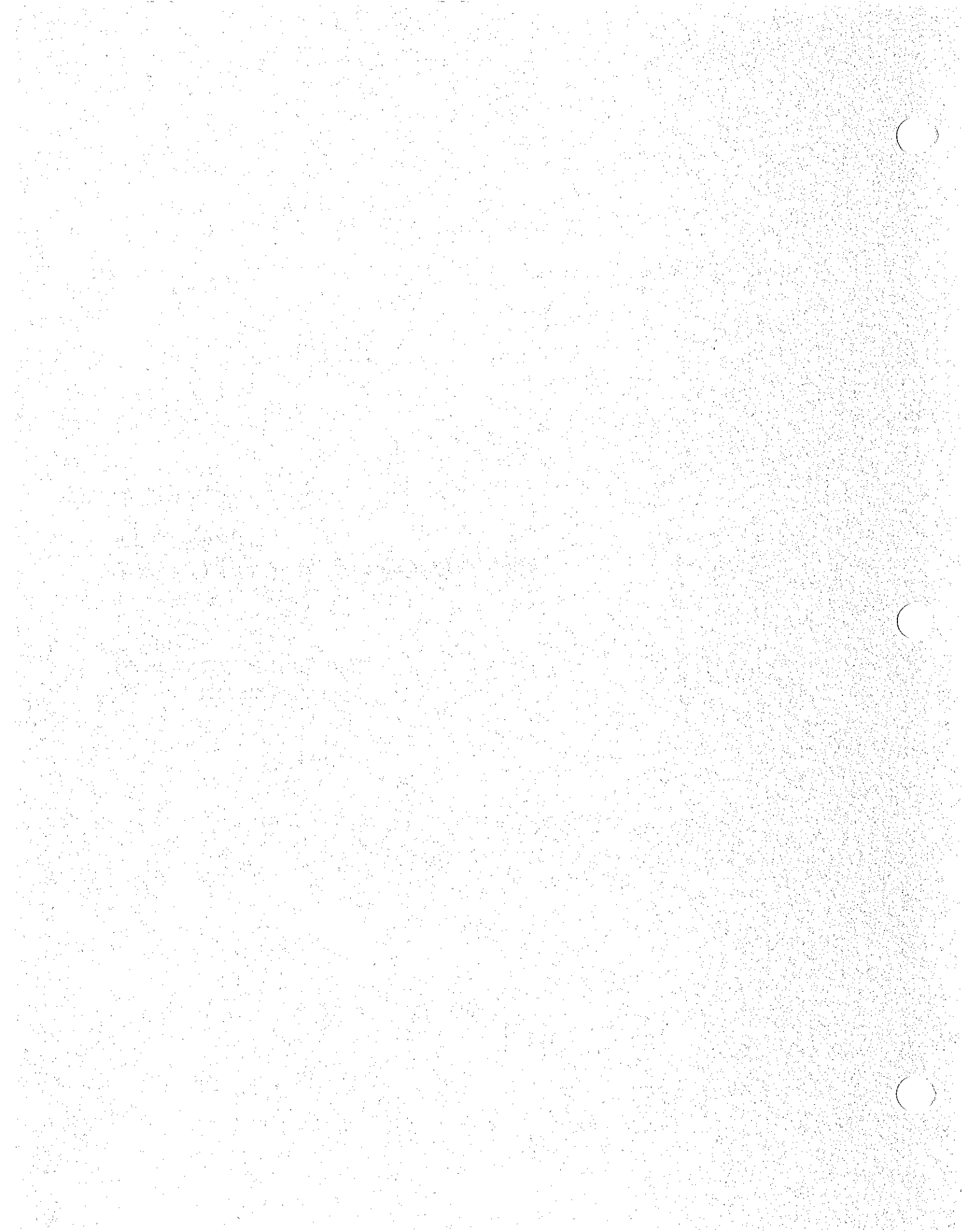


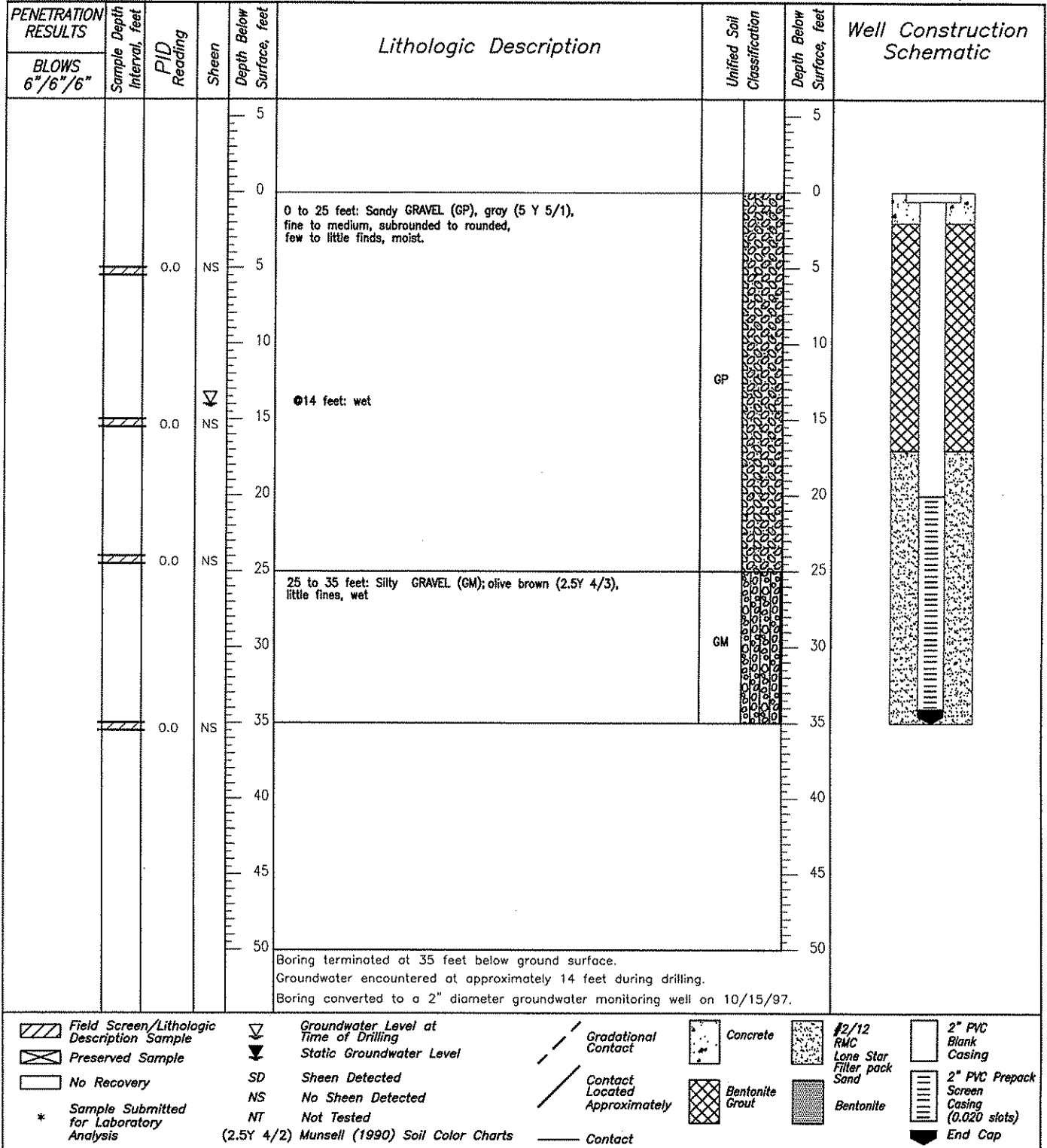
*Draft Issued for Ecology Review*

**APPENDIX F**  
**MONITORING WELL BORING LOGS**

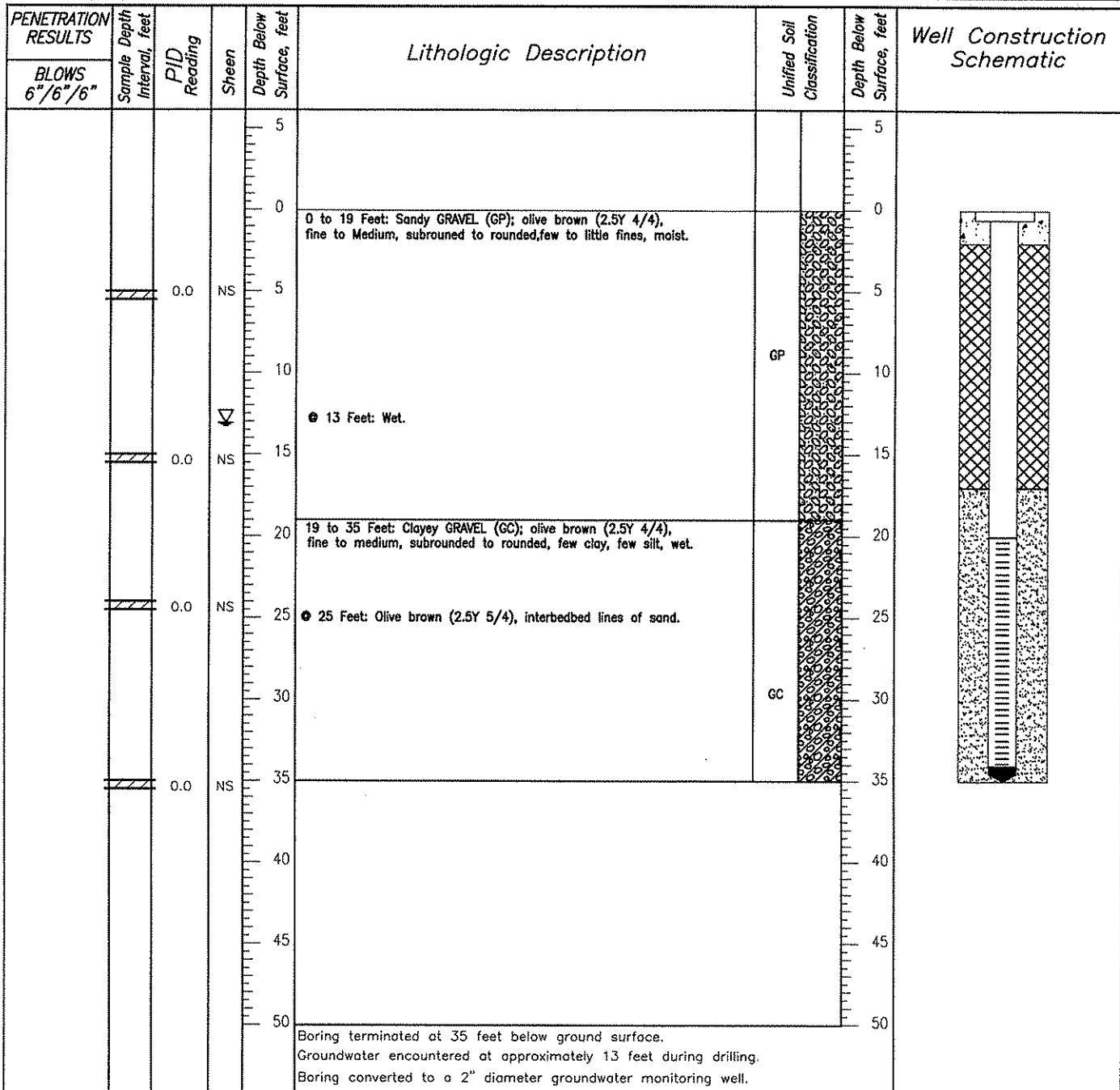
Remedial Investigation  
Yakima Railroad Area  
Yakima, Washington  
SECOR PN: 00378-001-02  
December 31, 1998



FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-1s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/15/97 FINISH 10/15/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

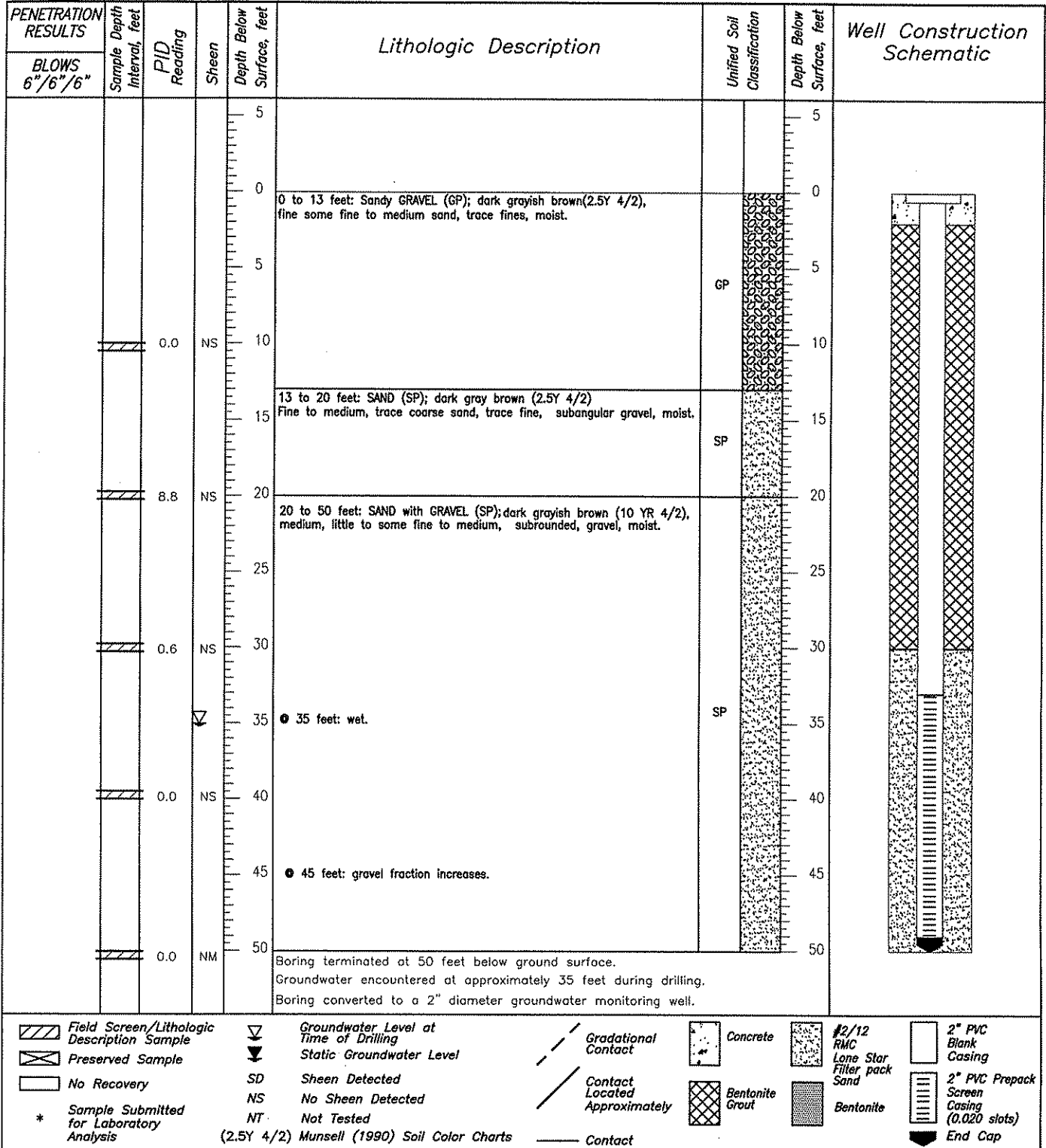


FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-2a  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START \_\_\_\_\_ FINISH \_\_\_\_\_ CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-3s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/21/97 FINISH 10/21/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



