

Log of Boring No. BRC-SB-13-A

BMI Site - Hydrogeologic Characterization

Henderson, Nevada



Drilling Method: Rotary Sonic
Drilling Equipment: Rotary Sonic
Drilling Contractor: Prosonic Corporation
Driller: Gerardo Chavez

Borehole Total Depth: 98.5 ft bgs
Borehole Diameter: 8.5 in
Boring Location: Location 13 (Well ID: AA-13)
Depth to Water (ft. bgs): NA

Sample Type: Continuous Core
Sample Interval: Continuous

Logged By: Jennifer Wiley
Date Started: 6/10/04
Date Completed: 6/10/04

Monitoring Well Construction			
Type of Surface Seal:	Bentonite Grout	Screen Slot Size:	0.010 in
Blank Casing Type/Size:	4" Sch 80 PVC	Top of Screen (ft. bgs):	38 ftbgs
Screen Type/Size:	4" Sch 80 PVC	Bottom of Screen (ft. bgs):	58 ft bgs
Transition Sand Type:	N/A	Type of Sand Pack:	#2 x 12

Depth Elevation (MSLD)	Sample Type	Sample Interval	Sample Recovery (feet)	Sample Retained for Analysis	PID	Lithology	Soil Description	Well Construction
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0			1.5/7		0.1		SP: Poorly graded sand, yellowish brown (10YR5/4), loose, dry to moist, subangular to subrounded volcanic sand and gravel (to 1/2"), tr. silt, noncemented, no odor. Approximately trace gravel, 5 % coarse sand, 50% medium sand, 45% fine sand and trace silt. Collected BRC-SB-13-A-0 for chemical analysis.	
	Grab		1.5/10		0.1		Poorly graded sand, yellowish brown (10YR 5/4), loose, dry to moist, subangular to subrounded sand and gravel (to 1"), tr. silt, non cemented, no odor. Approximately 5% gravel, 5 % coarse sand, 40% medium sand, 50% fine sand and trace silt. Collected BRC-SB-13-A-7 for chemical analysis.	
-10	Grab				0.2		Poorly graded sand, brown (10YR 4/3), loose, moist (may be due to added water from drilling), subangular to subrounded sand and gravel (to 15"), non cemented, no odor. Approximately 10% gravel, 50 % coarse sand, 30% medium sand, 10% fine sand and trace silt. Poorly graded sand, dark yellowish brown (10YR 4/4), loose, dry to moist, subangular to subrounded sand and gravel (to 3/4"), non cemented, no odor. Approximately trace gravel, 5 % coarse sand, 50% medium sand, 45% fine sand and trace silt.	
	Grab		1.5/10		NA		SW: Well graded sand with gravel, pale brown (10YR 6/3), loose, dry, subangular to subrounded volcanic sand and gravel (to 2"), tr.silt, non cemented, no odor. Approximately 30% gravel, 20% coarse sand, 20% medium sand, 25% fine sand, and trace silt. Well graded sand with gravel, pale brown (10YR 6/3), loose, dry, subangular to subrounded volcanic sand and gravel (to 2"), tr.silt, non cemented, no odor. Approximately 15% gravel, 25% coarse sand, 30% medium sand, 30% fine sand, and trace silt. Collected BRC-SB-13-A-17 for chemical analysis.	
-20	Grab				0.2		GP-GM: Poorly graded gravel with silt and sand, pale brown (10YR 6/3), loose, dry to moist, subangular to subrounded sand and volcanic gravel (to 1"), non cemented, no odor. Approximately 55% gravel, 15% coarse sand, 10% medium sand, 10% fine sand and 10% silt.	
							SP-SM: Poorly graded sand with silt, pale brown (10YR 6/3), loose, dry to moist, subangular to subrounded sand and volcanic gravel (to 1/4"), non cemented, no odor. Approximately 5%	

