MACTEC

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST J. Liles
SITE DESCRIPTION Exelon COL Project		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2151	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.4 ft (NAVD88)	NORTHING 13,412,637 US ft (NAD83)	EASTING 2,599,654 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 200.0 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/C. Harden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 12/13/07	COMPLETED 12/14/07	CASING DEPTH: 3.5 ft	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-87.9					Continued from previous page				
-89.2	169.6								-89.2 169.6
		27	23	23	46	SS-30			POORLY GRADED SAND with silt (SP-SM), light gray (10YR7/2), dense, wet, ferrous black flakes, carbonate nodules, strong HCl reaction (visual)
-99.2	179.6								-99.2 179.6
		18	20	24	44	SS-31			POORLY GRADED SAND (SP), light gray (10YR7/2), dense, wet, strong HCl reaction (visual)
-109.2	189.6								-109.2 189.6
		50/0.4			50/0.4	SS-32			POORLY GRADED SAND with gravel (SP), light gray (10YR7/2), very dense, wet, fine grained, trace gravel, carbonate nodules, strong HCl reaction (visual)
-119.2	199.6								-119.6 200.0
		50/0.4			50/0.4	SS-33			Boring Terminated at Elevation -119.6 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/16/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPZ Date 6-12-08
Checked By KAW Date 7.10.08

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2152	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.3 ft (NAVD88)	NORTHING 13,412,706 US ft (NAD83)	EASTING 2,599,720 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 12/3/07	COMPLETED 12/5/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.3					Ground Surface				
80.3	0.0	2	2	3	5	SS-1			FAT CLAY with sand (CH), dark greenish gray (10G4/1), firm, moist, little sand, carbonate nodules, ferrous staining, no HCl reaction
76.8	3.5	4	5	6	11	SS-2			3.5ft: pinkish gray (7.5YR7/2), stiff
74.3	6.0	5	5	5	10	SS-3			LEAN CLAY with sand (CL), light brownish gray (10YR6/2), stiff, carbonate nodules, little sand, strong HCl reaction
71.8	8.5	11	17	25	42	SS-4			8.5ft: hard
69.3	11.0	11	13	12	25	SS-5			11.0ft: very stiff
66.8	13.5	8	9	10	19	SS-6			FAT CLAY (CH), pale brown (10YR6/3), stiff to very stiff, mottled brownish yellow (10YR6/8)
61.8	18.5	5	6	6	12	SS-7			18.5ft: light gray (10YR7/1), to brownish yellow (10YR6/6), weak HCl reaction
56.7	23.6	6	7	9	16	SS-8			23.6ft: mottled light gray (10YR7/2)
51.7	28.6	6	7	8	15	SS-9			
46.7	33.6	6	9	12	21	SS-10			33.6ft: mottled gray (10YR6/1)
41.8	38.5	5	6	9	15	SS-11			38.5ft: mottled light greenish gray (10Y8/1)
36.8	43.5	4	7	9	16	SS-12			43.5ft: no HCl reaction
31.8	48.5	9	14	19	33	SS-13			Clayey SAND (SC), pale yellow (2.5YR7/3), mottled yellow (2.5Y7/6), dense, moist, fine grained, little fines, more clay in lenses, no HCl reaction
27.5	52.8	19	23	32	55	SS-14			52.8ft: mottled brownish yellow (10YR6/8), very dense, trace carbonate nodules, strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2152	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.3 ft (NAVD88)	NORTHING 13,412,706 US ft (NAD83)	EASTING 2,599,720 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 12/3/07	COMPLETED 12/5/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.2					Continued from previous page				
22.5	57.8								Clayey SAND (SC), pale yellow (2.5YR7/3), mottled yellow (2.5Y7/6), dense, moist, fine grained, little fines, more clay in lenses, no HCl reaction *(continued)* 57.8ft: light gray (10YR7/2), trace gravel
		28	28	28	56	SS-15			
17.0	63.3								17.5 — 62.8 FAT CLAY (CH), pale yellow (2.5Y7/4), very stiff, moist, trace sand, no HCl reaction, trace carbonate nodules
		7	8	11	19	SS-16			
11.9	68.4								68.4ft: mottled yellow (2.5Y7/8), little sand, black staining, weak HCl reaction
		7	11	12	23	SS-17			
7.1	73.2								73.2ft: light gray (2.5Y7/2), mottled yellow (10YR7/8) no HCl reaction
		6	9	11	20	SS-18			
1.9	78.4								78.4ft: stained red (2.5YR4/6)
		6	9	11	20	SS-19			
-3.1	83.4								-0.7 — 81.0 Clayey SAND (SC), pale yellow (5Y8/2), very firm, moist, fine grained, little fines, no HCl reaction
		11	15	11	26	SS-20			
-8.1	88.4								88.4-89.9ft: interbedded POORLY GRADED SAND with clay (SP-SC)
		14	8	10	18	SS-21			88.8ft: light gray (5Y8/2), firm, mottled brownish yellow (10YR6/6), some fines
-13.1	93.4								
		12	12	12	24	SS-22			93.4ft: pale yellow (2.5Y8/2), very firm, mottled yellow (10YR7/6), little fines
-18.1	98.4								-18.1 — 98.4 POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y8/2), very firm, wet, few fines, fine grained, trace carbonate nodules, no HCl reaction
		13	17	12	29	SS-23			-19.7 — 100.0 FAT CLAY (CH), light gray (5Y7/2), mottled yellow (10YR7/6), very stiff, moist, few sand, trace carbonate nodules, black stains, weak HCl reaction
-28.1	108.4								
		6	8	12	20	SS-24			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST J. Jarvis
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2152	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.3 ft (NAVD88)	NORTHING 13,412,706 US ft (NAD83)	EASTING 2,599,720 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 12/3/07	COMPLETED 12/5/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-31.9					Continued from previous page				
									FAT CLAY (CH), light gray (5Y7/2), mottled yellow (10YR7/6), very stiff, moist, few sand, trace carbonate nodules, black stains, weak HCl reaction *(continued)*
-38.1	118.4								
		5	9	10	19	SS-25			118.4ft: no HCl reaction
									-41.2 — 121.5
									POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y8/2), and yellow (2.5Y7/8), very dense, moist, fine grained, few fines, trace gravel, strong HCl reaction, contains lenses of clayey sand and clean sand
-48.1	128.4								
		22	48	31	79	SS-26			
-58.1	138.4								-58.1 — 138.4
		26	37	50/0.5	87/1.0	SS-27			POORLY GRADED SAND (SP), pale yellow (2.5Y8/2), very dense, fine grained, trace fines and gravel, weak HCl reaction
-68.2	148.5								-68.2 — 148.5
		5	13	15	28	SS-28			Clayey SAND (SC), pale yellow (2.5Y8/2), very firm, wet, fine grained, little fines, trace carbonate nodules, contains lenses of clayey material, no HCl reaction in sand, strong HCl reaction in clay seams
									-69.7 — 150.0
									Boring Terminated at Elevation -69.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By WJD Date 6-16-08

