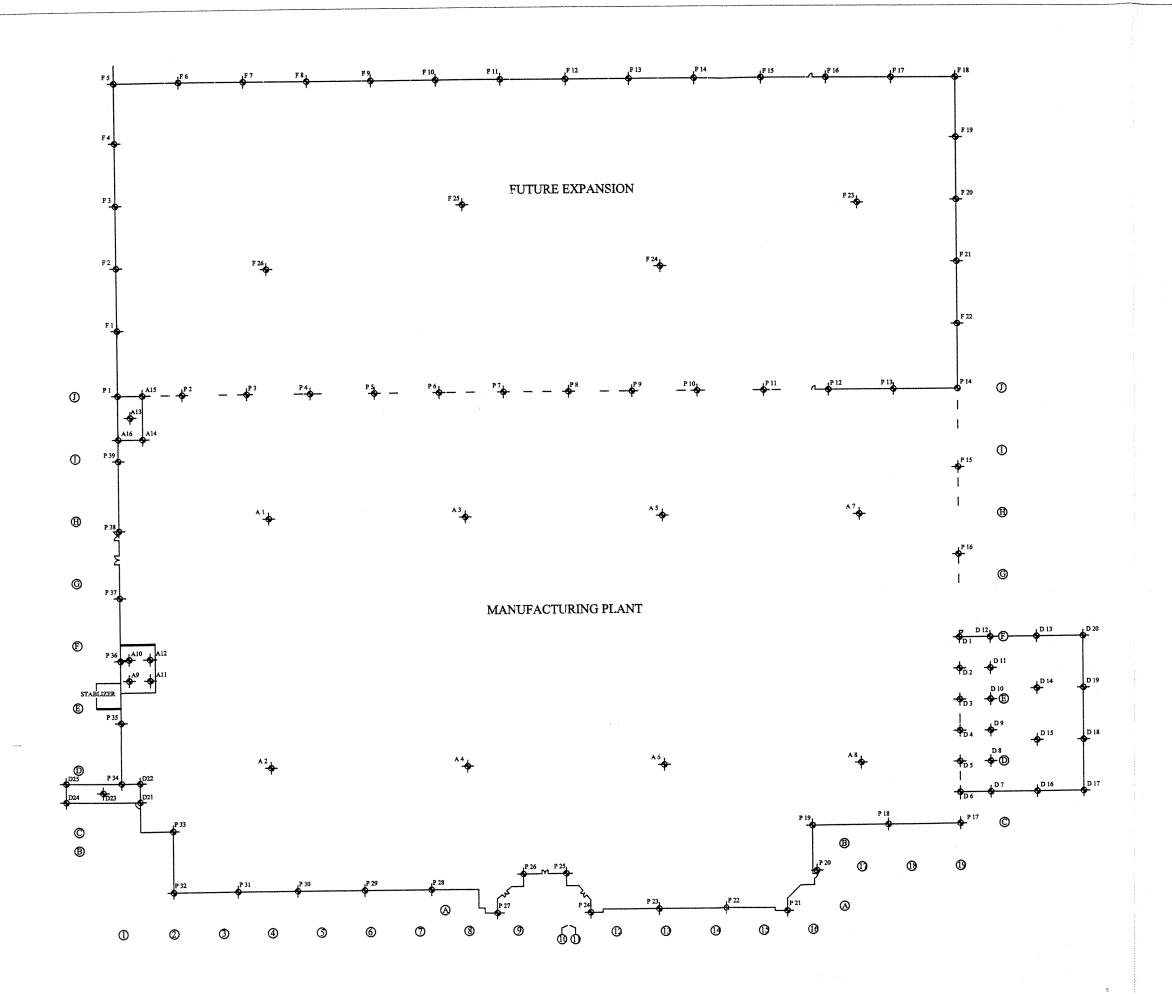
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Soil Classification Log and Notes: Location Map

Results:

The attached figure, Figure 2: Subsurface Exploration Plan, is from the EmpireGeo Services, Inc. report titled Soil/Fill Characterization Report, Proposed CertainTeed Manufacturing Plant & Offices (February 2004). The figure illustrates the locations of the excavations detailed in this Appendix.





