

B O R I N G L O G		BORING/WELL NO.: SB-01		Page <u>1</u> of <u>1</u>	
Installation: STRATTON ANG			Site:		
Project No.:		Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE			
HAZWRAP Contractor: PEER		Drig Contractor: AMERICAN		Driller: M. BUGONE	
Drig Started: 03/18/91 (08:10 <u>a</u> <u>m</u>)		Drig Ended: (09:15 <u>a</u> <u>m</u>)		Borehole dia(s): 8 5/8"	
Drig Method/Rig Type: CME 45, HOLLOW STEM (HS), AND SPLIT SPOON (SS)					
Logged by: F. CROWNER		E-Log (Y / N) From _____ To _____		Protection Level:	

1	2	3	4	5	6	7	Lithologic Description	8	9	10	11	Water Depth and Remarks
0							Clayey silt with abundant gravel (15% - 20%) gray brown, firm damp; gravels to 1.5 cm diam. (from site gravel cover)	cl/ mL	8 7 4			No odor
1	S-1	Y		SB-01-00	ND	1.0/2.0	Sandy silt; gray brown, firm, damp, with abundant gravel	sp/ mL	5			
2							-----					
3	S-2	NT	--	NT		0.0/2.0	?		3			
							NO RECOVERY		6			
4									6			
									5			
							T.D. 4.0 ft					
							Boring terminated by direction of HAZWRAP representative - "Boring too close to, or in tank pit excavation"					

U = Thin Wall Tube R = Rock Coring _____ Field G/C (Make/Mod.) _____
 S = Split Spoon (Tube) O = Other _____ G/C Oper.: _____
 C = Cuttings Notes: _____

- 1 = Depth (ft)
 2 = Sample
 3 = Sample No.
 4 = Lab Analysis (Y/N)
 5 = _____ ()
 6 = _____ hdsp ()
 7 = Recovery ()
 8 = USCS
 9 = Blows/6 inch.
 10 = Graphic Log
 11 = Well Data

BORING LOG		BORING/WELL NO.: S8-02		Page 1 of 1
Installation: STRATTON ANG			Site:	
Project No.:		Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE		
HAZWRAP Contractor: PEER		Drig Contractor: HAWK		Driller: JAY
Drig Started: 03/20/91 (12:30 p.m.)		Drig Ended: (13:15 p.m.)		Borehole dia(s): 8 5/8"
Drig Method/Rig Type: CME 55/HS/SS				
Logged by: F. CROWNER		E-Log (Y / N) From _____ To _____		Protection Level:

1	2	3	4	5	6	7	Lithologic Description	8	9	10	11	Water Depth and Remarks
0							Gravel (road base)		GW			
1		S-1	Y	SB-02-00	ND	1.5/2.0	St. silty clay (with erratic shale fragments disturbed soil) clays; brown, firm, low plasticity, damp	5	cl			
2								6				
3		S-2	Y	SB-02-02	ND	1.2/2.0	Sandy clay (fine sands) orange brown, firm low plasticity, wet [possible construction related]	7				
4								4	sp/cl			
5		S-3	N	SB-02-04	ND	1.4/2.0	Silty clay; brown, firm, low plasticity, wet	5	ml/cl			
6								4				
		S-4	N	NT	NT	0.2/0.5	Shale: dk gray, fissile, laminar, dry	12				
								50+				
							T.O. @ 6.5'					

U = Thin Wall Tube	R = Rock Coring _____	Field G/C (Make/Mod.) _____
S = Split Spoon (Tube)	O = Other _____	G/C Oper.: _____
C = Cuttings	Notes: _____	

- 1 = Depth (ft)
 2 = Sample
 3 = Sample No.
 4 = Lab Analysis (Y/N)
 5 = _____ ()
 6 = _____ hdsp ()
 7 = Recovery ()
 8 = USCS
 9 = Blows/6 inch.
 10 = Graphic Log
 11 = Well Data

B O R I N G L O G		BORING/WELL NO.: SB-03		Page <u>1</u> of <u>1</u>	
Installation: STRATTON ANG			Site:		
Project No.:		Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE			
HAZWRAP Contractor: PEER		Drig Contractor: HAWK		Driller: B. BALDWIN	
Drig Started: 03/21/91 (11:30 <u>a</u> <u>m</u>)		Drig Ended: (11:50 <u>a</u> <u>m</u>)		Borehole dia(s): 8 5/8"	
Drig Method/Rig Type: CME 55/HS/SS					
Logged by: F. CROWNER		E-Log (Y / N) From _____ To _____		Protection Level:	

1	2	3	4	5	6	7	Lithologic Description	8	9	10	11	Water Depth and Remarks
0							Asphalt					
							Shot rock and soil - (augered) no sample					
1							Sl. silty clay; brown, hard, low plasticity, comp	cl	7			
									17			
									21			
2									32			
							Interbedded shale and clay: shale: highly weathered, fissile, laminar dry clay; stiff, dry, relic bedding structure		48			
3									50+			
							T.D. @ 3.5'					
4												
5												

U = Thin Wall Tube	R = Rock Coring _____	Field G/C (Make/Mod.) _____
S = Split Spoon (Tube)	O = Other _____	G/C Oper.: _____
C = Cuttings	Notes: _____	

- 1 = Depth (ft)
 2 = Sample
 3 = Sample No.
 4 = Lab Analysis (Y/N)
 5 = _____ ()
 6 = _____ hdsp ()
 7 = Recovery ()
 8 = USCS
 9 = Blows/6 inch.
 10 = Graphic Log
 11 = Well Data

BORING LOG		BORING/WELL NO.: SB-04		Page 1 of 1
Installation: STRATTON ANG			Site:	
Project No.:		Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE		
HAZWRAP Contractor: PEER		Drig Contractor: HAWK		Driller: B. BALDWIN
Drig Started: 03/21/91 (10:35 a.m.)		Drig Ended: (11:30 a.m.)		Borehole dia(s): 8 5/8"
Drig Method/Rig Type: CME 55/HS/SS				
Logged by: F. CROWNER		E-Log (Y / N) From _____ To _____		Protection Level:

1	2	3	4	5	6	7	Lithologic Description	8	9	10	11	Water Depth and Remarks
0							Asphalt					
1	*						Shot rock and soil - no sample recovered					
		S-1		Y	5 PPM	1.5/2.0	Sl. silty clay; gray green, hard, low plasticity; moist	cl	16	18	26	32
2							Shales; highly weathered, brown to gray, dry; with minor laminar clay seams					
3	*								19	25	35	50+
4		S-2		Y	170 PPM	1.8/2	Suspect odor from gray green clay (2" seam)					@ 4.2; 2" clayey seam-suspect odor
5	*						T.D. @ 4.8'					

U = Thin Wall Tube	R = Rock Coring	Field G/C (Make/Mod.)
S = Split Spoon (Tube)	O = Other	G/C Oper.:
C = Cuttings	Notes:	

- 1 = Depth (ft)
 2 = Sample
 3 = Sample No.
 4 = Lab Analysis (Y/N)
 5 = _____ ()
 6 = _____ hdsp ()
 7 = Recovery ()
 8 = USCS
 9 = Blows/6 inch.
 10 = Graphic Log
 11 = Well Data

BORING LOG		BORING/WELL NO.: SB-05		Page <u>1</u> of <u>1</u>	
Installation: STRATTON ANG			Site:		
Project No.:		Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE			
HAZWRAP Contractor: PEER		Drig Contractor: AMERICAN		Driller: M. BUGONE	
Drig Started: 03/18/91 (11:00 a_m)		Drig Ended: (13:20 p_m)		Borehole dia(s): 8 5/8"	
Drig Method/Rig Type: CME 45/HS/SS					
Logged by: F. CROWNER		E-Log (Y / N) From _____ To _____		Protection Level:	