Checked By KAW Date 7-10-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST J. Jarvis
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2153	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.2 ft (NAVD88)	NORTHING 13,412,822 US ft (NAD83)	EASTING 2,599,843 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.1 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 11/27/07	COMPLETED 12/2/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.2					Ground Surface				
80.2	0.0	1	2	1	3	SS-1			FAT CLAY (CH), very dark gray (5YR3/1), soft, moist, trace sand, ferrous staining, no HCl reaction
76.6	3.6	2	3	5	8	SS-2			3.6ft: dark gray (5YR4/1), firm, few sand, trace carbonate nodules
74.2	6.0	4	5	6	11	SS-3			6.0ft: light brown (7.5YR6/3), stiff, weak HCl reaction
71.7	8.5	4	6	7	13	SS-4			LEAN CLAY with sand (CL), light brown (7.5YR6/3), stiff, moist, little sand, black staining, carbonate nodules, strong HCl reaction
69.0	11.2	7	8	11	19	SS-5			11.2ft: very stiff, mottled strong brown (7.5YR5/8)
66.7	13.5	4	5	8	13	SS-6			13.5ft: stiff
61.6	18.6	3	7	8	15	SS-7			18.6ft: light brownish gray (10YR6/2), little sand
56.5	23.7	3	4	5	9	SS-8			FAT CLAY (CH), strong brown (7.5YR5/8), mottled light brownish gray (10YR6/2), stiff, moist, few sand, strong HCl reaction
51.6	28.6	3	6	7	13	SS-9			28.6ft: mottled strong brown (7.5YR5/8)
46.6	33.6	4	6	9	15	SS-10			33.6ft: pale brown (10YR6/3), mottled yellowish brown (10YR5/8)
41.7	38.5	5	8	10	18	SS-11			38.5ft: pinkish gray (7.5YR6/2), mottled strong brown (7/5YR5/8), very stiff
36.7	43.5	6	13	13	26	SS-12			POORLY GRADED SAND with clay (SP-SC), reddish yellow (7.5YR6/8), mottled pinkish gray (7.5YR7/2), very firm, moist, coarse grained, few fines, no HCl reaction
31.7	48.5	10	12	14	26	SS-13A/B			FAT CLAY with sand (CH) pinkish gray (7.5YR7/2) very stiff, moist, little coarse grained sand, strong HCl reaction
26.6	53.6	13	14	16	30	SS-14A/B			

