(fu/hr)

**Plasticity** 

Cementa-

tion

Mineral

Composition

Well Number/Name: /12/30

Moisture

Content

Particle

% Dist.

Fines

Grain

Size

Gravel

Size

Sand

Sorting Grain Shape

 Name: J.	Sobolew	

	Sample Depth	Drilling Rate (	Munsell Name and Class	Dry	Moist	Cobbles	Sand	Fine	Coarse	Fine Coarse Max	Well Medium Poor	Angular Sub-Angular	Sub-Rounded Rounded	None	Medium	High	Weak	Strong	Quartz Feldspar	Mica	Evaporites	Other .	Grading Analysis	Well Graded Fat Clay	Type (USCS Group)	Comment
0																										Excapeto) Masoria)
2			107R 5/3 Boda	×			14	יא	<b>X</b>		×	KX		<b>X</b>		×			KK	×		<b>\</b>			58	Sunt, 100% F-Msond, Well sorted, angular to s-bangular, QFA
3			104R 5/4 Yellowsih Bearn	<		40		×	×	× ×	Ŷ	××	*	*		×			K /K	*		×			SP	Band, 100% F-M son), angular to subsonded, well sorted, QFA trace great up to 10mm trace s:1+
13.4			194R 5/3 Brain		*		80 10	×,	\ \		×	×	×	\		K			<			×			S~	Silty Soul, BOY. F.C Send, medium sorting, Subunjular subcombal, 20% Silt, OFA
:			10 YA 6/4 L: +1+ YElla: 54 Brown	×			loot	××	7		<×	×	×	X		×		,	<b>+</b>	×		<b>\</b>			sp	Sand, 100% F.C.sand, Andem F.M. s-nd, We 11 to medium Sorted, substituted to Substitutely OFA

Drilling Contractor: Cu5 (ale Drilling Rig Type: Prosonic 600T

Drilling Method: 500

Sampling Method: hand angel Descriptive Location: Lenex (MW-3)

Well Number/Name: 10-30

Name:	J.	5040	h_
-------	----	------	----

	٦		Moisture Content	Particle % Dist.	Grain Size	Grain Size	Sorting	Grain Shape	Plasticity	Cementa- tion	Mineral Composition		T			
Sample Depth (ft)	Drilling Rate (Mh	Color: Munsell Name and Class	Dry Moist Saturated	Cobbles Gravel Sand Silt Clay	Fine Medium Coarse	Fine Coarse Max	Well Medium Poor	Angular Sub-Angular Sub-Rounded Rounded	None Low Medium High	None Weak Moderaic Strong	Quartz Feldspar Mica Amphibole Evaporites Other	Alteration Visible	Ş١٤	Fat Clay	Rock Type (USCS Group)	Comment

14.0	104K 5/3 Bran	X	85 15	××	×	XXX	*	CK K		sM	Si Ity soud, 854. F-M sind, medium sorting, subongalor to subjectly, QCA, 154. Silt,
23.0	10/A 6/4 Light yellanky Bran	<i>x</i> `	15 5	××	×	xx	×	x× ×	<	SP	Sond, 95% F-M sud, MKII SOMED, Submyolar to Subsanded, SX SIH, QFA
24.0	10YR 6/6 Branish Yolbu	X	190 41	XXX	*	KK K	<b>K</b>	x x		SP	Send, 180/ F-C Sund, predonin-nyly Me end Queste, well sorted, sub-myeler To Subrounded, trese star
28.3	104K 5/3	·  ×	90 10	x	×	×× ×	×	× × ×	<b>x</b>	SP- SM	Sand with silt, 90%.FM sund, 10% silt, medium Souting, subogalar to sebronded OFA
37	104 6/3 Palc brann	X	110	×××	×	xx x		< ××		SP	Sand, IDN F-C Sand, Predominatly F-M soul, medium sorting, angular to subangular, QFA