SUBSURFACE EXPLORATION PLAN

SOIL/FILL SAMPLING & ANALYSIS PROGRAM
PROPOSED MANUFACTURING PLANT & OFFICES
HANNA FURNACE SITE-UNION SHIP CANAL
CITY OF BUFFALO, NEW YORK

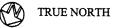
PROJ NO.: BEV-03-040	FIGURE NO.: 2
DR BY: WP	DATE: 01/05/04
CK BY: CG	SCALE: 1:80

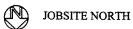
NOTES:



INDICATES APPROXIMATE TEST BORING LOCATION

- (A) INDICATES INTERIOR TEST BORINGS
- (P) INDICATES PERIMETER TEST BORINGS
- (D) INDICATES DOCK TEST BORINGS
- (F) INDICATES FUTURE EXPANSION TEST BORINGS





JOB SOIL POCK CLASS

)	The Krog (Corp. Direct
	4 Centre Drive	Orchard Park, New

York 14127 Tel: 716-667-1234 Fax: 716-667-1258 Dug Interior Press I/16 > I/3 3.4.04 Bottom of Hotes tamped by E. Loren Z W/ NPK C-6B Compactor 3501 0-9 Foundation From 0/19 > 519
From 5/19 > 516 INT. Piers H/18 7 H3 3.6.04 Shot Down by building Dept. 3-11-04 B.12.04 Concrete powed in Existing Holes No new digs 3-15-04 Dig Found. From C.7/1.3 > C.7/0.0 framped From C.7/007 E/0.0 Dug int. Piers 6,3 > 67 3.16.04 Dug int Piers G& > 618 3-17-04 int. Piers F18 7 F14 IN Prus F13 > F3 3.1504 Pug Pug E37 E7 Norchere & worke on Sotting up well C.7/1.3 > C.7/00 CA/00 -> E/00 3-19-04

Northere- Posting wall (.7/1,3 7 (.7/00 7 \$/0.0 Dissing int piers E87618 D18 70 13 . 12.04 Noresete Puring Footes Floor \$ 10.0 Digging Ytrench F/00 7 I.5/00 intpiers D/37 D3

C157011

DATE ______ SHEET NO _



The Krog Corp.

Orchard Park, New York 14127 Tel: 716-667-1234 Fax: 716-667-1258

3.23 04	Notisete Set up wall F/00 > I.5/00 Dig pros 69 -> C3 Dig pros B15 -> B3
3.26 04 3.27.04 3.29.04	HAZNOPET Training HAZNOPET Training HAZNOPET Training
3,30.04	Norchete Set-upwah From TI7-7 II9 Pored way J19-7 H19 Lorenz-water Controll
3.31.04	Norchere - Smip wall JT7 + JTG, JIS > HG
	Lorenz- Dig (B) C7/1.3 > C/1.3 > C2 > B2 Krog - Mast Poured Foxes C7/1.3 > C/1.3 > C/2>B2
41.04	Norciere - Possed wall #119 -> G19 Lorenz - Oug Jb > JIV Kren - Possed Fossed J16 > JIV
4,204	1500-0-2 Norcière - Setupi Poured Wall C.7/1.3 70/1.3 70/2 7132
	Lorenz - Woder Controll-BackFill HIG 7 GIG Krog - World Controll-Str. PWAIL HIG 7 GIG

つate	Time	Location	Classification	Notes
3.4.04	2:00pm	土-16	Gray Staig	
		I-15	Gray sies	
		I-14	Gray stag	
		I-13	Gray Slag	
		I-12	: (
		1-11	l 1	
, , , , , , , , , , , , , , , , , , , 		I-10	1 {	,
		T - 9	11	
		1-8	()	
÷.		1-7	Brown Sint Brown Slag	
		1 -6	t 1	
		T.5	Ų	
			ŧţ	
		and the	£1	West est Ar escat
3.5.04	9130 Am	G19-I19	Red-Brown Clay Brown Silt TI. Tan foundry Sand	•
	10',00	I19.519	Brown Silt Tr. Tan foundry Sand Brown Silt Gray Slag Tan Foundry Sand Brown Silt Gray Slag Gray Slag Tan Foundry Sand	
	11;00	J19-J16	Brown Silt Gray Slag tan Fornity Sound	
	11130	H - 18	Gray slag	
,		4-17	. 1	
<u> </u>		H-16		

