



NOT TO SCALE



Date: April 2006

Atlantic Richfield
Company

Project: 129684

**Well B/W-1D
Construction Details**

BROWN AND CALDWELL

BORING LOG

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 1 of 27

Boring Location: North of mine tailings, along Luzier Lane		Elevation: 4354.8 feet amsl	East: 327095.4 North: 1557616.9
Drilling Contractor: WDC	Driller: B. Zamow	Date Started: 10/20/05	Date Finished: 11/5/05
Drilling Equipment: Gus Pech GP24-400RS, Diedrich Sonic Head		Total Depth: (feet) 342.0	Water Depth: (feet) 17' / 20.16'
Sampling Method: Core Barrel	Borehole Diameter: 6"	Well Diameter and Material: 2.5-inch PVC	
Drilling Method: Sonic, utilized 6" and 7-5/8" casing and a 4.5" core barrel		Screened Interval Well Depth: 326.2-336.2 ft., bottom at 336.5 ft.	
Well Seal: Bentontite and Cement		Slot Size: 0.020"	Filter Material: #10-20 Silica Sand
Logged By: C. Gardner		Development Method: Swabbed, bailed, pumped	

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
		SM	SILTY SAND (0-2 feet) Dry to moist, medium dense, no odor. Primarily medium to fine sand with ~5% gravel to ~8 mm and ~15% silt and clay. The sand is subangular to subrounded, the gravel is subangular. The fines are nonplastic, brown, and react strongly to HCl.					<p>Descriptions of drilled cuttings based on ASTM Method D-2488 (the visual-manual procedure), grain-size determinations and nomenclature based on the Unified Soil Classification System. Munsell colors described wet.</p> <p>Horizontal survey data is expressed in the Nevada State Plane system, Nevada West zone, in feet.</p> <p>Sharp contacts indicated by solid lines, gradational contacts indicated by dashed line.</p> <p>Utilized 7-5/8" casing to ~160 feet.</p> <p>All depths are below land surface unless stated otherwise.</p> <p>WELL DESIGN for B/W-1D: Screened Interval: 326.2-336.2 feet. Bottom of sump: 336.5 feet.</p> <p>Cement Grout: 0-319.5 feet. Bentonite Chips: 319.5-322.5 feet. Filter Pack: #60 Sand 322.5-323 feet, #10-20 Sand 323-336.5 feet. Native Collapse: 336.5-342 feet.</p> <p>Top of PVC Elevation: 4,357.32 feet, amsl. PVC Stick-up: 2.5 feet above land surface.</p>
		SC	CLAYEY SAND (2-4 feet) Dry to moist, medium dense, no odor. Primarily medium to fine sand with trace coarse sand to ~3 mm and ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and react strongly to HCl.					
	4350	SC	CLAYEY SAND (4-5 feet) Dry to moist, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
5		SP	POORLY-GRADED SAND (5-11 feet) Dry to moist, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
	4345							

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 2 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
		SW	WELL-GRADED SAND with GRAVEL (11-14 feet) Dry to moist, loose, no odor. Primarily coarse to fine sand with ~15% gravel to ~15 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	SILTY SAND (14-15.5 feet) Dry to moist, medium dense, no odor. Primarily medium to fine sand with ~15% coarse sand to ~5 mm and ~20% silt and clay. The sand is subangular to subrounded. The fines have low plasticity and toughness, are brown, and do not react to HCl.					
15	4340	SM	SILTY SAND (15.5-16.25 feet) Dry to moist, medium dense, no odor. Primarily medium to coarse sand with ~5% gravel to ~10 mm and ~15% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	SILTY SAND (15.5-16.25 feet) Dry to moist, medium dense, no odor. Primarily medium to coarse sand with ~5% gravel to ~10 mm and ~15% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	SILTY SAND (17.25-17.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% gravel to ~8 mm and ~15% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	SILTY SAND (17.25-17.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% gravel to ~8 mm and ~15% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	CLAYEY SAND (17.5-18.25 feet) Moist, medium dense, no odor. Primarily fine sand (<1/2 mm) with ~35% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
20	4335	SW-SM	SILTY SAND (18.25-19 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~10% gravel to ~20 mm and ~15% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW	WELL-GRADED SAND with SILT (19-20.5 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~10% gravel to ~8 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND (20.5-21.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~10% coarse sand to ~3 mm and ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	WELL-GRADED SAND (20.5-21.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~10% coarse sand to ~3 mm and ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 3 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
25	4330	SM	WELL-GRADED SAND with SILT (21.5-22 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~10% gravel to ~8 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	CLAYEY SAND (22-23 feet) Moist, medium dense, no odor. Primarily medium to fine sand with ~5% coarse sand to ~3 mm and ~35% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SW-SM	SILTY SAND (23-23.75 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with trace gravel to ~8 mm and ~20% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	SILTY SAND (23.75-24.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	WELL-GRADED SAND with SILT (24.5-24.75 feet) Saturated, medium dense, no odor. Primarily fine to medium sand with ~10% coarse sand to ~3 mm and ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	SILTY SAND (24.75-25 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW-SM	SILTY SAND (25-26 feet) Saturated, medium dense, no odor. Primarily medium sand with ~5% gravel to ~8 mm and ~15% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (26-26.25 feet) Saturated, medium dense, no odor. Primarily medium to fine sand (<1/2 mm) with ~30% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SW	WELL-GRADED SAND with SILT (26.25-27.5 feet) Saturated, medium dense, no odor. Primarily fine to medium sand with trace coarse sand to ~3 mm and ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SP-SM	CLAYEY SAND (27.5-28.25 feet) Dry to moist, dense, no odor. Primarily medium to fine sand to 1/2 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SP-SM	WELL-GRADED SAND with SILT (28.25-29.75 feet) Saturated, loose, no odor. Primarily coarse to medium sand with trace gravel to ~8 mm and trace silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		35	4320	SC	POORLY-GRADED SAND with SILT (29.75-31.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.			
SW	POORLY-GRADED SAND with SILT (31.5-34 feet)							

