

WELL COMPLETION DIAGRAM

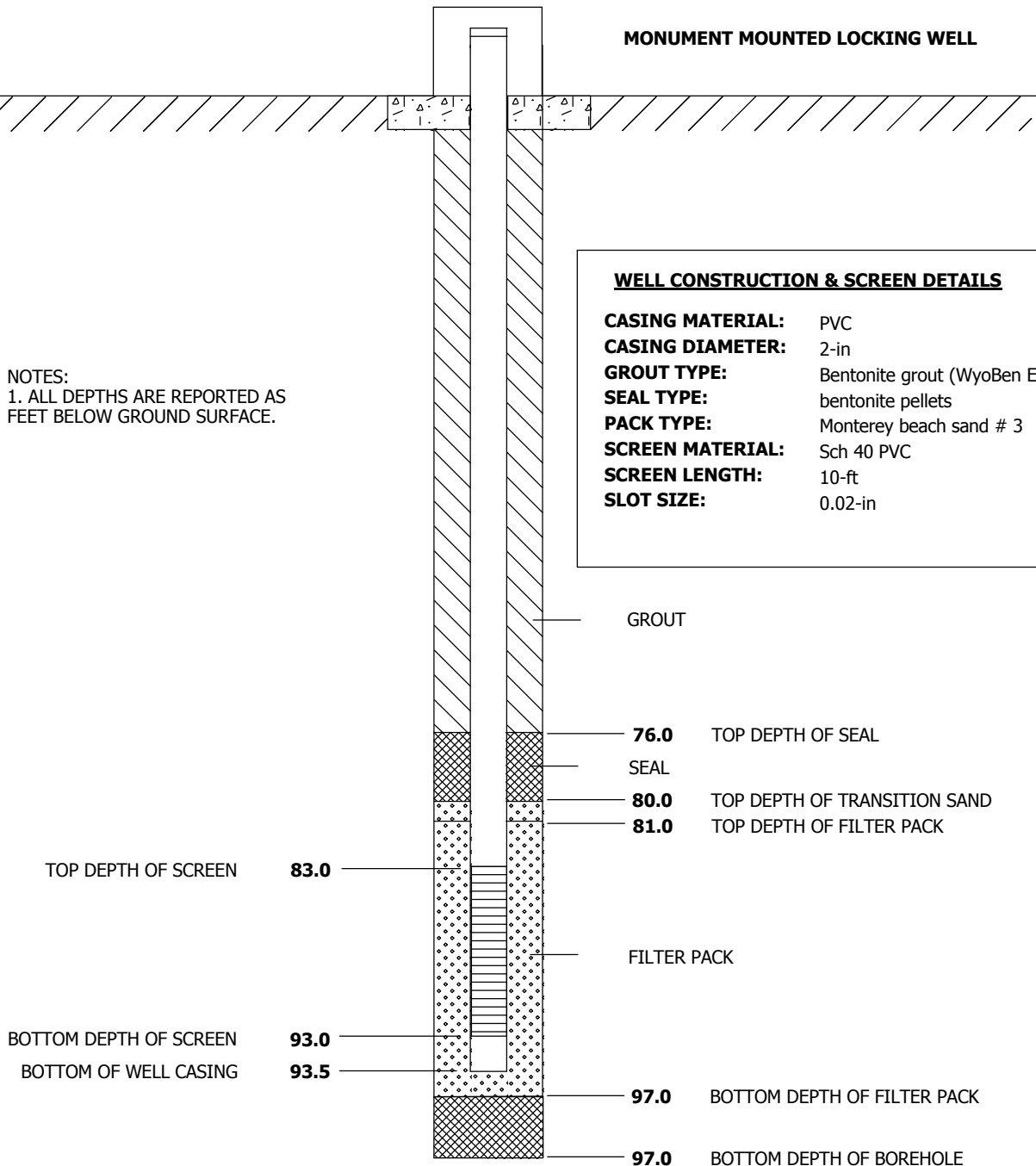
PROJECT NO: 326128.01.16.EN	PROJECT: IMPM Drill Program	WELL NO: <i>MW-45-95</i>
LOCATION: PG&E Compressor Station - Flood Plain, Topock, California		
DRILLING CONTRACTOR: Prosonic (Denzel Roberts = Driller)	DRILLING START DATE: 2/13/2006	
DRILLING METHOD: Rotosonic	DRILLING END DATE: 2/15/2006	
LOGGER: Rob Tweidt	WELL COMPLETION DATE: 2/15/2006	
TOP OF WELL CASING (NGVD 29): 470.03	NORTHING COORDINATE (CCS DAND 27, ZONE 5): 2102559.75	
GROUND SURFACE ELEVATION (NGVD 29): 466.63	EASTING COORDINATE (CCS NAD 27 ZONE 5): 7616358.13	

MONUMENT MOUNTED LOCKING WELL

NOTES:
1. ALL DEPTHS ARE REPORTED AS FEET BELOW GROUND SURFACE.