Tate	Time	Location	Classification	Notes
3.5.04	11:30	H-12	Gray Slag	
		H-14	11	
		H-13	11	
		H-12	N.	
		H-11	t,	
		H-10	· ·	
		4-9	C.	
		H-8	N ·	
		H-7	Brown Silt Brown Slea	
		H-6	11	
414144		4-5	ι (
		4-4		
		H-3	r./	
3.12.04	_		No Digsing Done	
3.15.04	9:30	C.7/00 TO	Slag Black Cinders Brown Sandy Clay	Digging Started @ 9:3
		C.7-0.0 3 C7.1.3	Slag Black Cinders Brown Clave Sand Grey Slag	water found
		C.7/0.0 >	Grey Slag Black Cinders	No water
		E/0.0 E/0.0) E.5 /0.0	Redish Brown Cinders	End of Excau. for the Da
3.16.04	9:30	63	Br. Cinders	NO Water
	9:45	64	Br. Cindus tan foundry Sand	NO Wester

Pate	Time	Location	Classification	Notes
3.16.04	10.00	G5	Brownich Black cinders	No water
1)	10:15	66	Brown & Black Cindres tan Foundry Sand	NO Ward
Ž1	0£',01	(g)	Brown Slag	10:45 END of Dig For To
3.17.04	10.45	60	Black Brown - Cinders Brown Slag	No water
		69	T.C.	t,
		G10	• 1	Li
		Gil	·K	
		412	s.t	ы
		(31)	Ч	15
		Gil	T I	ιį
		6.5	11	£!
		6.12	11	"
		A STATE OF THE STA	11	.1
		(A)	1 }	11
3:17:04	2,00	F 14	Br. slag Br. cinders White Cinders	l (
		FIS	(1	(1
		F16	Brown enders Brown Stag	1 (
		F17	Relish Brown Cinders Brown Stag	· · ·
		FIB	1 \	· ·

つate	Time	Location	Classification	Notes
3.18.04	9',50	F/12	Br. & Gr Slag Br. Cinders	No water
	9.15	F/II	1 1 1 1	water Found
	9:30	F/10: F/9	11 (1) 11 (1)	no moder
	10,00	F8	Brack, Slag Reddish Bs. Cinders	water found
***************************************	10:15	F7	(1	No Water
	10130	F6	Br. Slas Br. Cinders Tan Foundry Sand	Mo Mark
	11.50	F 5	(, , , , , , , , , , , , , , , , , , ,	No moder
***************************************	Mili	EH	Br Slag Br Cinders Blue Concrete	No waser
	11:30	F3	Br. Slag Br Cinders	no mora
7.18.01	1:007	E37E8	/ / / / /	no water
3 19.04		E9 > E11	3.4	NO WESTER
		E12	Br. Slag Br. Cind. Fine Slag	wares
		E137E15	Br. Slag Br. Cind Greenish Gray slag	no water
		Elb, EI7, E18	Br. Slag Br. Gray Cind.	10 . Ne jus
***************************************	21,00	018	Brislag : Cind. Gray Slag	No resid
		1317	Br Slog ; Cond Gray Slag , Ton Founday Sand	water Found
		016	Brslagge-d.	No Water
and and and and and and and and and and 	-	015	Grand stag fine stag Bristag i Cind Grand Stag Tantoning	of constant
		014	Br. Slag & Clad	ho mpler
		013	Gray Slag (Cind Gray Slag , tan Foundly Sara	No Water