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

B/W-1 @ 28 - 33 Ft.

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 4 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
		SC	Saturated, medium dense, no odor. Primarily medium to fine sand with trace gravel to ~3 mm and ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW	CLAYEY SAND (34-35 feet) Moist, medium dense, no odor. Primarily medium to fine sand with ~10% coarse sand to ~3 mm and ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
			WELL-GRADED SAND (35-36.5 feet) Saturated, medium dense, no odor. Primarily medium sand with trace gravel to ~8 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (36.5-37 feet)					
40	4315	SC	Moist to saturated, medium dense, no odor. Primarily medium to fine sand with ~5% coarse sand to ~4 mm and ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
			WELL-GRADED SAND (37-39.25 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with trace gravel to ~20 mm and ~5% silt and clay. The sand is subangular to subrounded, the gravel is subrounded. The fines are nonplastic, brown, and do not react to HCl.					
			CLAYEY SAND (39.25-39.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SW-SM	CLAYEY SAND (39.5-42.25 feet) Dry to moist, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SC	WELL-GRADED SAND with SILT (42.25-43.5 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~5% gravel to ~8 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
45	4310	CL	CLAYEY SAND (43.5-44.75 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SM	LEAN CLAY with SAND (44.75-46 feet) Dry to moist, firm, no odor. Primarily silt and clay with ~20% medium to fine sand to ~1 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are grayish brown (10YR 5/2), and do not react to HCl. Some black organic streaks and some reddish brown iron oxide streaks.					
			SILTY SAND (46-47.5 feet)					
		SC	Saturated, medium dense, no odor. Primarily fine sand (<1/2 mm) with ~25% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
			CLAYEY SAND (47.5-48.5 feet)					
		SC	Dry to moist, dense, no odor. Primarily coarse to fine sand to ~3 mm with ~35% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 5 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
50	4305	CL	to HCl. CLAYEY SAND (48.5-49.75 feet) Dry to moist, dense, no odor. Primarily medium to fine sand with ~5% coarse sand to ~5 mm and ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
		SW	SANDY LEAN CLAY (49.75-50.25 feet) Dry to moist, firm, no odor. Primarily silt and clay with ~30% medium to fine sand and trace coarse sand to ~3 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are light olive brown (2.5Y 5/3), and do not react to HCl.					
			WELL-GRADED SAND with GRAVEL (50.25-53.5 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~15% gravel to ~10 mm and trace silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		CL	SANDY LEAN CLAY (53.5-55 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~50% medium to fine sand and trace coarse sand to ~3 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl.					
55	4300	SW	WELL-GRADED SAND (55-56.5 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~5% gravel to ~15 mm and trace silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (56.5-58 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~5% gravel to ~8 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW	WELL-GRADED SAND with GRAVEL (58-60 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~15% gravel to ~15 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
60	4295	SM	SILTY SAND (60-61 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~10% gravel to ~10 mm and ~15% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (61-63 feet) Moist, dense, no odor. Primarily medium to fine sand with ~5% coarse sand to ~3 mm and ~30% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					

B/W-1 @ 50 - 55 Ft.

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 6 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
65	4290	SM	SILTY SAND (63-63.75 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% coarse sand to ~3 mm and ~25% silt and clay. The sand is subangular to subrounded. The fines are have slight plasticity, low toughness, are brown, and do not react to HCl.					
		SM	SILTY SAND (63.75-65 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (65-67 feet) Dry to moist, dense, no odor. Primarily medium to fine sand to ~2 mm with ~35% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (67-67.75 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~10% gravel to ~15 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (67.75-68.25 feet) Dry to moist, dense, no odor. Primarily medium to fine sand to ~2 mm with ~35% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SW	WELL-GRADED SAND (68.25-69.5 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~10% gravel to ~10 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	SILTY SAND (69.5-69.75 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with trace coarse sand to ~5 mm and ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, are brown, and do not react to HCl.					
		CL	SANDY LEAN CLAY (69.75-70 feet) Dry to moist, stiff, no odor. Primarily silt and clay with ~40% fine sand (<1/2 mm). The sand is subangular to subrounded. The fines have medium plasticity and toughness, are yellowish brown (10YR 5/4), and do not react to HCl.					
		SM	SILTY SAND (70-73.25 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with trace coarse sand to ~3 mm and ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, are brown, and do not react to HCl.					
		CL	SANDY LEAN CLAY (73.25-74 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~50% medium to fine sand to ~2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are yellowish brown (10YR 5/4), and do not react to HCl.					
75	4280	SW-SM	WELL-GRADED SAND with SILT (74-77.5 feet) Saturated, medium dense, no odor. Primarily fine to medium sand with trace coarse sand to ~4					