1	2	3	4	5	6	7	Lithologic Description	8	9	10	11	Water Depth and Remarks
0							Silty clay with moderate shale fragments (10%-15%) lt brown, stiff, damp, low plasticity	6				
								7				
								11				
1		S-1	Y	SB-05-00	ND	1.5/2.0		8				0.3-1.0 could not drive spoon. Auger only to 1' no sample 0-1
2							- orange brown, hard, decreasing shale fragments	11				
								17				
								21				
								32				
3		S-2	Y	SB-05-02	ND	1.4/2.0						
4	*							11				
								14				
							Interbedded weathered shales and clays	27				Fractures in shale contain free water
5							Shales: dk gray; weathered, fissile, laminar fractured subnormal to bedding damp to wet	50+				
							Clays: brown to dk brown, damp					
							- increasing shale content with depth					
6		S-3	Y	SB-05-04	ND	1.5/2.0						
							T.D. @ 6.0'					

U = Thin Wall Tube	R = Rock Coring _____	Field G/C (Make/Mod.) _____
S = Split Spoon (Tube)	O = Other _____	G/C Oper.: _____
C = Cuttings	Notes: _____	

- 1 = Depth (ft)
 2 = Sample
 3 = Sample No.
 4 = Lab Analysis (Y/N)
 5 = _____ ()
 6 = _____ hdsp ()
 7 = Recovery ()
 8 = USCS
 9 = Blows/6 inch.
 10 = Graphic Log
 11 = Well Data

1	2	3	4	5	6	7	Lithologic Description	8	9	10	11	Water Depth and Remarks
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	No Sample Recovered	
	Sheared gears in Kelly transmission while attempting to auger through cobbles; gears sticking out side of gear box	

U = Thin Wall Tube R = Rock Coring _____ Field G/C (Make/Mod.) _____
S = Split Spoon (Tube) O = Other _____ G/C Oper.: _____
C = Cuttings Notes: _____

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1 = Depth (ft)
2 = Sample
3 = Sample No.
4 = Lab Analysis (Y/N)
5 = _____ ()
6 = _____ hdspr ()
7 = Recovery ()
8 = USCS
9 = Blows/6 inch.
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11 = Well Data

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|                                    |  |                                                |       |                           |  |
|------------------------------------|--|------------------------------------------------|-------|---------------------------|--|
| BORING LOG                         |  | BORING/WELL NO.: SB-07                         |       | Page <u>1</u> of <u>1</u> |  |
| Installation: STRATTON ANG         |  |                                                | Site: |                           |  |
| Project No.:                       |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                           |  |
| HAZWRAP Contractor: PEER           |  | Drig Contractor: HAWK                          |       | Driller: M. BUGONE        |  |
| Drig Started: 03/19/91 (16:20 p.m) |  | Drig Ended: (17:15 p.m)                        |       | Borehole dia(s): 8 5/8"   |  |
| Drig Method/Rig Type: CME 55/HS/SS |  |                                                |       |                           |  |
| Logged by: F. CROWNER              |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:         |  |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | Lithologic Description                                                                                  | 8   | 9   | 10 | 11 | Water Depth and Remarks |
|---|---|---|---|---|---|---|---------------------------------------------------------------------------------------------------------|-----|-----|----|----|-------------------------|
| 0 |   |   |   |   |   |   | Asphalt                                                                                                 |     |     |    |    |                         |
| 1 |   |   |   |   |   |   | Cobbles (shotrock) & silty clay; damp; blows invalid due to side friction (spoon gauged)                |     |     |    |    |                         |
|   |   |   |   |   |   |   | Silty clay; brown, damp, low plasticity                                                                 | ml/ | 9   |    |    |                         |
|   |   |   |   |   |   |   |                                                                                                         | cl  | 27  |    |    |                         |
| 2 |   |   |   |   |   |   | With shale fragments; erratic orientation weathered to severely weathered                               |     | 50+ |    |    |                         |
|   |   |   |   |   |   |   | Shale initially incompetent; weathered: increasing competence and decreasing weathering with depth; dry |     | 30  |    |    |                         |
|   |   |   |   |   |   |   |                                                                                                         |     | 32  |    |    |                         |
|   |   |   |   |   |   |   |                                                                                                         |     | 50+ |    |    |                         |
| 3 |   |   |   |   |   |   | T.D. @ 3.0'                                                                                             |     |     |    |    |                         |
| 4 |   |   |   |   |   |   |                                                                                                         |     |     |    |    |                         |
| 5 |   |   |   |   |   |   |                                                                                                         |     |     |    |    |                         |

U = Thin Wall Tube      R = Rock Coring      Field G/C (Make/Mod.) \_\_\_\_\_  
 S = Split Spoon (Tube)      O = Other      G/C Oper.: \_\_\_\_\_  
 C = Cuttings      Notes: \_\_\_\_\_

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data

|                                    |  |                                                |       |                           |  |
|------------------------------------|--|------------------------------------------------|-------|---------------------------|--|
| B O R I N G   L O G                |  | BORING/WELL NO.: SB-08                         |       | Page <u>1</u> of <u>1</u> |  |
| Installation: STRATTON ANG         |  |                                                | Site: |                           |  |
| Project No.:                       |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                           |  |
| HAZWRAP Contractor: PEER           |  | Drig Contractor: AMERICAN                      |       | Driller: M. BUGONE        |  |
| Drig Started: 03/19/91 (15:30 p.m) |  | Drig Ended: (16:15 p.m)                        |       | Borehole dia(s): 8 5/8"   |  |
| Drig Method/Rig Type: CME 45/HS/SS |  |                                                |       |                           |  |
| Logged by: F. CROWNER              |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:         |  |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | Lithologic Description                                                                                                                  | 8     | 9  | 10  | 11 | Water Depth and Remarks                                       |
|---|---|---|---|---|---|---|-----------------------------------------------------------------------------------------------------------------------------------------|-------|----|-----|----|---------------------------------------------------------------|
| 0 |   |   |   |   |   |   | Asphalt                                                                                                                                 |       |    |     |    |                                                               |
|   |   |   |   |   |   |   | Silty clay & cobbles (shotrock) not sampled<br>blows invalid due to side friction (spoon gouged)                                        |       | -  |     |    | 0.3-1.0 could not drive spoon. Auger only to 1' no sample 0-1 |
| 1 |   |   |   |   |   |   | Silty clay with abundant shale fragments (15%-20%) damp, graybrown, low plasticity [blow counts invalid due to excessive side friction] | ml/cl | 27 | 36  |    |                                                               |
| 2 |   |   |   |   |   |   | Shale; gray; laminar, initially severely weathered rapidly less weathered; damp to dry in basal unit                                    |       | 38 | 50+ |    |                                                               |
| 3 |   |   |   |   |   |   | T.O. @ 3.0'                                                                                                                             |       |    |     |    |                                                               |
| 4 |   |   |   |   |   |   |                                                                                                                                         |       |    |     |    |                                                               |
| 5 |   |   |   |   |   |   |                                                                                                                                         |       |    |     |    |                                                               |

|                        |                       |                             |
|------------------------|-----------------------|-----------------------------|
| U = Thin Wall Tube     | R = Rock Coring _____ | Field G/C (Make/Mod.) _____ |
| S = Split Spoon (Tube) | O = Other _____       | G/C Oper.: _____            |
| C = Cuttings           | Notes: _____          |                             |