80.2 — 0.0
71.7 — 8.5
56.5 — 23.7
38.2 — 42.0
30.9 — 49.3
25.8 — 54.4

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/16/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2153	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.2 ft (NAVD88)	NORTHING 13,412,822 US ft (NAD83)	EASTING 2,599,843 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.1 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 11/27/07	COMPLETED 12/2/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.1					Continued from previous page				
21.6	58.6								POORLY GRADED SAND with clay (SP-SC), reddish yellow (7.5YR6/8), very firm, moist, coarse grained, weak HCl reaction, few fines *(continued)* 21.3 — 58.9
		6	11	14	25	SS-15			FAT CLAY (CH), pinkish gray (7.5YR7/2), mottled reddish yellow (7.5YR6/8), very stiff, few to little sand, strong HCl reaction
16.6	63.6	5	7	10	17	SS-16			63.5ft: light reddish brown (5YR6/3), ferrous and black stains, strong HCl reaction
11.7	68.5	5	7	9	16	SS-17			68.5ft: reddish brown (5YR5/3), trace carbonate nodules
6.6	73.6	9	10	12	22	SS-18			73.6ft: pinkish gray (5YR7/2)
1.6	78.6	6	8	8	16	SS-19A/B			0.9 — 78.6ft: no HCl reaction — 79.3
									Clayey SAND (SC), light gray (10YR7/1), firm, moist, coarse grained, some fines, ferrous stains, carbonate nodules, no HCl reaction
-3.4	83.6	6	8	18	26	SS-20			83.6ft: pinkish gray (7.5YR7/2), very firm, little fines
-8.3	88.5	4	5	5	10	SS-21			88.5ft: loose
-13.3	93.5	14	40	24	64	SS-22			-13.8 — Field notes do not indicate that SS-22 was split into separate jars — 94.0
									FAT CLAY (CH), very pale brown (10YR7/3), hard, moist, little sand, strong HCl reaction
-18.4	98.6	50/0.3			50/0.3	SS-23			94.0 to 95.0ft: carbonate layering
-28.3	108.5	8	9	11	20	SS-24			108.5ft: mottled reddish yellow (7.5YR6/8), very stiff, trace carbonate nodules

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/16/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2153	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.2 ft (NAVD88)	NORTHING 13,412,822 US ft (NAD83)	EASTING 2,599,843 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.1 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 11/27/07	COMPLETED 12/2/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-32.0					Continued from previous page				
									FAT CLAY (CH), very pale brown (10YR7/3), hard, moist, little sand, strong HCl reaction 94.0 to 95.0ft: carbonate layering *(continued)*
-38.4	118.6								
		8	8	11	19	SS-25			118.6ft: light gray (2.5YR7/1), black stains, ferrous stains
-44.8	125.0								Clayey SAND (SC), light gray (5Y7/1), dense, moist, coarse grained, few to little fines, carbonate deposits throughout, strong HCl reaction
-48.3	128.5								
		14	19	25	44	SS-26			
-58.3	138.5								
-58.8	139.0								Field notes do not indicate that SS-27 was split into separate jars POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, moist, coarse grained, trace fines, strong HCl reaction
		6	29	24	53	SS-27			
-68.4	148.6								
		19	27	25	52	SS-28			
-69.9	150.1								Boring Terminated at Elevation -69.9 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/16/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPK Date 6-12-08

Checked By KAW Date 7.10.08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST C. Gandy
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2154	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.5 ft (NAVD88)	NORTHING 13,412,451 US ft (NAD83)	EASTING 2,599,620 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 11/9/07	COMPLETED 11/11/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.5					Ground Surface				80.5 / 0.0
80.5	0.0	3	3	3	6	SS-1			FAT CLAY (CH), dark gray (7.5YR4/1), firm, moist, fine-grained sand, weak HCl reaction, trace carbonate nodules, roots and organics present, thinly laminated
77.0	3.5	3	4	5	9	SS-2			3.5ft: gray (10YR6/1), stiff, few sand, strong HCl reaction, iron nodules
74.5	6.0	5	7	7	14	SS-3			74.5 / 6.0 LEAN CLAY with sand (CL), very pale brown (10YR7/3), stiff, moist, little sand, carbonate nodules, strong HCl reaction
72.0	8.5	7	10	11	21	SS-4			8.5ft: very stiff, little fine sand
69.5	11.0	7	8	11	19	SS-5			11.0ft: light gray (10YR7/2)
67.0	13.5	6	7	7	14	SS-6			13.5ft: very pale brown (10YR8/3), stiff
62.0	18.5	4	5	7	12	SS-7			62.0 / 18.5 FAT CLAY (CH), very pale brown (10YR8/2), mottled with brownish yellow (10YR6/6), stiff, moist, few sand, carbonate nodules, strong HCl reaction, organics
57.0	23.5	5	6	7	13	SS-8			23.5ft: yellow (10YR7/8), mottled light greenish gray (10Y8/1)
52.0	28.5	3	5	6	11	SS-9			28.5ft: mottled very pale (10YR7/4)
47.0	33.5	5	5	8	13	SS-10			33.5ft: slightly mottled brownish yellow (10YR6/6)
42.0	38.5	4	5	9	14	SS-11			
37.0	43.5	5	5	9	14	SS-12			43.5ft: light yellowish brown (10YR6/4), mottled light greenish gray (10Y8/1), trace carbonate nodules
32.0	48.5	6	9	11	20	SS-13			48.5ft: very pale brown (10YR7/3), very stiff, no HCl reaction, iron staining
27.0	53.5	8	9	12	21	SS-14			27.0 / 53.5 Silty SAND (SM), very pale brown (10YR7/3), very firm, moist, some fines, no HCl reaction, iron staining, 0.2'-thick clay seam