B/W-1 @ 65 - 70 Ft.

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 7 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
			mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, light brown, and do not react to HCl.					
		SM	SILTY SAND (77.5-78.5 feet) Saturated, medium dense, no odor. Primarily fine sand (<1/2 mm) with ~25% silt and clay. The sand is subangular to subrounded. The fines have low plasticity, are brown, and do not react to HCl.					
		SC	CLAYEY SAND (78.5-79.5 feet) Moist, dense, no odor. Primarily medium to fine sand to ~2 mm with ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
	4275	SW	WELL-GRADED SAND (79.5-80 feet) Saturated, medium dense, no odor.					
80		CL	Primarily medium to fine sand with ~5% coarse sand to ~5 mm and ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW-SM	LEAN CLAY with SAND (80-80.5 feet) Dry to moist, hard, no odor.					
		SC	Primarily silt and clay with ~20% fine to medium sand to ~2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are yellowish brown (10YR 5/4), and do not react to HCl.					
		SW	WELL-GRADED SAND with SILT (80.5-81 feet) Saturated, medium dense, no odor. Primarily fine to medium sand with trace coarse sand to ~3 mm and ~10% silt and clay. The sand is angular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (81-82 feet) Dry to moist, dense, no odor.					
		SW-SM	Primarily medium to fine sand with trace coarse sand to ~5 mm and ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
			WELL-GRADED SAND (82-83.25 feet) Saturated, medium dense, no odor.					
	4270		Primarily medium to fine sand with ~5% gravel to ~10 mm and ~5% silt and clay. The sand is subangular to subrounded, the gravel is subangular. The fines are nonplastic, brown, and do not react to HCl.					
85			CLAYEY SAND (83.25-83.5 feet) Dry to moist, dense, no odor.					
		SM	Primarily medium to fine sand with trace coarse sand to ~5 mm and ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (83.5-85.5 feet) Saturated, medium dense, no odor.					
			Primarily medium to fine sand with ~5% gravel to ~10 mm and ~10% silt and clay. The sand is subangular to subrounded, the gravel is subangular. The fines are nonplastic, brown, and do not react to HCl.					
			SILTY SAND (85.5-86 feet) Moist, dense, no odor.					
		SM	Primarily medium to fine sand to ~2 mm with ~15% silt and clay. The sand is subangular to subrounded. The fines are slightly plastic, are brown, and do not react to HCl.					
			WELL-GRADED SAND with SILT (86-88 feet)					

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 8 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
90	4265		Saturated, medium dense, no odor. Primarily medium to fine sand with ~10% gravel to ~10 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl. SILTY SAND (88-90 feet)	B/W-1 @ 87 - 92 Ft.				
		SW-SM	Dry to moist, dense, no odor. Primarily medium to fine sand with ~10% coarse sand to ~4 mm and ~20% silt and clay. The sand is subangular to subrounded. The fines are slightly plastic, are brown, and do not react to HCl. WELL-GRADED SAND with SILT (90-92 feet)					
		SW	WELL-GRADED SAND (92-93.75 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% gravel to ~10 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (93.75-94.75 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% gravel to ~10 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
95	4260	SC	CLAYEY SAND (94.75-95.5 feet) Dry to moist, dense, no odor. Primarily medium to fine sand with trace coarse sand to ~3 mm and ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SW	WELL-GRADED SAND with (95.5-99 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~15% gravel to ~12 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
100		SM	SILTY SAND (99-99.5 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~10% gravel to ~8 mm and ~15% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
	4255	SW	WELL-GRADED SAND (99.5-100.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% gravel to ~10 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	SILTY SAND (100.5-101.5 feet)					

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 9 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
105	4250	SC	<p>Saturated, medium dense, no odor. Primarily coarse to medium sand with ~10% gravel to ~8 mm and ~15% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.</p> <p>CLAYEY SAND (101.5-114 feet) Moist, dense, no odor. Primarily medium to fine sand to ~2 mm with ~35% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, medium to low toughness, are brown, and do not react to HCl. Some interbedded saturated silty sand in upper foot of interval and in the lower 3-feet of the interval. Some black organic streaks at ~105 and between ~109 and 110 feet. Some reddish brown iron oxide streaks between ~105 and 107.5 feet, ~108 to 109 feet, and ~110 to 111.5 feet.</p>					
110	4245	SW	<p>WELL-GRADED SAND (114-116 feet) Saturated, medium dense, no odor. Primarily medium sand with ~10% coarse sand to ~4 mm</p>					