Drilling Contractor: Lascade

Sampling Method: Sluces

Drilling Rig Type: Plason: 600 T

Descriptive Location: Come / MW-3D

Drilling Method: SONC

Name: J. Sobolew Well Number/Name: MW- 30 Moisture Particle Grain Grain Cementa-Mineral Sorting 1 Grain Shape Plasticity Size tion Composition Content % Dist. Size Drilling Rate (fthr) Sample Depth (ft) Gravel Sand Fines Rock Color: Alteration Visible Grading Analysis Well Graded Fat Clay Туре Munsell Comment (USCS Name and Class Group) Sand, ASY F-C sand, SY Fine gravely trees: It Mywlar to subungular IOYR 6/3 Pale 10% provel (50,1-52, 41) yar-S2.4 Sund, 100%. Fr C sand,

trace s: It, medium

sorting, subunjular,

QEMA, F-M(52.4-546')

grading from 57-60.4 Course

Sand, 100x Very fine to

fine sand, + race s: It,

subanjular to subjanted,

well sorted, QEMA, 54 6/2 100 XXXX Light 01:50 yra7 60,7 54 18/ XX Dive high nice and biotix contat 67.0 Send, 95% very fine to fine sond, trace median, 5% solt, well sorted, 254 4/3 انبد Surround, QMA Brow high mind content 87 Well graded sand, 100%. FC SW Sand, Poorly sated, Submyalor + 10 fr 564 to subvarided, truce grace 7mm, truce citt, QFA 612 انزواو محران Z:rcons?

**Drilling Contractor:** 

Sampling Method:

Drilling Rig Type:

Descriptive Location:

**Drilling Method:** 

Date: 2/3/15

#### BOREHOLE LITHOLOGICAL LOG

Well Number/Name: MW- 3₺

Name: J, Sobolen

(	r)		Moisture Content	Particle % Dist.	Grain Size	Grain Size	Sorting	Grain Shape	Plasticity	Cementa- tion	Mineral Composition			
Sample Depth (ft)	Drilling Rate (ft/h	Color: Munsell Name and Class	Dry Moist Saturated	Cobbles Gravel Sand Silt Clay	Fine Medium Coarse	Fine Coarse Max	Well Medium Poor	Angular Sub-Angular Sub-Rounded Rounded	None · · · · · · · · · · · · · · · · · · ·	None Weak Moderate Strong	Quartz Feldspar Mica Amphibole Evaporites Other	Alteration Visible Grading Analysis Well Graded Fat Clay	Rock Type (USCS Group)	Comment

90.2	2.54 6/4 Light Yellowith Bran	×	5 95 4	×××	× × 17 ×	* *	×	X	×××× ×	Si	Sand, 95% F-C Sand,  Predominantly M-C sand,  Medium sortins, Subangular  to subvocated, 5% F-C  grave 1 7/1017mm; 1/444  SILT
95.2	2,54 5/3 Light 01:02 Brown	×	1010	XH	~	××	×	X	** * >	SP	6-11 1 1 1 1 1 1 1 1 1
Proi	2.54 6/3 Light Kellash Bro-1	×	5905	xxx	××15 ×	×	×	*	** *-	SF	Sund, 90% F-C sand,  St. gravel F-C inpto 15 mm, 5% silt, median Solting, Subangular to subsounded, aff
107	54 6/3 Pale 01:00	X,	95 5	×<	×	**	X	×	XXXX X	55	Sand, while It, 95% F-M Sand, 5% Silt, will solkly subangular to subjanded, OFMA
117	54 5/3 O'LL	×	90 10	K	8	XX	<	<	× ×< ×	St S/	well sorted, angular to

Drilling Contractor: Cascade

Sampling Method:

Drilling Rig Type: Prosontc 600 T

Descriptive Location: Cerex/mwr30

Drilling Method: Son C

# Date: 7/4/15

## BOREHOLE LITHOLOGICAL LOG

Well Number/Name: MW-30

Name: J. Solole

	ır)		Moisture Content	Particle % Dist.	Grain Size	Grain Size	Sorting	Grain Shape	Plasticity	Cementa- tion	Mineral Composition			
Sample Depth (ft)	Drilling Rate (ft/h	Color: Munsell Name and Class	Dry Moist Saturated	obbles bravel and ilt	ne edium	Fine Coarse Max	Well Medium Poor	Angular - Sub-Angular Sub-Rounded Rounded	None Low Medium High	None Weak Moderate Strong	Quartz Feldspar Mica Amphibole Evaporites	Alteration Visible Grading Analysis Well Graded Fat Clay	Rock Type (USCS Group)	Comment

