GEOSCIENCE

Project: RBF/MPWSP Monitoring Well
Project No.: 13027-14

LOG OF BORING

SHEET 1 OF 12

Location: Cemex/MW-40	Date(s) Drilled: 12/20/14 Saturday	Drilling Contractor: Cascade	Bearing (Azimuth):
Ground Surface Elevation (ft):	Logged by: J. Sobolew	Drill Rig Type: Prosonic 600T	Plunge (Degrees): Vert
Horizontal/Vertical Datum:	Reviewed by:	Borehole Diameter (in): 10 3/4" / 6" core	Total Depth (ft):

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
0								(SP) Poorly graded sand w/ gravel, 90% F-C sand, 10% F-C gravel, subangular to subrounded, medium sorting, QFA, trace silt	7.5 YR 4/3 Brown
2'								(SP) Poorly graded sand, 100% F-M sand, well sorted, subangular to subrounded, QFA, trace silt	7.5 YR 3/3 dark brown
3'									10 YR 4/4 dark yellowish brown
4'								(SP) Poorly graded sand, 100% F-C sand, well sorted, subangular to subrounded, QFA	10 YR 4/6 dark yellowish brown
6'								(SP) Poorly graded sand, 100% F-C sand, well sorted, subangular, QFA, trace interbeds of silt	10 YR 5/6 Yellowish Brown
10.4'								(SP) Poorly graded sand, 100% F-M sand, well sorted, subangular to subrounded, QA, trace silt in Matrix.	7.5 YR 5/4 Brown
13.2'								(SP) Poorly graded sand, 98% F-M sand, well sorted, subangular, QFA; 2% silt	10 YR 6/4 Light yellowish Brown
16'								(SP) Poorly graded sand, 100% F-M sand, well sorted, subangular to subrounded, QFA, trace silt, Predominantly Quartz.	10 YR 5/4 Yellowish Brown
21.4'								(SP-SM) Poorly graded sand w/ silt, 90% F-M sand, well sorted, subrounded, QFA, 10% silt, predominantly fine sand.	10 YR 6/3 Pale Brown
23'								(SP) Poorly graded sand, 100% F. sand, subangular to subrounded, well sorted, QFA	10 YR 5/4 Yellowish Brown
27'									
30									

Hand Augered

12/20/14 @ 1242

@ 1221

1348 12/ H@0725

GEOSCIENCE

Project: RBF/MPWSP
MWs ~~Exploratory Boreholes~~
Project No.: ~~13017-13~~ 13027-14

LOG OF BORING

SHEET 2 OF 12

Location Cemex / MW-4D	Date(s) Drilled 12/21/14 Saturday	Drilling Contractor Cascade Drilling	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by J. Sobolew	Drill Rig Type Prosonic 600T	Plunge (Degrees) Vert
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in) 10 3/4" / 6" core	Total Depth (ft)

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
30–34								(SP) Poorly graded sand, 100% F-M Sand, well sorted, subangular, QFA, trace interbeds of silt.	10YR 5/3 Brown
34.9'								(SP) Poorly graded sand, 100% F-C sand, well sorted, subangular to subrounded, QFMA, trace silt	7.5 YR 6/3 Light Brown
@0730 — 37									
39'			MBA		39'				
40'					40'				
41.1'								(SP) Poorly graded sand, 95% F-M sand, well sorted, subangular to subrounded, QFMA, 5% silt. Interbeds of course sand	7.5 YR 5/4 Brown
@0750 — 47									
48'			MGA		48'				
49'					49'				
49.0'								(SW) well graded sand, 100% F-C sand, poorly sorted, subangular to subrounded, QFMA	10YR 5/4 Yellowish Brown
50.7'								(SP) Poorly graded sand, 95% F-C sand, well sorted, subangular to subrounded, QFMA, 5% silt, predominantly F-M sand, high Mica content.	10YR 5/3 Brown
@0837 — 57									
58–60									