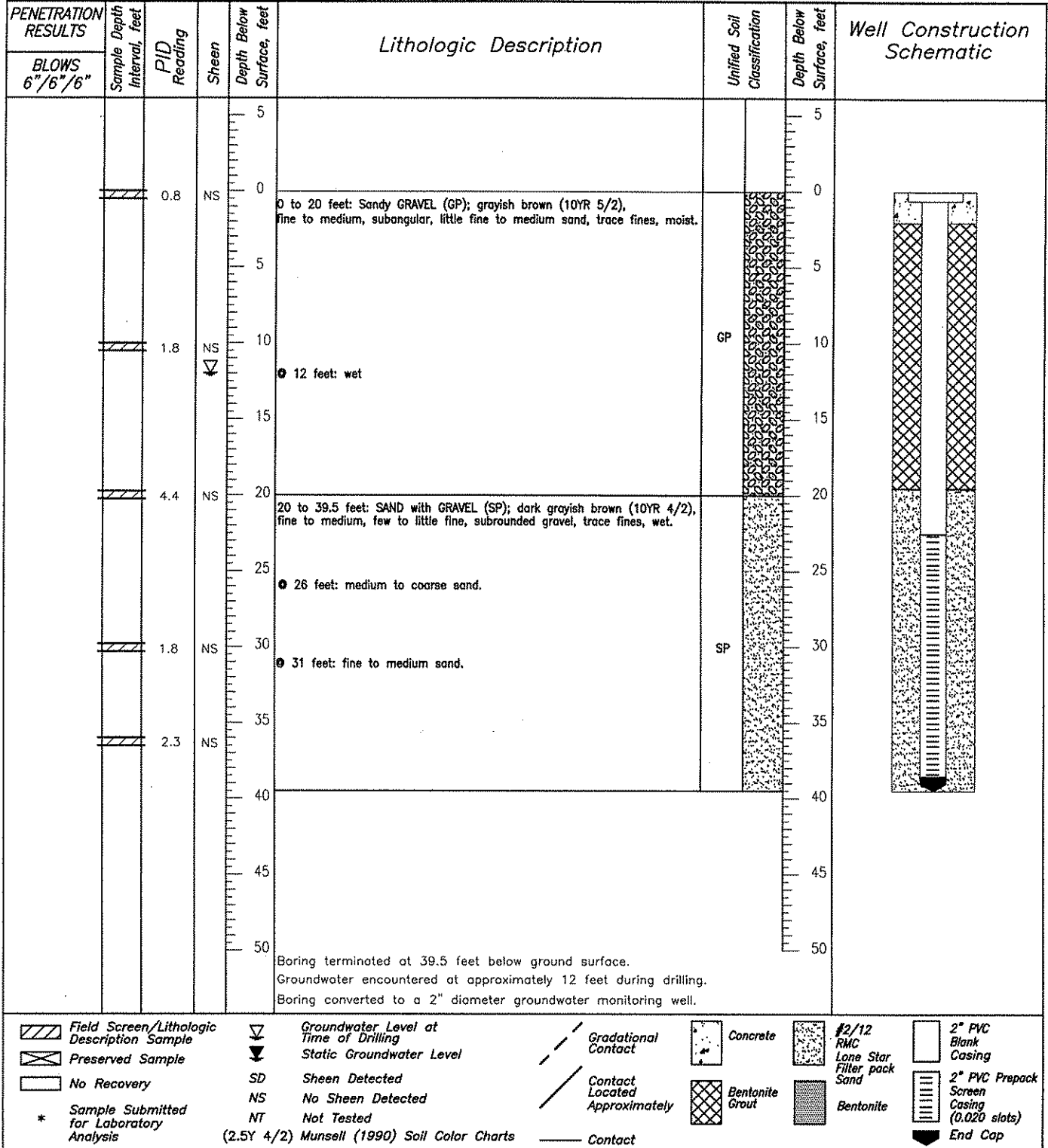
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-4s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/12/97 FINISH 11/12/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

PENETRATION RESULTS	Sample Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
				5			5	
	8.7	NS		0	0 to 8 Feet: SAND with SILT (SP-SM); dark yellowish brown (10 YR 4/4), fine to medium, few to little fines, subrounded gravel, moist.	SP-SM	0	
				5			5	
	11.1	NS	▽	10	8 to 24 feet: Sand with SILT and GRAVEL (SP-SM); dark yellowish brown (10YR 4/4), fine to medium, little to some fine to medium gravel, moist. ● 12 feet: wet.	SP-SM	10	
				15	● 15 feet: Brown (10YR 5/3).	SP-SM	15	
	5.9	NS		20			20	
				25	24 to 36 feet: SAND with SILT (SP-SM), light olive brown (2.5Y 5/3), fine, trace to coarse, trace fine gravel, Wet.	SP-SM	25	
	6.0	NS		30		SP-SM	30	
				35			35	
				40			40	
				45			45	
				50			50	

Boring terminated at 36 feet below ground surface.  
 Groundwater encountered at approximately 12 feet during drilling.  
 Boring converted to a 2" diameter groundwater monitoring well.

Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

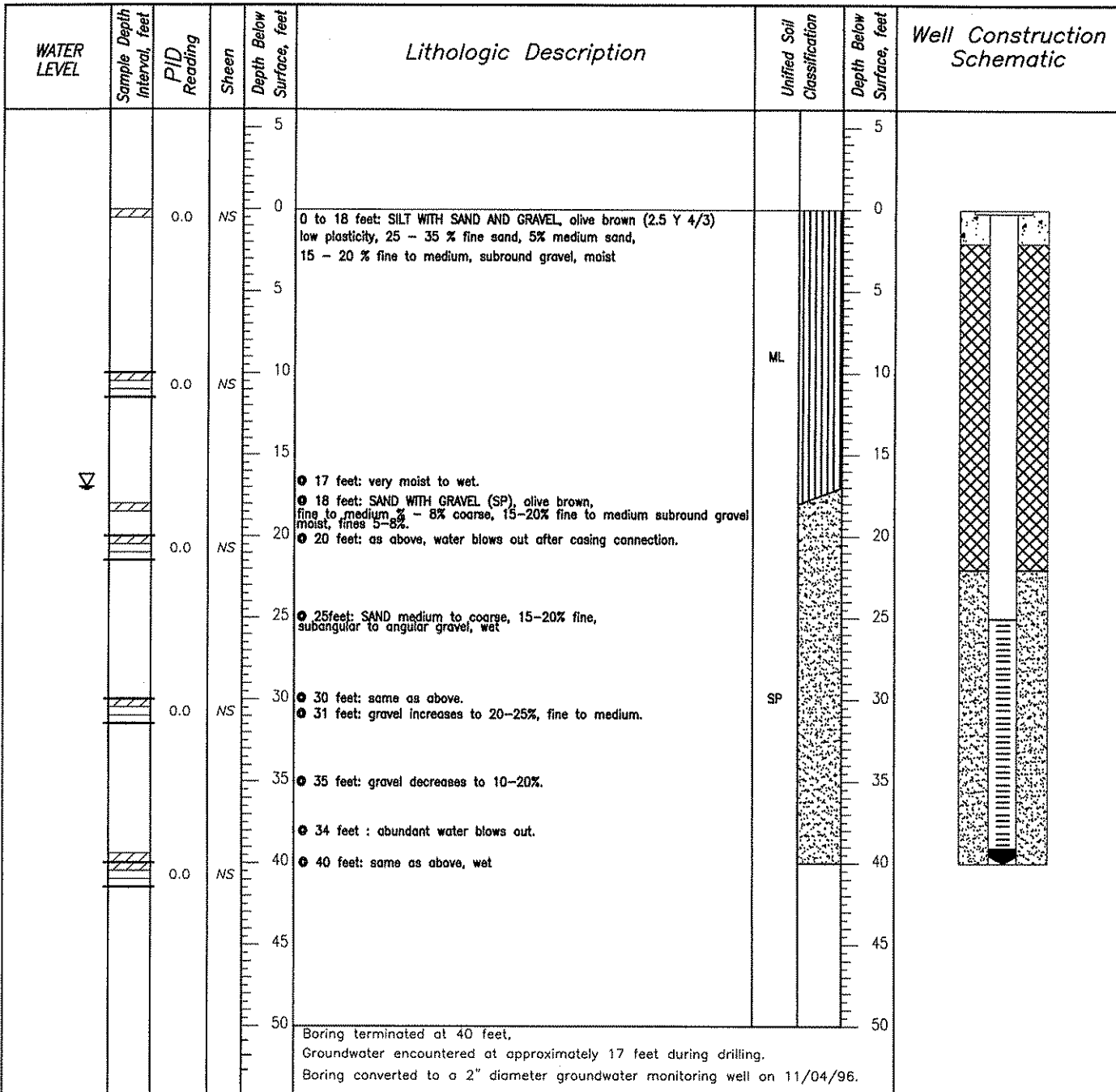
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-5s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/23/97 FINISH 1/23/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

(2.5Y 4/2) Munsell (1990) Soil Color Charts

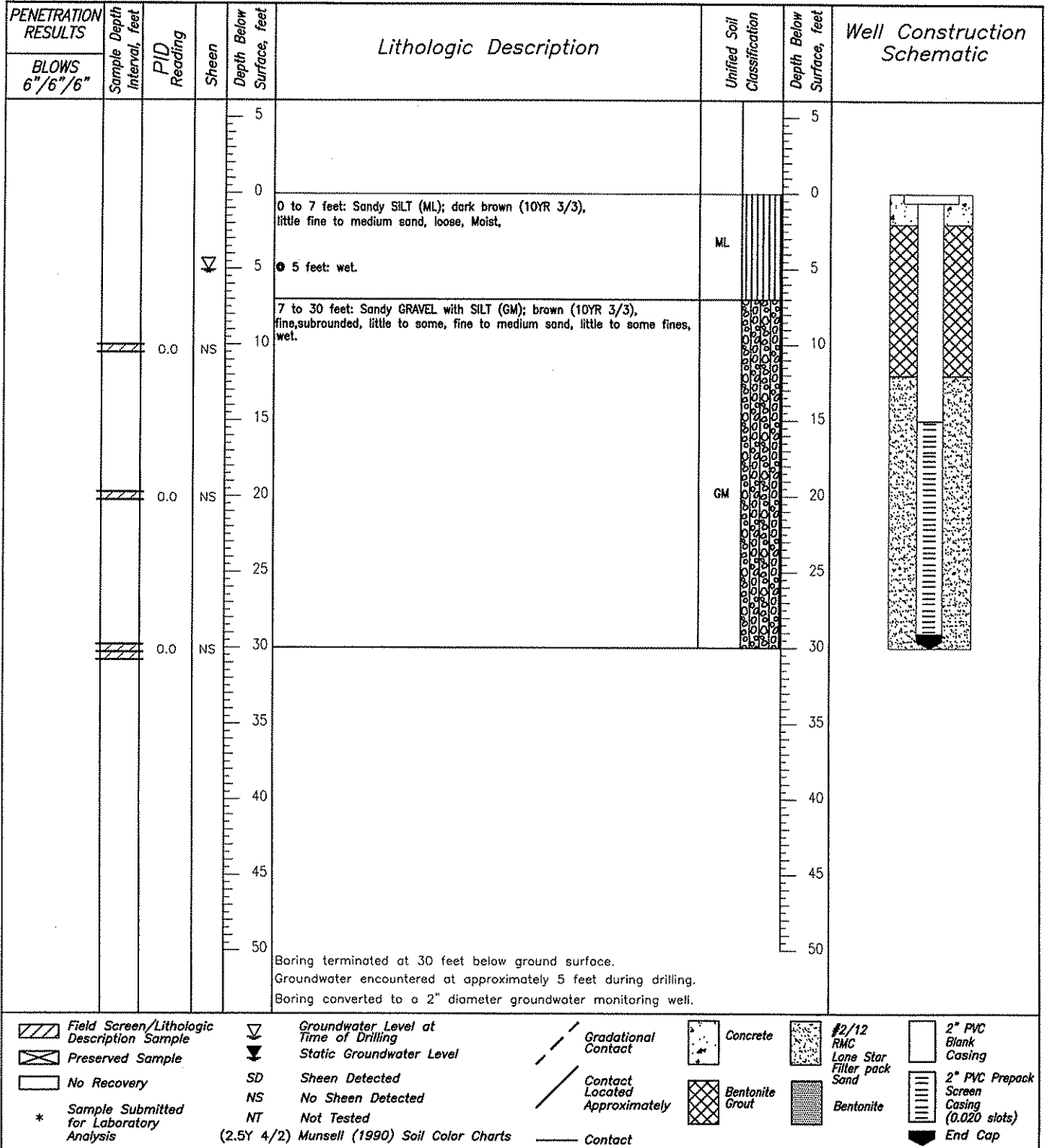
FACILITY YAKIMA RAILROAD AREA R.I. JOB # 00378-001-01 (3) BORING RI-6s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/4/97 1500 FINISH 11/4/97 1700 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING INC., AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lonestar Monterey	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Pure Gold Bentonite Chips	2" PVC Prepack Screen Casing (0.020 slots)	End Cap
No Recovery	SD Sheen Detected	Contact			
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				



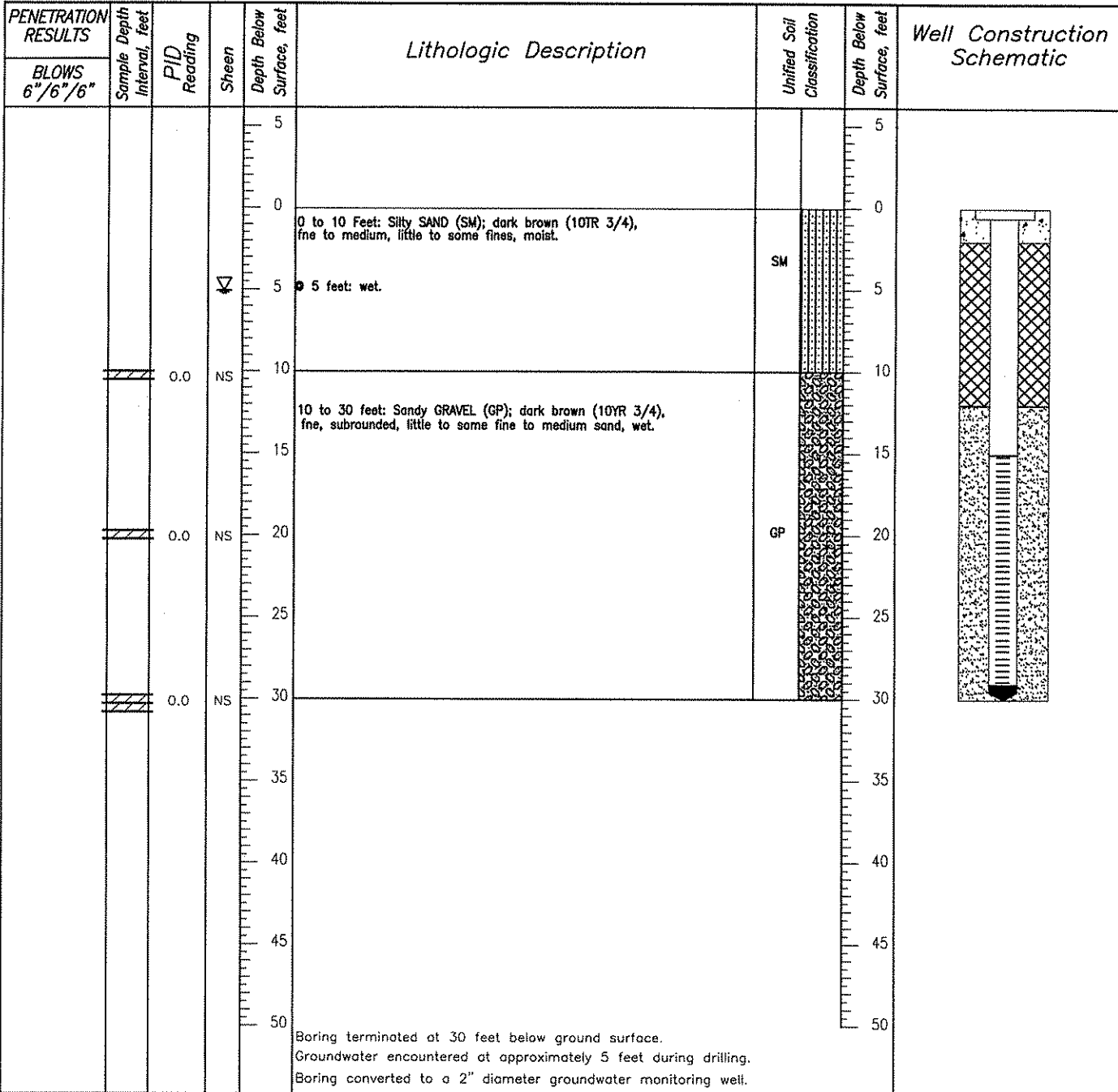
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-7s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/29/97 FINISH 1/29/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lane Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