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data

|                                     |  |                                                |       |                         |  |
|-------------------------------------|--|------------------------------------------------|-------|-------------------------|--|
| BORING LOG                          |  | BORING/WELL NO.: SB-09                         |       | Page 1 of 1             |  |
| Installation: STRATTON ANG          |  |                                                | Site: |                         |  |
| Project No.:                        |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                         |  |
| HAZWRAP Contractor: PEER            |  | Drig Contractor: HAWK                          |       | Driller: JAY            |  |
| Drig Started: 03/20/91 (14:40 p.m.) |  | Drig Ended: (15:15 p.m.)                       |       | Borehole dia(s): 8 5/8" |  |
| Drig Method/Rig Type: CME 55/HS/SS  |  |                                                |       |                         |  |
| Logged by: F. CROWNER               |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:       |  |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | Lithologic Description                                                                                         | 8  | 9 | 10 | 11 | Water Depth and Remarks |
|---|---|---|---|---|---|---|----------------------------------------------------------------------------------------------------------------|----|---|----|----|-------------------------|
| 0 |   |   |   |   |   |   | Asphalt                                                                                                        |    |   |    |    |                         |
|   |   |   |   |   |   |   | Shot rock and clayey sand, brown, damp                                                                         |    |   |    |    |                         |
| 1 |   |   |   |   |   |   | Sl. clayey sand, loose, damp                                                                                   | sp | 5 |    |    |                         |
|   |   |   |   |   |   |   |                                                                                                                | 11 |   |    |    |                         |
| 2 |   |   |   |   |   |   | T.D. @ 2.0'                                                                                                    |    |   |    |    |                         |
|   |   |   |   |   |   |   | 1 Could not drill upper 1 ft; 0-1 ft logged from auger cuttings; data 1-2 ft reflects short run samples 0-2 ft |    |   |    |    |                         |

U = Thin Wall Tube      R = Rock Coring \_\_\_\_\_      Field G/C (Make/Mod.) \_\_\_\_\_  
 S = Split Spoon (Tube)      O = Other \_\_\_\_\_      G/C Oper.: \_\_\_\_\_  
 C = Cuttings      Notes: \_\_\_\_\_

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data

|                                    |  |                                                |       |                         |  |
|------------------------------------|--|------------------------------------------------|-------|-------------------------|--|
| BORING LOG                         |  | BORING/WELL NO.: SB-10                         |       | Page 1 of 1             |  |
| Installation: STRATTON ANG         |  |                                                | Site: |                         |  |
| Project No.:                       |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                         |  |
| HAZWRAP Contractor: PEER           |  | Drig Contractor: HAWK                          |       | Driller: JAY            |  |
| Drig Started: 03/20/91 (16:00 p.m) |  | Drig Ended: (16:50 p.m)                        |       | Borehole dia(s): 8 5/8" |  |
| Drig Method/Rig Type: CHE 55/HS/SS |  |                                                |       |                         |  |
| Logged by: F. CROWNER              |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:       |  |

| 1 | 2 | 3   | 4 | 5        | 6  | 7       | Lithologic Description                                                     | 8   | 9   | 10 | 11 | Water Depth and Remarks                                      |
|---|---|-----|---|----------|----|---------|----------------------------------------------------------------------------|-----|-----|----|----|--------------------------------------------------------------|
| 0 |   |     |   |          |    |         | Silty clay, dk brown; firm, low plasticity, moist [with minor small roots] | ml/ | 5   |    |    |                                                              |
|   |   |     |   |          |    |         |                                                                            | cl  | 6   |    |    |                                                              |
| 1 |   | S-1 | Y | SB-10-00 | ND | 1.5/2.0 |                                                                            |     | 9   |    |    |                                                              |
|   |   |     |   |          |    |         | Sl. silty clay; brown to lt. brown, firm to stiff, low plasticity, damp    | cl  | 9   |    |    | 0.3-1.0 could not drive spoon auger only to 1' no sample 0-1 |
| 2 |   |     |   |          |    |         |                                                                            |     |     |    |    |                                                              |
|   |   |     |   |          |    |         |                                                                            |     | 9   |    |    |                                                              |
| 3 |   | S-2 | Y | SB-10-02 | ND | 1.6/2.0 |                                                                            |     | 21  |    |    |                                                              |
|   |   |     |   |          |    |         | Shale: dk gray, fissile, laminar, damp                                     |     | 48  |    |    |                                                              |
| 4 |   |     |   |          |    |         | T.D. @ 3.8'                                                                |     | 50+ |    |    |                                                              |
| 5 |   |     |   |          |    |         |                                                                            |     |     |    |    |                                                              |

|                        |                       |                             |
|------------------------|-----------------------|-----------------------------|
| U = Thin Wall Tube     | R = Rock Coring _____ | Field G/C (Make/Mod.) _____ |
| S = Split Spoon (Tube) | O = Other _____       | G/C Oper.: _____            |
| C = Cuttings           | Notes: _____          |                             |

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = We.. Data

|                                     |  |                                                |       |                           |  |
|-------------------------------------|--|------------------------------------------------|-------|---------------------------|--|
| BORING LOG                          |  | BORING/WELL NO.: SB-11                         |       | Page <u>1</u> of <u>1</u> |  |
| Installation: STRATTON ANG          |  |                                                | Site: |                           |  |
| Project No.:                        |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                           |  |
| HAZWRAP Contractor: PEER            |  | Drig Contractor: HAWK                          |       | Driller: B. BALDWIN       |  |
| Drig Started: 03/21/91 (09:55 a.m.) |  | Drig Ended: (10:30 a.m.)                       |       | Borehole dia(s): 8 5/8"   |  |
| Drig Method/Rig Type: CME 55/HS/SS  |  |                                                |       |                           |  |
| Logged by: F. CROWNER               |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:         |  |

| 1 | 2 | 3   | 4 | 5        | 6  | 7       | Lithologic Description                                                                                            | 8     | 9   | 10 | 11 | Water Depth and Remarks |
|---|---|-----|---|----------|----|---------|-------------------------------------------------------------------------------------------------------------------|-------|-----|----|----|-------------------------|
| 0 |   |     |   |          |    |         | Silty clay; dk brown, firm, low plasticity                                                                        | ml/cl | 4   |    |    |                         |
| 1 |   | S-1 | Y | SB-11-00 | ND | 1.2/2.0 | St. silty clay; yellow brown, low plasticity<br>firm, damp, relic bedding structures<br>- - with weathered shales | cl    | 6   |    |    |                         |
| 2 |   |     |   |          |    |         |                                                                                                                   |       | 7   |    |    |                         |
| 3 |   | S-2 | Y | SB-11-02 | ND | 1.5/2.0 |                                                                                                                   |       | 11  |    |    |                         |
| 4 |   |     |   |          |    |         | Shale: weathered to highly weathered,<br>fissile, laminar, dry, brown to gray                                     |       | 18  |    |    |                         |
| 5 |   |     |   |          |    |         | - - - with minor interbedded clays                                                                                |       | 18  |    |    |                         |
| 6 |   | S-3 | Y | SB-11-04 | ND | 1.8/2.0 |                                                                                                                   |       | 26  |    |    |                         |
|   |   |     |   |          |    |         | T.D. @ 6.0'                                                                                                       |       | 14  |    |    |                         |
|   |   |     |   |          |    |         |                                                                                                                   |       | 17  |    |    |                         |
|   |   |     |   |          |    |         |                                                                                                                   |       | 22  |    |    |                         |
|   |   |     |   |          |    |         |                                                                                                                   |       | 50+ |    |    |                         |

U = Thin Wall Tube      R = Rock Coring      Field G/C (Make/Mod.) \_\_\_\_\_  
 S = Split Spoon (Tube)      O = Other      G/C Oper.: \_\_\_\_\_  
 C = Cuttings      Notes: \_\_\_\_\_