GEOSCIENCE

Project: RBF/MPWSP
MW's ~~Exploratory Boreholes~~
Project No.: ~~13017-13~~ 13027-14

LOG OF BORING

SHEET 3 OF 12

Location Cemex/MW-4D	Date(s) Drilled 12/21/14 Sunday	Drilling Contractor Cascade Drilling	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by J. Soboleu	Drill Rig Type ProSonic 600T	Plunge (Degrees) Vert
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in) 10 3/4" S.C. / 6" core	Total Depth (ft)

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
60–64									
61.6'								(SW) Well graded sand, 95% F-C sand, poorly sorted, subangular to subrounded, QFMA, 5% silt, trace gravel	10YR 5/3 Brown
65–69	@0908		MGA		65' / 66.1'			65.7' (SP) Poorly graded sand w/ gravel, 75% F-C sand, 25% F-C gravel, medium sorting, subangular to subrounded, QFMA, trace silt, predominantly coarse sand & fine gravel	10YR 5/3 Brown
69.2'								(SP) Poorly graded sand, 95% very fine sand, well sorted, subangular, QFMA, 5% silt	10YR 5/3 Brown
70–86	@0935		MGA		76' / 77'				
87'	End 12/21/14 @ 1016 1/5 @ 0907							(SP) Poorly graded sand, 95% F-C sand well sorted, subangular to subrounded, 5% fine gravel, trace silt QFA	10YR 6/4 Light Yellowish Brown
87–89.2'			MGA		89' / 90'				
90									

GEOSCIENCE

Project: RBF/MPWSP
Monitoring Well
Project No.: 13027-14

LOG OF BORING

SHEET 4 OF 12

Location Cemex/MW-4D	Date(s) Drilled 1/5/15 Monday	Drilling Contractor Cascade Drilling	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by J. Sobolew	Drill Rig Type Prosonic 600T	Plunge (Degrees) Vert
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in) 10 3/4" - 9 7/8 SC/6" core	Total Depth (ft)

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
90									
91								(SP) Poorly graded Sand w/gravel, 75% F-C sand, Medium sorting, subangular to subrounded, 25% F-C gravel, QA Chert	10YR 5/4 Yellowish Brown
92								(SP) Poorly graded sand, 95% sand F-C, subangular to subrounded, well sorted, 5% gravel, trace silt QFMA	10YR 5/4 Yellowish Brown
93								(GP) Poorly graded gravel w/sand, 60% gravel F-C, 40% F-C Sand, medium sorting, subangular to subrounded, QFA	7.5YR 6/4 Light Brown
94									
95									
96					96	M6A			
@0940 97					97			97' (GP) Poorly graded gravel, 80% F-C gravel, 20% M-C sand, medium sorting, subangular to subrounded, QFA, trace silt. Sand subangular & gravel rounded	10YR 5/4 Yellowish Brown
98									
99					99	M6A			
100					100			100' (SW) Well graded sand w/gravel, 55% F-C sand, 40% F-C gravel, medium to poor sorting, QFA, 5% silt	10YR 6/6 Brownish Yellow
101									
102									
103									
104									
105									
106								105.5' (SP) Poorly graded sand, 95% predominantly F-M (trace C) sand, well sorted, subangular to subrounded, 5% F-C gravel, trace silt	7.5YR 6/4 Light Brown
@1230 107									
108								108.5'	
109									
110								(SP) Poorly graded sand, 100% F-M sand, well sorted, subangular to subrounded, trace gravel & silt QFMA	7.5YR 6/4 Light Brown
111									
112									
113									
114								113.5'	
115									
116					116	M6A		(SP) Poorly graded sand, 100% very fine to fine sand, well sorted, subangular to subrounded, QFMA, trace silt	7.5YR 5/3 Brown
@1136 117					117				
118									
119									
120									