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 10 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
115	4240		and ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	SILTY SAND (116-117.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~25% silt and clay. The sand is subangular to subrounded. The fines are slightly plastic, are brown, and do not react to HCl.					
		SC	CLAYEY SAND (117.5-118.5 feet) Dry to moist, dense, no odor. Primarily medium to fine sand to ~2 mm with ~35% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, medium to low toughness, are brown, and do not react to HCl. Some black organic streaks.					
		SP	POORLY-GRADED SAND (118.5-122.5 feet) Saturated, medium dense, no odor. Primarily medium sand to ~2 mm with ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
120	4235							
		SW	WELL-GRADED SAND (122.5-125 feet) Saturated, medium dense, no odor. Primarily medium sand with trace coarse sand to ~4 mm and trace silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (125-126.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% gravel to ~10 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
125	4230							
		CL	SANDY LEAN CLAY (126.5-127.5 feet) Dry to moist, stiff, no odor. Primarily silt and clay with ~50% fine sand (<1/2 mm). The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown (10YR 5/3), and do not react to HCl.					
		SP-						

B/W-1 @ 120 - 125 Ft.

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 11 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
130	4225	SM	POORLY-GRADED SAND with SILT (127.5-129 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW	WELL-GRADED SAND (129-132 feet) Saturated, medium dense, no odor. Primarily medium sand with ~5% gravel to ~8 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
135	4220	SC	CLAYEY SAND (132-132.5 feet) Moist to saturated, dense, no odor. Primarily medium to fine sand with trace coarse sand to ~3 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl. Some reddish brown iron oxide streaks.					
		SM						
		SC	SILTY SAND with GRAVEL (132.5-133 feet) Saturated, medium dense, no odor. Primarily coarse to fine sand with ~15% gravel to ~8 mm and ~15% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW	CLAYEY SAND (133-135 feet) Dry to moist, dense, no odor. Primarily fine sand with trace medium sand to ~1 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl. Some reddish brown iron oxide streaks.					
		SW	WELL-GRADED SAND (135-137 feet) Saturated, medium dense, no odor. Primarily medium sand with ~10% coarse sand to ~5 mm and ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	SILTY SAND (137-138.25 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, are brown, and do not react to HCl.					
140	4215	CL	LEAN CLAY with SAND (138.25-140.5 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~20% fine sand (<1/2 mm). The sand is subangular to subrounded. The fines have medium plasticity and toughness, are yellowish brown (10YR 5/4), and do not react to HCl. Some reddish brown iron oxide and black organic streaks. Some interbedded clayey sand, 0.1 to 0.3 feet thick.					
		SW-	WELL-GRADED SAND with SILT (140.5-141.5 feet)					

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: **Yerington Groundwater Investigation**

Well Number: **B/W-1**

Soil Boring

Monitoring Well

Project Number: **121243.021**

Sheet **12** of **27**

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
145	4210	SM	Saturated, medium dense, no odor. Primarily medium sand with trace gravel to ~8 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.	B/W-1 @ 140 - 145 Ft.				
		SP	POORLY-GRADED SAND (141.5-142.5 feet) Saturated, medium dense, no odor. Primarily medium sand to ~2 mm with ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (142.5-144 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with trace coarse sand to ~3 mm and ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		CL	LEAN CLAY with SAND (144-145 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~20% fine sand (<1/2 mm). The sand is subangular to subrounded. The fines have medium plasticity and toughness, are yellowish brown (10YR 5/4), and do not react to HCl. Some reddish brown iron oxide streaks.					
		SW	WELL-GRADED SAND (145-145.5 feet)					
		SC	Saturated, medium dense, no odor. Primarily medium sand with trace coarse sand to ~3 mm and ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl. CLAYEY SAND (145.5-146.5 feet)					
		SW	Dry to moist, dense, no odor. Primarily medium to fine sand to ~1 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl. Some reddish brown iron oxide streaks. WELL-GRADED SAND (146.5-148.5 feet)					
		SW-SM	WELL-GRADED SAND with SILT and GRAVEL (148.5-149.25 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~15% gravel to ~10 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC						
		150	4205					
SM	SILTY SAND (149.5-151 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, are brown, and do not react to HCl.							
SM	SILTY SAND (151-153.75 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% gravel to ~8 mm with ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, are brown, and do not react to HCl. Some interbedded dry to moist clayey sand.							