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data

|                                     |  |                                                |       |                         |  |
|-------------------------------------|--|------------------------------------------------|-------|-------------------------|--|
| BORING LOG                          |  | BORING/WELL NO.: SB-12                         |       | Page 1 of 1             |  |
| Installation: STRATTON ANG          |  |                                                | Site: |                         |  |
| Project No.:                        |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                         |  |
| HAZWRAP Contractor: PEER            |  | Drig Contractor: AMERICAN                      |       | Driller: M. BUGONE      |  |
| Drig Started: 03/18/91 (09:15 a.m.) |  | Drig Ended: (10:25 a.m.)                       |       | Borehole dia(s): 8 5/8" |  |
| Drig Method/Rig Type: CME 45/HS/SS  |  |                                                |       |                         |  |
| Logged by: F. CROWNER               |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:       |  |

| 1 | 2 | 3   | 4  | 5        | 6       | 7       | Lithologic Description                                                                                                                                                                                                                       | 8         | 9                | 10 | 11 | Water Depth and Remarks |
|---|---|-----|----|----------|---------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------|----|----|-------------------------|
| 0 |   |     |    |          |         |         | Silty clay with minor gravels (5%-10%)<br>gray brown, firm, damp                                                                                                                                                                             | ml/<br>cl | 6<br>7<br>7<br>8 |    |    | Hydrocarbon odor        |
| 1 |   | S-1 | -- | SB-12-00 | 150 PPM | 1.8/2.0 |                                                                                                                                                                                                                                              |           |                  |    |    |                         |
| 2 | * |     |    |          |         |         | Relic highly weathered shale (sapprolitic)                                                                                                                                                                                                   |           | 10               |    |    |                         |
| 3 |   | S-2 | Y  | SB-12-02 | 2 PPM   | 1.8/2.0 | Shales & clay - interbedded<br>irregularly interbedded, horizontal bedding<br>Shales: dk gray; severely weathered to weathered,<br>laminar, fissile, damp to dry<br>Clays: gray brown, very stiff to hard; damp; relic<br>bedding structures |           | 10<br>19<br>18   |    |    |                         |
| 4 | * |     |    |          |         |         |                                                                                                                                                                                                                                              |           | 10<br>19         |    |    |                         |
| 5 |   | S-3 | Y  | SB-12-04 | 10 PPM  | 1.5/2.0 | Shale: weathered; yellow brown, massive dry                                                                                                                                                                                                  |           | 27<br>36         |    |    |                         |
| 6 |   | S-4 | Y  | SB-12-06 | NT      | 0.3/0.4 | Competent; dk gray, laminar, dry                                                                                                                                                                                                             |           | 50+              |    |    |                         |
|   |   |     |    |          |         |         | T.O. @ 6.4'                                                                                                                                                                                                                                  |           |                  |    |    |                         |

|                        |                 |                       |
|------------------------|-----------------|-----------------------|
| U = Thin Wall Tube     | R = Rock Coring | Field G/C (Make/Mod.) |
| S = Split Spoon (Tube) | D = Other       | G/C Oper.:            |
| C = Cuttings           | Notes:          |                       |

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 1' = Well Data

|                                    |  |                                                |       |                         |  |
|------------------------------------|--|------------------------------------------------|-------|-------------------------|--|
| BORING LOG                         |  | BORING/WELL NO.: SB-13                         |       | Page 1 of 1             |  |
| Installation: STRATTON ANG         |  |                                                | Site: |                         |  |
| Project No.:                       |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                         |  |
| HAZWRAP Contractor: PEER           |  | Drig Contractor: HAWK                          |       | Driller: JAY            |  |
| Drig Started: 03/20/91 (09:45 a.m) |  | Drig Ended: (10:45 a.m)                        |       | Borehole dia(s): 8 5/8" |  |
| Drig Method/Rig Type: CME 55/HS/SS |  |                                                |       |                         |  |
| Logged by: F. CROWNER              |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level: D     |  |

| 1 | 2 | 3   | 4 | 5 | 6 | 7        | Lithologic Description                                         | 8     | 9  | 10 | 11 | Water Depth and Remarks |
|---|---|-----|---|---|---|----------|----------------------------------------------------------------|-------|----|----|----|-------------------------|
| 0 |   |     |   |   |   |          | Gravel (road base) angular ls                                  | GW    | 7  |    |    |                         |
|   |   |     |   |   |   |          | Silty clay, moist, firm, low plasticity, gray-brown            |       | 6  |    |    |                         |
| 1 |   | S-1 | Y |   |   | SB-13-00 |                                                                |       | 5  |    |    |                         |
|   |   |     |   |   |   | ND       | 1.8/2.0                                                        |       |    |    |    |                         |
|   |   |     |   |   |   |          | Clayey fine sand: orange brown, loose; moist                   | cl/sp |    |    |    | Most trans-             |
| 2 |   |     |   |   |   |          | Silty clay; orange brown to brown, stiff, low plasticity, damp | ml/cl | 8  |    |    | missive zone            |
|   |   |     |   |   |   |          |                                                                |       | 9  |    |    |                         |
|   |   |     |   |   |   |          |                                                                |       | 11 |    |    |                         |
| 3 |   | S-2 | Y |   |   | SB-13-02 |                                                                |       | 10 |    |    |                         |
|   |   |     |   |   |   | ND       | 1.5/2.0                                                        |       |    |    |    |                         |
|   |   |     |   |   |   |          | - - - with minor inclusions severely weathered shale; wet      |       |    |    |    |                         |
| 4 |   |     |   |   |   |          |                                                                |       |    |    |    |                         |
|   |   |     |   |   |   |          |                                                                |       | 9  |    |    |                         |
|   |   |     |   |   |   |          |                                                                |       | 11 |    |    |                         |
|   |   |     |   |   |   |          |                                                                |       | 10 |    |    |                         |
| 5 |   |     |   |   |   |          | - - - increasing shale content                                 |       | 10 |    |    |                         |
|   |   |     |   |   |   |          |                                                                |       |    |    |    |                         |
| 6 |   | S-3 | Y |   |   | SB-13-04 |                                                                |       |    |    |    |                         |
|   |   |     |   |   |   | ND       | 1.6/2.0                                                        |       |    |    |    |                         |
|   |   |     |   |   |   |          |                                                                |       | 17 |    |    |                         |
|   |   |     |   |   |   |          |                                                                |       | 26 |    |    |                         |
|   |   |     |   |   |   |          |                                                                |       | 50 |    |    |                         |
| 7 |   | S-4 | Y |   |   | SB-13-06 |                                                                |       |    |    |    |                         |
|   |   |     |   |   |   | ND       | 0.9/1.0                                                        |       |    |    |    |                         |
|   |   |     |   |   |   |          | Shale: dk gray, fissile, laminar, slightly weathered, dry      |       |    |    |    |                         |
|   |   |     |   |   |   |          | T.O. @ 7.0'                                                    |       |    |    |    |                         |

|                        |                       |                             |
|------------------------|-----------------------|-----------------------------|
| U = Thin Wall Tube     | R = Rock Coring _____ | Field G/C (Make/Mod.) _____ |
| S = Split Spoon (Tube) | O = Other _____       | G/C Oper.: _____            |
| C = Cuttings           | Notes: _____          |                             |