GEOSCIENCE

Project: RBF/MPWSP
Monitoring Well
Project No.: 13027-14

LOG OF BORING

SHEET 5 OF 12

Location: Cemex/MW-4D	Date(s) Drilled: 1/5/15 Monday	Drilling Contractor: Cascade Drilling	Bearing (Azimuth):
Ground Surface Elevation (ft):	Logged by: J. Sobolew	Drill Rig Type: Prosonic 600T	Plunge (Degrees): Vert
Horizontal/Vertical Datum:	Reviewed by:	Borehole Diameter (in): 9 7/8" sc/6" core	Total Depth (ft):

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
120–150	@1505 1/7/15 @1232; @1305; @1500				1%	MGA		122.7' (CH) Fat clay, 95% clay, medium plasticity, 5% medium sand, subrounded, Quartz 125' (SP) Poorly graded sand, 90% F-M sand, subrounded, well sorted, low plasticity, QMA, 5% silt, 5% clay 127' (CH) Fat clay, 100% clay, medium plasticity, trace sand, subrounded, QM fine sand 128.6' (SP-SM) Poorly graded sand w/ silt, 90% sand F-M, well sorted, subangular, predominantly Quartz, QM, 10% silt 130.1' 130.7' (SP) Poorly graded sand, 95% very fine to fine sand, subangular, well sorted, 5% silt 131.7' 132.4' (SP-SC) Poorly graded sand w/ clay, 90% very fine to fine sand, subangular, low plasticity, QMA, 10% clay, oxidation visible in layers. (SP) Poorly graded sand, 100% F-C sand, well sorted, angular to subrounded, trace gravel & silt, QFA layer of clay w/ shells 137.0' (SP-SM) Poorly graded sand w/ silt, F-C sand, well sorted, subrounded to rounded, Predominantly rounded Quartz, 10% silt	5Y 6/3 Pale Olive 10YR 5/6 Yellowish Brown 5Y 6/3 Pale Olive 10YR 6/6 Brownish Yellow 5Y 7/3 Pale Yellow 10YR 6/6 Brownish Yellow 7.5 YR 6/3 Light Brown 10YR 7/4 Very pale brown

GEOSCIENCE

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Monitoring Well
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LOG OF BORING

SHEET 6 OF 12

Location Cemex / MW-40	Date(s) Drilled 1/7/15 Wednesday	Drilling Contractor Cascade Drilling	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by J. Sobolew	Drill Rig Type Prosonic 600T	Plunge (Degrees) Vert
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in) 9 7/8" S.C. / 6" core	Total Depth (ft)

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
150									
151								151.1' (SM) Silty Sand, 85% F-M sand, subangular to subrounded, medium sorting, low plasticity, QMA, 15% silt	10YR 6/4 Light Yellowish Brown
152									
153								153.0' (SP) Poorly graded sand, 95% F-C sand, well sorted, subangular to subrounded, low plasticity, 5% clay, QMA, high mica content	2.5Y 6/2 Light Brownish Gray
154			MGA		154				
155					155			155.0' (SP) Poorly graded sand, 85% F-C sand, medium sorting, subangular to subrounded, none to low plasticity, 10% F-C gravel (34mm), 5% clay Oxidation	10YR 6/4 Light Yellowish Brown
@1400 — 156									
157								157.0' (SP) Poorly graded sand, 90% F-C sand, medium sorting, subangular to subrounded, 10% F-C gravel, QFMA trace silt, oxidation	7.5YR 6/6 Reddish Yellow
158									
159									
160									
161									
162								161.8' (GP-GC) Poorly Graded Gravel with Clay and Sand, 55% F-C gravel, 35% F-C sand, poorly sorted, subangular to subrounded, low plasticity, 10% clay, QFMA, Rounded clasts of gravel	10YR 6/3 Pale Brown
163									
164									
165									
166			MGA		166				
@1430 — 167					167			167 (SP-SM) Poorly graded sand w/silt, 90% very fine to fine sand, well sorted, subrounded, 10% silt, QMA	10YR 4/4 dark yellowish brown
168			MGA		168			168.4	
169									
170								(CH) Fat clay, 100% clay, high plasticity, trace fine sand, QM, transitions from silty clay to clay	10YR 5/8 Yellowish Brown
171									
172									
173									
174									
175									
176									
@ — 177								177' (SC) Clayey Sand, 75% F-M sand, subangular, well sorted, low to medium plasticity, 25% clay, trace chert gravel (15MM) QMA	7.5YR 5/3 Brown
178									
179								179.1' (SP) Poorly graded sand, 95% F-C sand, well sorted, angular to subangular, 5% silt, QFMA, predominantly Quartz	7.5YR 6/3 Light Brown
180									