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 13 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
155	4200	SP	POORLY-GRADED SAND (153.75-155 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl. Some reddish brown iron oxide streaks between 152.5 to 153 feet.	BW-1 @ 155 - 160 Ft.				
		SC	CLAYEY SAND (155-155.5 feet) Moist, dense, no odor. Primarily medium to fine sand to ~1 mm with ~30% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl. Some black organic streaks.					
		SW	WELL-GRADED SAND (155.5-157 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% gravel to ~10 mm and ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW	WELL-GRADED SAND (157-158 feet) Saturated, medium dense, no odor. Primarily medium to coarse sand with ~10% gravel to ~8 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		CL	LEAN CLAY with SAND (158-158.25 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~20% medium to fine sand to ~2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are pale brown (10YR 6/3), and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (158.25-159.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% gravel to ~8 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (159.5-161.75 feet) Moist, dense, no odor. Primarily medium to fine sand to ~2 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
		SM	SILTY SAND (161.75-163.75 feet) Moist, dense, no odor. Primarily medium to fine sand with ~10% coarse sand to ~3 mm and ~20% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (163.75-165 feet) Moist to saturated, dense, no odor. Primarily fine sand (<1/2 mm) with between ~30 and 40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
		SC	CLAYEY SAND (165-166.5 feet) Dry to moist, dense, no odor. Primarily medium to fine sand to ~1/2 mm with ~35% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl. Some black organic streaks.					
	SM	SILTY SAND (166.5-168 feet) Saturated, medium dense, no odor.						
160	4195							
165	4190							

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 14 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
			Primarily medium to fine sand to ~2 mm with ~15% silt and clay. The sand is subangular to subrounded. The fines have low plasticity, are brown, and do not react to HCl.					
	4185	SP	POORLY-GRADED SAND (168-170 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
170		SC	CLAYEY SAND (170-171 feet) Dry to moist, dense, no odor. Primarily medium to fine sand to ~1 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (171-174.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% gravel to ~8 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
	4180	SC	CLAYEY SAND (174.5-176.5 feet) Dry to moist, dense, no odor. Primarily medium to fine sand with trace coarse sand to ~4 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
175		SC	CLAYEY SAND (176.5-178 feet) Moist, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
		CL	LEAN CLAY with SAND (178-178.5 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~20% medium to fine sand to ~2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are pale brown (10YR 6/3), and do not react to HCl. Some black organic streaks.					
		SC	CLAYEY SAND (178.5-179.5 feet) Dry to moist, dense, no odor.					
	4175	SW-SM	Primarily medium to fine sand to ~1 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have					

B/W-1 @ 170 - 175 Ft.

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 15 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
			medium plasticity and toughness, are brown, and do not react to HCl. Some iron oxide streaks. WELL-GRADED SAND with SILT (179.5-181 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with trace coarse sand to ~3 mm and ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC						
		SC	CLAYEY SAND (181-181.5 feet) Dry to moist, dense, no odor. Primarily medium to fine sand to ~1 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl. Some iron oxide streaks.					
		SC	CLAYEY SAND (181-181.5 feet) Moist, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
		SC	CLAYEY SAND (182.5-184 feet) Dry to moist, dense, no odor. Primarily medium to fine sand with trace coarse sand to ~4 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
	4170	SC	CLAYEY SAND (184-185 feet) Dry to moist from ~184-184.5 feet, moist 184.5-185 feet, dense, no odor. Primarily medium to fine sand to ~1 mm with ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
185		SP	CLAYEY SAND (185-185.5 feet) Dry to moist, dense, no odor. Primarily medium to fine sand to ~1 mm with ~35% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		CL	POORLY-GRADED SAND (185.5-187.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, dark brown, and do not react to HCl.					
		CL	LEAN CLAY with SAND (187.5-189.5 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~20% medium to fine sand to ~1/2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are pale brown (10YR 6/3), and do not react to HCl. Some black organic streaks.					
	4165	SC	CLAYEY SAND (189.5-191 feet) Dry to moist, dense, no odor. Primarily medium to fine sand to ~1 mm with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
190		CL	LEAN CLAY with SAND (191-192 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~20% medium to fine sand to ~1/2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are pale brown (10YR 6/3), and do not react to HCl. Some black organic streaks.					
		SC	CLAYEY SAND (192-192.75 feet) Moist to saturated, dense, no odor. Primarily fine sand (<1/2 mm) with between ~30 and 40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and					
		SW						

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 16 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
195	4160		do not react to HCl. WELL-GRADED SAND (192.75-195.5 feet) Saturated, medium dense, no odor. Primarily medium sand with ~5% gravel to ~8 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.	B/W-1 @ 192 - 197 Ft.				
		SW	WELL-GRADED SAND (195.5-197 feet) Saturated, medium dense, no odor. Primarily medium to coarse sand to ~3 mm and trace silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (197-197.5 feet) Moist, dense, no odor. Primarily fine sand (<1/2 mm) with ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
		CL	LEAN CLAY (197.5-199 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~10% medium to fine sand to ~1/2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl. Trace black organic streaks.					
200	4155	CL	SANDY LEAN CLAY (199-201.25 feet) Dry to moist, very hard, no odor. Primarily silt and clay with ~50% medium to fine sand to ~2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl. Trace black organic streaks.					
		SM	SILTY SAND (201.25-204 feet) Moist, dense, no odor. Primarily medium to fine sand to ~2 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines have slight plasticity, are brown, and do not react to HCl.					
205	4150	CL	SANDY LEAN CLAY (204-205.5 feet) Dry to moist, very hard, no odor. Primarily silt and clay with ~50% medium to fine sand to ~1 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl. Some black organic streaks.					
		SC	CLAYEY SAND (205.5-207 feet) Moist, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~30% silt and					