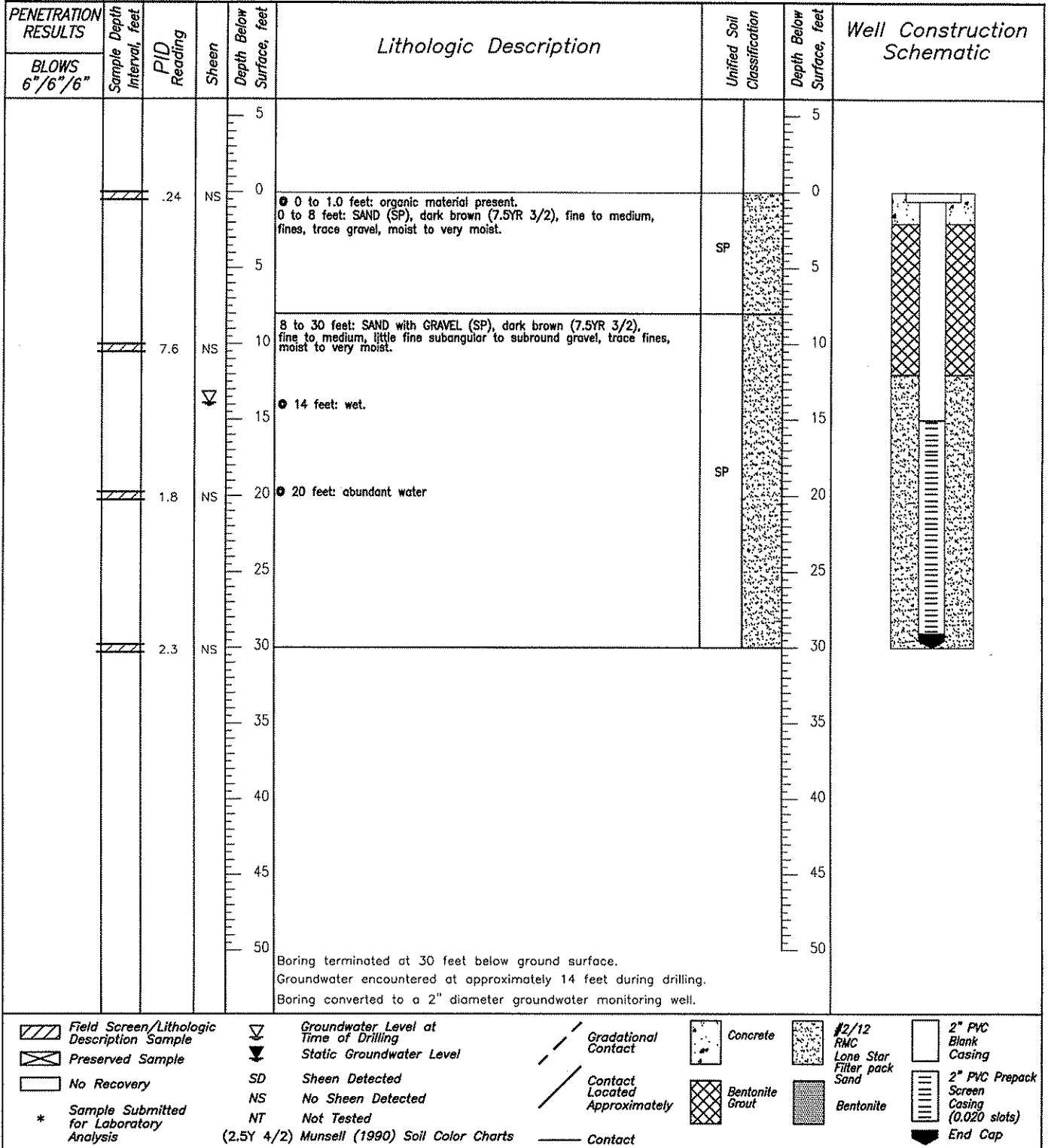
(2.5Y 4/2) Munsell (1990) Soil Color Charts

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-8s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/28/97 FINISH 1/28/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-0s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/24/97 FINISH 1/24/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-10s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/07/97 FINISH 11/07/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

PENETRATION RESULTS		Sample Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
BLOWS	6"/6"/6"								
		0.8	NS		5				
		7.2	NS		10				
		21.7	NS		20				
		20.7	NS		30				
		18.2	NS		35				
					40				
					45				
					50				

0 to 35.5 feet: SAND with GRAVEL (SP), grayish brown (2.5Y 5/2), medium to coarse, some fine subrounded gravel, trace fines, moist.

● 15 feet: SAND; fine to medium, wet.

● 20 feet: few fines.

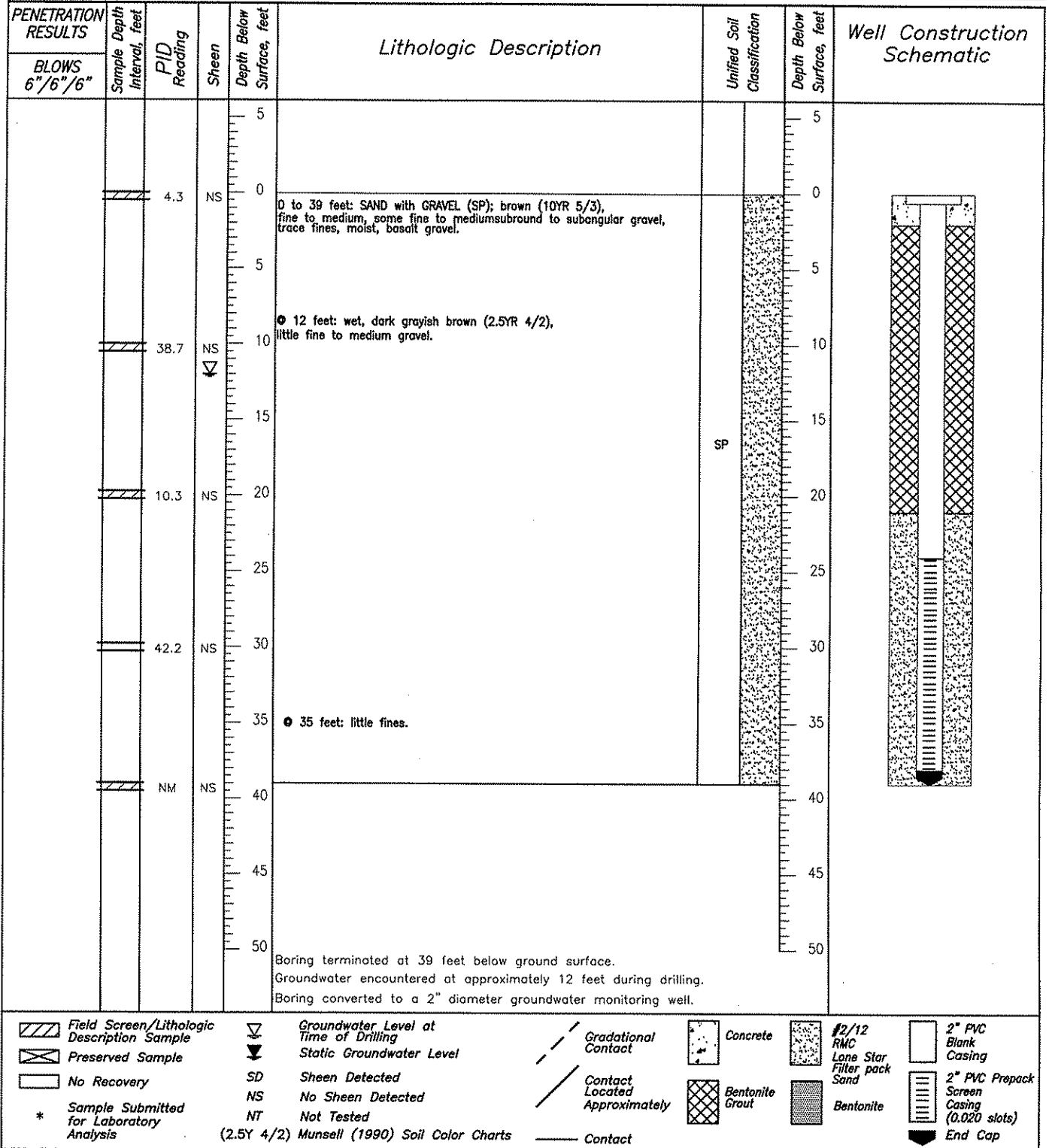
● 23 feet: dark grayish brown (2.5YR 4/2).

Boring terminated at 35 feet below ground surface.  
 Groundwater encountered at approximately 15 feet during drilling.  
 Boring converted to a 2" diameter groundwater monitoring well.

Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lane Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

(2.5Y 4/2) Munsell (1990) Soil Color Charts

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-11s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/18/97 FINISH 11/18/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample  
 Preserved Sample  
 No Recovery  
 \* Sample Submitted for Laboratory Analysis

Groundwater Level at Time of Drilling  
 Static Groundwater Level  
 SD Sheen Detected  
 NS No Sheen Detected  
 NT Not Tested  
 (2.5Y 4/2) Munsell (1990) Soil Color Charts

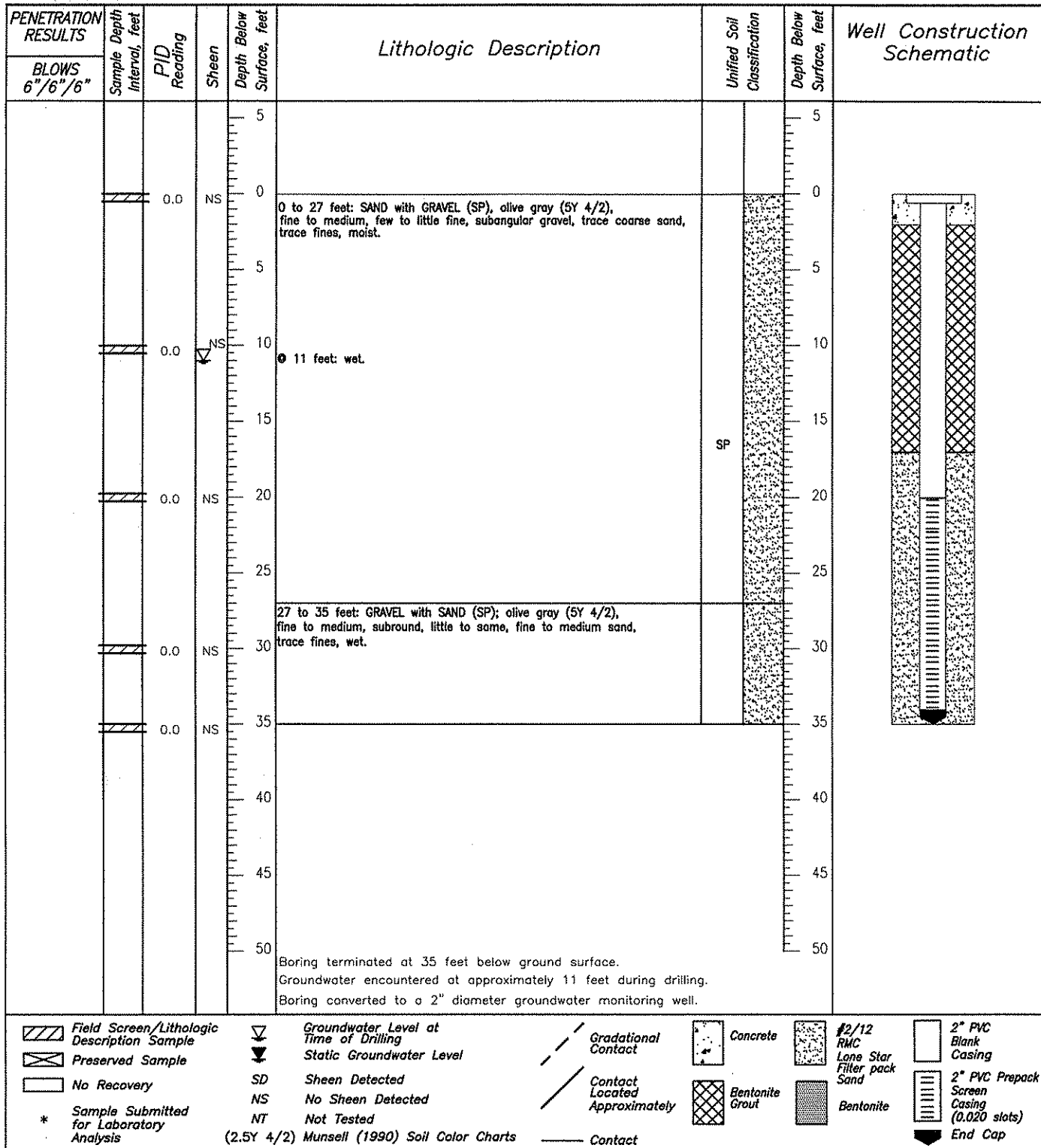
Gradational Contact  
 Contact Located Approximately  
 Contact

Concrete  
 Bentonite Grout

#2/12 RMC  
 Lone Star Filter pack Sand  
 Bentonite

2" PVC Blank Casing  
 2" PVC Prepack Screen Casing (0.020 slots)  
 End Cap

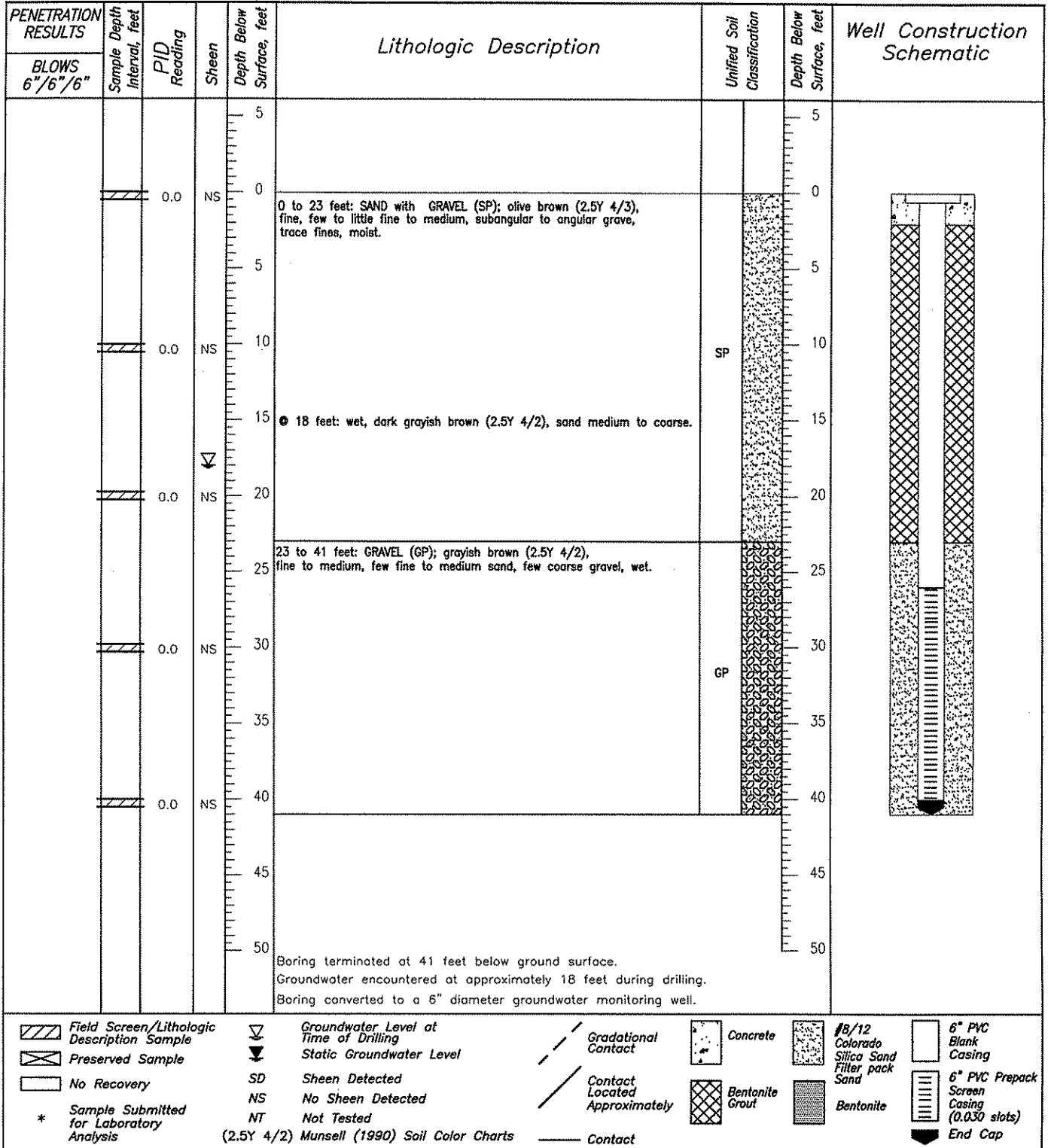
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-12s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/97 FINISH 11/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

