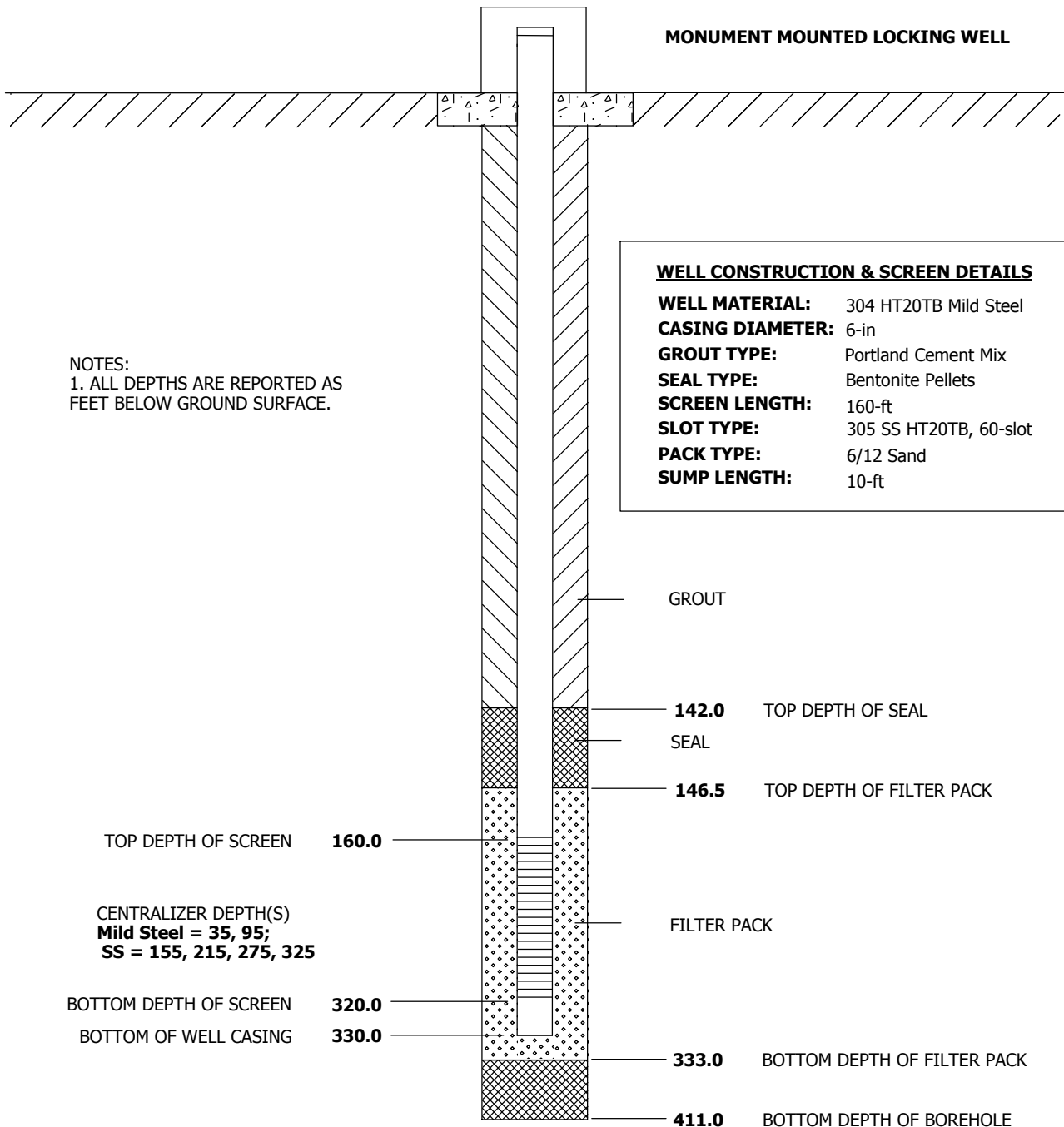


WELL COMPLETION DIAGRAM

PROJECT NO: 326128.01.07.AR	PROJECT: IM-3 Hydrogeologic Investigation, PG&E Topock	WELL NO: IW-3
LOCATION: East Mesa, Parcel No. 650-151-06		
DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA		DRILLING START DATE: 12/16/2004
DRILLING METHOD: Mud Rotary		DRILLING END DATE: 12/18/2004
LOGGER: E. Gray, M. Godwin		WELL COMPLETION DATE: 12/18/2004
TOP OF WELL CASING (NGVD 29): 554.44		NORTHING COORDINATE (CCS DAND 27, ZONE 5): 2103007.18
GROUND SURFACE ELEVATION (NGVD 29): 551.43		EASTING COORDINATE (CCS NAD 27 ZONE 5): 7613237.80



WELL DIAGRAM IS NOT TO SCALE

SOIL BORING LOG

PROJECT NAME: IM-3 Hydrogeologic Investigation, PG&E Topock		HOLE DEPTH (ft): 411.0	DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA	
SURFACE ELEVATION: 551.4 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,103,007.18	EASTING (CCS NAD 27 Z 5): 7,613,237.80	DATE STARTED: 12/16/2004	DATE COMPLETED: 12/18/2004
DRILLING METHOD: Mud Rotary		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: WDC 30K	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: E. Gray, M. Godwin	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION	COMMENTS
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)		SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.	DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.
0					NO FORMAL LOG -see boring log for well OW-5 completed ~50 ft west of IW-3	large cobbles? drilling rate 12 ft/hr
355					CONGLOMERATE (BR) - mixture of metamorphic rocks, consolidated reddish brown conglomerate, and silty sandstone, v hard metamorphic / felsic rock fragments, may be some megabreccia deposits. Brn 7.5YR4/3 with reddish brn 5YR5/4 mottling, 20% f to m sand, 20% c ang to subang gravel up to 1/4", mostly metadiorite fragments.	continuous coring started at 355 ft bgs lost circulation, bit plugged
360			0.83			- very hard consolidated material, "salt and pepper" look
365						very hard
370				BR		
375						