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data



|                                     |  |                                                |       |                         |  |
|-------------------------------------|--|------------------------------------------------|-------|-------------------------|--|
| BORING LOG                          |  | BORING/WELL NO.: SB-15                         |       | Page 1 of 1             |  |
| Installation: STRATTON ANG          |  |                                                | Site: |                         |  |
| Project No.:                        |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                         |  |
| HAZWRAP Contractor: PEER            |  | Drig Contractor: HAWK                          |       | Driller: JAY            |  |
| Drig Started: 03/20/91 (15:20 p.m.) |  | Drig Ended: (15:50 p.m.)                       |       | Borehole dia(s): 8 5/8" |  |
| Drig Method/Rig Type: CME 55/HS/SS  |  |                                                |       |                         |  |
| Logged by: F. CROWNER               |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:       |  |

| 1 | 2   | 3 | 4 | 5        | 6  | 7       | Lithologic Description                                                             | 8  | 9   | 10 | 11 | Water Depth and Remarks |
|---|-----|---|---|----------|----|---------|------------------------------------------------------------------------------------|----|-----|----|----|-------------------------|
| 0 |     |   |   |          |    |         | Sl. silty clay, stiff, low plasticity, moist with minor inclusions shale fragments | cl | 7   |    |    |                         |
| 1 | S-1 | Y |   | SB-15-00 | ND | 1.5/2.0 |                                                                                    |    | 10  |    |    |                         |
| 2 |     |   |   |          |    |         |                                                                                    |    | 10  |    |    |                         |
| 3 | S-2 | Y |   | SB-15-02 | ND | 1.5/2.0 | Sl. silty clay, f. sand, loose, wet                                                | sp | 8   |    |    |                         |
| 4 |     |   |   |          |    |         | Sl. silty clay, brown, very stiff, low plastic, damp, relief bedding structures    |    | 16  |    |    |                         |
| 5 | S-3 | Y |   | SB-15-04 | ND | 1.8/2.0 | - - - with shale stringers; free water in occasional fractures, and bedding planes |    | 9   |    |    |                         |
| 6 | S-4 | N |   |          | NT | 0       | T.D. @ 6.0'                                                                        |    | 17  |    |    |                         |
|   |     |   |   |          |    |         |                                                                                    |    | 23  |    |    |                         |
|   |     |   |   |          |    |         |                                                                                    |    | 50+ |    |    |                         |

|                        |                 |                       |
|------------------------|-----------------|-----------------------|
| U = Thin Wall Tube     | R = Rock Coring | Field G/C (Make/Mod.) |
| S = Split Spoon (Tube) | O = Other       | G/C Oper.:            |
| C = Cuttings           | Notes:          |                       |

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data

|                                    |  |                                                |       |                           |  |
|------------------------------------|--|------------------------------------------------|-------|---------------------------|--|
| BORING LOG                         |  | BORING/WELL NO.: SB-16                         |       | Page <u>1</u> of <u>1</u> |  |
| Installation: STRATTON ANG         |  |                                                | Site: |                           |  |
| Project No.:                       |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                           |  |
| HAZWRAP Contractor: PEER           |  | Drig Contractor: HAWK                          |       | Driller: JAY              |  |
| Drig Started: 03/21/91 (14:00 p_m) |  | Drig Ended: (14:30 p_m)                        |       | Borehole dia(s): 8 5/8"   |  |
| Drig Method/Rig Type: CME 55/HS/SS |  |                                                |       |                           |  |
| Logged by: F. CROWNER              |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:         |  |

1 2 3 4 5 6 7 Lithologic Description 8 9 10 11 Water Depth and Remarks

|   |     |    |    |          |    |         |                                                                                                              |    |     |  |  |  |
|---|-----|----|----|----------|----|---------|--------------------------------------------------------------------------------------------------------------|----|-----|--|--|--|
| 0 |     |    |    |          |    |         | Gravel                                                                                                       | GW | 6   |  |  |  |
|   |     |    |    |          |    |         | Sl. silty clay; brown, stiff, low plasticity, damp                                                           | cl | 8   |  |  |  |
| 1 | S-1 | N  |    | SB-16-00 | ND | 1.5/2.0 |                                                                                                              |    | 8   |  |  |  |
|   |     |    |    |          |    |         |                                                                                                              |    | 9   |  |  |  |
| 2 |     |    |    |          |    |         |                                                                                                              |    |     |  |  |  |
|   |     |    |    |          |    |         | Interbedded clays & shales: clays as above: shales, highly weathered to weathered, incompetent, laminar, dry |    | 12  |  |  |  |
| 3 | S-2 | Y  |    | SB-16-02 | ND | 1.8/2.0 |                                                                                                              |    | 11  |  |  |  |
|   |     |    |    |          |    |         |                                                                                                              |    | 17  |  |  |  |
| 4 |     |    |    |          |    |         |                                                                                                              |    | 14  |  |  |  |
|   |     |    |    |          |    |         |                                                                                                              |    |     |  |  |  |
| 5 | S-3 | Y  |    | SB-16-04 | ND | 1.7/2.0 |                                                                                                              |    | 8   |  |  |  |
|   |     |    |    |          |    |         |                                                                                                              |    | 17  |  |  |  |
|   |     |    |    |          |    |         |                                                                                                              |    | 16  |  |  |  |
|   |     |    |    |          |    |         |                                                                                                              |    | 23  |  |  |  |
| 6 | S-4 | -- | -- | NT       |    |         |                                                                                                              |    |     |  |  |  |
|   |     |    |    |          |    |         |                                                                                                              |    | 50+ |  |  |  |

U = Thin Wall Tube R = Rock Coring \_\_\_\_\_ Field G/C (Make/Mod.) \_\_\_\_\_  
 S = Split Spoon (Tube) O = Other \_\_\_\_\_ G/C Oper.: \_\_\_\_\_  
 C = Cuttings Notes: \_\_\_\_\_

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data

|                                     |  |                                                |       |                           |  |
|-------------------------------------|--|------------------------------------------------|-------|---------------------------|--|
| BORING LOG                          |  | BORING/WELL NO.: SB-17                         |       | Page <u>1</u> of <u>1</u> |  |
| Installation: STRATTON ANG          |  |                                                | Site: |                           |  |
| Project No.:                        |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                           |  |
| HAZWRAP Contractor: PEER            |  | Drig Contractor: HAWK                          |       | Driller: B. BALDWIN       |  |
| Drig Started: 03/21/91 (11:50 a.m.) |  | Drig Ended: (12:30 p.m.)                       |       | Borehole dia(s): 8 5/8"   |  |
| Drig Method/Rig Type: CME 55/HS/SS  |  |                                                |       |                           |  |
| Logged by: F. CROWNER               |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:         |  |

| 1 | 2 | 3   | 4 | 5        | 6       | 7       | Lithologic Description                                                                                                       | 8   | 9 | 10 | 11 | Water Depth and Remarks      |
|---|---|-----|---|----------|---------|---------|------------------------------------------------------------------------------------------------------------------------------|-----|---|----|----|------------------------------|
| 0 |   |     |   |          |         |         | Asphalt                                                                                                                      |     |   |    |    |                              |
|   |   |     |   |          |         |         | Shotrock and soil; logged from auger; no odor                                                                                |     |   |    |    |                              |
| 1 | * |     |   |          |         |         | Rock lodged in shoe of spoon; no sample                                                                                      | 25  |   |    |    |                              |
|   |   |     |   |          |         |         |                                                                                                                              | 17  |   |    |    |                              |
| 2 |   | S-1 | Y | NT       | NT      | 0.0/2.0 |                                                                                                                              | 19  |   |    |    |                              |
|   |   |     |   |          |         |         |                                                                                                                              | 27  |   |    |    |                              |
| 3 | * |     |   |          |         |         | Interbedded shale and clays; shales severely weathered brown to dk gray, fissile, laminar, dry; clay, gray very stiff, moist | 25  |   |    |    | Odor identified @ 4.0-4.5 ft |
|   |   |     |   |          |         |         |                                                                                                                              | 31  |   |    |    |                              |
| 4 |   | S-2 | Y | SB-17-03 | 200 PPM | 1.5/2.0 | Odor identified @ 4.0 to 4.5 ft                                                                                              | 38  |   |    |    |                              |
|   |   |     |   |          |         |         |                                                                                                                              | 50+ |   |    |    |                              |
| 5 |   |     |   |          |         |         | T.D. @ 4.8'                                                                                                                  |     |   |    |    |                              |

|                        |                       |                             |
|------------------------|-----------------------|-----------------------------|
| U = Thin Wall Tube     | R = Rock Coring _____ | Field G/C (Make/Mod.) _____ |
| S = Split Spoon (Tube) | O = Other _____       | G/C Oper.: _____            |
| C = Cuttings           | Notes: _____          |                             |