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST C. Gandy
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2154	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.5 ft (NAVD88)	NORTHING 13,412,451 US ft (NAD83)	EASTING 2,599,620 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 11/9/07	COMPLETED 11/11/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.4					Continued from previous page				
22.0	58.5								Silty SAND (SM), very pale brown (10YR7/3), very firm, moist, some fines, no HCl reaction, iron staining, 0.2'-thick clay seam *(continued)*
		17	15	9	24	SS-15			58.5ft: light gray (10YR7/2), little to some fines
17.0	63.5								17.0 — 63.5
		5	6	10	16	SS-16			FAT CLAY with sand (CH), yellow (10YR7/8), very stiff, moist, little sand, strong HCl reaction, iron staining, trace carbonate nodules
12.0	68.5								
		5	6	7	13	SS-17			68.5ft: brownish yellow (10YR6/8), mottled light greenish gray (10Y8/1), stiff, few fine sand, weak HCl reaction, thinly laminated
7.0	73.5								73.5ft: very pale brown (10YR7/4), very stiff, some fine sand
		6	8	10	18	SS-18			
2.0	78.5								
		5	12	15	27	SS-19			78.5ft: very pale brown (10YR8/3), little fine sand, no HCl reaction
-3.0	83.5								-3.0 — 83.5
		11	24	36	60	SS-20			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/3), very dense, wet, few fines, strong HCl reaction, carbonate nodules
-8.0	88.5								-8.0 — 88.5
		8	9	12	21	SS-21			LEAN CLAY with sand (CL), very pale brown (10YR7/4), mottled brownish yellow (10YR6/8), very stiff, moist, little fine sand, carbonate nodules, strong HCl reaction
-13.0	93.5								-13.0 — 93.5
		17	45	50/0.1	95/0.6	SS-22			Clayey SAND (SC), very pale brown (10YR7/3), trace mottling, very dense, wet, some fines, no HCl reaction
-18.0	98.5								-18.0 — 98.5
		37	38	48	86	SS-23			POORLY GRADED SAND (SP), very pale brown (10YR8/4), very dense, wet, few fines, coarse grained, strong HCl reaction, carbonate nodules
-28.0	108.5								-28.0 — 108.5
		17	15	20	35	SS-24			FAT CLAY (CH), very pale brown (10YR7/4), mottled brownish yellow (10YR6/8), hard, moist, few sand, carbonate nodules, strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST C. Gandy	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2154	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.5 ft (NAVD88)	NORTHING 13,412,451 US ft (NAD83)	EASTING 2,599,620 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 11/9/07	COMPLETED 11/11/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-31.7					Continued from previous page				
									FAT CLAY (CH), very pale brown (10YR7/4), mottled brownish yellow (10YR6/8), hard, moist, few sand, carbonate nodules, strong HCl reaction *(continued)*
-38.0	118.5	6	8	10	18	SS-25			118.5ft: very stiff, dry, little fine sand, weak HCl reaction, thinly laminated
-48.0	128.5	10	13	17	30	SS-26			-48.0 — 128.5 Clayey SAND (SC), white (10YR8/1), very firm, moist, trace carbonate nodules, no HCl reaction, little fines
-58.0	138.5	6	7	8	15	SS-27			-58.0 — 138.5 FAT CLAY (CH), yellow (10YR7/8), mottled light greenish gray (5GY8/1), stiff, few fine grained sand, carbonate nodules, thinly laminated
-68.0	148.5	9	11	18	29	SS-28			-68.0 — 148.5 POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR8/2), very firm, wet, fine to coarse grained, few fines, no HCl reaction, 0.1'-thick clayey sand seam, trace rounded gravel
									-69.5 — 150.0 Boring Terminated at Elevation -69.5 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPF Date 6-12-08

Checked By KAW Date 7-10-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2155	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.4 ft (NAVD88)	NORTHING 13,412,471 US ft (NAD83)	EASTING 2,599,699 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 12/5/07	COMPLETED 12/5/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.4					Ground Surface				
80.4	0.0	1	3	4	7	SS-1			FAT CLAY (CH), very dark gray (5YR3/1), firm, moist, few fine grained sand, no HCl reaction
76.9	3.5	1	3	4	7	SS-2			3.5ft: gray (5YR5/1), carbonate nodules
74.4	6.0	3	4	6	10	SS-3			6.0ft: stiff, brown (7.5YR5/2)
71.9	8.5	5	6	7	13	SS-4			8.5ft: light brownish gray (10YR6/2), to light gray (10YR7/2), black and ferrous staining, strong HCl reaction
69.4	11.0	6	8	10	18	SS-5			11.0ft: very stiff
66.9	13.5	6	7	10	17	SS-6			
61.9	18.5	5	6	8	14	SS-7			LEAN CLAY with sand (CL), very pale brown (10YR7/3), mottled brownish yellow (10YR6/8), stiff, moist, little sand, weak to strong HCl reaction
56.9	23.5	4	6	11	17	SS-8			23.5ft: very stiff
51.9	28.5	4	7	9	16	SS-9			FAT CLAY (CH), brownish yellow (10YR6/8), mottled light gray (10YR7/2), very stiff, moist, weak to strong HCl reaction
46.9	33.5	7	9	11	20	SS-10			
41.9	38.5	3	6	9	15	SS-11			38.5ft: stiff
36.9	43.5	5	5	8	13	SS-12			
31.9	48.5	6	7	10	17	SS-13			48.5ft: light reddish brown (5YR6/4), very stiff, carbonate nodules
26.9	53.5	8	10	14	24	SS-14A/B			Clayey SAND (SC), light gray (10YR7/2), very firm, moist, coarse grained, some to little fines, no HCl reaction