ື⊃ate	Time	Location	Classification	Notes
3.22.04	10:00	G. O.O	Brownis Black Cinders Gray Clayie Sand	wall
\i	10,60	H 0.0	tan Sand Gray Clayic Sand	
şţ	10.30	T 0.0	Gray Clayte Sand Orange Cindus, Be/Blands	5
ţ*	14:30	I.5/0.0	Br. Cinders	
3.23.04	10,00	C9 + C3	Brownish Black Cinders	pres
	2.00	B15-7 8	Br Slac	
3,3004	10,00	no Digging		•
33104	11100	03/1/3	Gray May Cintas	
	777	0/1/3	1.3	Low Dock 5' Geep
	100 HZ	c /2		
	11,50	15/2	41	
45.04	10:30	No Ne	w rigg	
4.6.04	5,00		Blue Slag Braiders Gray Clay	Regrind him found sevice line Little waster
4704				
7.8.04				
4.9.04				
3.3				
¥110-5				
1.39				· ·

רate	Time	Location	Classification	Notes
1-165			•	
19.3				•
}-20°0			· · · · · · · · · · · · · · · · · · ·	
4.2/2	2:30	A13/5	only black Ash like and ess w/Black Stone	MALK SLOODSULTER
1210-		,		Complete
1210		A3/4 >A3/2	Gray Stag, Gray Chices "on foundry send	
12/5/		A.3/2 7C/2	11	•
40054			w Digs	
1.23.04		North parking	Brown soil, Gray stee. Netal Fregments, Blogsh Black Wolten Metal Deposits	
4.2604	9:15	A.3/6.5 > A.3/7.5	worten metal Deposits Oily black Ash like anders W/ Black Stone Dily sheen on	oily soil was placed on place oily trench water was pumped The ground
			Material Stone Dilysheen on Material Top of Waterial Con Stone Of the Material Control of the Co	The ground
			*	
		A.3/7.5=, A.3/8.1	Brown stag Brown Cinders Metal Dedris, old cables, Blue stac	
		A.3/8.1 > A/8.1	Blue slac 3rown Slag, Brown Cinders, tan Foundry sand	
		A/8.1 >, A/3.5		
		A/8.5 7 A.4/9	Brown Slag, Brown Cinhers, Tan Foundry Sand Blue Slag	
4.27.04		NO New Digs		
4.28.04		ho hen sic	S	RE Lorenz came after hours & Cot New Eque May into Blds
-1.29 04		NO WEW ON	5	·
4,300		S.S.O. NOT	on site today	

Date	Time	Location	Classification	Notes
:3.04	10:15	A.4/10	Brown Stag Brown Cindus	
			tan Frundry Sond Bluish Green hard Slag	_
	/1/60	A/12	Brown Stag Brown Cinders ton Foundry Sand Bruish green hard stag	
			Bruish greenhard slag Gray Clay	
	12:30	A/13.5	Br Cinders true Formary Sand	
	12:45	A/15>C/16	Bluish Green Slag Brown Cinders Orange Cinders Tan Followy Sand	
5.4.04		NO New	digs today	. •
5.5.04				
5.6.01	_	NO NEW	digs today	
5.7.04		NO NEW	diss	
5.804		5.		
5.10.04	A	c/17	growish Back Crosss Gray Foundry Sand Tan Foundry Sand gray stag	
		0/18	Brownish Black Cinders tan foundry Earl Gray Foundry Earl Black Slag / Cinders	MIT and Pife (24 pire) No Discharge Secr
		e/19	Brownish Black Cinders Ton Foundry Sond Greenish Blue slag/Sand	
		7/19		
	-	E/19	Brownish island chars i soit fan Foundry Sand Greenish elve Slag/Sand	
		F/19	Brownish Black Cinders ton Forndry Son of Breenish Blue Stagland	Ho Discharge seen
5.11.04	Bild	ng Footes	Completed	
5.12 0+		No new	diss	
51304	2.30 PM	C// Retaining	BROWNISH CLAY, SLAG - BLACK CINDERS	