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hds ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data

|                                     |  |                                                |       |                         |  |
|-------------------------------------|--|------------------------------------------------|-------|-------------------------|--|
| BORING LOG                          |  | BORING/WELL NO.: SB-18                         |       | Page 1 of 1             |  |
| Installation: STRATTON ANG          |  |                                                | Site: |                         |  |
| Project No.:                        |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                         |  |
| HAZWRAP Contractor: PEER            |  | Drig Contractor: HAWK                          |       | Driller: S. BALDWIN     |  |
| Drig Started: 03/21/91 (14:00 p.m.) |  | Drig Ended: (14:40 p.m.)                       |       | Borehole dia(s): 8 5/8" |  |
| Drig Method/Rig Type: CME 55/HS/SS  |  |                                                |       |                         |  |
| Logged by: F. CROWNER               |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:       |  |

| 1   | 2 | 3   | 4 | 5        | 6  | 7       | Lithologic Description                                  | 8  | 9  | 10 | 11 | Water Depth and Remarks |
|-----|---|-----|---|----------|----|---------|---------------------------------------------------------|----|----|----|----|-------------------------|
| 0   |   |     |   |          |    |         | Asphalt                                                 |    |    |    |    |                         |
| 1   |   |     |   |          |    |         | Shot rock and soil - no sample recovered                |    |    |    |    |                         |
| 2   |   | S-1 | Y | SB-18-01 | ND | 1.5/2.0 | Sl. silty clay; gray green, hard, low plasticity; moist | cl | 21 |    |    |                         |
| 3   |   |     |   |          |    |         |                                                         |    | 19 |    |    |                         |
| 4   |   |     |   |          |    |         |                                                         |    | 11 |    |    |                         |
| 5   |   |     |   |          |    |         |                                                         |    | 13 |    |    |                         |
| 6   |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 7   |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 8   |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 9   |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 10  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 11  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 12  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 13  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 14  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 15  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 16  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 17  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 18  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 19  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 20  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 21  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 22  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 23  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 24  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 25  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 26  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 27  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 28  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 29  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 30  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 31  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 32  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 33  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 34  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 35  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 36  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 37  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 38  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 39  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 40  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 41  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 42  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 43  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 44  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 45  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 46  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 47  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 48  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 49  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 50  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 51  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 52  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 53  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 54  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 55  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 56  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 57  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 58  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 59  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 60  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 61  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 62  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 63  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 64  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 65  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 66  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 67  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 68  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 69  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 70  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 71  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 72  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 73  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 74  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 75  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 76  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 77  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 78  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 79  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 80  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 81  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 82  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 83  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 84  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 85  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 86  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 87  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 88  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 89  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 90  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 91  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 92  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 93  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 94  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 95  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 96  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 97  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 98  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 99  |   |     |   |          |    |         |                                                         |    |    |    |    |                         |
| 100 |   |     |   |          |    |         |                                                         |    |    |    |    |                         |

|                        |                 |                       |
|------------------------|-----------------|-----------------------|
| U = Thin Wall Tube     | R = Rock Coring | Field G/C (Make/Mod.) |
| S = Split Spoon (Tube) | O = Other       | G/C Oper.:            |
| C = Cuttings           | Notes:          |                       |

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data

|                                    |  |                                                |       |                         |  |
|------------------------------------|--|------------------------------------------------|-------|-------------------------|--|
| BORING LOG                         |  | BORING/WELL NO.: PZ-01                         |       | Page 1 of 1             |  |
| Installation: STRATTON ANG         |  |                                                | Site: |                         |  |
| Project No.:                       |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                         |  |
| HAZWRAP Contractor: PEER           |  | Drig Contractor: AMERICAN                      |       | Driller: M. BUGONE      |  |
| Drig Started: 03/19/91 (13:20 p_m) |  | Drig Ended: (14:15 p_m)                        |       | Borehole dia(s): 8 5/8" |  |
| Drig Method/Rig Type: CME 45/KS/SS |  |                                                |       |                         |  |
| Logged by: F. CROWNER              |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:       |  |

| 1 | 2 | 3   | 4 | 5        | 6      | 7       | Lithologic Description                               | 8     | 9   | 10 | 11 | Water Depth and Remarks        |
|---|---|-----|---|----------|--------|---------|------------------------------------------------------|-------|-----|----|----|--------------------------------|
| 0 |   |     |   |          |        |         | Silty clay, gray brown, low plasticity, stiff, damp  | ml/cl | 7   |    |    |                                |
|   |   |     |   |          |        |         |                                                      |       | 10  |    |    | Hydrocarbon odor               |
|   |   |     |   |          |        |         |                                                      |       | 9   |    |    |                                |
|   |   |     |   |          |        |         |                                                      |       | 13  |    |    |                                |
| 1 |   | S-1 | Y | PZ-01-00 | 50 PPM | 1.7/2.0 |                                                      |       |     |    |    |                                |
| 2 |   |     |   |          |        |         |                                                      |       | 2   |    |    |                                |
|   |   |     |   |          |        |         |                                                      |       | 13  |    |    |                                |
| 3 |   | S-2 | Y | PZ-01-02 | 3 PPM  | 1.5/2.0 | Sand; medium, loose to medium dense, brown saturated | sp    | 20  |    |    | No odor most transmissive zone |
|   |   |     |   |          |        |         |                                                      |       | 7   |    |    |                                |
| 4 |   |     |   |          |        |         | Interbedded shale and clay                           |       |     |    |    |                                |
|   |   |     |   |          |        |         | Clays wet                                            |       |     |    |    |                                |
|   |   |     |   |          |        |         | Shales; dry; weathered; fissile, laminar             |       |     |    |    |                                |
| 5 |   |     |   |          |        |         |                                                      |       | 9   |    |    |                                |
|   |   |     |   |          |        |         |                                                      |       | 15  |    |    |                                |
|   |   |     |   |          |        |         |                                                      |       | 33  |    |    |                                |
|   |   |     |   |          |        |         |                                                      |       | 50+ |    |    |                                |
| 6 |   | S-3 | Y | PZ-01-04 | 25 PPM | 1.5/2.0 | Shale: competent, laminar, fissile, dry              |       |     |    |    |                                |
|   |   |     |   |          |        |         |                                                      |       |     |    |    |                                |
|   |   |     |   |          |        |         | T.O. @ 6.0'                                          |       |     |    |    |                                |
|   |   |     |   |          |        |         | Decision to use PZ boring as soil boring only        |       |     |    |    |                                |

|                        |                 |                       |
|------------------------|-----------------|-----------------------|
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| C = Cuttings           | Notes:          |                       |