GEOSCIENCE

Project: RBF/MPWSP
Monitoring Well
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LOG OF BORING

SHEET 7 OF 12

Location Cemex / MW-40	Date(s) Drilled 1/8/15 Thursday	Drilling Contractor Cascade Drilling	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by J. Sobolew	Drill Rig Type Prosonic 600T	Plunge (Degrees) Vert
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in) 9 7/8" sc / 6" core	Total Depth (ft)

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
180–210					184' M64A 185 186' M64A 187			180.8' (SM) Silty Sand, 85% sand F-M, medium sorting, Subangular, low plasticity, QMA, 15% silt, Predominantly fine grained sand. 183' (SP) Poorly Graded sand, 95% F-C Sand, well sorted, Subangular to subrounded, 5% silt, QFMA "The brown Sand," Coarser grains at 187-189' 189' (SP) Poorly graded sand, 95% fine sand, Subangular to subrounded, well sorted, 5% silt, QFA, predominantly dark colored minerals, amphiboles. 197' Coarser grains (F-M sand) Predominantly medium grained sand 202.4' Weakly cemented clasts of "The brown Sand" 204.6' 209.4' weakly cemented clasts of "The brown Sand"	10YR 5/3 Brown 10YR 6/2 Light Brownish Gray 10YR 4/6 Dark Yellowish Brown 10YR 4/3 Brown

1/8/15 @0745

@0810

@ 15

GEOSCIENCE

Project: RBF/MPWSP
Monitoring Well
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LOG OF BORING

SHEET 8 OF 12

Location Cemex/MW-40	Date(s) Drilled 1/8/15 Thursday	Drilling Contractor Cascade Drilling	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by J. Sobolew	Drill Rig Type Prosonic 600T	Plunge (Degrees) Vert
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in) 9 7/8" S.C./6" core	Total Depth (ft)

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
210–240					217'–218'	M6A	214.1	Weakly cemented clasts of "The brown sand."	
							217'	(SP) Poorly graded sand, 100% fine sand, well sorted, weakly cemented, trace silt, QFA, subrounded, higher content of Quartz	7.5YR 4/2 Brown
							218.6'	(SP) Poorly graded sand, 95% fine sand, well sorted, subangular to subrounded, weak cemented clasts, 5% silt, QFA abundant dark minerals, faint rusty color.	7.5YR 4/6 strong Brown
							222.3'	(SP) Poorly graded sand, 100% fine sand, well Sorted, subangular to subrounded, weak cemented clasts, QFA, trace silt, abundance of dark minerals.	2.5Y 4/3 Olive Brown
@1138							227'	(ML) Silt, 100% silt, dense & low plasticity, horizontal dark oxidized laminations, from 227–227.5'	5Y 6/4 Pale Olive
							234'	(SP-SM) Poorly graded Sand w/silt, 90% F-M Sand, medium sorting, subangular to subrounded, 10% silt	5Y 6/3 Pale Olive
					236'–237'	M6A	235.6'	(SP) Poorly graded sand, 100% F-C Sand (Predom. M-C), medium-well sorting, subangular to subrounded, trace fine gravel, QFMA	2.5Y 5/3 Olive Brown
@1134							237'	(SP) Poorly graded Sand, 90% F-C Sand (Predominently M-C), 10% F-C gravel, medium to poor sorting, subangular sand, subrounded gravel, QFMA, trace silt.	7.5YR 5/3 Brown