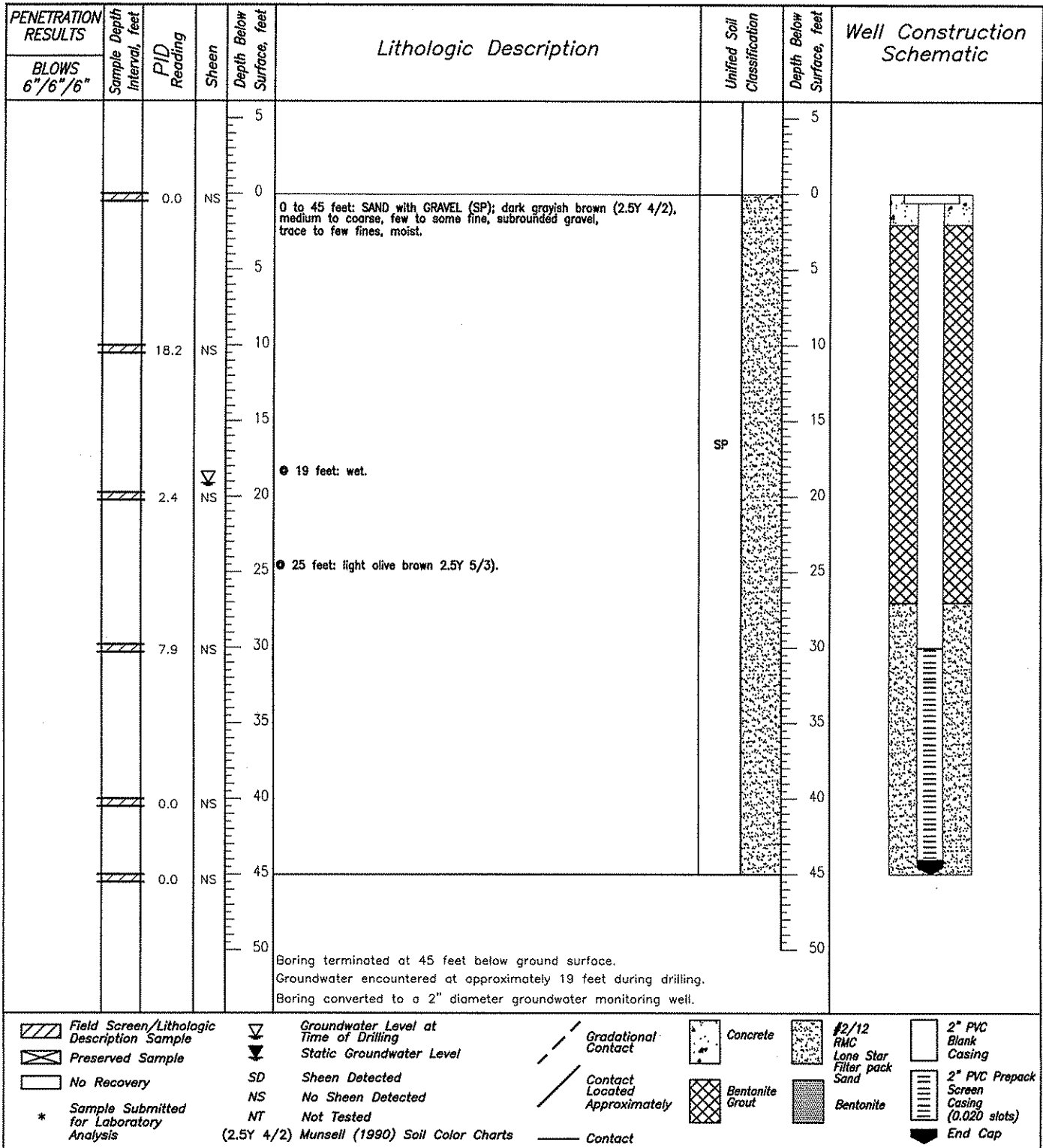
(2.5Y 4/2) Munsell (1990) Soil Color Charts

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-13s  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/03/97 FINISH 11/03/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



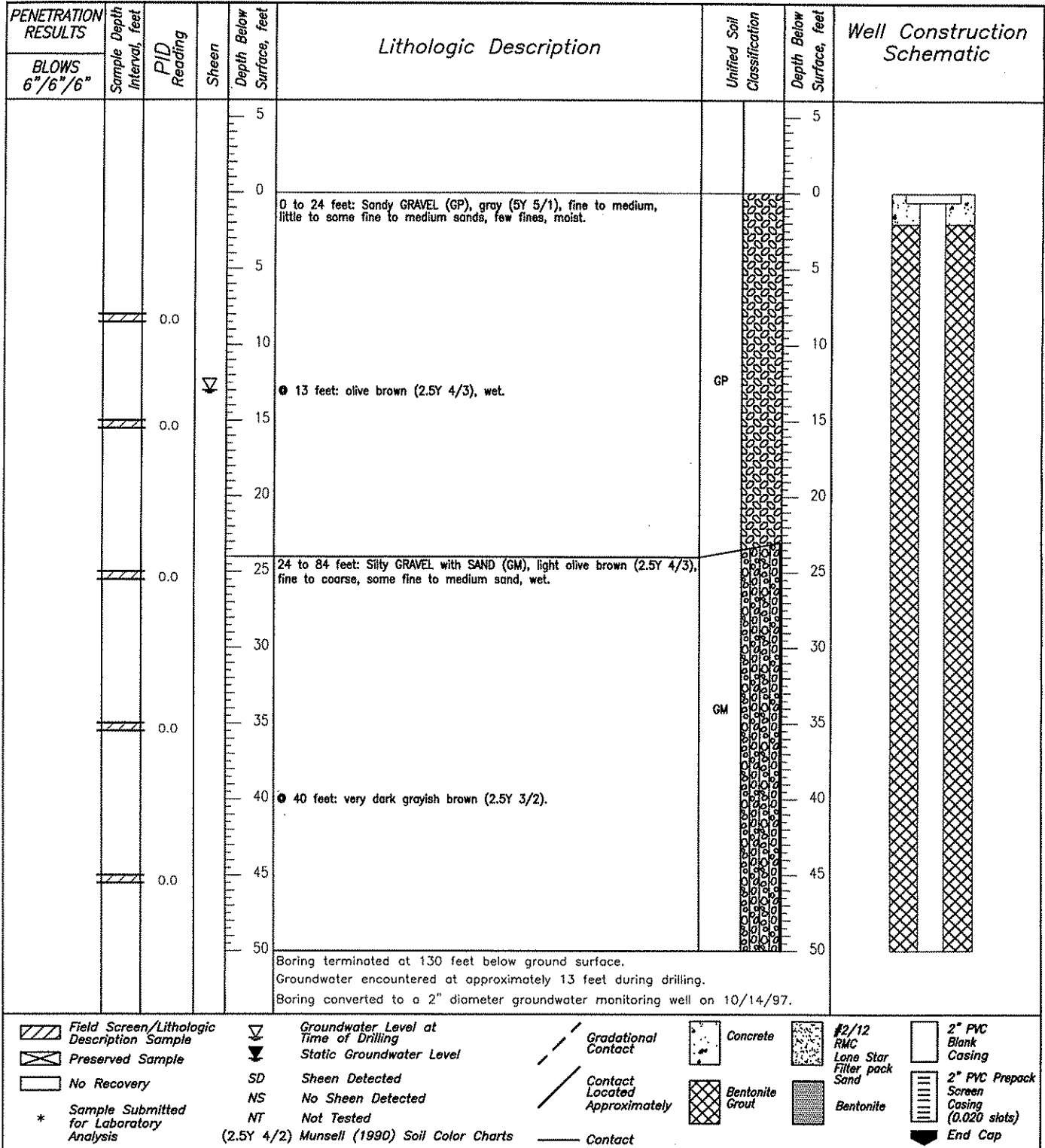
Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#8/12 Colorado Silica Sand Filter pack Sand	6" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	6" PVC Prepack Screen Casing (0.030 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-14a  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/06/97 FINISH 11/06/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



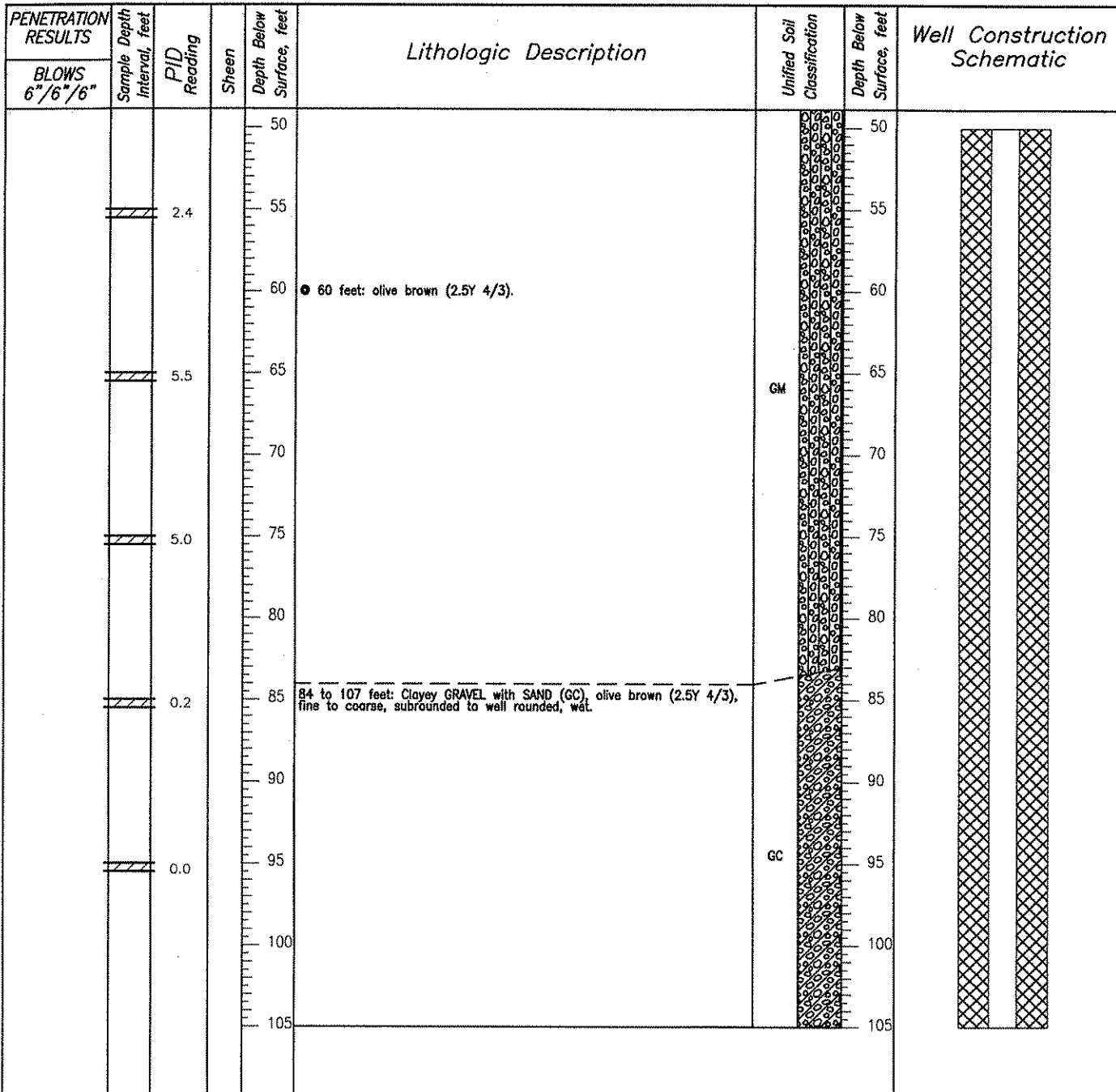


FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-1d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/14/97 FINISH 10/14/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



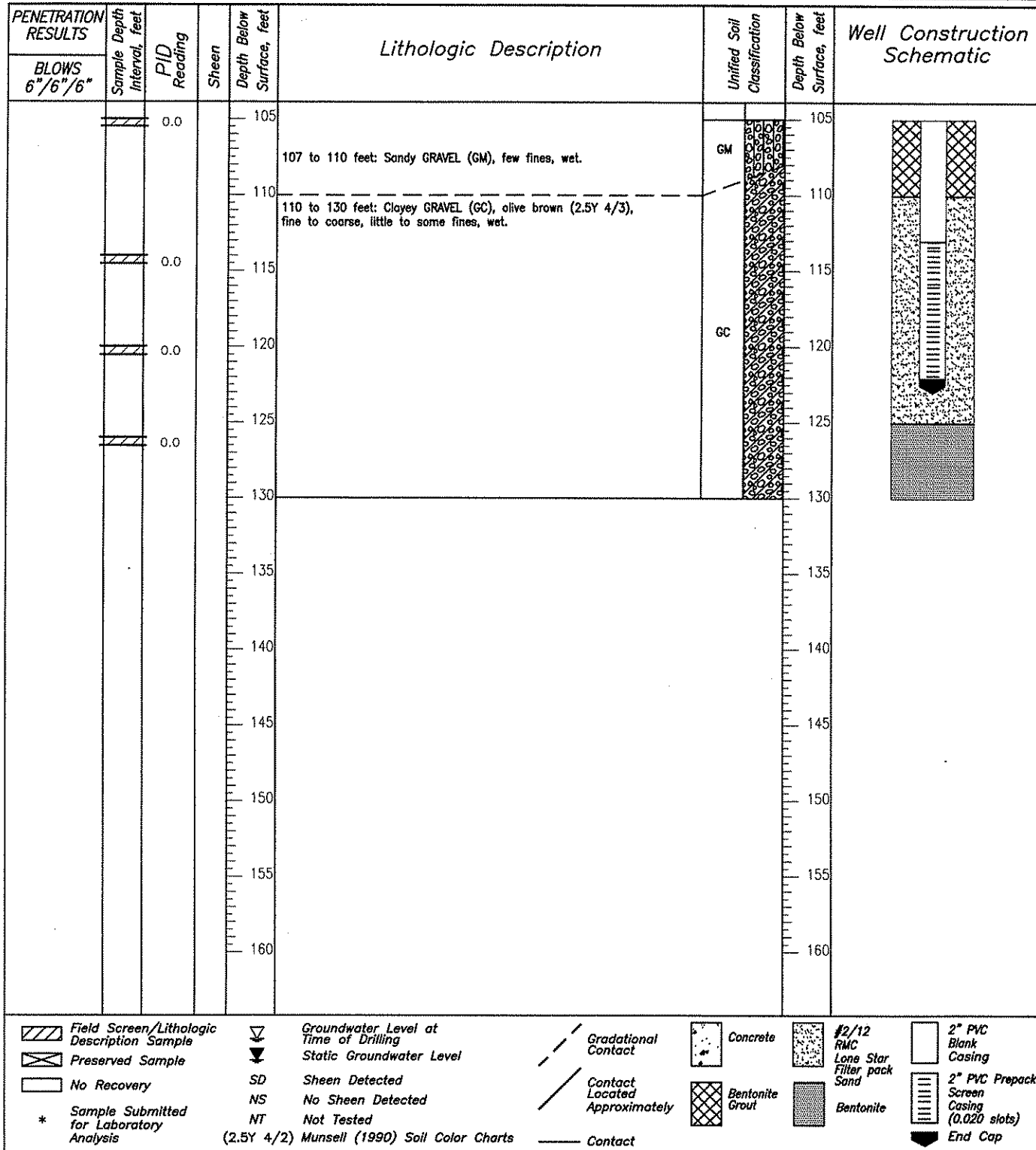
Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lana Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-1d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/14/97 FINISH 10/14/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