- 1 = Depth (ft)  
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 5 = \_\_\_\_\_ ( )  
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 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data

|                                     |  |                                                |       |                         |  |
|-------------------------------------|--|------------------------------------------------|-------|-------------------------|--|
| BORING LOG                          |  | BORING/WELL NO.: PZ-02                         |       | Page 1 of 1             |  |
| Installation: STRATTON ANG          |  |                                                | Site: |                         |  |
| Project No.:                        |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                         |  |
| HAZWRAP Contractor: PEER            |  | Drig Contractor: HAWK                          |       | Driller: B. BALDWIN     |  |
| Drig Started: 03/21/91 (09:15 a.m.) |  | Drig Ended: (09:50 a.m.)                       |       | Borehole dia(s): 8 5/8" |  |
| Drig Method/Rig Type: CME 55/HS/SS  |  |                                                |       |                         |  |
| Logged by: F. CROWNER               |  | E-Log ( Y / N )                                |       | From _____ To _____     |  |
| Protection Level:                   |  |                                                |       |                         |  |

| 1 | 2 | 3   | 4 | 5        | 6  | 7       | Lithologic Description                                                      | 8         | 9   | 10 | 11 | Water Depth and Remarks |
|---|---|-----|---|----------|----|---------|-----------------------------------------------------------------------------|-----------|-----|----|----|-------------------------|
| 0 |   |     |   |          |    |         | Silty clay with moderate sands (10%-15%)                                    | ml/<br>cl | 3   |    |    |                         |
| 1 |   | S-1 | Y | PZ-02-00 | ND | 1.7/2.0 | Silty clay; brown, low plasticity, stiff, damp [with minor shale fragments] | ml/<br>cl | 5   |    |    |                         |
| 2 |   |     |   |          |    |         |                                                                             |           | 5   |    |    |                         |
| 3 |   | S-2 | Y | PZ-02-02 | ND | 1.2/2.0 | Increasing shale fragments: highly weathered to weathered, brown to dk gray |           | 10  |    |    |                         |
| 4 |   |     |   |          |    |         |                                                                             |           | 7   |    |    |                         |
| 5 |   | S-3 | Y | PZ-02-04 | ND | 0.7/1.0 | Shale: gray to dk gray, weathered, fissile, laminar, dry                    |           | 38  |    |    |                         |
|   |   |     |   |          |    |         |                                                                             |           | 20  |    |    |                         |
|   |   |     |   |          |    |         |                                                                             |           | 38  |    |    |                         |
|   |   |     |   |          |    |         |                                                                             |           | 50+ |    |    |                         |
|   |   |     |   |          |    |         | T.O. @ 5.0'                                                                 |           |     |    |    |                         |

|                        |                 |                       |
|------------------------|-----------------|-----------------------|
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| S = Split Spoon (Tube) | O = Other       | G/C Oper.:            |
| C = Cuttings           | Notes:          |                       |

- 1 = Depth (ft)  
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 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data

|                                     |  |                                                |       |                                       |  |
|-------------------------------------|--|------------------------------------------------|-------|---------------------------------------|--|
| BORING LOG                          |  | BORING/WELL NO.: PZ-03                         |       | Page 1 of 1                           |  |
| Installation: STRATTON ANG          |  |                                                | Site: |                                       |  |
| Project No.:                        |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                                       |  |
| HAZWRAP Contractor: PEER            |  | Drig Contractor: AMERICAN                      |       | Driller: M. BUSONEN                   |  |
| Drig Started: 03/19/91 (14:20 p.m.) |  | Drig Ended: (15:30 p.m.)                       |       | Borehole dia(s): 8 5/8"               |  |
| Drig Method/Rig Type: CME 55/RS/SS  |  |                                                |       |                                       |  |
| Logged by: F. CROWNER               |  | E-Log ( Y / N )                                |       | From _____ To _____ Protection Level: |  |

| 1 | 2 | 3   | 4        | 5 | 6  | 7       | Lithologic Description                                                                                                                                                                             | 8         | 9              | 10 | 11 | Water Depth and Remarks |
|---|---|-----|----------|---|----|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------|----|----|-------------------------|
| 0 |   |     |          |   |    |         | Asphalt                                                                                                                                                                                            |           |                |    |    |                         |
| 1 |   | S-1 | PZ-03-00 | Y | ND | 0.8/2.0 | Cobbles and silty clay; cobbles to 12 cm diam (artificial; limestone "shotrock")<br>silty clays: gray brown, low plasticity, damp; [density nondeterminate due to side friction caused by cobbles] | ml/<br>cl | 24<br>24<br>25 |    |    |                         |
| 2 |   | S-2 | PZ-03-02 | Y | ND | 0.5/1.0 | Interbedded shales and clays; clays stiff to hard; damp-shales; dk gray, weathered, laminar; fissile                                                                                               |           | 35             |    |    |                         |
| 3 |   |     |          |   |    |         | Shale: competent, dk gray, laminar, fissile, dry                                                                                                                                                   |           | 50+            |    |    |                         |
| 4 |   |     |          |   |    |         | T.O. @ 3.0'                                                                                                                                                                                        |           |                |    |    |                         |
| 5 |   |     |          |   |    |         |                                                                                                                                                                                                    |           |                |    |    |                         |

|                        |                 |                        |
|------------------------|-----------------|------------------------|
| U = Thin Wall Tube     | R = Rock Coring | Field G/C (Make/Mod.): |
| S = Split Spoon (Tube) | O = Other       | G/C Oper.:             |
| C = Cuttings           | Notes:          |                        |

- 1 = Depth (ft)  
 2 = Sample  
 3 = Sample No.  
 4 = Lab Analysis (Y/N)  
 5 = \_\_\_\_\_ ( )  
 6 = \_\_\_\_\_ hdsp ( )  
 7 = Recovery ( )  
 8 = USCS  
 9 = Blows/6 inch.  
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 11 = Well Data

|                                    |  |                                                |       |                           |
|------------------------------------|--|------------------------------------------------|-------|---------------------------|
| BORING LOG                         |  | BORING/WELL NO.: MW-01                         |       | Page <u>1</u> of <u>1</u> |
| Installation: STRATTON ANG         |  |                                                | Site: |                           |
| Project No.:                       |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                           |
| HAZWRAP Contractor: PEER           |  | Drig Contractor: HAWK                          |       | Driller: B. BALDWIN       |
| Drig Started: 03/21/91 (12:30 p_m) |  | Drig Ended: (13:15 p_m)                        |       | Borehole dia(s): 8 5/8"   |
| Drig Method/Rig Type: CME 55/HS/SS |  |                                                |       |                           |
| Logged by: F. CROWNER              |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:         |

| 1 | 2 | 3   | 4 | 5        | 6      | 7       | Lithologic Description                                                                       | 8     | 9   | 10 | 11 | Water Depth and Remarks                   |
|---|---|-----|---|----------|--------|---------|----------------------------------------------------------------------------------------------|-------|-----|----|----|-------------------------------------------|
| 0 |   |     |   |          |        |         | Gravel                                                                                       |       |     |    |    |                                           |
| 1 |   | S-1 | Y | NW-01-00 | ND     | 1.7/2.0 | Sl. silty clay: brown to gray green, stiff, low plasticity, damp                             | cl    | 5   | 5  | 5  |                                           |
|   |   |     |   |          |        |         | - - - with minor laminar, weathered shale                                                    |       | 4   |    |    |                                           |
| 2 | * |     |   |          |        |         | - - - moist                                                                                  |       | 6   | 7  |    |                                           |
|   |   |     |   |          |        |         |                                                                                              |       | 10  | 14 |    |                                           |
| 3 |   | S-2 | Y | NW-01-02 | 1 PPN  | 1.5/2.0 | Clayey f. sand; lt orange brown, med. dense, saturated                                       | cl/sp |     |    |    |                                           |
| 4 | * |     |   |          |        |         | Sl. silty clay, orange brown, stiff, low plasticity, moist                                   | cl    |     |    |    |                                           |
|   |   |     |   |          |        |         |                                                                                              |       | 11  | 12 |    | 4.0                                       |
| 5 |   | S-3 | Y | NW-01-04 | 30 PPN | 1.6/2.0 | Interbedded shale & clays: shales severely weathered dk gray to brown, fissile, laminar; dry |       |     |    |    | 1 hr                                      |
|   |   |     |   |          |        |         | Clays: gray, very stiff, low plastic                                                         |       |     |    |    |                                           |
| 6 |   |     |   |          |        |         | T.O. @ 6.0'                                                                                  |       | 50+ |    |    | Strong odor emanating from auger cuttings |

|                        |                       |                             |
|------------------------|-----------------------|-----------------------------|
| U = Thin Wall Tube     | R = Rock Coring _____ | Field G/C (Make/Mod.) _____ |
| S = Split Spoon (Tube) | O = Other _____       | G/C Oper.: _____            |
| C = Cuttings           | Notes: _____          |                             |