61.9 — 18.5

51.9 — 28.5

26.4 — 54.0

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2155	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.4 ft (NAVD88)	NORTHING 13,412,471 US ft (NAD83)	EASTING 2,599,699 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 12/5/07	COMPLETED 12/5/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.3					Continued from previous page				
21.9	58.5								Clayey SAND (SC), light gray (10YR7/2), very firm, moist, coarse grained, some to little fines, no HCl reaction *(continued)*
		8	10	9	19	SS-15			58.5ft: firm
16.9	63.5								16.5 — 63.9
		6	8	9	17	SS-16			FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/8), very stiff, moist, few sand, carbonate nodules, weak HCl reaction
11.9	68.5								
		4	7	17	24	SS-17A/B			10.6 — 69.8
									POORLY GRADED SAND (SP) light gray (10YR7/2), very firm, moist, coarse grained, trace fines, no HCl reaction
6.9	73.5								6.9 — 73.5
		8	10	17	27	SS-18			FAT CLAY with sand (CH), light gray (10YR7/2), very stiff, moist, little sand, ferrous staining, carbonate nodules, strong to weak HCl reaction
1.9	78.5								
		6	8	8	16	SS-19			
-3.1	83.5								83.5ft: some sand
		7	16	16	32	SS-20A/B			-3.8 — 84.2
									POORLY GRADED SAND (SP), pinkish gray (7.5YR6/2), dense, moist, coarse grained, trace fines, no HCl reaction
-8.1	88.5								-8.1 — 88.5
		6	8	9	17	SS-21			FAT CLAY (CH), light gray (10YR7/2), mottled, brownish yellow (10YR7/6), very stiff, moist, few sand, strong HCl reaction
-13.1	93.5								
		11	11	12	23	SS-22			
-18.1	98.5								-18.1 — 98.5
		3	6	9	15	SS-23			POORLY GRADED SAND (SP), pale brown (10YR6/3), firm, moist, coarse grained, trace fines, strong HCl reaction
									-24.6 — 105.0
-28.1	108.5								FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/8), very stiff, moist, few sand, carbonate nodules, strong HCl reaction
		7	9	13	22	SS-24			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2155	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.4 ft (NAVD88)	NORTHING 13,412,471 US ft (NAD83)	EASTING 2,599,699 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 12/5/07	COMPLETED 12/5/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-31.8					Continued from previous page				
									FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/8), very stiff, moist, few sand, carbonate nodules, strong HCl reaction *(continued)*
-38.1	118.5	9	10	21	31	SS-25			118.5ft: pinkish gray (7/5YR7/2), hard, black and ferrous staining, weak HCl reaction
-48.1	128.5	12	14	17	31	SS-26			128.5ft: light gray (10YR7/1), little sand, strong HCl reaction
									-53.6 — 134.0 POORLY GRADED SAND (SP), pale brown (10YR6/3), very firm, wet, coarse grained, trace fines, no HCl reaction
-58.1	138.5	9	15	15	30	SS-27A/B			-58.9 — 139.3 FAT CLAY with sand (CH), light gray (10YR7/1), very stiff, moist, little sand, strong HCl reaction
									-64.6 — 145.0 POORLY GRADED SAND (SP), pale brown (10Y6/3), firm, wet, coarse grained, trace fines, weak HCl reaction
-68.1	148.5	8	7	9	16	SS-28A/B			-68.7 — 149.1
									-69.6 — 150.0 FAT CLAY (CH), light gray (10YR7/1), very stiff, moist, few sand, strong HCl reaction
									Boring Terminated at Elevation -69.6 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPL Date 6-12-08