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 17 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
			clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		CL	LEAN CLAY with SAND (207-208.5 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~20% medium to fine sand to ~1 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are yellowish brown (10YR 5/4), and do not react to HCl.					
		CL	LEAN CLAY (208.5-209 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~10% medium to fine sand to ~1 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl.					
	4145	SM	SILTY SAND (209-210.5 feet) Dry to moist, dense, no odor. Primarily coarse to fine sand with ~5% gravel to ~8 mm with ~20% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, are brown, and do not react to HCl.					
	210	CL	SANDY LEAN CLAY (210.5-212 feet) Dry to moist, very hard, no odor. Primarily silt and clay with ~30% medium to fine sand to ~1 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/4), and do not react to HCl.					
		SC	CLAYEY SAND (212-212.5 feet) Dry to moist, very dense, no odor. Primarily medium to fine sand with trace coarse sand to ~4 mm with ~30% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SM	SILTY SAND (212.5-213 feet) Dry to moist, very dense, no odor. Primarily medium to fine sand with trace gravel to ~8 mm and ~20% silt and clay. The sand and gravel is subangular to subrounded. The fines have low plasticity and toughness, are brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (213-215 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
	4140	SC	CLAYEY SAND (215-217.5 feet) Moist, dense, no odor. Primarily medium to fine sand with trace coarse sand to ~3 mm and ~20% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
	215	SM	SILTY SAND (217.5-219 feet) Moist, dense, no odor. Primarily medium to fine sand with trace coarse sand to ~3 mm and ~20% silt and clay. The sand is subangular to subrounded. The fines have low plasticity and toughness, are brown, and do not react to HCl.					
		SW-	WELL-GRADED SAND with SILT (219-224 feet)					

B/W-1 @ 213 - 218 Ft.

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 18 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
220	4135	SM	Saturated, medium dense, no odor. Primarily medium to fine sand with trace gravel to ~8 mm and ~10% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
225	4130	SC	CLAYEY SAND (224-225 feet) Moist, dense, no odor. Primarily medium to fine sand with ~5% coarse sand to ~3 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
		SW	WELL-GRADED SAND (225-230.5 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~10% gravel to ~8 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
230	4125	SW-SM	WELL-GRADED SAND with SILT (230.5-231.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with trace coarse sand to ~3 mm and ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (231.5-234 feet) Dry to moist, moist, dense, no odor. Interbedded clayey sand and sandy clay, 1 to 25 cm thick.					

B/W-1 @ 225 - 230 Ft.

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 19 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
			Primarily fine sand (<1/2 mm) with between ~25% and 40% silt and clay, interbedded with dry to moist, very hard sandy clay with ~30% fines sand (<1/2 mm). The sand is subangular to subrounded. The fines have medium plasticity, medium to low toughness, are brown, and do not react to HCl.					
	4120	CL	SANDY LEAN CLAY (234-235 feet) Dry to moist, very hard, no odor. Primarily silt and clay with ~40% fine sand and trace medium sand to ~2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 4/3), and do not react to HCl.					
	235	SW	WELL-GRADED SAND (235-236 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~10% gravel to ~8 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		CL	SANDY LEAN CLAY (236-237 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~30% medium to fine sand to ~1 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (237-239 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with ~5% coarse sand to ~4 mm and ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (239-239.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
	4115	CL	LEAN CLAY (239.5-240 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~10% medium to fine sand to ~1 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are grayish brown (10YR 5/2), and do not react to HCl.					
	240	SW-SM	WELL-GRADED SAND with SILT (240-240.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SP	POORLY-GRADED SAND (240.5-242.5 feet) Saturated, medium dense, no odor. Primarily medium sand to ~2 mm with ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, dark brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (242.5-243.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (243.5-244 feet) Moist, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~30% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
	4110	SW-SM	WELL-GRADED SAND (244-244.5 feet) Saturated, medium dense, no odor.					
	245	CL						

B/W-1 @ 240 - 245 Ft.