117	2.54 5/3 1:41+ 01:00 Brown	×	455	××	×	XX	×	*	** * *		SP	Sand, 95% F-M sind, 5% S: 1+, Well 50/4), Subangular +0 subsound QFA, 112,5-117 GY 6/3 pak OINC
135.8	2.54 7/2 Light	×	45.5	XXXI	×	XX	× .	×	× ××		SP	sond, 95% for sond, trace coarse, rains, 5%, so (+, well softed), suborgular to subranded QA, Aredoninath Quarte,
138.	2.54 5/4 Light Olive Brown	*	85 15	5 6	< ×	/	X	K	X XX X		SC	Clayey sands B5% fine sand, 15% clay, medium to well sorting, salangular, and
131,6	5/4 6/3 Pale Olice	X	59015	×××	< x 9 × ×	××	×·	×	××× ×	ON SHOW SHOW	SM	Silty Sand, EON FICSU, 15% Silt, SY. gravel up to 9 mm, poor to median sorting, subsyder to Subranted, QFAA, Oxidation 139:1311396 codds/gracel lager 32mm
14],0	2.54 6/3 Pale 01:UE		85 15	X	K	××	××.	X	X KK K		SC	Clayer sunt, 85% time sand, 15% clay, une 11 sorted, subenqueler to substant of plusticity, RFA

Drilling Contractor: Cascade

ade Sampling Method:

Drilling Rig Type: Plosonic 600 T

Descriptive Location: Genex/MW-30

Drilling Method: Sorte

#### BOREHOLE LITHOLOGICAL LOG

Page of 16

rell Number/Name: MW-30

Name: J. Sobole

	ت -		Moisture Content	Particle % Dist.	Grain Size	Grain Size	Sorting	Grain Shape	Plasticity	Cementa- tion	Mineral Composition				1
Sample Depth (ft)	Drilling Rate (ft/h	Color: Munsell Name and Class	Dry Moist Saturated	Cobbles Gravel Sand Silt Clay	Fine Medium Coarse	Fine Coarse Max	Well Medium Poor	Angular Sub-Angular Sub-Rounded Rounded	None Low Medium High	None Weak Moderate Strong	Quartz Feldspar Mica Amphibole Evaporites Other	Alteration Visible Grading Analysis Well Graded Fat Clav	Rock Type (USCS Group)	Comment	

142	104R 4/4 Bro-n	X	15 6570	XXXXX	×	41	×	××××	5	Clayer band wagery, 65% FC  Sand, 20% Clay, 15% FC  grace up to 20 mm,  poorly sorted, subangular  to bub/ounded, 10m place,  QFA
143.5	2.57 5/3 Light Olive Brown		V 10	A	X		XX	*	4	Fut Clay, 100%. Chy Arece mica, high plasticity
147	Pale Olive	7	20 \$0 10	) × × × × × 2	o ××	××	** ×	XX X	5	P- Sond W/clay and glack,  FOX. F-C sond, 20 x. F-C  gravel up to 20 MM, 10 x  clay, poor tomedium so Ming,  subject to subject,  OF A
1495	SY GOZ Light orne gray	*	757540	X X X X X X X X X X X X X X X X X X X	· ×	××	X	X K X X	3	Sand with grove 1, 75%. F- C sand, 25% F-C grad medium sating, QFA
160.3	Nellorish Blown	X	90 D	×	8	X	×. ×	XXXX		Pr Send with sitt, 10% tong fire to fine sand, 10%.  M 3: 1+, well sorted, surjounted  OFA

Drilling Contractor: Luscade

Sampling Method:

Drilling Rig Type: Prosonic 600 T

Descriptive Location: (Lenex/MW-30

Drilling Method: Sen

#### BOREHOLE LITHOLOGICAL LOG

Date: 2/4/15

Well Number/Name: M Wr 30

Name: J. Soboku

_	c c	85	Moist Cont			Partic % Dis		100	Grain Size	100000	irain Size	So	rting	Grai	n Sha	ape	Plas	ticity	,		enta- on			liner npos	ral ition							
Sample Depth (ft)	Drilling Rate (ft/h	Color: Munsell Name and Class	Dry Moist	Saturated	Cobbles	Sand	Silt	Fine	Medium Coarse	Fine	Coarse Max	Well	Medium	Angular	Sub-Rounded	Rounded	None	Medium	High	Weak	Moderate	Quartz	Feldspar	Mica	Evaporites	Other	Alteration Visible Grading Analysis	Well Graded	Fat Clay	Rock Type (USCS Group)	Comment	1.

160.3	10/2 4/6 date yelanish brown	*5 ×	×	×	KKK	SP	Sand, 95% very fine to fine sand, 5% sith, well solted, subargular to sublamed, weakly, OFA
167.0	1048 413 B10-0	00 ×	< ×	XX	×	ch	Fat clay, 100% clay fine mica trace, high plasticity
1705	SY6/3 Pale X	8515 X41	x xx	* *	< < < <	SM	Silly Send, 85% fire sent, 15% s: It, well softed, Subscapples to subscarascel, QPLA
172.5	2.54 5/4 light y office brown	35 100		×		ML	Small when book of soul Mr. HORE
177	57 5/3 01:00	95 5 ××	X	× ×	< xx ×	SP-	Sund, 95% F-M Sade,

Drilling Contractor: 6 45 ca he

Drilling Rig Type: Prosante 6007

Drilling Method: SaNC

Sampling Method:

Descriptive Location: Levex/MW-3D

Date: 2/9/15

# BOREHOLE LITHOLOGICAL LOG

Well Number/Name: M W-3D

Name: J. Sobolen

0	r)		Moisture Content	Particle % Dist.	Dist. Size Size Sorting Grain Shape Plast		Plasticity	Cementa- tion	Mineral Composition				
Sample Depth (ft	Drilling Rate (ft/h	Color: Munsell Name and Class	Dry Moist Saturated	obbles fravel and ilt	Clay Fine Medium Ooarse	Gravel Coarse Max	Well Medium Poor	Angular Sub-Angular Sub-Rounded Rounded	None Low Medium High	None Weak Moderate Strong	Quartz Feldspar Mica Amphibole Evaporites Other	Alteration Visible Grading Analysis Well Graded Fat Clay	Comment
7		Arej		10000									Sand, 1001 F-M sand,

137	104A 414 Grown	×	wate XX	×	xx ,	K X	6 57 5	SP	Sand, 100% F-M sand, well sorted, subsynlar to subsounded, weekly comented clasts, april high delleminate content
197	7.57k 4/4 Braun	×	40 AQX	×	<	×	×× × ×	54.	Clayer Sand, 60% Line small you clay, well sorted, sistemated, weekly con the Clasto, QFA low Plasticity
198	101R 5/6 Yellarish Brown	×	40 60×	*   X	××	×× ×	** * *	CL	Sandy Clay, 60%. Clay, 40%. fine good, Subangular to s-branded, QFA, 1 au to median plassicity
204	104R 4/6 Dark Yellawish Brawn	X	40 60 }	*	XX ;	** * .	** * *	EL	Sondy Clay, Got. Clay, 40% fine Sand, well sorted, subangular to substanted, RFA, low plusticity art mirrato
2048	104R 5/3 Brown	×	855 ×	X	** /	< X	x × x	ML	Sardy SIIT, 55% SiH, 45% fine sand, well softed, subungular to subranded, werkly anothe OFA high deric mindel

Drilling Contractor: 6450 46

Drilling Rig Type: Prosonic 600T

Drilling Method: Sont

Sampling Method:

Descriptive Location: Conex/MW-3D

Date: 2/5/15

#### BOREHOLE LITHOLOGICAL LOG

Well Number/Name: Mw-30

Name: J. Soldew

	0		Moisture Content	Particle % Dist.	Grain Size	Grain Size	Sorting	Grain Shape	Plasticity	Cementa- tion	Mineral Composition			-
oth (ft)	(f/h	Color:		Fines	Sand	Gravel						ا ۵	Rock	
Sample Der	Drilling Rate	Munsell Name and Class	Dry Moist Saturated	Cobbles Gravel Sand Silt Clay	Fine Medium Coarse	Fine Coarse Max	Well Medium Poor	Angular Sub-Angular Sub-Rounded Rounded	None Low Medium High	None Weak Moderate Strong	Quartz Feldspar Mica Amphibole Evaporites Other	Alteration Visible Grading Analysis Well Graded	Type (USCS Group)	Comment

204.9	2,54 5/3 Light Olive Brown	×	60,40	KX	××	KX K	×	XXXX	SM	Silty Send, 60% F-K send, 40% Silt, medium to well sorted, subangular to Gabierda weekly conented, RFA high dock ningrels
213,2	2.54 4/3 012c Bran	×	90 lo	××	×	** *	X	** * *	Sp SM	Sund w/ Silt, 90%.  F-M sand, well sorted, subsignation to substandal, weakly concerted, QFA Oxidation dark mieral Content.
216.2	54 5/3 01:a	>	40 20	××		×× ×	*	** * **	SM	Silty Sund, 80%. F.M sund 20% silty well sorted, submoder to Shreaded, OFA high aloughdone of minerals 1484 foot oxider on
218,9	575/3 olive	*	100		×	K			ME	5: 1t, 100% 5:1t) 10-
2203	54 6/3 Pale Olive	×	955	XXX	×	** *	×	***	SP	Sand, 95% FC Sond, 5% 50H, Melling Sorting Subsequent to subsequent. QFMA

Drilling Contractor: 6 960 ade

Drilling Rig Type: Plasonic 6001

Drilling Method: SoMC

Sampling Method:

Descriptive Location: Cerex / MW-3D

Date: 2/5/15

#### BOREHOLE LITHOLOGICAL LOG

Well Number/Name: MW-30

Name: J. Soboler

(	r)		Moisture Content	Particle % Dist.	Grain Size	Grain Size	Sorting	Grain Shape	Plasticity	Cementa- tion	Mineral Composition				
Sample Depth (ft)	Drilling Rate (ft/h	Color: Munsell Name and Class	Dry Moist Saturated	Cobbles Gravel Sand Silt Clay	ne edium oarse	Fine Coarse Max	Well Medium Poor	Angular Sub-Angular Sub-Rounded ,	None Low · Medium High	None Weak Moderate Strong	Quartz Feldspar Mica Amphibole Evaporites Other	Alteration Visible Grading Analysis	lay	Rock Type (USCS Group)	Comment

220.3	546/3 Pale Olive	×	1575101	××××	×25 ×	KX	**	×	××× ×	SP- SC	Send w/cky and starel, 75% Fac Sond, 15% Fac gracel up to 25 nn, pool sotting subangular to subrandel, law plasticity, QFMA
227	SY 6/2 Light Olive Jag	×	10 65 5	***	7 ×	XX	×	X	×××× <del>×</del>	SP	Sand, 85% F. C sind, 10% fine years, 5% clay, medium softing, angular to subusular, QFMA
229,4	57 5/3 01:00	×	35/65	×	×	Y.	×	×	x x x	ML	sondy silt, 65% silt; a 35% sine son, well sorted, Subanjular, lau plasticity, QM
234	2.54 5/4 Light Office Bloom	*	9010	**	*	××	×	×	xxxx x	SP- SM	send with silt, 40%. F-M sand, 10% sitt, well sorted, subsequent to sourcented, OFMA
243.2	2.57 Light Olive Brown	×	15	p	× .		K	*	*	AL	median place :45

Drilling Contractor: Cescade

Drilling Rig Type: Prosonic 600T

Drilling Method: Sonic

Sampling Method:

Descriptive Location: Come x/MW130

## BOREHOLE LITHOLOGICAL LOG

Date: 1 /5/10

Well Number/Name: Mw - 30

Name: J. Sobole

	c)		Moisture Content	Particle % Dist.	Grain Size	Grain Size	Sorting	Grain Shape	Plasticity	Cementa- tion	Mineral Composition	8.				
h (ft	(ft/h	Color:		Fines	Sand	Gravel								Rock		
Sample Dept	Drilling Rate	Munsell Name and Class	Dry Moist Saturated	Cobbles Gravel Sand Silt Clay	Fine Medium Coarse	Fine Coarse Max	Well Medium Poor	Angular Sub-Angular Sub-Rounded Rounded	None · Low Medium High	None Weak Moderate Strong	Quartz Feldspar Mica Amphibole Evaporites Other	Alteration Visible Grading Analysis	Fat Clay	Type (USCS Group)	Comment	

243,2	2.57 4/4 01:00 Brown	×	100		XX		CH	Fat Cly, 100% clay medium to high plasticity
7-192	Glay 1 4/1 dare greensy	×	Jeo		*		CH	For clay, 100% clay hay placetety. 247-2483.545/30/12
251	54 4/3 010c	8	85 ≥ Is	× ×	×	xxxx x	3C	Sind, well sites, Edges sind, well sites, Edges controlly lerto, RTMA, ITV. chy
254,5	54 5/3 01:00	×	565 10 ××××	riq X XX	x	XXXX	SP- 5C	Sand with clay, BSY.  Fac sand, 10% Clay,  5% fine scare 1 up to 12mm,  Modern sonting, submedian  to subceroled, OMA
257	57 5/2 blue Gr-7	X	10 80 B XX C	T12 × × ×		XXXX Y	SP- sc	Sind, \$5%. M- C Sand, 10%. Fic gland, 5% clay, medium sorting, subargular to subrolanded, OFMA

Drilling Contractor:

Sampling Method:

Drilling Rig Type:

Descriptive Location: Cenex/MW-30

Drilling Method:

Date: 2/6/5

#### **BOREHOLE LITHOLOGICAL LOG**

Well Number/Name: MW-30

Name: J. Sobokw

	٦		Moisture Content	Particle % Dist.	Grain Size	Grain Size	Sorting	Grain Shape	Plasticity	Cementa- tion	Mineral Composition					
Sample Depth (ft)	Drilling Rate (fVh	Color: Munsell Name and Class	Dry Moist Saturated	Cobbles Gravel Sand Silt Clay	Fine Medium Coarse	Fine Coarse Max	Well Medium Poor	Angular Sub-Angular Sub-Rounded Rounded	None Low Medium High	None Weak Moderate Strong	Quartz Feldspar Mica Amphibole Evaporites Other	Alteration Visible	Grading Analysis	Well Graded Fat Clay	Rock Type (USCS Group)	Comment

2 <del>57</del>	2,54 6/2 Light 80-axh 6/19	5 88 5 K K K K 26 X	* * * * *	Sord with glovel, 80%. In Sord, 15% F-C glovel, 50 Glog, medium sorting, Substantial, QFMA
273.5	57 5/25 01:00 X	100	*	CH hope Plus 1: city
278.1	545/2 01:00 X	5 15 60 XXXXV XX	XX X X X	CL 15x f-c send, 5x f-c  Jenel, for to mily  softing, sed equiler to  section del, forto reduce  placticity, afA
277	54.63 Pele Orine	30 10 60 x K K X 45 X	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	CL 30% For gravel, 10% For South Soft Condens  poor 'sort my, tome modim prosticty, QFA
277.5	54 5/2 01:22 X	90 10 KAF	XK XX X	SP- Fire sort, Median towell SC Modicing, Median towell Softing, Subsequent to Subsociated, none to low platicity, and

Drilling Contractor: Lascade

Drilling Rig Type: Plasonic 600 T Drilling Method: Some

Sampling Method:

Descriptive Location: General Mur 30

Date: 2/6(15

#### BOREHOLE LITHOLOGICAL LOG

Well Number/Name: MW-30

Name: J, Soloke

	c)		Moisture Content	Particle % Dist.	Grain Size	Grain Size	Sorting	Grain Shape	Plasticity	Cementa- tion	Mineral Composition						
Sample Depth (ft)	Drilling Rate (ft/h	Color: Munsell Name and Class	Dry Moist Saturated	Cobbles Gravel Sand Silt Clav	dium arse	Fine Coarse Max	Well Medium Poor	Angular Sub-Angular Sub-Rounded Rounded	None Low Medium High	None Weak Moderate Strong	Quartz Feldspar Mica Amphibole Evaporites Other	Alteration Visible Grading Analysis	Well Graded Fat Clay	Rock Type (USCS Group)	9	Comment	

2945	SY6/3 Pala Oive	× 15	30 55 ××××	× 60 × × ×	XX	* < ×× ×	CL	Soly lear clay w/glovely  SSY. Clay, 30x F-C gardis  18x f-C gravely fool sorting,  saternally to Subject adds,  low pleaticity IMA  (classing with depth 1)  242.4-2832 gravels sol
284	SY S/4 Light Open Brown	1	10	*	KX		d	Fat Clay, 100%. eley median to heyla plassicity
287	2,57 5/4 6134 01:00 Brown	~	95 5 × ×+1	**	-	××× <	SP	Sand, 95% For Sand, well Sorted, Sub-organization subvaried, QFMA, 5% Clay
290,4	2.54 5/2 Grayish Brown	× 5	95 trxxx	X40 X X	< X X	X X X X	sp	Send, 95%. F-Gsend, 5% F-C grand, 40 mm, well sorted, sub myolar to socioned, QF/14
294.4	2.57 6/3 Light Yellowsh	7 25	70 5 x < x x	×35 × × ×	< ×	< ××× ×	St	Sand with your 1,70%  4-6 sand, 25% f-6  grace, 5-1 cray, well  sorred, scarrengales to  5-blouded, QFMA

Drilling Contractor: 6 ascade

Drilling Rig Type: Ploson - 6007
Drilling Method: Sonc

Sampling Method:

Descriptive Location: Clark / Mw-3D

Well Number/Name: Mw - 30

Name: J Sobolew

	ır)		Moisture Content	Particle % Dist.	Grain Size	Grain Size	Sorting	Grain Shape	Plasticity	Cementa- tion	Mineral Composition				
Sample Depth (ft	Drilling Rate (ft/h	Color: Munsell Name and Class	Dry Moist Saturated	Cobbles Gravel Sand Clay	e dium arse	Fine Coarse Max	Well Medium Poor	Angular Sub-Angular Sub-Rounded Rounded	None Low Medium High	None Weak Moderate Strong	Quartz Feldspar Mica Amphibole Evaporites Other	Alteration Visible Grading Analysis	Well Graded Fat Clay	Rock Type (USCS Group)	Comment

2447	104R 5/6 Yellarish Bran	*	ŧC.	100	×		×		CH	For Clay, 100% cly, medium plusticity, interbels or Me
300	2.57 5/3 Light our Go-	×	2565	10 ×××	XX 12 X	** *	<	×<~× ×	St- SC	Sand with clay and gracely, 165% For Sand, 25% For grayel, 10% clay, meturn sorting, subengular to sublants QFMA
307	2.54 5/6 Light Olive Brown	*	95	5××	×	×× ×	×	×××× ×	50	Sund, 95% F-M sindy 5% elogy well 501 tell, subsylver, To subsound, QFMA
311.5	2.54 4/3 0/suc Bro-n	×	10 85	5 K × ×	× b ×	×××	×	×××× ×	SP	Sord, 85%. AFC sends, 10%. fre struct, 5% clay, median serting, OFMA
42,2	2.54 44 01:00 01:00	×	15 80	5×××	XXIS X	<× ×	K	****	SP	sand with gravel, 801.F-C sand, 154.F-C years, 5%. clay, median sorting, angaler to subangular, QFM A