GEOSCIENCE

Project: RBF/MPWSP Monitoring Well
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LOG OF BORING

SHEET 9 OF 12

Location Cemex / MW-4D	Date(s) Drilled 1/8/15 Thursday	Drilling Contractor Cascade Drilling	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by J. Sobotka	Drill Rig Type Prosenic 600T	Plunge (Degrees) Vert
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in) 9 7/8" & 8" S.C. / 6" core	Total Depth (ft)

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
241							241'	(SW) Well graded sand w/gravel, 85% F-C sand, poorly sorted, subangular to subrounded, QFMA, 15% F-C gravel (subrounded), abundance of minerals	2.5Y 6/3 Light Yellowish Brown
242							242.4'		
243								(SP) Poorly graded sand, 95% F-M sand, well sorted, subangular to subrounded, 5% silt, QFMA abundance of varying minerals	2.5Y 6/3 Light Yellowish Brown
247	@1435		M6A		247		247'		
248					248			(SP) Poorly graded sand, 100% F-M sand, predom. M sand, well sorted, QFMA, trace silt	10YR 6/3 Pale Brown
254							254.3'	(GP-GC) Gravel with clay and sand, 50% F-C gravel, 40% F-C sand, 10% clay, subangular to subrounded, low plasticity, QFMA	5Y 6/3 Pale Olive
256			M6A		256				
257	@257				257				
260							260'	(ML) Silt, 100% silt, low to medium plasticity, dense	5Y 5/3 Olive
267	1/4 @0752						267'	(SM) Silty Sand, 65% sand, subrounded, well sorted, 35% silt, low plasticity, QM	5Y 5/3 Olive
269							268.8'		

GEOSCIENCE

Project: RBF/MPWSP
Monitoring Well
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LOG OF BORING

SHEET 10 OF 12

Location Cemex/MW-40	Date(s) Drilled 1/9/16 Friday	Drilling Contractor Cascade Drilling	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by J. Sobdew	Drill Rig Type Prosonic 600T	Plunge (Degrees) Vert
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in) 8" SC/6" core	Total Depth (ft)

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Sample Information: Type and No.	Sample Information: Blows per 6 in.	Sample Information: Penetration (in)	Sample Information: Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
270								(SP) Poorly graded sand, 95% F-C sand, medium sorting, subangular to subrounded, 5% silt, trace subrounded gravel, QFMA coarser grains subrounded. Coarser 271-272.7'	5Y 5/2 Olive Gray
271									
272									
273								272.7	
274								(SP) Poorly graded sand, 90% F-C sand, medium sorting, subangular to subrounded, 5% fine gravel, 5% clay	5Y 6/2 Light Olive Gray
275									
276									
0823 277									
278									
279									
280					280'	MGA			
281					281				
282									
283								282.5 (SP) Poorly graded sand, 90% F-C sand, medium sorting, subangular to subrounded, 5% fine gravel, 5% clay	2.5Y 6/3 Light yellowish Brown
284									
285								284.5 (SP-SC) Poorly graded sand w/clay and gravel, 50% F-C sand, 40% F-C gravel, 10% clay, medium sorting, subangular to subrounded, QFMA, low plasticity	5Y 6/3 Pale Olive
0856 287								287	5Y 6/3 Pale Olive
288									
289								(CL) Clay, 100% clay, low to medium plasticity, dense, trace mica & Quartz sand, laminations of olive gray	
290									5Y 6/2 Olive Gray
291									
292									
293								292.8 (SC) clayey sand, 70% F-C sand, 25% clay, 5% F-C gravel, well to medium sorting, subangular to subrounded, low to medium plasticity QFMA	2.5Y 5/2 grayish Brown
294									
295								295.1 (SP-SC) Poorly graded sand w/clay, 85% F-C sand, predominantly medium grained, 10% clay, 5% F-C gravel, well sorted, subangular to subrounded, none to low plasticity, QFMA	2.5Y 6/3 Light Yellowish Brown
296						MGA			
297									
298								298.3' (ML) Sandy silt, 55% silt, 45% fine sand, subangular, low plasticity, QMA	5Y 4/4 Olive
299								299'	
300									