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 20 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
			<p>Primarily coarse to medium sand with ~10% gravel to ~8 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.</p> <p>WELL-GRADED SAND with SILT (244.5-245 feet) Saturated, medium dense, no odor.</p>					
		SM	<p>Primarily medium to fine sand to ~2 mm with ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.</p> <p>LEAN CLAY with SAND (245-246.5 feet) Dry to moist, hard, no odor.</p>					
			<p>Primarily silt and clay with ~20% medium to fine sand to ~1/2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl.</p> <p>SILTY SAND (246.5-249 feet) Dry to moist, very dense, no odor.</p>					
			<p>Primarily medium to fine sand (<1/2 mm) with ~25% silt and clay. The sand is subangular to subrounded. The fines have low plasticity and toughness, are brown, and do not react to HCl.</p> <p>CLAYEY SAND (249-251.5 feet) Moist, medium dense, no odor.</p>					
	4105	SC	<p>Primarily medium to fine sand to ~2 mm with ~30% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl. Some reddish brown iron oxide streaks.</p>					
	250	CL	<p>SANDY LEAN CLAY (251.5-252.5 feet) Dry to moist, hard, no odor.</p>					
			<p>Primarily silt and clay with ~40% medium to fine sand to ~1 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are light olive brown (2.5YR 5/3), and do not react to HCl.</p>					
		SM	<p>SILTY SAND (252.5-253 feet) Moist, dense, no odor.</p>					
		CL	<p>Primarily medium to fine sand with trace coarse sand to ~4 mm and ~20% silt and clay. The sand is subangular to subrounded. The fines have low plasticity and toughness, are brown, and do not react to HCl.</p> <p>LEAN CLAY with SAND (253-254 feet) Dry to moist, hard, no odor.</p>					
		SW-SM	<p>Interbedded lean clay with sand and sand with silt as described at 254 feet, 1 to 5 cm thick. Primarily silt and clay with ~20% medium to fine sand to ~1/2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl.</p>					
	4100							
	255	CL	<p>WELL-GRADED SAND with SILT (254-255 feet) Saturated, medium dense, no odor.</p>					
			<p>Primarily medium to fine sand to ~2 mm with ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.</p> <p>SANDY LEAN CLAY (255-258 feet) Dry to moist, hard, no odor.</p>					
			<p>Interbedded sandy lean clay with sand with silt as described at 254 feet, 1 to 5 cm thick. Primarily silt and clay with ~50% medium to fine sand to ~2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl.</p>					
		SC	<p>CLAYEY SAND (258-260.5 feet) Dry to moist, dense, no odor.</p>					

SONIC METHOD LOG - YERINGTON.GPJ - BRN&CALD.GDT - 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 21 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
260	4095		Primarily medium to fine sand to ~2 mm with ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SP	POORLY-GRADED SAND (260.5-261.5 feet) Saturated, medium dense, no odor. Primarily medium sand to ~2 mm with ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
265	4090	SC	CLAYEY SAND (261.5-263 feet) Dry to moist, dense, no odor. Primarily fine sand (<1/2 mm) with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (263-264 feet) Saturated to moist, dense, no odor. Primarily medium to fine sand to ~1 mm with ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (264-265 feet) Dry to moist, dense, no odor. Primarily medium to fine sand to ~2 mm with ~30% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
270	4085	CL	SANDY LEAN CLAY (265-266.75 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~50% medium to fine sand to ~1 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl.					
		SM	SILTY SAND (266.75-267.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		CL	SANDY LEAN CLAY (267.5-268.5 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~50% medium to fine sand to ~1 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl.					
		SW-SM	WELL-GRADED SAND with SILT (268.5-270 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand to ~4 mm with ~10% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		CL	LEAN CLAY with SAND (270-271.5 feet) Dry to moist, hard, no odor. Primarily silt and clay with ~20% medium to fine sand to ~2 mm. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (10YR 5/3), and do not react to HCl.					

B/W-1 @ 260 - 265 Ft.

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 23 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
285	4070		subrounded. The fines are nonplastic, brown, and do not react to HCl.					
290	4065	SW	WELL-GRADED SAND (290-295.5 feet) Saturated, medium dense, no odor. Primarily coarse to medium sand with ~5% gravel to ~10 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
295	4060	SM	SILTY SAND (295.5-297.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand to ~1/2 mm with ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	SILTY SAND (297.5-298.5 feet)					

B/W-1 @ 285 - 290 Ft.

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 24 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
300	4055		Moist to saturated, medium dense, no odor. Primarily fine sand (<1/2 mm) with ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (298.5-298.75 feet)					
		SM	Dry to moist, dense, no odor. Primarily fine sand (<1/2 mm) with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are grayish brown, and do not react to HCl.					
			SILTY SAND (298.75-300 feet)					
		SP	Saturated, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
			POORLY-GRADED SAND (300-302 feet)					
			Saturated, medium dense, no odor. Primarily medium sand to ~2 mm with ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	SILTY SAND (302-302.75 feet)					
			Dry to moist, dense, no odor. Primarily medium to fine sand to ~2 mm with ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
			SC	CLAYEY SAND (302.75-303.25 feet)				
305	4050	CL	Moist, dense, no odor. Primarily fine sand (<1/2 mm) with ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
		SC	CLAYEY SAND (302.75-303.25 feet)					
		SM	Dry to moist, hard, no odor. Primarily silt and clay with ~10% fine sand (<1/2 mm). The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown (7.5YR 5/3), and do not react to HCl.					
			LEAN CLAY (303.25-303.5 feet)					
		SP	Moist, dense, no odor. Primarily fine sand (<1/2 mm) with ~25% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity and toughness, are brown, and do not react to HCl.					
310	4045		SILTY SAND (303.75-305 feet)					
			Moist, very dense, no odor. Primarily fine sand with ~10% medium sand to ~1 mm and ~20% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
			POORLY-GRADED SAND (305-308.5 feet)					
			Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SM	SILTY SAND (308.5-309 feet)					
	SP	Moist to saturated, medium dense, no odor. Primarily fine sand (<1/2 mm) with ~15% silt and clay. The sand is subangular to subrounded. The fines have slight plasticity, are brown, and do not react to HCl.						
		POORLY-GRADED SAND (309-310 feet)						
		Saturated, medium dense, no odor. Primarily medium to fine sand to ~2 mm with ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.						
	NR	NO RECOVERY (310-313 feet)						
		Hard drilling, likely fine-grained.						