Drilling Contractor: Last ade

Sampling Method:

Drilling Rig Type: Profonic 6007

Descriptive Location: Lemek/MW-30

Drilling Method: Soat

Well Number/Name: MW- 30

Name: J, Sobolew

_	()		Moist Conte			Part % I	ticle Dist.		Gra-Siz	400	3-59	rain ize	So	ortin	g	Grain	Sha	ape	Pla	stici	ty		nen tion			Com	iner iposi							
Sample Depth (ft)	Drilling Rate (ft/hr	Color: Munsell Name and Class	Dry Moist	Saturated	Cobbles	Gravel	Fi	Clay	Fine Medium		Fine	Coarse	Well	Medium	Poor	Sub-Angular	Sub-Rounded	Rounded	None	Medium	High	None	Moderate	Strong	Quartz	Feldspar	Amphibole	Evaporites	Other	Alteration Visible	Grading Analysis Well Graded	(t	Rock Type USCS froup)	Comment
12,2		2.54				152	5	2.				11.					<b>4</b>													T		6	2	Glorpey gravel with 3 mily 500 brovel, 30% Etay, 25

312,2	2.54 5/4 Light 0000	1	4525	), ×××	××15	* *	*	×	** * *	66	Chopey gravel with 3 and, 15% brevel, 30% Etay, 25% FC Sand, poor son in statement, medium plasticity QFA
319	2.54 5/3 Light disc Brown	*	1085	5 × K ×	× 7 ,	××	K	×	****	54	Sund, B5%, F-C Sund, 10% fro gravel, 5% clay, mellon sorting, sugarquel to subspended, 10m plusticis), aFMA 315.2-315.5 bc gravel up them
3203	2.57 5/4 light ofice	×	2035	5 × X ×	x x lo x x	XX	×	*	××<< ×	5P	Simul glace, 75% FC Sandy 20% FC glacely 5% along, well soften, Subanyular to Sublandal, OFMR
322.2	57 blz Pake Olive	X	56 35	10×××	×× 21 >	×××	×	X	XXXX <	6P- 6L	SSY. F-C georgel, 35%. F-C sund, 10% chay retilen to poor 5 ofting, you presticity, 25Mt
227	546/3 Pile Olive	×	10 85	5 × ××	× 7×	×××	×	X	×××× ×	SP	Sand, 85% F-C Sand, 10% grovel, 5% clay, well to medium 50/4009, UFMA

Drilling Contractor: 64504

Drilling Rig Type: Prosonk Coot

Drilling Method: 50NC

Sampling Method:

Descriptive Location: Lane x/nw-30

Date: 2/6/15

#### **BOREHOLE LITHOLOGICAL LOG**

Plasticity

Cementa-

Mineral

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Well Number/Name: /1 €-30

Moisture

Particle

Grain

Sorting Grain Shape

Grain

Name: J. Sobolar

ı	=	ତ୍ର		Content		% Dis		Siz		Size	30	orung	;   G	rain 3	Shape	Ľ	lasu	city		tion		_	Comp	posit	ion	╛	$\  \cdot \ $	-	ı		•
	Sample Depth (ft)	Drilling Rate (fuhr)	Color: Munsell Name and Class	Dry Moist Saturated	Cobbles		Silt Clay	Fine Medium	Т	Coarse Max	Well	Medium	Angular	Sub-Angular	Sub-Rounded Rounded	None	Low	High	None	Weak	Strong	Quartz	Feldspar Mica	Amphibole	Evaporites	Alteration Visible	Grading Analysis	Well Graded	rat Clay	Rock Type (USCS Group)	Comment
	332		2.54 5/3 Light Visc proma	,		95	5	<b>*</b>			V			K		×	•		×			×	×X	<b>*</b>	,					Sp	Band, 95% F-M sud, SX clay, Well Softwy Suburgul to Subsounded, QFMA.
			•												-																
							•					,																			,
											-													•							

Drilling Contractor: Las Color
Drilling Rig Type: Acomic 6007

Drilling Method: Gor! a

Sampling Method:

Descriptive Location: Crek MV-30