ੈ ਹate	Time	Location	Classification	Notes
5-14-04	8:00A 60	NORTHEAST BIRM	Sand, BLACK + CRAYISH CINDLES	
5.17.04			NO NEW DIGS	•
5.18.04	8.15	NORTHEAST BIRM	sand, BLACK + GRAYIST	
5 18.04	11:00 +111 Quit	Cut n. eust Loop rd. Balance + Shuping for Capping		5
5.19.04		Cutinieast	Black, + GRAYISH and Shaping CINDERS	
5-20-04		NO NEW	, ,	
5.71.64		NO NEW	DIES	,
5.24.04	8:00	Loop rd . South	BLACK CINDERS -	
5.25.04		Dig For Silo Pad (Engt)	Black cinders, Slag tanish Clay, sand	
5.26.04		Dia for Silo	Black Cinters, Slag tanish clay, sand	
5.27.09		No DIES		
5.28.09		GRADE'N'	STONE DRIVEWAYS	
6.1.04			AND PARKING LOTS NORTH	
612.04		11 14	i e i e i e i e i e i e i e i e i e i e	
6.3.04	1:00 PM	A.3/6 MKS KANDY, PUVMMI	SLAG, BLACK S GRASISH CINDERS	01661N6 NORTH
6.4 04	B:00 RM	11	11	V V
6.7.04	12:30PM	A.3/6 MKS KANDY	SLAG BLACK CINDER BROWNISH CLAY	() ()
6.7.04	8:00Am	34 34	7.1	n it
6.8.04	ALL	tt st	11	D166106
6.9.04	9:00 AM	MKS-North West Corner	SLAC BROWNISH - GRAY	WEST TO EAST

P ate	Time	Location	Classification	Notes
6.9.04	8:00AM	KANDY - Northeast Corn.	Brown soil Black Cinders	
6.10.04	8:30 AM	3 5	SLAG BLACK CINDER BROWNISH SOIL	•
6.16.04	8:30AM	MANUTAL STATES	BROWNISH CLAY, SLAG BLUEISH SOIL	itil old Concrete
6.11.04	7:30 AM	MKS -KANDY H 7 (INTERIOR OF) BUILDING	BLACKISH CINDERS, SLAG FOUNDRY Sand	Hit an old chunk of Iron/steel
	:	MKS · KANDE	SLAG, Brownish circles	
6.14.04	7:30 Am			,
6.14.04	9:30 Am	FOLING A10.0 EXECUTE T 0.0 FORENS OF PORENS OF	SLAG, BLACK CINDERS,	
6.14.04	11:30 ArA	H 0.0	Sand brown clay	
6.15.04	8:00 Am	MKS KANDIE HILD GOING	SLAG - BLACKISH-GRAY CINDERS - CRAYISH SOIL	
5.16.04	9:00 Am	MKS KANDIE FILE -> EAST MKS - KANDIE	BROWNISH SOIL, SLAG	
6.17.04	7:30AM		Brownish soil, Blueish slag Gray Cinders	
6.17.64	11:00AM	C 11	GRAYISH SIAG, BLACK-N-GRAY CINDERS, Orange sedement, Sand	
6.21.04	7:36 AM	MKS KANDIE	SLAG, BLACK CINDERS	
6,22.04	9:00 AM	0.0 . 400.	SAND, BLACK + BROWN CINDERS	very shallow dig
6.22.04	10:00AM	Lorenz (for freedman) 1/2 MKS-KALDIE	SAND SLAG, BLACKIN GRAY	very shallow dig
6.23.04	11:00Am	F (3 -> DIGGING WIST MKS-KANDIE	SLAG, BLACK ISH BROWN	
6.24.04	9:004m	INTERIOR OF BUILDING	CINDEDS. SLAGI SAND, GRAVEL	
1.21.04	10:00AM	6/2/F/2 MKS-KANDE	BROWN LINDERS	
6.24.04	11:00 Am	1/4.5 -> NORTH	CINDERS,	