B/W-1 @ 305 - 310 Ft.

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 25 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
	4040	SC	CLAYEY SAND (313-316 feet) Dry to moist, very dense, no odor. Primarily fine sand (<1/2 mm) with ~35% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
	315	SM	SILTY SAND (316-318 feet) Moist, dense, no odor. Primarily fine sand (<1/2 mm) with ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
	4035	CL	LEAN CLAY with SAND (318-321 feet) Dry to moist, very hard, no odor. Primarily silt and clay with ~15% fine sand (< 1/2 mm). The sand is subangular to subrounded. The fines have medium to high plasticity, medium toughness, are yellowish brown (10YR 5/4), and do not react to HCl. Trace black organic streaks.					
	320	SM	SILTY SAND (321-321.5 feet) Moist, dense, no odor. Primarily fine sand (<1/2 mm) with ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		CL	LEAN CLAY with SAND (321.5-322 feet) Dry to moist, very hard, no odor. Primarily silt and clay with ~15% fine sand (< 1/2 mm). The sand is subangular to subrounded. The fines have medium to high plasticity, medium toughness, are yellowish brown (10YR 5/4), and do not react to HCl. Trace black organic streaks.					
		SW	LEAN CLAY with SAND (321.5-322 feet) Dry to moist, very hard, no odor. Primarily silt and clay with ~15% fine sand (< 1/2 mm). The sand is subangular to subrounded. The fines have medium to high plasticity, medium toughness, are yellowish brown (10YR 5/4), and do not react to HCl. Trace black organic streaks.					
			WELL-GRADED SAND (322-324.5 feet) Saturated, medium dense, no odor. Primarily medium to fine sand with trace coarse sand to ~3					

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 26 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
	4030	SC	mm and ~5% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl. CLAYEY SAND (324.5-329 feet) Moist, dense, no odor. Primarily fine sand (<1/2 mm) with ~20% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
	4025	SC	CLAYEY SAND (329-330 feet) Dry to moist, dense, no odor. Primarily fine sand (<1/2 mm) with ~40% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
	330	SW	WELL-GRADED SAND (330-332 feet) Saturated, medium dense, no odor. Primarily medium sand with trace gravel to ~8 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
	4020	SC	CLAYEY SAND (332-332.5 feet) Moist, medium dense, no odor. Primarily medium to fine sand to ~1 mm with ~30% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.					
	4020	SW	WELL-GRADED SAND (332.5-335 feet) Saturated, medium dense, no odor. Primarily medium sand with trace gravel to ~8 mm and ~5% silt and clay. The sand and gravel is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
	335	SM	SILTY SAND (335-336.5 feet) Moist, dense, no odor. Primarily medium to fine sand to ~2 mm with ~30% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.					
		SC	CLAYEY SAND (336.5-337 feet) Dry to moist, dense, no odor.					

B/W-1 @ 330 - 335 Ft.

SONIC METHOD LOG YERINGTON.GPJ BRN&CALD.GDT 1/31/06

Project Name: Yerington Groundwater Investigation

Well Number: B/W-1

Soil Boring

Monitoring Well

Project Number: 121243.021

Sheet 27 of 27

Depth (feet)	Elevation (feet)	USCS Group Symbol	Description	Sample No.	Graphic Log			Remarks
					Sample	Lithology	Well	
		SM	<p>Primarily fine sand with trace medium sand to ~1 mm and ~30% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.</p> <p>SILTY SAND (337-339 feet) Moist, dense, no odor.</p> <p>Primarily medium to fine sand to ~1 mm with ~15% silt and clay. The sand is subangular to subrounded. The fines are nonplastic, brown, and do not react to HCl.</p>					
	4015	SC	<p>CLAYEY SAND (339-341.5 feet) Moist, dense to very dense, no odor.</p> <p>Primarily medium to fine sand to ~1 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.</p>					
	340	SM	<p>CLAYEY SAND (339-341.5 feet) Moist, dense to very dense, no odor.</p> <p>Primarily medium to fine sand to ~1 mm with ~20% silt and clay. The sand is subangular to subrounded. The fines have medium plasticity, low toughness, are brown, and do not react to HCl.</p>					