- 1 = Depth (ft)  
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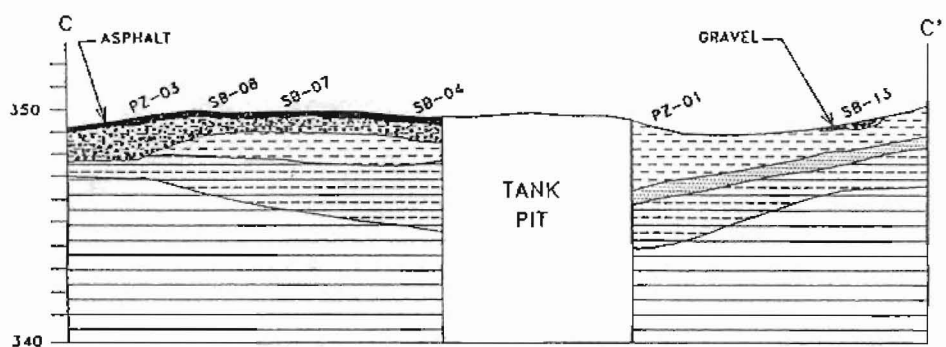
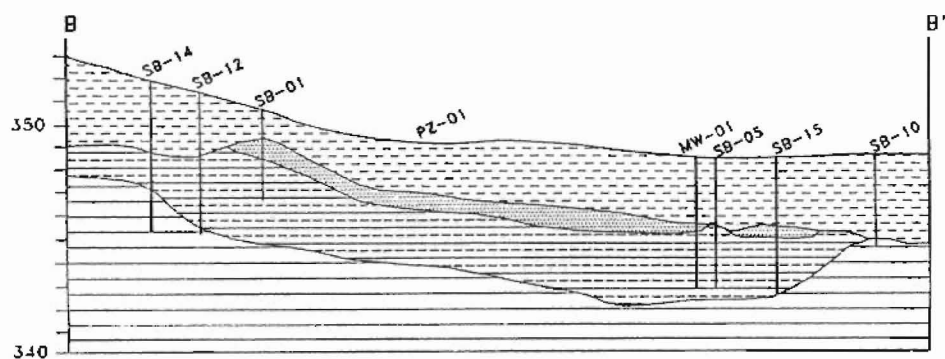
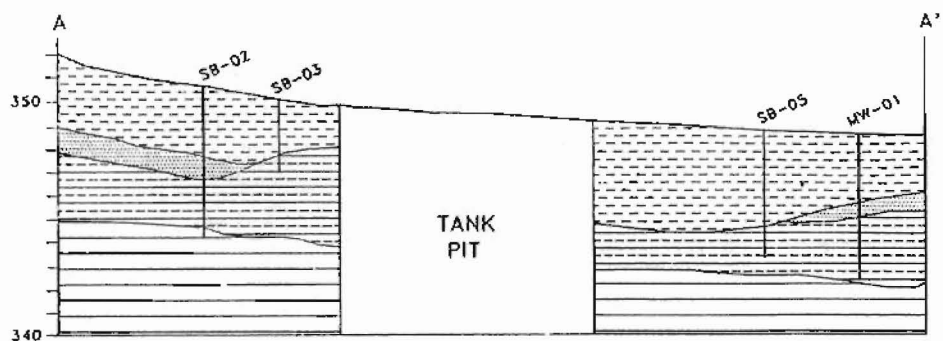
|                                    |  |                                                |       |                         |  |
|------------------------------------|--|------------------------------------------------|-------|-------------------------|--|
| BORING LOG                         |  | BORING/WELL NO.: MW-02                         |       | Page 1 of 1             |  |
| Installation: STRATTON ANG         |  |                                                | Site: |                         |  |
| Project No.:                       |  | Client/Project: HAZWRAP/UST/IMMEDIATE RESPONSE |       |                         |  |
| HAZWRAP Contractor: PEER           |  | Drig Contractor: HAWK                          |       | Driller: JAY            |  |
| Drig Started: 03/20/91 (11:40 a.m) |  | Drig Ended: (12:25 a.m)                        |       | Borehole dia(s): 8 5/8" |  |
| Drig Method/Rig Type: CME 55/HS/SS |  |                                                |       |                         |  |
| Logged by: F. CROWNER              |  | E-Log ( Y / N ) From _____ To _____            |       | Protection Level:       |  |

| 2 3 4 5 6 7 |  |     |   |          |        |         | Lithologic Description                                                                                                                    |  |  |  | 8 9 10 11 |     |  |  | Water Depth and Remarks |  |
|-------------|--|-----|---|----------|--------|---------|-------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------|-----|--|--|-------------------------|--|
| 0           |  |     |   |          |        |         | Gravel                                                                                                                                    |  |  |  | GW        |     |  |  |                         |  |
|             |  |     |   |          |        |         | Silty clay; yellow brown to brown, firm to very very stiff; damp, relic bedding structure laminar, some inclusions highly weathered shale |  |  |  | ml/cl     | 7   |  |  |                         |  |
| 1           |  | S-1 | N | --       | 60 PPM | 1.8/2.0 |                                                                                                                                           |  |  |  |           | 9   |  |  |                         |  |
|             |  |     |   |          |        |         |                                                                                                                                           |  |  |  |           | 14  |  |  |                         |  |
|             |  |     |   |          |        |         |                                                                                                                                           |  |  |  |           | 12  |  |  |                         |  |
| 2           |  | S-2 | Y | NS-02-02 | 4 PPM  | 1.7/2.0 | Interbedded weathered shale & clays                                                                                                       |  |  |  |           | 15  |  |  |                         |  |
|             |  |     |   |          |        |         | shales: brown to dk gray, fissile, laminar, dry                                                                                           |  |  |  |           | 21  |  |  |                         |  |
|             |  |     |   |          |        |         | clays: brown to yellow brown, low plasticity, damp (sapprolitic)                                                                          |  |  |  |           | 31  |  |  |                         |  |
| 3           |  |     |   |          |        |         |                                                                                                                                           |  |  |  |           | 31  |  |  |                         |  |
| 4           |  | S-3 | Y | NW-02-04 | 3 PPM  | 0.7/1.0 | Shale: dk gray, competent, fissile, laminar, dry                                                                                          |  |  |  |           | 21  |  |  |                         |  |
|             |  |     |   |          |        |         | T.D. @ 5.0'                                                                                                                               |  |  |  |           | 50+ |  |  |                         |  |
| 5           |  |     |   |          |        |         |                                                                                                                                           |  |  |  |           |     |  |  |                         |  |

|                        |                 |                       |
|------------------------|-----------------|-----------------------|
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| S = Split Spoon (Tube) | O = Other       | G/C Oper.:            |
| C = Cuttings           | Notes:          |                       |

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 9 = Blows/6 inch.  
 10 = Graphic Log  
 11 = Well Data





LEGEND:



Figure 3.1 Old POL Facility Cross Sections

PEER CONSULTANTS, P.C.

DISK: 30700991-5  
FILE: SANG07B.DWG