Checked By KAW Date 7.10.08

SHEET 1 OF 4

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST B. Taylor
SITE DESCRIPTION Exelon COL Project		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2156	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.3 ft (NAVD88)	NORTHING 13,412,548 US ft (NAD83)	EASTING 2,599,761 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 201.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 12/3/07	COMPLETED 12/6/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.3					Ground Surface				80.3 / 0.0
80.3	0.0	2	4	4	8	SS-1			FAT CLAY (CH), very dark brown (10YR2/2), firm, moist, few sand, no to weak HCl reaction, roots
76.8	3.5	3	5	7	12	SS-2			3.5ft: gray (10YR6/1), stiff
74.3	6.0	5	6	6	12	SS-3			6.0ft: carbonate nodules
71.8	8.5	6	6	10	16	SS-4			8.5ft: light gray (10YR7/1), very stiff, strong to weak HCl reaction
69.3	11.0	9	10	10	20	SS-5			
66.8	13.5	6	8	9	17	SS-6			
60.3	20.0	8	7	7	14	SS-7			20.0ft: stiff
55.3	25.0	6	9	11	20	SS-8			55.3 / 25.0 FAT CLAY (CH), light gray (10YR7/1, mottled brownish yellow (10YR6/6), very stiff, moist, few sand, strong HCl reaction, two 45-degree slickensides
50.3	30.0	7	8	10	18	SS-9			30.0ft: brownish yellow (10YR6/6), no to strong HCl reaction
45.3	35.0	8	11	14	25	SS-10			
40.3	40.0	5	5	7	12	SS-11			40.0ft: stiff
35.3	45.0	5	7	10	17	SS-12			45.0ft: very stiff
30.3	50.0	8	12	12	24	SS-13			50.0ft: pale brown (10YR6/3)
25.3	55.0	9	12	15	27	SS-14			55.0ft: light gray (10YR7/1), little sand, no HCl

EXELON COL BORE EXELON~2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2156	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.3 ft (NAVD88)	NORTHING 13,412,548 US ft (NAD83)	EASTING 2,599,761 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 201.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 12/3/07	COMPLETED 12/6/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.1					Continued from previous page				
									reaction FAT CLAY (CH), light gray (10YR7/1, mottled brownish yellow (10YR6/6), very stiff, moist, few sand, strong HCl reaction, two 45-degree slickensides *(continued)*
20.3	60.0	10	9	11	20	SS-15			
15.3	65.0	6	7	9	16	SS-16			
10.3	70.0	5	7	8	15	SS-17			70.0ft: dark gray (10YR4/1), stiff, few sand, no HCl reaction, slickensides
5.2	75.0	9	11	15	26	SS-18			75.0ft: light gray (10YR7/1), very stiff, little sand, strong to no HCl reaction, carbonate nodules
0.3	80.0	7	8	11	19	SS-19			
-4.8	85.0	12	11	14	25	SS-20			-4.8 — 85.0 Clayey SAND (SC), gray (10YR6/1), very firm, moist, fine grained, some fines, no HCl reaction
-9.8	90.0	7	8	10	18	SS-21			-9.8 — 90.0 FAT CLAY (CH), gray (10YR6/1), very stiff, moist, few sand, strong HCl reaction, carbonate nodules
-14.8	95.0	12	21	19	40	SS-22			-14.8 — 95.0 Clayey SAND (SC), pale brown (10YR6/3), dense, moist, fine grained, some to little fines, no to strong HCl reaction
-19.8	100.0	25	31	41	72	SS-23			100.0ft: very dense
-29.8	110.0	7	6	8	14	SS-24			-29.8 — 110.0 FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), stiff to hard, moist, few sand, strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2156	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.3 ft (NAVD88)	NORTHING 13,412,548 US ft (NAD83)	EASTING 2,599,761 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 201.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 12/3/07	COMPLETED 12/6/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-32.0					Continued from previous page				
									FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), stiff to hard, moist, few sand, strong HCl reaction *(continued)*
-39.8	120.0	12	11	8	19	SS-25			120.0ft: gray (10YR6/1)
-49.8	130.0	6	10	9	19	SS-26			130.0ft: light gray (10YR7/2), little sand, strong to no HCl reaction
-59.8	140.0	10	18	19	37	SS-27			
-69.8	150.0	3	5	6	11	SS-28			150.0ft: stiff, few sand, weak HCl reaction
-79.8	160.0	19	34	23	57	SS-29			-79.8 — 160.0 Clayey SAND (SC), light gray (10YR7/1), very dense, moist, fine grained, little fines, no HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2156	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.3 ft (NAVD88)	NORTHING 13,412,548 US ft (NAD83)	EASTING 2,599,761 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 201.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 12/3/07	COMPLETED 12/6/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-88.1					Continued from previous page				
-89.8	170.0	17	41	39	80	SS-30			Clayey SAND (SC), light gray (10YR7/1), very dense, moist, fine grained, little fines, no HCl reaction *(continued)* 170.0ft: light brownish gray (10YR6/2), strong HCl reaction
-99.8	180.0	26	27	49	76	SS-31			
-109.8	190.0	50/0.3			50/0.3	SS-32			-109.8 — 190.0 FAT CLAY with sand (CH), light gray (10YR7/1), hard, moist, little sand, strong HCl reaction, carbonate nodules
-119.8	200.0	11	22	43	65	SS-33			-121.3 — 201.5 Boring Terminated at Elevation -121.3 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPF Date 6-12-08