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	Grab		1.5/20				gravel, 10% coarse sand, 30% meduim sand, 45% fine sand and 10% silt. Collected BRC-SB-13-A-27 for chemical analysis.	
-30	Grab						GP-GM: Poorly graded gravel with silt and sand, pale brown (10YR 6/3), loose, dry to moist, subangular to subrounded sand and volcanic gravel (to 1.5"), non cemented, no odor. Approximately 50% gravel, 10% coarse sand, 20% meduim sand, 10% fine sand and 10% silt.	
	Grab						SW: Well graded sand, brown (10YR 4/3), loose, moist, subangular to subrounded volcanic sand and gravel (to 1"), non cemented, no odor, tr.silt. Approximately 5% gravel, 35% coarse sand, 30% meduim sand, 30% fine sand and trace silt.	Bentonite seal
	Grab						SP: Poorly graded sand, brown (10YR 4/3), loose, moist, subangular to subrounded volcanic sand and gravel (to 1"), non cemented, no odor, tr. silt. Approximately 10% gravel, 10% coarse sand, 40% meduim sand, 40% fine sand and trace silt.	
-40	Grab						Poorly graded sand with gravel, brown (10YR 4/3), loose, moist, subangular to subrounded volcanic sand and gravel (to 3/4"), tr. silt, non cemented, no odor, tr. silt. Approximately 30% gravel, 10% coarse sand, 25% meduim sand, 30% fine sand and 5% silt.	4" 0.010 Slot PVC screen
	Grab						GP: Poorly graded gravel with silt and sand, dark yellowish brown (10YR 4/4), loose, wet, subangular to subrounded sand and volcanic gravel (to 3/4"), tr.silt, non cemented, no odor. Approximately 60% gravel, 20% coarse sand, 5% meduim sand, 10% fine sand and 5% silt.	#10 x 20 Sand Pack
			0.25/8.5				Collected BRC-SB-13-A-47 for NEL..	
							SP: Poorly graded sand with gravel, yellowish (10YR 5/4), loose, wet, subangular to subrounded volcanic sand and gravel (to 1/21"), tr. silt, non cemented, no odor, tr. silt. Approximately 30% gravel, 30% coarse sand, 25% meduim sand, 10% fine sand and 5% silt.	
-50	Grab						All sand at 50' bgs is reworked silt, light yellowish brown (2.5YR 6/3). Approximately 50% meduim sand, 45% fine sand and 5% silt.	
							ML: Very sandy silt, very moist, weak induration in areas. Approximately 15% meduim sand, 15% fine sand and 70% silt. Very sandy silt, yellowish brown (10YR 5/4), stiff, very moist, angular sand (comprised of silt chips), tr. clay, non to weak induration, no odor, non plastic. Approximately 30% meduim sand, 10% fine sand, 60% silt and trace clay.	
	Grab		0.5/11.5		NA		Collected BRC-SB-13-A-55.5 for NEL.. Very sandy silt, yellowish brown (10YR 5/4), soft, wet, angular sand (comprised of silt chips), tr. clay. Approximately 20% meduim sand, 20% fine sand, 60% silt and trace clay.	
							SM: Non cemented, no odor, non to moderate plasticity. Approximately 30% meduim sand, 30% fine sand and 40% silt.	Threaded PVC Well Base Cap

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-60	Grab				0.1		ML: Silty sand, light gray (5Y 7/2), moist to very moist, angular sand (comprised of silt chips), weak induration, no odor. Approximately 15% medium sand, 15% fine sand, 70% silt and trace clay. Sandy silt, light gray (5Y 7/2), angular sand (comprised of silt chips), weak induration, no odor, low plasticity, tr. clay, moist to very moist. Approximately 55% medium sand, 15% fine sand, 60% silt and trace clay. At 60' bgs color change to pale olive (5Y 6/2), moist to very moist.	
	Grab		1.5/10		0.1		Silt, light gray (5Y 7/2), moist to very moist, friable, weakly indurated, silt easily crumbles into smaller silt chips, non plastic. Approximately 100% silt. Collected BRC-SB-13-A-67 for chemical analysis. Silt, pale brown (10YR 6/3), moist to very moist, very stiff, angular sand (comprised of silt chips), non cemented, no odor, low plasticity. Approximately 10% medium sand, 10% fine sand and 80% silt.	
-70	Grab				0.1		Sandy silt, yellowish brown (10YR 5/4), moist, very stiff, angular sand (comprised of silt chips), tr. clay, non cemented, no odor and low plasticity. Approximately 15% medium sand, 15% fine sand and 70% silt.	
	Grab		1.5/12		0.1		Very sandy silt, yellowish brown (10YR 5/4), moist to very moist, stiff, angular sand (comprised of silt chips), tr. clay, non cemented, no odor and non plastic. Approximately 30% medium sand, 15% fine sand and 55% silt and trace clay. Collected BRC-SB-13-A-77 for chemical analysis. Color change to light gray (5Y 7/2), soft, moist to very moist in spots, non cemented, no odor, low plasticity and tr. clay. Approximately 20% medium sand, 15% fine sand and 65% silt and trace clay.	
-80	Grab				0.1		Color change to yellowish brown (10YR 5/4), moist. Approximately 10% medium sand, 10% fine sand and 80% silt and trace clay.	
	Grab				0.1		Silt with sand, yellowish brown (10YR 5/4), very stiff, moist, angular sand (silt chips), non cemented to weak induration in areas, no odor, non to weak plasticity, tr. clay. Approximately 10% medium sand, 10% fine sand and 80% silt and trace clay.	
-90	Grab		0.5/8		0.1		SM: Silty sand, yellowish brown (10YR 5/4), wet, non cemented, no odor. Approximately 70% fine sand and 30% silt. Collected BRC-SB-13-A-89 for NEL.. Color change to light gray (5Y 7/2), increased silt, wet. Approximately 65% fine sand and 45% silt.	Cement Backfill

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