Pate	Time	Location	Classification	Notes
6.25-04	5.00AM	MKS - KANDIT INTERIOR" BURDING	CINOPPS. BILLIONISH FILL	(CATCH BASINS)
628.04	8:30 AM	1, 1,	. 11	·, · · ·
6.29.04	8:00AM	MKS - KANDIE Eloio	SLAG. BLACK NGRAY CINDERS, CLAY	
6.30-04		ro NEW D	165	
7.1.04		NO NEW	D165	
7.2.04		NO NEW [165	
7.6.04	10:00AM	MKS-KANDLE INTERIGROC Buildin		
7.7.04	NO	NEW DIG		
7.8.64	II:00Am	MKS - KANDIÉ Northeast Corner Digging South V	3:14	
7.9.04	7:00 AM		Sud to a light of the REG.	
7.12.04	9:00 AM	Lorer ? (DIGGING for Freedman Elec.)	BLACK CINDER'S (Kery Shallow dig)	
7.13 '09		NO NEW	Di65	
7.14.04		NO NELV	D1 6S	
7.15.04		NO NEW	D165	
7,1904		NO NEW	D165	
7.20		NO NEW	0165	
7.21		11	1 /	
7.22		11	! (,
7.23		NO NEW DIG	.5	
7.26.04		NO NEW DIG	5	

Date	Time	Location	Classification	Notes
27/04		~0	NEW DIGS.	
1/28/04		No V	EW DIBS	•
1/29/09		NO	NEW DI65	
7/30/04		Lorenz	NEW DIGS	
8/2/04		1	STONING retention pone	h, so we can pumpuate
8/3/04		no n	ew digs	
8404		no neu	digs	
3 5 64		no new	digs	
3/6/04		no neu	digs	
894		(L KANDIE,	FILL, SUAG, GRAYCINDERS	
8/10/04	Morn.	DUBHOLE TO DRAIN INTO LO	AD TIME water then being ou	mped to metersian pard
8/11/04	morn.	H/19 -> 0166	ING SOUTH 11 10	GREAT CHOISERS
3/12/04	norn,	NONEW DIA		
5/13/04	morn.	H 19 -> H 17	SLAG, GRAY & BLACK CINDERS	SHALLOW DIG
3/16/04	morn.	NO NEW Northwest corner	D165	
117/04	morn.	of Jobsite, DIGGING EAST	Founday sound , BLUE constas	LOTE OF WE THE
3 18 04	Morn.	t: 'i	(11 11
119/64	morn,	11 11	11	11
20/19	morh.	(, ()	11	/ \
123/04	morhi	ا ۱۱ ا	BLUISH CLINDERS	્ પ

Date	Time	Location	Classification	Notes
8/24	morn.	Northucst	BLUE LLAY, 5 LAG	DIGGING EAST
3/25	morn,	C 18 EXT.	SKND, while andes BLUE CLAY, SLAZ	и . ч
3 26	mern,	Allo (EXT.)	SANDI POPCORD SLAC, BLUE + GRAY CINDÉRS	11
8/27	morn.	SI A	SAND, SLAG, BLUE + BROWN CINDERS	11
3/31/04	morn.	A)(0	Brown + Clay Blue + Block cinders, SLAB, small among	11
7/1/04	morn,	A.3/6	SLAG, BLACK N GRAY CINDERS	
9/2/04	morn.	South east Correr - (EXT.)	Olve Slag. TAN + BROWN cindes, sand	Digging North
9/3/04	morn	11 11	, i	ι,
7/7/09	morn.	D. 5 0.0	GRAY CINDERS, SLAG CLAY	11
9/8/04	morn.	Northeast Corner (Ext)	:1 t	u u
9/9/01		no new	diggs (everything +	looded)
9/10/04		no nei	v diggs	
7/13/04	morn.	Kandey -	Cleaner Slag;	Digging West
11304	mid morn,	for Freedman	Blueish slag Black cinders	Short digg to Ut
7/14/04	morh.	Kandey north driveway	SLAG, BLACKCINDERS	Digging west
9/11/69	morh.	Allo (EXT.)	SLAG, BUACK NIGHTY CINDERS	Diggins near Morth west
117/04	morn.	West Drivewy	BLUEISH CINDERS	6 13
[[20]64	10:35 12:00		Brown topsoil, SLAG, white CINDERS + Black CINDERS	π τι
1/21/04	Morn.	south.west corner	Founday sand, Blueish white Slag, Black anders	Digging South west
9/22/01	11:00 AM	west-drive	Blueish white Slag i Some popedin slag i Black Hitan	Digging fowards the Building