Checked By KAW Date 7-10-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST M. Harvey
SITE DESCRIPTION Exelon COL Project		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2157	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.1 ft (NAVD88)	NORTHING 13,412,624 US ft (NAD83)	EASTING 2,599,823 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 12/6/07	COMPLETED 12/11/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.1					Ground Surface				
80.1	0.0	1	2	3	5	SS-1			FAT CLAY (CH), firm, moist, few sand, no HCl reaction
76.6	3.5	5	7	7	14	SS-2			3.5ft: gray (2.5YR5/1), stiff, little sand, black staining, carbonate nodules, no HCl reaction
74.1	6.0	5	7	10	17	SS-3			6.0ft: light brownish gray (2.5Y6/2), very stiff, some sand, weak HCl reaction
71.6	8.5	7	13	13	26	SS-4			Sandy LEAN CLAY (CL), pale yellow (2.5Y7/4), very stiff, moist, some sand, strong HCl reaction, carbonate nodules
69.1	11.0	6	11	15	26	SS-5			
66.6	13.5	9	13	11	24	SS-6			13.5ft: no recovery
65.1	15.0	5	10	13	23	SS-7			FAT CLAY with sand (CH), pale yellow (5Y8/2), very stiff, moist, little sand, weak HCl reaction
61.6	18.5	6	8	8	16	SS-8			18.5ft: light gray (5Y8/2), mottled yellow (10Y7/8), few sand, carbonate nodules
56.6	23.5	4	6	8	14	SS-9			23.5ft: yellow (10YR7/8), mottled light grayish green (10Y7/1), stiff, black staining, no HCl reaction
51.6	28.5	5	8	10	18	SS-10			28.5ft: yellow (10YR7/6), mottled light gray (5Y7/1), very stiff, strong HCl reaction
46.6	33.5	6	9	11	20	SS-11			33.5ft: yellow (10YR7/6), mottled light greenish gray (10Y8/1)
41.6	38.5	6	8	10	18	SS-12			38.5ft: brownish yellow (10YR6/6), mottled light greenish gray (5GY8/1), weak HCl reaction
36.6	43.5	6	10	10	20	SS-13			Silty SAND (SM), yellow (2.5Y8/6), mottled pale yellow (5Y8/2), firm, wet, fine grained, trace fines, weak to no HCl reaction
31.6	48.5	10	16	18	34	SS-14			48.5ft: yellow (10YR7/6), mottled pale yellow (5Y8/2), dense
26.6	53.5	9	15	19	34	SS-15A/B			POORLY GRADED SAND with clay (SP-SC), light gray (5Y7/2), dense, moist, few fines, no HCl reaction

80.1 — 0.0; 71.6 — 8.5; 65.1 — 15.0; 38.6 — 41.5; 26.6 — 53.5; 26.1 — 54.0

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2157	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.1 ft (NAVD88)	NORTHING 13,412,624 US ft (NAD83)	EASTING 2,599,823 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 12/6/07	COMPLETED 12/11/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.0					Continued from previous page				
21.6	58.5								FAT CLAY (CH), light gray (2.5Y8/2), hard, moist, few sand and gravel, weak HCl reaction, carbonate nodules, black staining *(continued)*
		5	9	9	18	SS-16			58.5ft: pale yellow (2.5Y7/3), very stiff, stained black, yellow and orange, strong to no HCl reaction
16.6	63.5								
		3	5	11	16	SS-17			
11.6	68.5								
		5	7	10	17	SS-18			
6.6	73.5								
		7	13	16	29	SS-19			73.5ft: light gray (2.5Y7/2), little carbonate gravel
1.6	78.5								
		7	12	12	24	SS-20			78.5ft: light greenish gray (10Y8/1), mottled red (2.5YR4/6), some sand and gravel, no HCl reaction
									-0.9 — 81.0 POORLY GRADED SAND (SP), pale yellow (5Y8/2), dense, wet, no fines, no HCl reaction
-3.4	83.5								
		11	16	16	32	SS-21			-5.0 — 85.1 Sandy FAT CLAY (CH), light greenish gray (5GY8/1), mottled yellow (10YR7/6), stiff, moist, some sand, no HCl reaction
-8.4	88.5								
		3	5	6	11	SS-22			
-13.4	93.5								-13.4 — 93.5 WELL-GRADED SAND with gravel (SW), white (5Y8/1), very dense, wet, fine to coarse grained, few fines, strong to weak HCl reaction
		50/0.5			50/0.5	SS-23			
-18.4	98.5								
		50/0.3			50/0.3	SS-24			98.5ft: no recovery
									-23.9 — 104.0 FAT CLAY (CH), light greenish gray (5GY8/1), mottled brownish yellow (10YR6/8), very stiff, moist, few sand and gravel, weak HCl reaction, black staining, carbonate nodules
-28.4	108.5								
		5	9	10	19	SS-25			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2157	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.1 ft (NAVD88)	NORTHING 13,412,624 US ft (NAD83)	EASTING 2,599,823 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 12/6/07	COMPLETED 12/11/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-32.1					Continued from previous page				
									FAT CLAY (CH), light greenish gray (5GY8/1), mottled brownish yellow (10YR6/8), very stiff, moist, few sand and gravel, weak HCl reaction, black staining, carbonate nodules *(continued)*
-38.4	118.5	6	8	10	18	SS-26			118.5ft: light gray (5Y7/1), little sand and gravel, red staining, no HCl reaction
-48.4	128.5	7	12	15	27	SS-27A/B			128.5ft: pale yellow (5Y8/2), weak HCl reaction, black staining
									-49.5 — 129.6 Clayey SAND (SC), pale yellow (5Y8/2), very firm, moist, some fines, weak HCl reaction, carbonate nodules, black staining
-58.4	138.5	25	48	49	97	SS-28			-58.4 — 138.5 POORLY GRADED SAND (SP), very pale brown (10YR8/2), very dense, wet, trace fines, weak HCl reaction
-68.4	148.5	17	26	20	46	SS-29			-68.4 — 148.5 POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR 8/2), dense, wet, few fines, weak HCl reaction
									-69.9 — 150.0 Boring Terminated at Elevation -69.9 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPF Date 6-12-08