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LOG OF BORING

SHEET 11 OF 12

Location Cemex / MW-40	Date(s) Drilled 1/9/15 Friday	Drilling Contractor Cascade Drilling	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by J. Sobolew	Drill Rig Type Prosonic 600T	Plunge (Degrees) Vert
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in) 8" SC / 6" core	Total Depth (ft)

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
300								(SP-SC) Poorly graded sand w/ clay and gravel, 75% F-C sand, predominantly medium, F-C gravel 15%, subangular to subrounded, low plasticity, QFMA, well rounded siltstones, trace cobbles of siltstone.	5Y 6/3 Pale Olive
301								300.9'	
302								(SP) Poorly graded sand, 95% F-C sand, 5% clay, well sorted, subangular to subrounded, QFMA, trace gravel	5Y 6/3 Pale Olive
303									
304									
305								304.6' (SP) Poorly graded sand, 95% F-C sand, 5% clay, well sorted, subangular to subrounded, QFMA trace gravel	5Y 6/3 Pale Olive
306			M6A		306'				
1129 307					307'			307' (SP) Poorly graded sand, 95% F-C sand, 5% clay, well sorted subangular to subrounded, QFMA trace gravel	2.5Y 6/3 Light Yellowish Brown
308									
309									
310									
311								312.9' (SP) Poorly graded sand, 95% F-C sand, 5% clay well sorted, subangular to subrounded, QFMA high mica content	10YR 4/2 dark grayish brown
312			M6A		312				
313					313'			313' (SP) Poorly graded sand, 85% F-C sand, 10% F-C gravel, 5% clay, medium sorting, subangular, QFMA, Large subrounded siltstones and Mudstones.	5Y 6/3 Pale Olive
314									
315									
316									
1156 317								317' (SP) Poorly graded sand w/ gravel, 85% F-C sand, 15% F-C gravel, trace silt, medium sorting, subangular to subrounded, QFMA	5Y 6/3 Pale Olive
318									
319			M6A		319'				
320					320'				
321									
322								322.1' (CL) Gravelly Lean Clay, 70% clay, 20% F-C gravel, 10% F-C Sand, subangular, medium plasticity, QFM	5Y 6/4 Pale Olive
323									
324									
325								324.8' (CH) Fat clay, 100% clay medium to high plasticity, thin rusty laminations, trace mica	5Y 5/3 Olive
326									
327			M6A		327			327' (SP) Poorly graded sand, 95% fine sand, well sorted, subangular to subrounded, none to low plasticity, QFMA, 5% clay, high mica content and dark minerals	5Y 5/2 Olive Gray
328					326			328.3' (CH) Fat clay, 100% clay, medium plasticity	10Y 6/4 Pale Olive
329									
330									

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Project: RBF/MPWSP
Monitoring Well
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LOG OF BORING

SHEET 12 OF 12

Location Cemex/MW-4D	Date(s) Drilled 1/9/15 Friday	Drilling Contractor Cascade Drilling	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by J. Sobolew	Drill Rig Type Prosonic 600T	Plunge (Degrees) Vert
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in) 8"SC/6" core	Total Depth (ft)

CONFIDENTIAL DRAFT
Subject to Revision

Depth (ft)	Notes	Sample Information: Penetration (Graphic)	Sample Information: Type and No.	Sample Information: Blows per 6 in.	Sample Information: Penetration (in)	Sample Information: Recovery (in)	Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
330								330.1' SP-SM Poorly graded sand w/silt, 90% fine sand, 10% silt, well sorted, QMA, high mica content and Quartz	5Y 5/2 Olive Gray
331									
332								332' Total Depth	
333									
334									
335									
336									
337									
338									
339									
340									
341									
342									
343									
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