380					- very uniform cuttings, all ang cuttings	
385						

SOIL BORING LOG

PROJECT NAME: IM-3 Hydrogeologic Investigation, PG&E Topock		HOLE DEPTH (ft): 411.0	DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA	
SURFACE ELEVATION: 551.4 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,103,007.18	EASTING (CCS NAD 27 Z 5): 7,613,237.80	DATE STARTED: 12/16/2004	DATE COMPLETED: 12/18/2004
DRILLING METHOD: Mud Rotary		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: WDC 30K	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: E. Gray, M. Godwin	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION	COMMENTS
	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)			
390				BR	BEDROCK (BR) - mixture of metamorphic rocks, consolidated reddish brown conglomerate, and silty sandstone, v hard metamorphic / felsic rock fragments, may be some megabreccia deposits. Brn 7.5YR4/3 with reddish brn 5YR5/4 mottling, 20% f to m sand, 20% c ang to subang gravel up to 1/4", mostly metadiorite fragments.	drilling rate 21 ft/hr
395						
400						
405						
410						
Boring Terminated at 411 ft						
ABBREVIATIONS cc = continuous core run brn = brown lt = light dk = dark vf = very fine-grained f = fine-grained m = medium-grained c = coarse-grained vc = very coarse-grained						

SOIL BORING LOG

PROJECT NAME: IM-3 Hydrogeologic Investigation, PG&E Topock		HOLE DEPTH (ft): 411.0	DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA	
SURFACE ELEVATION: 551.4 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,103,007.18	EASTING (CCS NAD 27 Z 5): 7,613,237.80	DATE STARTED: 12/16/2004	DATE COMPLETED: 12/18/2004
DRILLING METHOD: Mud Rotary		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: WDC 30K	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: E. Gray, M. Godwin	

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)			
					ang = angular subang = subangular subrnd = subrounded rnd = rounded br = bedrock formation ss = sandstone conglom = conglomerate comptd = compacted qtz = quartz	