WELL CONSTRUCTION & SCREEN DETAILS

CASING MATERIAL:	PVC
CASING DIAMETER:	2-in
GROUT TYPE:	Bentonite grout (WyoBen Enviroplug)
SEAL TYPE:	bentonite pellets
PACK TYPE:	Monterey beach sand # 3
SCREEN MATERIAL:	Sch 40 PVC
SCREEN LENGTH:	10-ft
SLOT SIZE:	0.02-in



WELL DIAGRAM IS NOT TO SCALE

SOIL BORING LOG

PROJECT NAME: IMPM Drill Program		HOLE DEPTH (ft): 97.0	DRILLING CONTRACTOR: Prosonic Corp. Phoenix, AZ	
SURFACE ELEVATION: 466.6 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,102,559.75	EASTING (CCS NAD 27 Z 5): 7,616,358.13	DATE STARTED: 2/13/2006	DATE COMPLETED: 2/15/2006
DRILLING METHOD: Rotosonic			DRILLING EQUIPMENT: Sonic AT (track mounted)	
LOCATION: PG&E Compressor Station - Flood Plain, Topock, California			LOGGED BY: R. Tweidt	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION	COMMENTS
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)			
5				SM	SILTY SAND (SM) - very pale brn (10YR7/4), 85% mostly f sand, 15% silt, <2% gravel, well sorted, non-plastic, dry, no odor	
10						
15						
20				SP	SAND (SP) - brn (10YR4/3), 95% mostly f to m sand, 5% silt, <2% gravel, well sorted, non-plastic, no odor - grades finer, increased (10% silt), f sand, - coarsening downward, mostly f to m sand, 5% silt	
25						
30						
35						

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40					<p>SAND (SP) - brn (10YR4/3), 95% mostly f to m sand, 5% silt, <2% gravel, well sorted, non-plastic, no odor</p> <ul style="list-style-type: none"> - black organic specks, sand fining, mostly f sand - coarsening downward, 60% med sand, 35% f sand, 5% silt, and black organic specks - f sand w/ clayey silt, very dk grayish brn (10YR3/2) 	<p>DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.</p>
45			SW/GW	<p>GRAVELLY SAND/ SANDY GRAVEL (SW/GW) - dk grayish brn (10Yr4/2), 70% m sand, <5% silt, 5% gravel, poorly sorted, subrnd to rnd up to 8 cm, non-plastic, wet, no odor</p>		
50				<p>SAND (SP) - dk yellowish brn (10YR 4/4), 95% mostly f to m sand, <2% f gravel, well sorted, subrnd to rnd up to 2 cm, wet, no odor, abundant black organic specks</p> <ul style="list-style-type: none"> - mostly m sand, 5% gravel 		
55				<ul style="list-style-type: none"> - 15% gravel, rnd to subrnd up to 5 cm - layer of clayey silt with f sand, brown (7.5YR4/3) - fining downward, 5% mostly f gravel up to 1.5 cm - layer of silty clay with sand 		
60						
65				SP		
70					<ul style="list-style-type: none"> - 90% mostly m sand, 5% silt, 5% gravel 	

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LOCATION: PG&E Compressor Station - Flood Plain, Topock, California			LOGGED BY: R. Tweidt	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.	COMMENTS DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)			
75					<p>SAND (SP) - dk yellowish brn (10YR 4/4), 95% mostly f to m sand, <2% f gravel, well sorted, subrnd to rnd up to 2 cm, wet, no odor, abundant black organic specks</p> <p>- silty clay lenses intermittent with sand, dk yellowish brn (10YR3/4),</p> <p>- increased gravel (15%) up to 5 cm</p>	
80						
85						
90				ML	<p>SANDY SILT (ML) - yellowish brn (10YR 5/4), 30% mostly c to m sand, 70% silt, 0% gravel</p> <p>- coarse river gravel deposit</p>	
95				GW	<p>SANDY GRAVEL (GW) - brn (10YR4/3), 25% c to m grained sand, 15% silt, 60% gravel, poorly sorted, rnd to subrnd up to 10 cm, low plasticity, wet, no odor</p>	
				BR	<p>Miocene Conglomerate (BR) - top 0.5' to 1.0' weathered</p> <p>- BR is competent</p>	
<p><i>Boring Terminated at 97 ft</i></p>						
<p>ABBREVIATIONS</p> <p>cc = continuous core run</p> <p>brn = brown</p> <p>lt = light</p> <p>dk = dark</p> <p>vf = very fine-grained</p> <p>f = fine-grained</p> <p>m = medium-grained</p> <p>c = coarse-grained</p>						

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	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)			
					vc = very coarse-grained ang = angular subang = subangular subrnd = subrounded rnd = rounded br = bedrock formation ss = sandstone conglom = conglomerate comptd = compacted qtz = quartz	