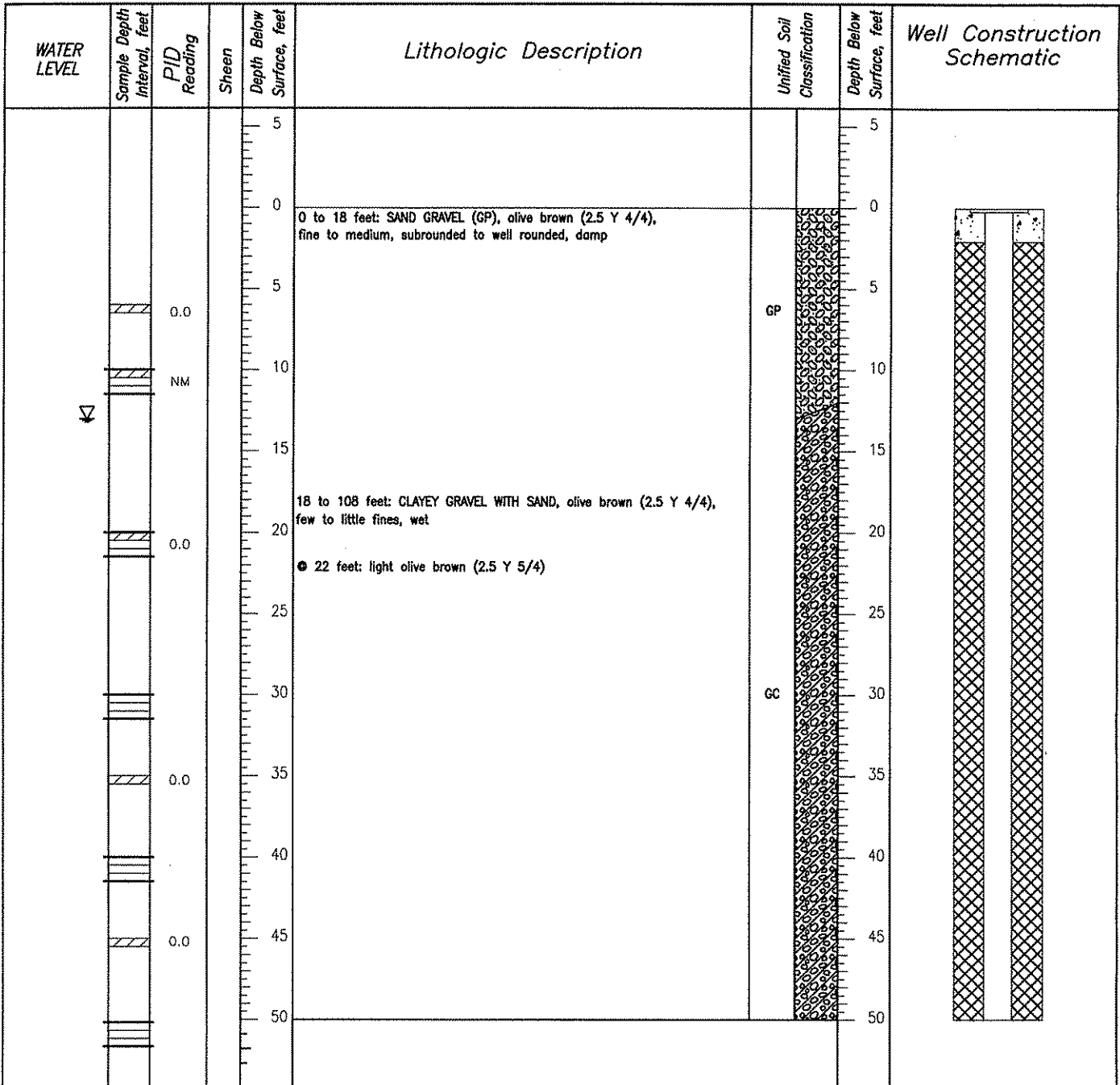


Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-1d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/14/97 FINISH 10/14/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



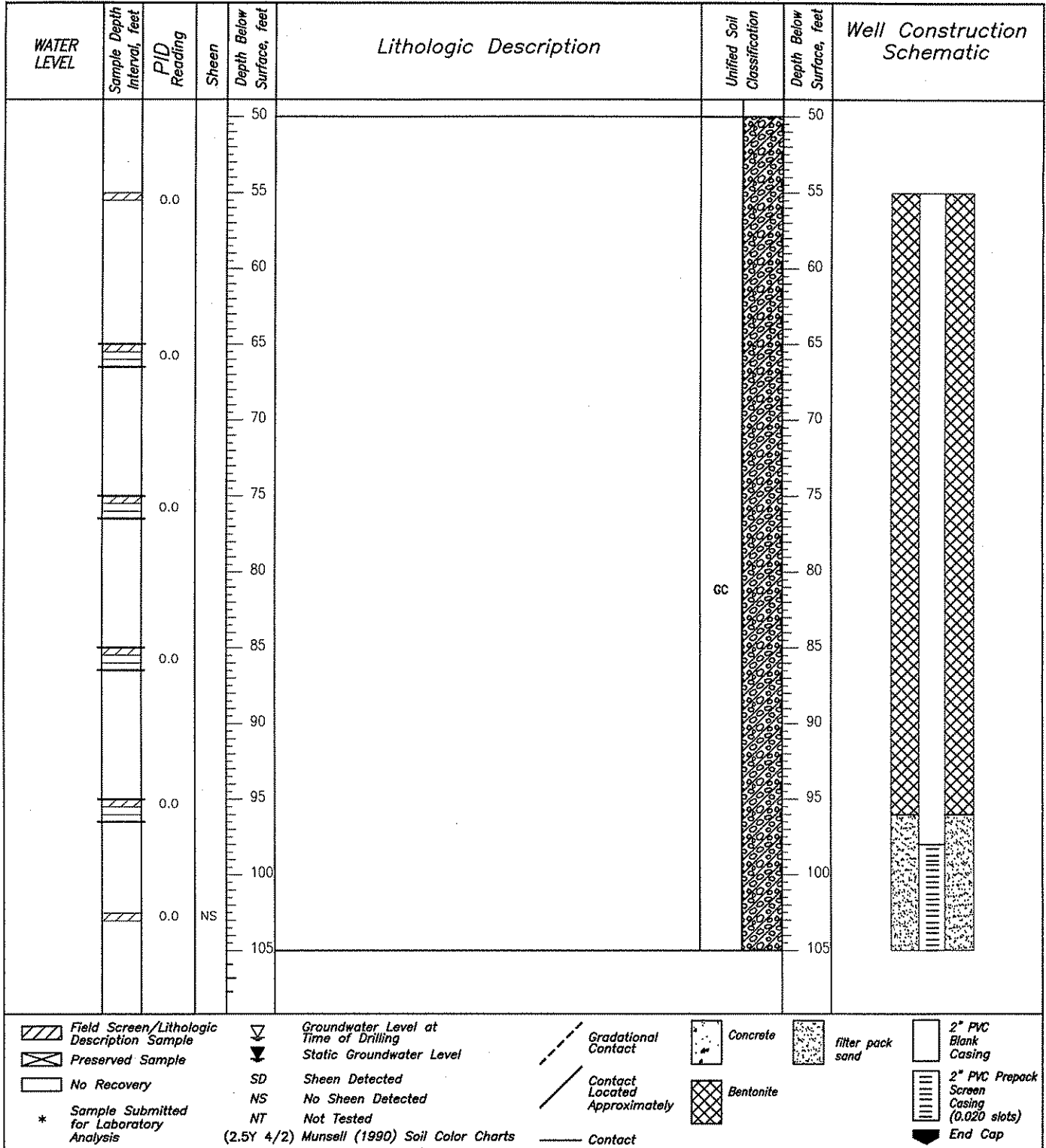
FACILITY YAKIMA RAILROAD AREA R.I. JOB # 00378-001-01 (3) BORING RI-2d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/16/97 16:30 FINISH 10/17/97 12:30 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING INC., AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	filter pack sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite		2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

(2.5 Y 4/2) Munsell (1990) Soil Color Charts

FACILITY YAKIMA RAILROAD AREA R.I. JOB # 00378-001-01 (3) BORING Rl-2d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/15/97 16:30 FINISH 10/17/97 12:30 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING INC., AIR ROTARY  
 COMMENTS \_\_\_\_\_

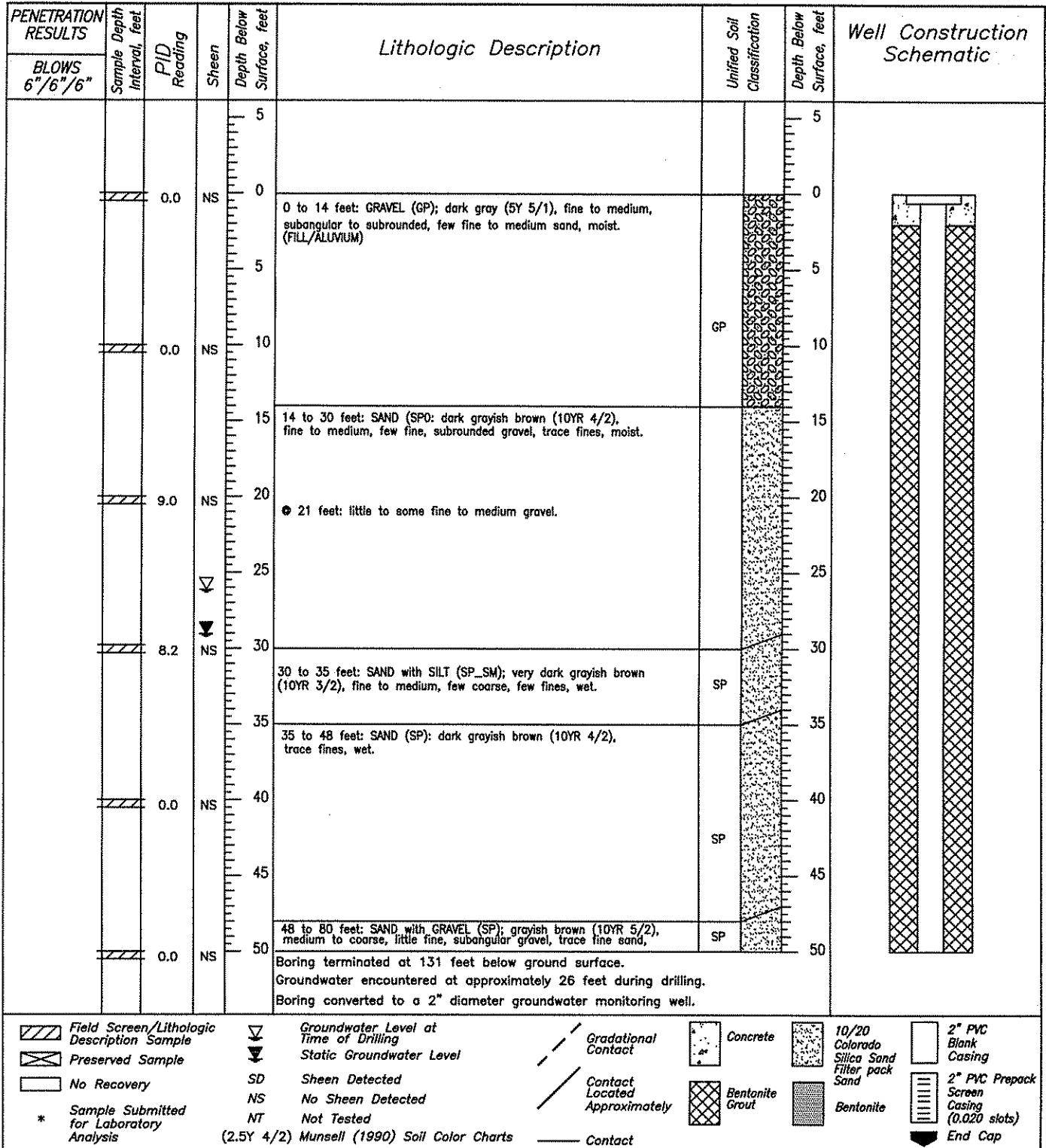


FACILITY YAKIMA RAILROAD AREA R.I. JOB # 00378-001-01 (3) BORING RI-2d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/15/97 16:30 FINISH 10/17/97 12:30 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING INC., AIR ROTARY  
 COMMENTS \_\_\_\_\_

WATER LEVEL	Sample Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
				105		GC	105	
				110			110	
				115			115	
				120			120	
				125			125	
				130			130	
				135			135	
				140			140	
				145			145	
				150			150	
				155			155	
				160			160	
					Boring terminated at 108 feet, Groundwater encountered at approximately 13 feet during drilling. Boring converted to a groundwater monitoring well on 10/17/97.			

Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	filter pack sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite		2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-3d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/20/97 FINISH 10/21/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



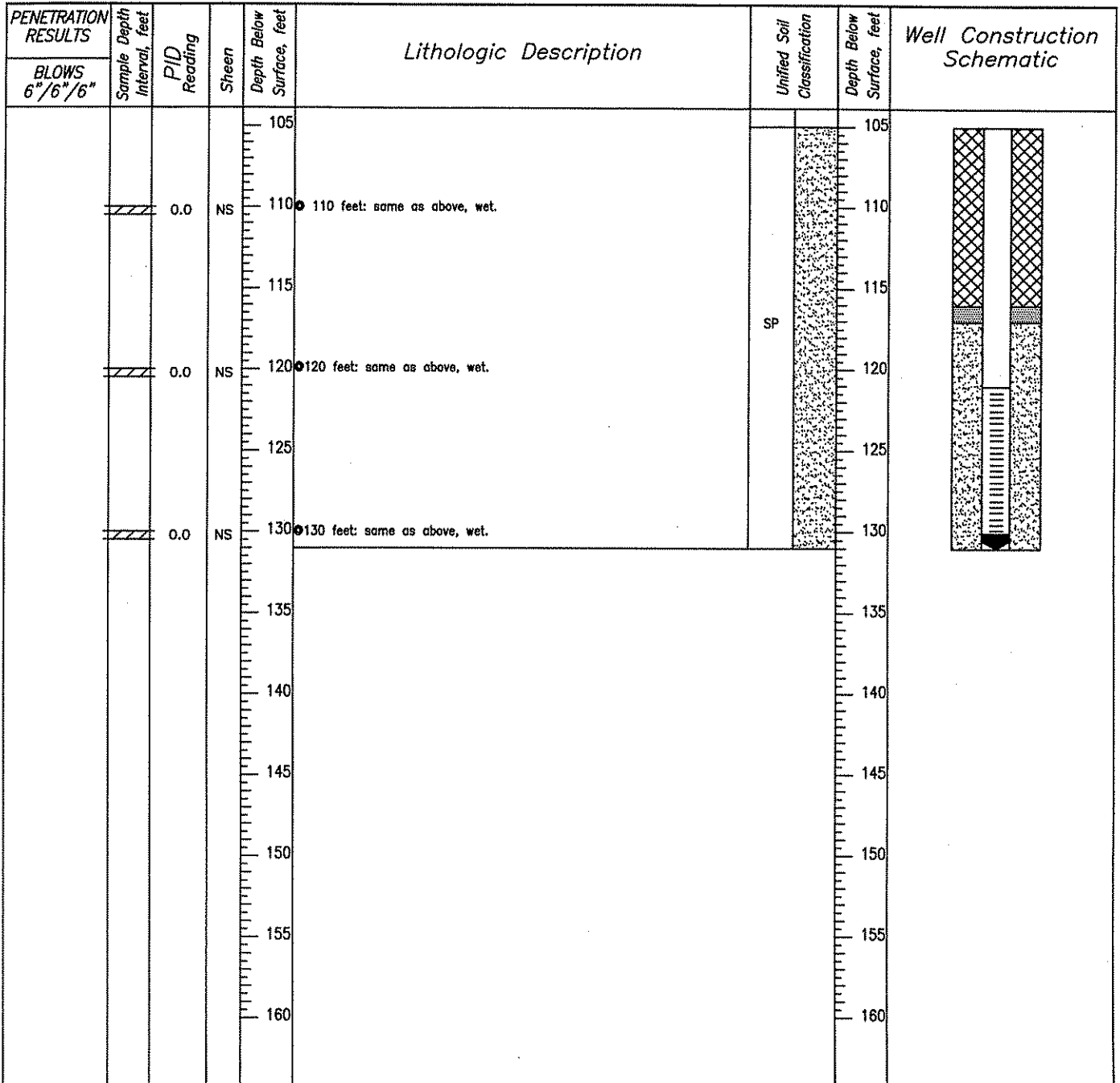
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-3d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/20/97 FINISH 10/21/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

PENETRATION RESULTS	Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
				50	trace fines, wet. (ALLUVIUM)		50	
				55	● 55 feet: gravel coarse.	SP	55	
	0.0	NS		60	● 60 feet: gravel fine with trace coarse.		60	
				65			65	
	0.0	NS		70			70	
				75	● 75 to 80 feet: some gravel.		75	
	0.0	NS		80	80 to 130 feet: SAND with GRAVEL (SP), fine to medium, little to some fine gravel, wet.		80	
				85			85	
	0.0	NS		90	● 90 feet: medium to coarse sand, trace fine sand.	SP	90	
				95			95	
	0.0	NS		100	● 100 feet: same as above, but medium to coarse sand, gravel is subangular to angular, wet.		100	
				105			105	
Boring terminated at 131 feet below ground surface. Groundwater encountered at approximately 26 feet during drilling. Boring converted to a 2" diameter groundwater monitoring well.								

Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	10/20 Colorado Silica Sand Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				



FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-3d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/20/97 FINISH 10/21/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



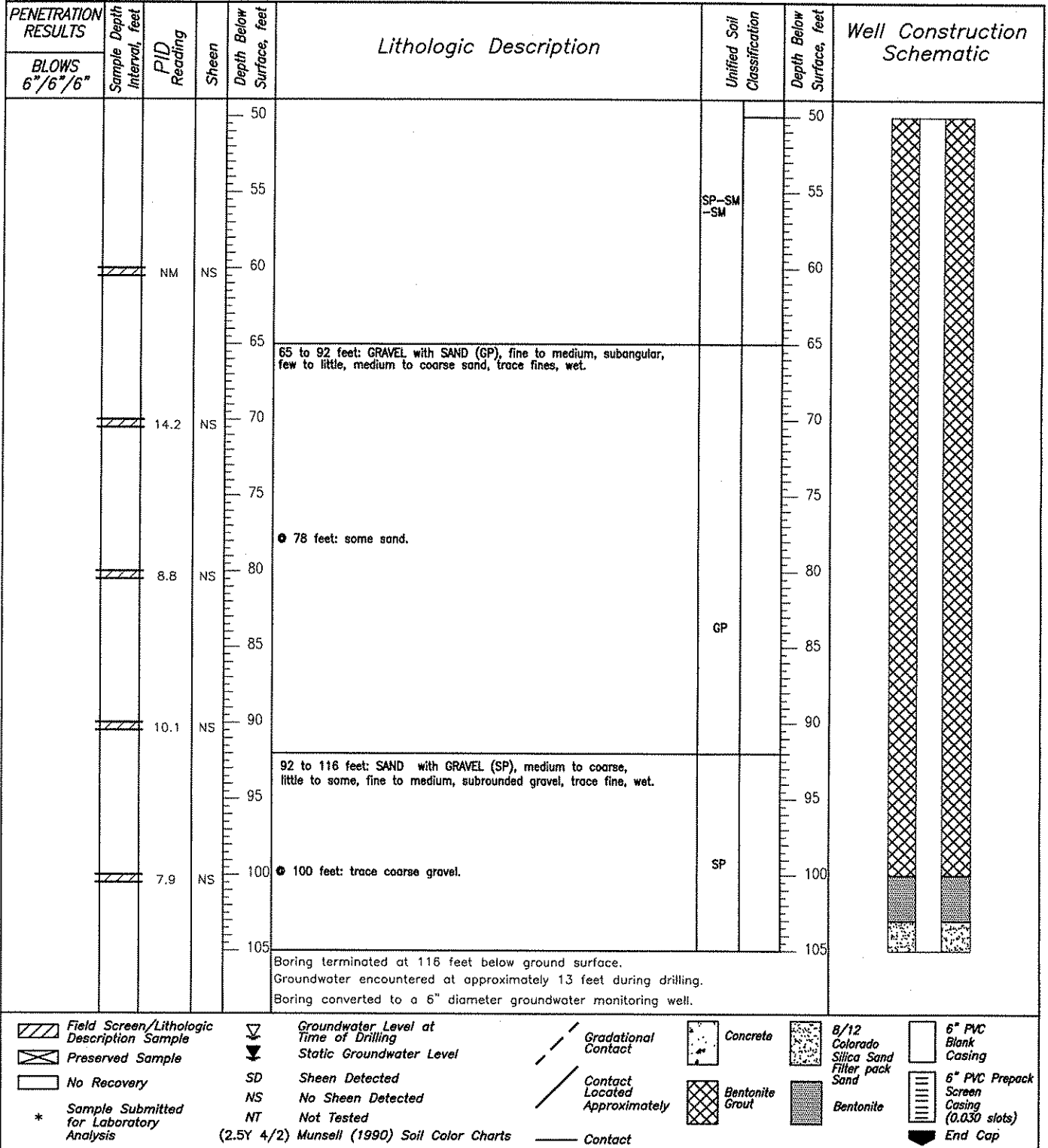
Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	8/12 RMC Lane Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-4d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/11/97 FINISH 11/12/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

PENETRATION RESULTS		Sample Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
BLOWS	6"/6"/6"								
					5				
		9.0	NS		0	0 to 26 feet: SAND with SILT and GRAVEL (SP_SM), brown to dark brown (10 Y 4/ 3), few to some, fine to medium, subrounded gravel, few nonplastic fines, moist.	SP-SM		
		19.2	NS	▽	10				
		13.5	NS		20	● 12 feet: few gravel. ● 13 feet: wet.			
		17.4	NS		30	26 to 43 feet: SAND with SILT (SP-SM), grayish brown (2.5Y 5/2), fine to medium, few fines, trace fine gravel, wet.	SP-SM		
		8.1	NS		40				
		15.8	NS		50	● 38 feet: few gravel.			
					45	43 to 65 feet: SAND with SILT - Silty SAND with gravel (sp-sm-sm), grayish brown (2.5Y 5/2), approximately equal parts sand and silt, sand is fine to medium, trace to little fine to medium, subangular gravel, wet.	SP-SM -SM		
					50				
Boring terminated at 116 feet below ground surface. Groundwater encountered at approximately 13 feet during drilling. Boring converted to a 6" diameter groundwater monitoring well.									

	Field Screen/Lithologic Description Sample		Groundwater Level at Time of Drilling		Gradational Contact		Concrete		8/12 Colorado Silica Sand Filter pack Sand		6" PVC Blank Casing
	Preserved Sample		Static Groundwater Level		Contact Located Approximately		Bentonite Grout		Bentonite		6" PVC Prepack Screen Casing (0.030 slots)
	No Recovery	SD	Sheen Detected		Contact						End Cap
*	Sample Submitted for Laboratory Analysis	NS	No Sheen Detected								
		NT	Not Tested								
			(2.5Y 4/2) Munsell (1990) Soil Color Charts								

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-4d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/11/97 FINISH 11/12/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	8/12 Colorado Silica Sand Filter pack Sand	6" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	6" PVC Prepack Screen Casing (0.030 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

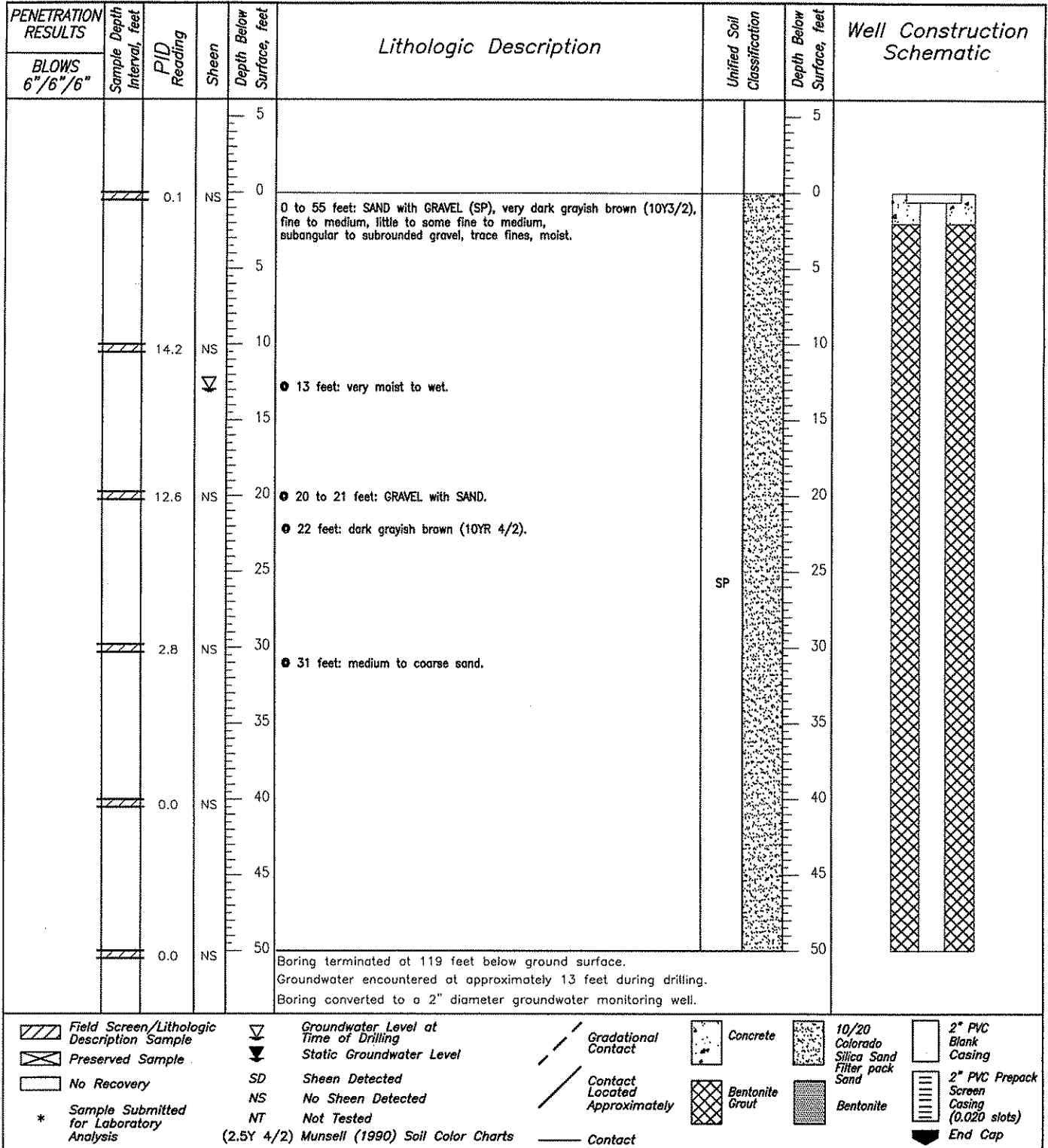
(2.5Y 4/2) Munsell (1990) Soil Color Charts

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-4d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/11/97 FINISH 11/12/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

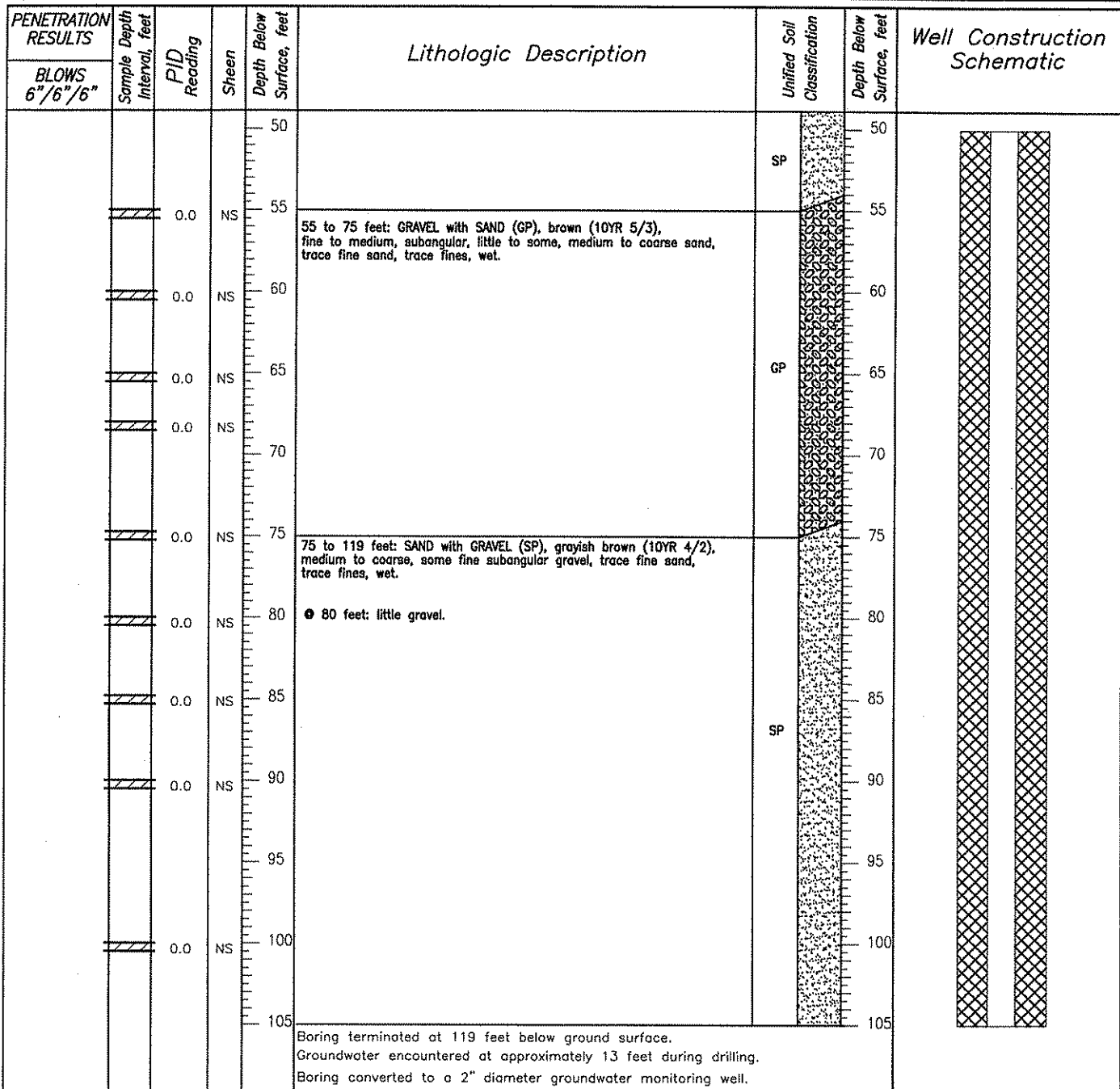
PENETRATION RESULTS	Sample Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
	7.2	7.2	NS	105			105	
				110	@ 110 feet: abundant water produced from formation during drilling.	SP	110	
				115			115	
				120			120	
				125			125	
				130			130	
				135			135	
				140			140	
				145			145	
				150			150	
				155			155	
				160			160	

Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	B/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-5d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/22/97 FINISH 10/22/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-5d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/22/97 FINISH 10/22/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	10/20 Colorado Silica Sand Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