Checked By KAW Date 7-10-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2158	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.5 ft (NAVD88)	NORTHING 13,412,750 US ft (NAD83)	EASTING 2,599,929 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 11/17/07	COMPLETED 11/18/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.5					Ground Surface				80.5 / 0.0
79.5	1.0	3	4	5	9	SS-1			FAT CLAY (CH), gray (5YR5/1), stiff, moist, few sand, trace iron and possible manganese stain, no HCl reaction
76.7	3.8	3	3	4	7	SS-2			3.8ft: firm
74.1	6.4	2	3	4	7	SS-3			6.4ft: Very pale brown (10YR7/3), few sand, trace iron and possible manganese stain, trace carbonate nodules, strong HCl reaction
71.9	8.6	4	12	12	24	SS-4			8.6ft: very stiff
69.2	11.3	4	7	9	16	SS-5			
66.8	13.7	3	6	7	13	SS-6			13.7ft: light gray (10YR7/2), stiff, moist, little sand, trace carbonate nodules, strong HCl reaction
62.0	18.5	5	7	7	14	SS-7			62.0 / 18.5 FAT CLAY (CH) light gray (10YR7/2, 10YR7/1) mottled yellowish brown (10YR 5/8), and brownish yellow (10YR6/8), stiff, moist, few sand, strong HCl reaction
56.9	23.6	4	5	5	10	SS-8			
51.6	28.9	7	9	11	20	SS-9			28.9ft: very stiff
46.9	33.6	4	5	6	11	SS-10			33.6ft: stiff, possible manganese staining
42.0	38.5	13	13	14	27	SS-11			42.0 / 38.5 Silty SAND (SM), very pale brown (10YR7/4), mottled reddish yellow (7.5YR7/8), to light yellowish brown (10YR7/8), very firm, moist, coarse grained, little fines, trace carbonate nodules, strong HCl reaction
36.8	43.7	5	10	15	25	SS-12			
32.0	48.5	12	16	25	41	SS-13			48.5ft: dense
26.8	53.7	24	24	31	55	SS-14			53.7ft: very dense

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2158	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.5 ft (NAVD88)	NORTHING 13,412,750 US ft (NAD83)	EASTING 2,599,929 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 11/17/07	COMPLETED 11/18/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.3					Continued from previous page				
22.0	58.5								22.0 — 58.5
		13	15	17	32	SS-15			FAT CLAY with sand (CH), light gray (10YR7/2), hard, moist, little sand, trace carbonate nodules, trace iron stain, strong HCl reaction
17.0	63.5								
		6	8	9	17	SS-16			63.5ft: light gray (10YR7/2), mottled pale red (10R6/4), and brownish yellow (10YR6/6), very stiff, moist, few sand, trace iron and possible manganese staining, trace carbonate nodules, weak to strong HCl reaction
11.9	68.6								
		13	13	17	30	SS-17			
7.0	73.5								
		8	9	10	19	SS-18			
1.7	78.8								
		5	8	12	20	SS-19			78.8ft: light gray (7.5YR7/1), very stiff, moist, little sand, trace iron stain, trace carbonate nodules, strong HCl reaction
-3.5	83.9								
		8	12	16	28	SS-20			83.9ft: some sand, trace iron stain
-8.1	88.6								-8.1 — 88.6
		13	17	17	34	SS-21			POORLY GRADED SAND with silt (SP-SM), light reddish gray (2.5YR7/1), dense, wet, few fines, trace iron stain, no HCl reaction
-13.2	93.6								-13.2 — 93.6
		5	6	10	16	SS-22			Clayey SAND (SC), very pale brown (10YR7/3), firm, wet, coarse grained, little fines, trace iron stain, no HCl reaction
-18.2	98.6								-18.2 — 98.6
		27	21	50/0.4	71/0.9	SS-23			POORLY GRADED SAND (SP), pinkish gray (7.5YR6/2), very dense, wet, few fines, trace iron stain, trace carbonate nodules, strong HCl reaction
-19.6									-19.6 — 100.0
									Boring Terminated at Elevation -19.6 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08