pole

Date	Time	Location	Classification	Notes
1)23/04	marn.	West driveway near load docks	While Slag, Black and fan cirders	Orgging near load docks
9/24/04	morn.	North west	Slag, Black, Bluestan anders	Digging near west drivenity.
7/27/04		no new	digs	
[[28]04		1 (ι (ιί
1/29/		(1	ιl	
1/30/04	morn.	new r. road. neur east birm	Dirt, Dark Clay, gravel.	Digging Piers for r. road
1/30/04	Lorenz 1: vorm	Pump house. North west com.	Blueslog, clay. Cand. Drown cinders	Shallow dig 3 FT6"
0/1/04		no new	dias	
0/4/04	KANDEY	West loading Docks	SLag. Blue + white Cirders, clay	Cath Basins
10/5/ay	1000	11 11	11	Catch Basins
10/6/04	10:00 AM	11 . 11	Slag Blue - White - Black cinders, some gravel	Catch busins
10/7/04		no ne	w digs	
0/8/04	Kandey	Northwest Corner of site	Bluesläg, Browneiders Brown Stil	Storm sewers
10/11/04	Kandey	11	11 (1	, ,
16/14/04		Digging towards	Bluet white Slog - White and Black cinders	11 , 10
10/15/09	Kandey 11:00AM	North driveway	white Stay, LICHTBRAND Dirt Sand, gray Clay,	ι, ι,
0/18/04	Kandey morn.	11 11	Olve + white Slog, Sand, tuncirdes, some clay	Shallow dig, minimal water.
10/19/09	וו ון	۱۱ ۱۱	SLAG, BLACK CINDERS, CLAY	Shullow dig , no water at all.
10/20/04	1111	North driveway (Northeast caner)	_	11 11
0/21/04	Kandey Morn:	Northwest corner	Blue + Tan Slug Black cinders	Storm Senses

Date	Time	Location	Classification	Notes
10/22/64	Kander Mor Ni	Southwest	SLAG, BLACK CINDLIZS, DIRT	STORM SEWER
10 25/01	11 11	11 (1	tan Slag. Black and white circles, sand	કર્ક
10/26/04	11 11	Southwest Corner (digging east)	SLAG, some popcorn slag, foundry sand, Blue cindes	11
10/27/04	n = n	middle of south Parkings	SLAG, BLACK, GRAY, TAX' cinders, dark brown Clay	u,
10/28/04	Kandey Morn.	Northeast. corner Digging	SLAG, BLACK NERRAY CINDERS, Some gravel	W CC
10/29/04		1. 11 15110 1.49	white charce Dark Black	11 (1
11.104	Kandey morn,	Pump house	Darkslag, Blue twhite stag Black, Blue, Stay Cinders, Foundry Said	Pumphovte
11/2/04	Kundy	neur Pumphouse	lt il	Pumphouse
11/3/04	Kardel morn	in the second se	e e e e e e e e e e e e e e e e e e e	11
11/4/04	Kander morn.	middle of. South Parking	Slug, Dank Brown Clay sand, white cinders	Storm sever
11/5/09	Kandey morn.	11 16	Slag, Dark Brown Clay Black cinder	Storm Sewer
11804		no new	dias	
11/9/04	Kandey	Westdriveway		Catch Basin
11/10/04	<i>kundey</i> moin	Southwest corner	Stag , some popular stag , Braun Cinhers , sand	
		no nea	v digs	
11/12/01	morn.	near load docks	1 digs 551as black and gray cinders	
		f i	Work complete.	