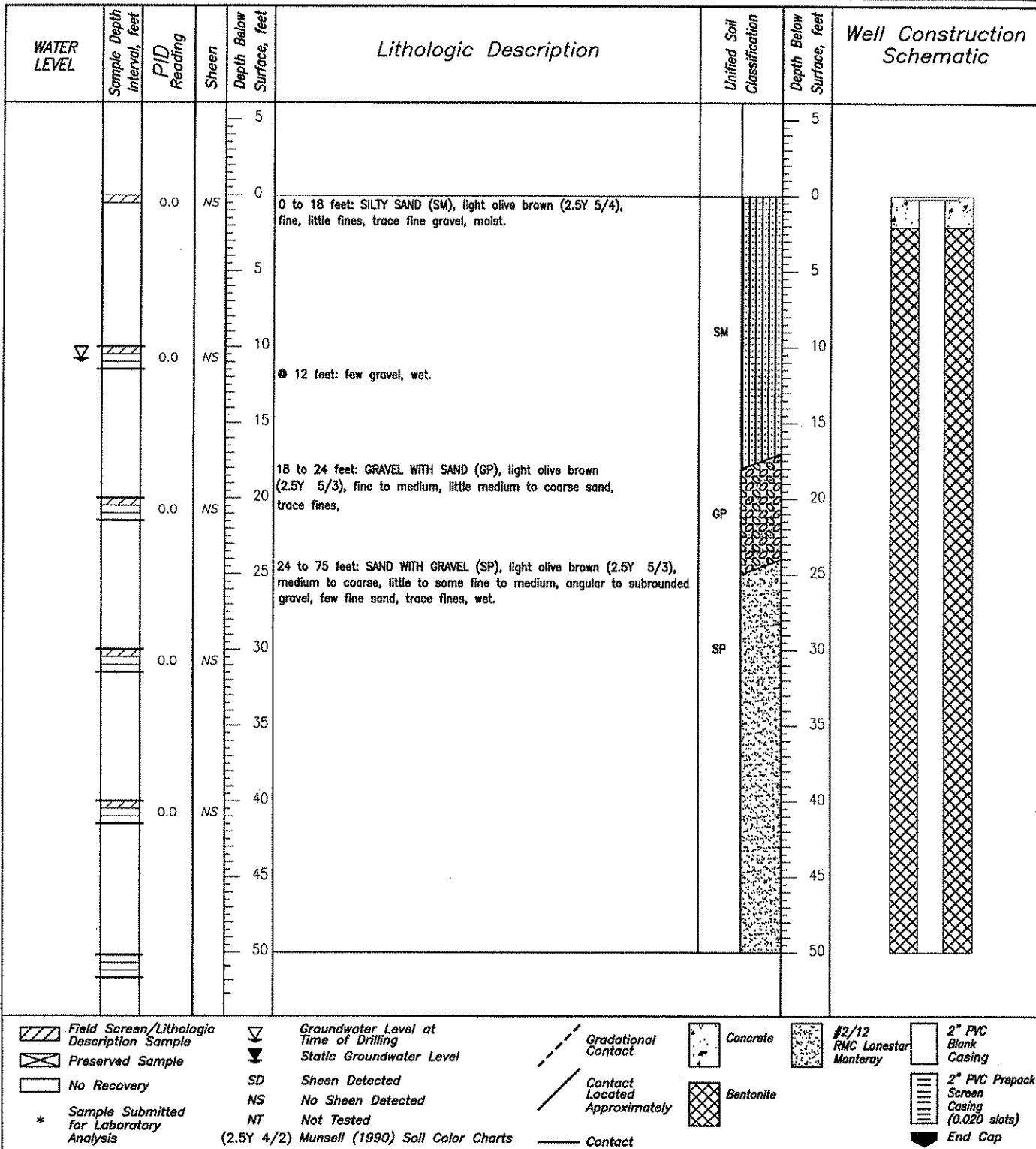
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-5d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/22/97 FINISH 10/22/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

PENETRATION RESULTS	Sample Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
		0.0	NS	105		SP	105	
				110			110	
				115			115	
				120			120	
				125			125	
				130			130	
				135			135	
				140			140	
				145			145	
				150			150	
				155			155	
				160			160	

Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Lone Star Filter pack Sand	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact	Bentonite	End Cap	
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

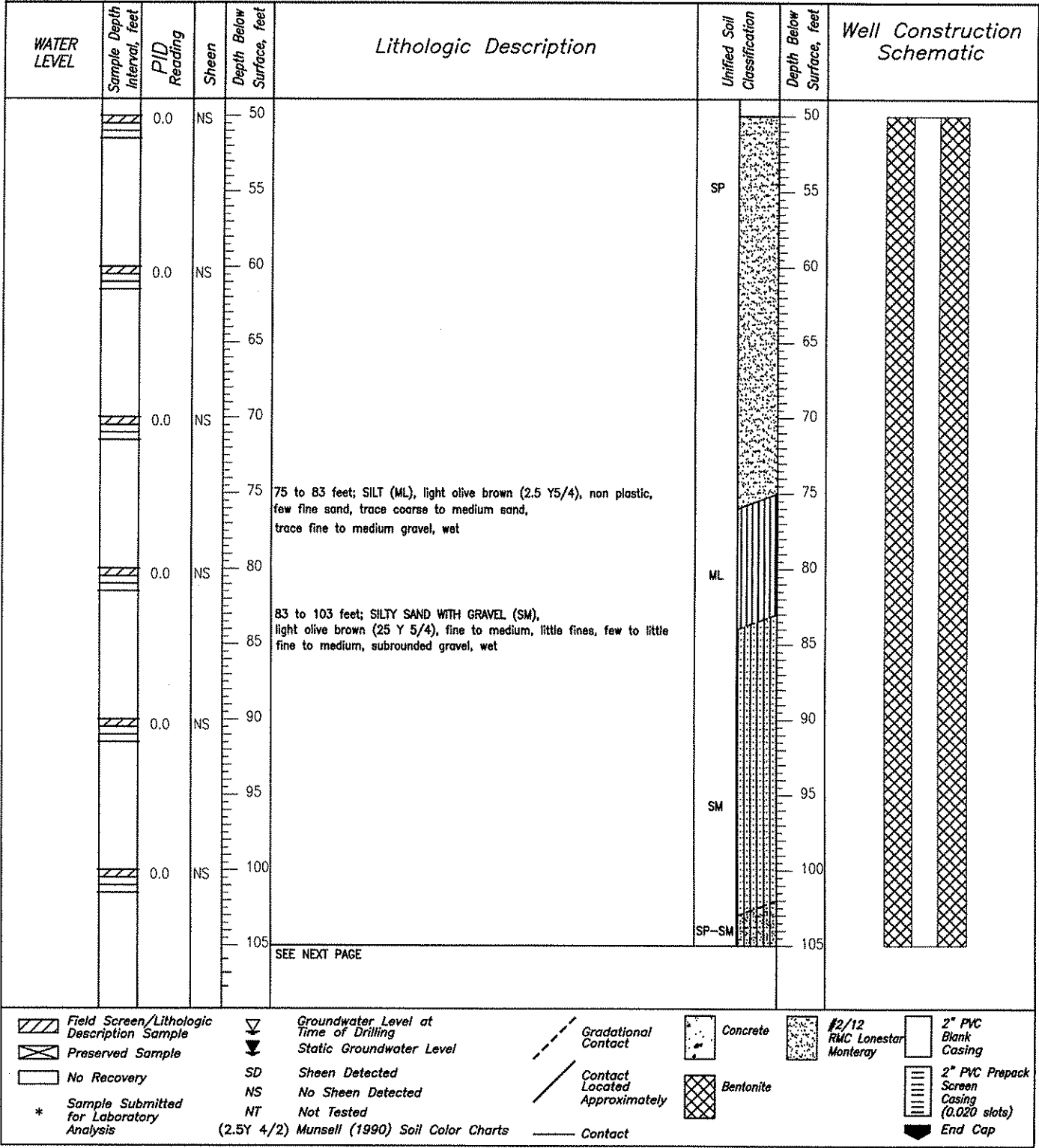
(2.5Y 4/2) Munsell (1990) Soil Color Charts

FACILITY YAKIMA RAILROAD AREA R.I. JOB # 00378-001-01 (3) BORING RI-6d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/4/97 0850 FINISH 11/4/97 1430 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING INC., AIR ROTARY  
 COMMENTS \_\_\_\_\_



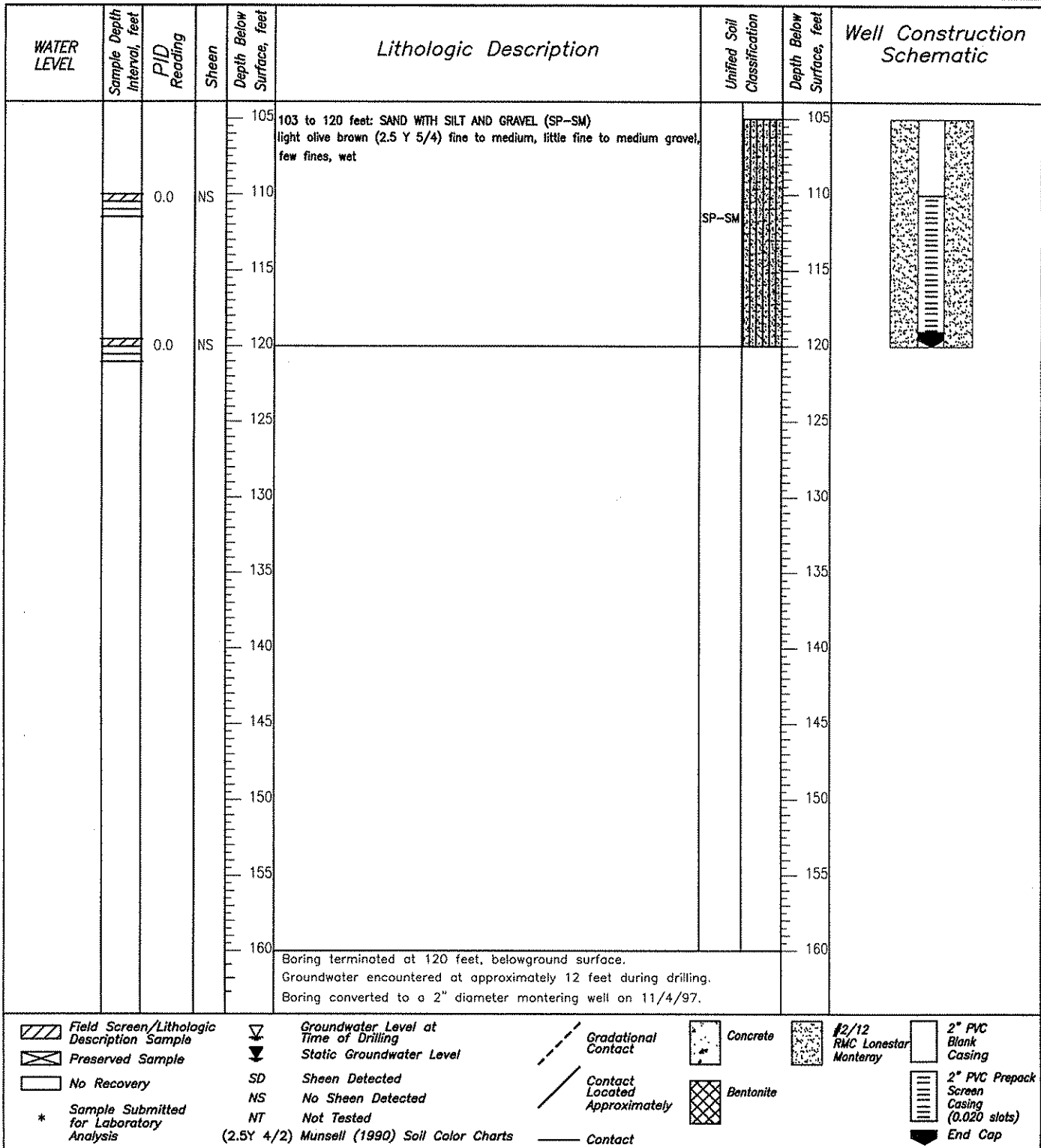


FACILITY YAKIMA RAILROAD AREA R.I. JOB # 00378-001-01 (3) BORING RI-6d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/4/97 0850 FINISH 11/4/97 1430 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING INC., AIR ROTARY  
 COMMENTS \_\_\_\_\_

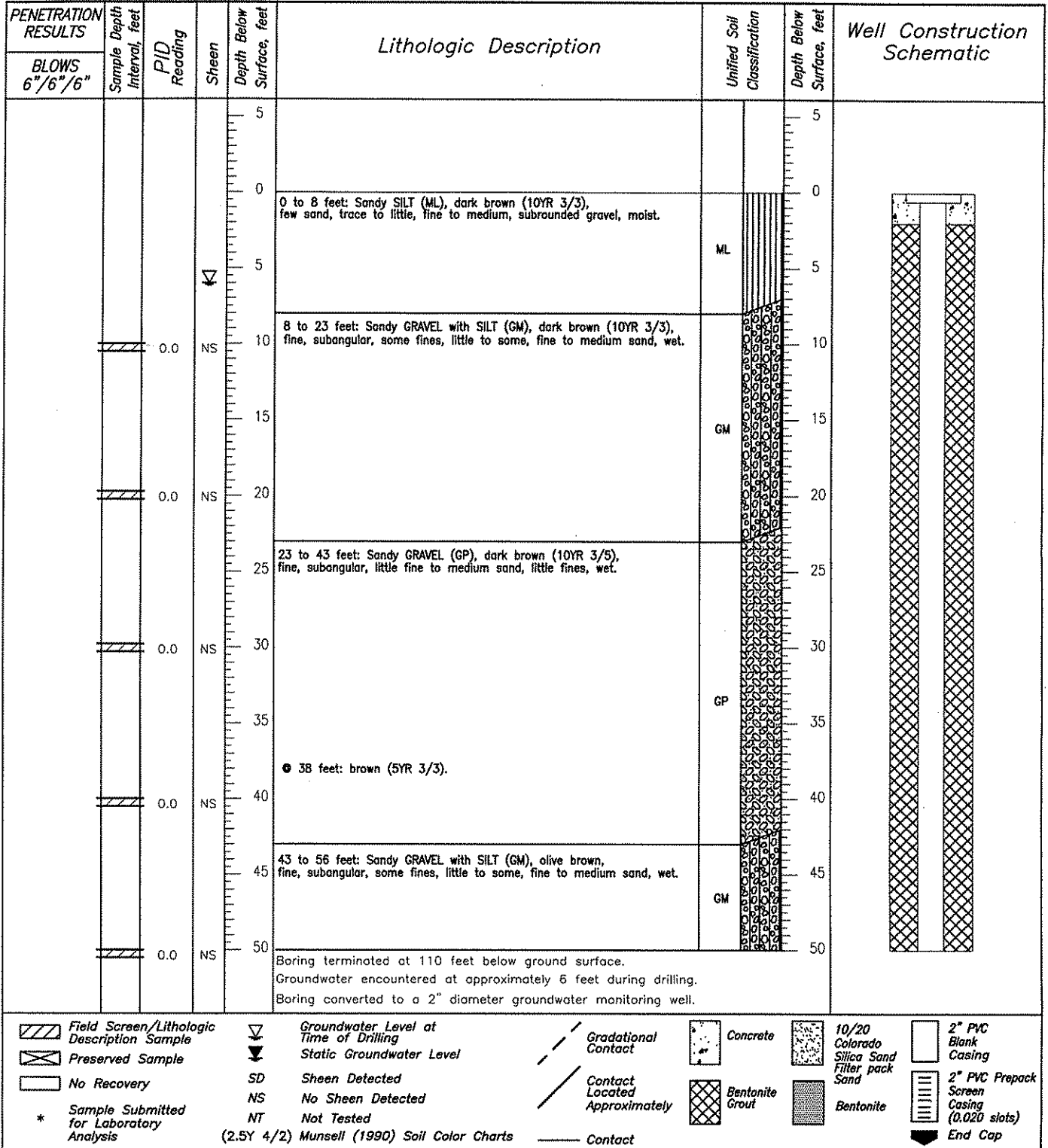


Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lonestar Monterey	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)	End Cap
No Recovery	SD Sheen Detected	Contact			
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA R.I. JOB # 00378-001-01 (3) BORING RI-8d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/4/97 0850 FINISH 11/4/97 1430 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING INC., AIR ROTARY  
 COMMENTS \_\_\_\_\_



FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-7d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/28/97 FINISH 10/28/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-7d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/28/97 FINISH 10/28/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

PENETRATION RESULTS		PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic	
BLOWS 6"/6"/6"	Sample Depth Interval, feet								
				50		GM	50		
		0.0	NS	55	56 to 110 feet: SANDY GRAVEL (GP), light brown (7.5 YR 6/3), fine to coarse, little to some fine, subrounded gravel, few fines, wet.	GP	55		
		0.0	NS	60			60		
		0.0	NS	70			70		
		0.0	NS	80			80		
				85			● 85 feet: chocolate brown (7.5YR 6/3).		85
				88			● 88 feet: light brown (7.5 YR 6/3).		88
				90					90
				95			● 95 feet: chocolate brown (5 YR 3/3).		95
				100					100
				103			● 103 feet: light brown (7.5YR 6/3).		103
				105		105			
Boring terminated at 110 feet below ground surface. Groundwater encountered at approximately 6 feet during drilling. Boring converted to a 2" diameter groundwater monitoring well.									

Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	10/20 Colorado Silica Sand Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

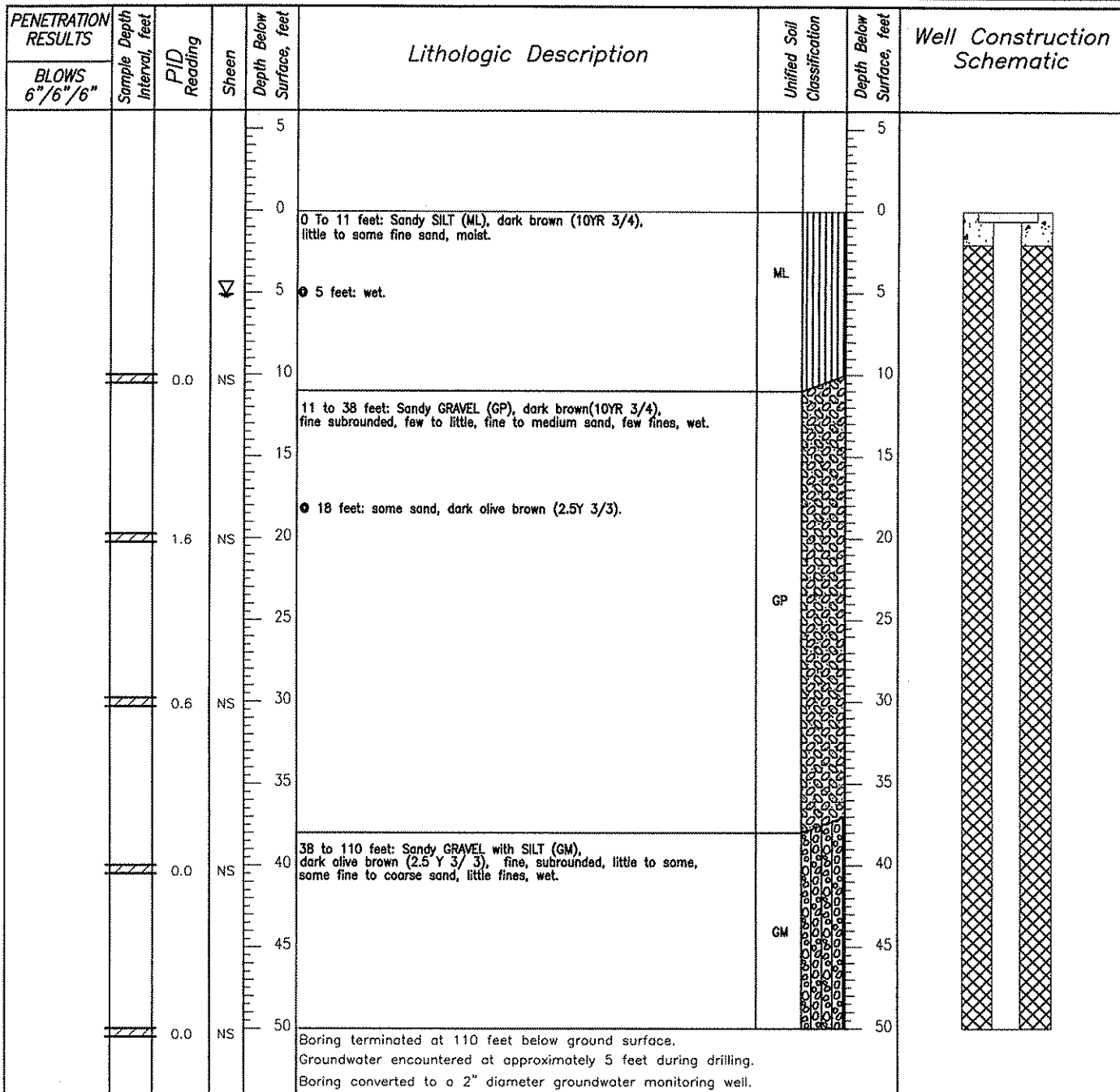
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-7d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/28/97 FINISH 10/28/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

PENETRATION RESULTS	Sample Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
		0.0	NS	105		GP	105	
				110			110	
				115			115	
				120			120	
				125			125	
				130			130	
				135			135	
				140			140	
				145			145	
				150			150	
				155			155	
				160			160	

Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lane Star Filter Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

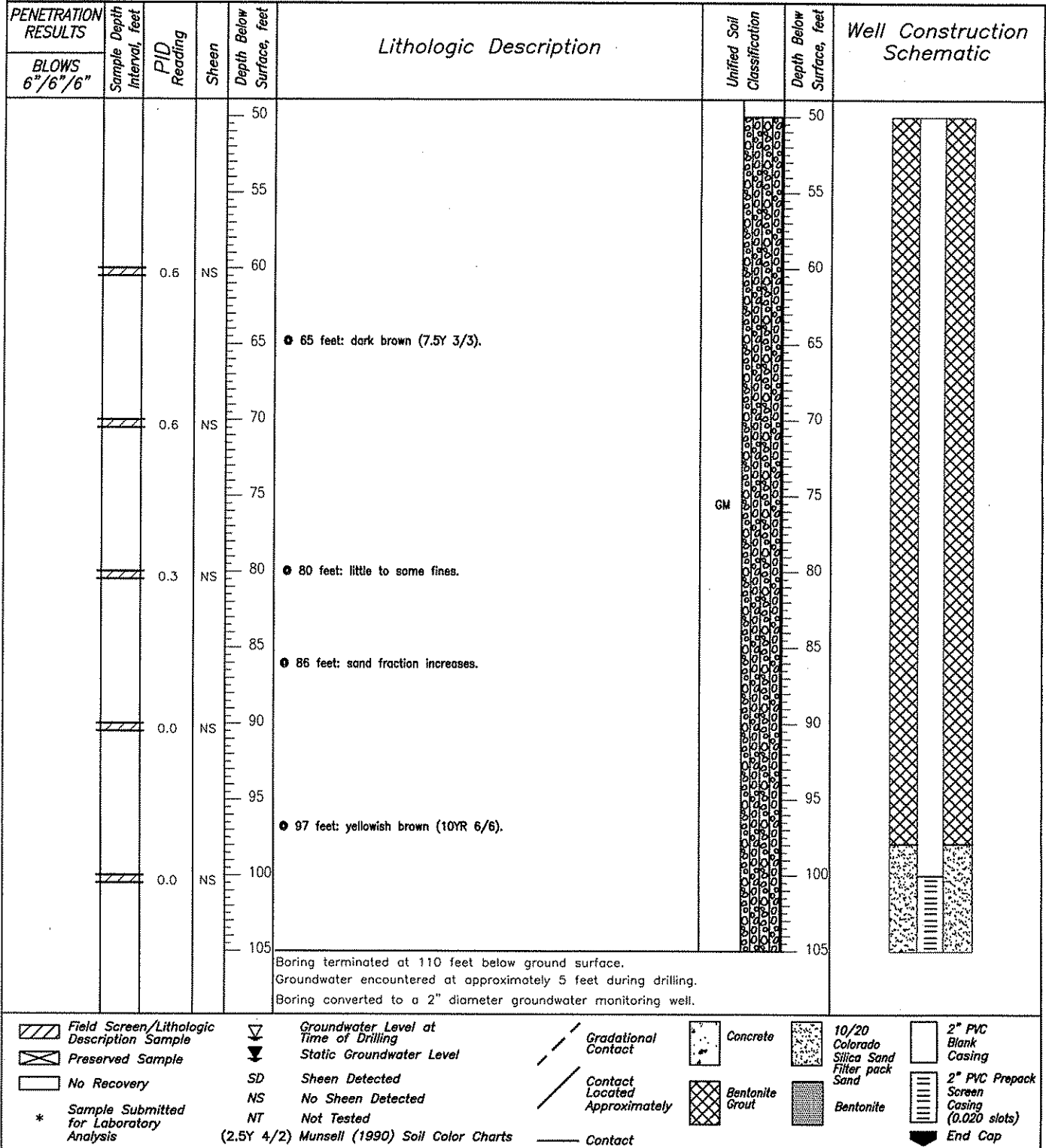
(2.5Y 4/2) Munsell (1990) Soil Color Charts

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-8d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/27/97 FINISH 10/27/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Concrete	10/20 Colorado Silica Sand Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Gradational Contact	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact Located Approximately	Bentonite Grout	End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected	Contact		
	NT Not Tested			
	(2.5Y 4/2) Munsell (1990) Soil Color Charts			

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-8d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/27/97 FINISH 10/27/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	10/20 Colorado Silica Sand Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

(2.5Y 4/2) Munsell (1990) Soil Color Charts

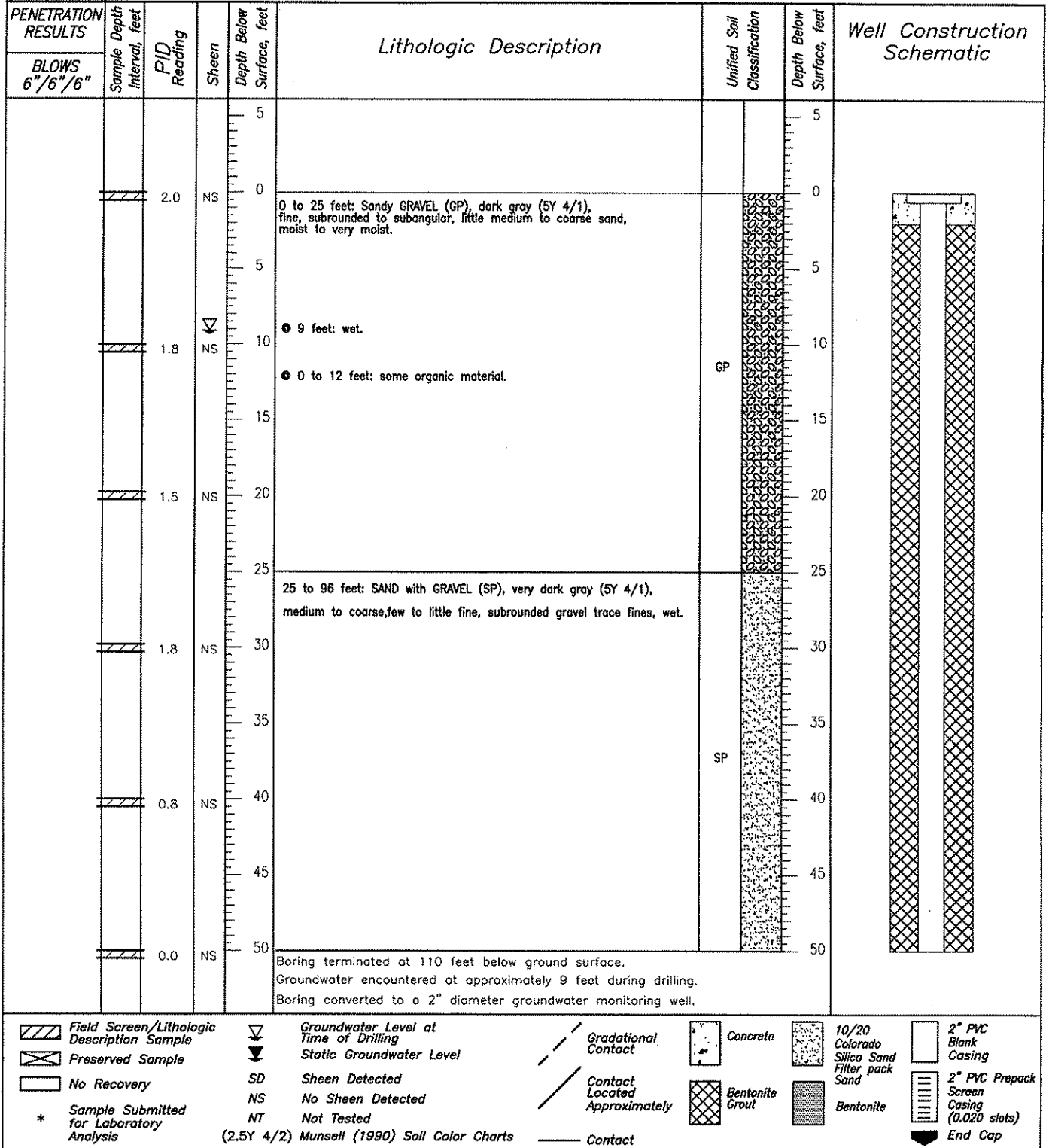
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-8d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/27/97 FINISH 10/27/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY E. ARNETT MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

PENETRATION RESULTS	Sample Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
		0.0	NS	105		GM	105	
				110			110	
				115			115	
				120			120	
				125			125	
				130			130	
				135			135	
				140			140	
				145			145	
				150			150	
				155			155	
				160			160	

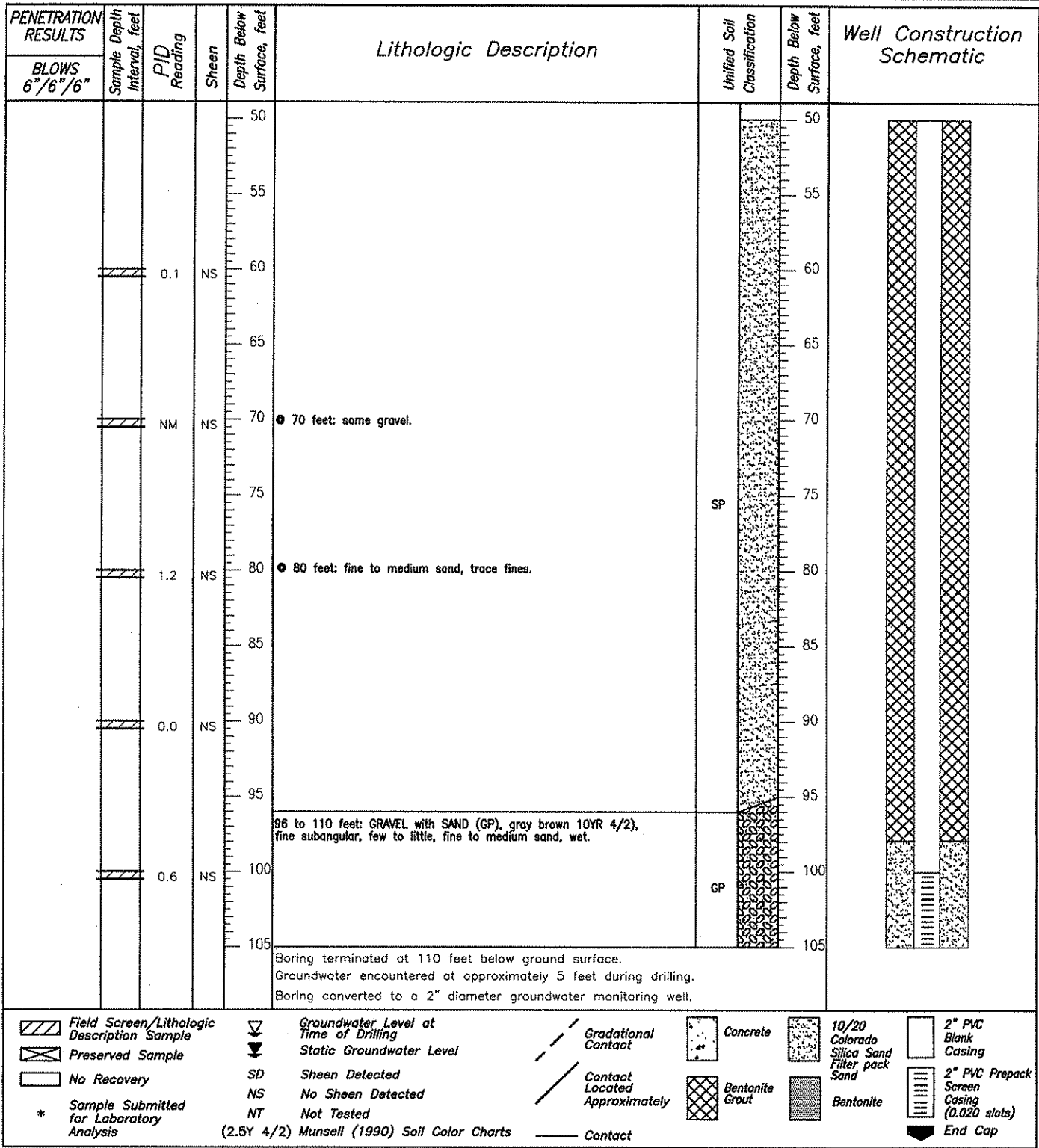
Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				



FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-9d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/23/97 FINISH 10/23/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-9d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/23/97 FINISH 10/23/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	10/20 Colorado Silica Sand Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

(2.5Y 4/2) Munsell (1990) Soil Color Charts

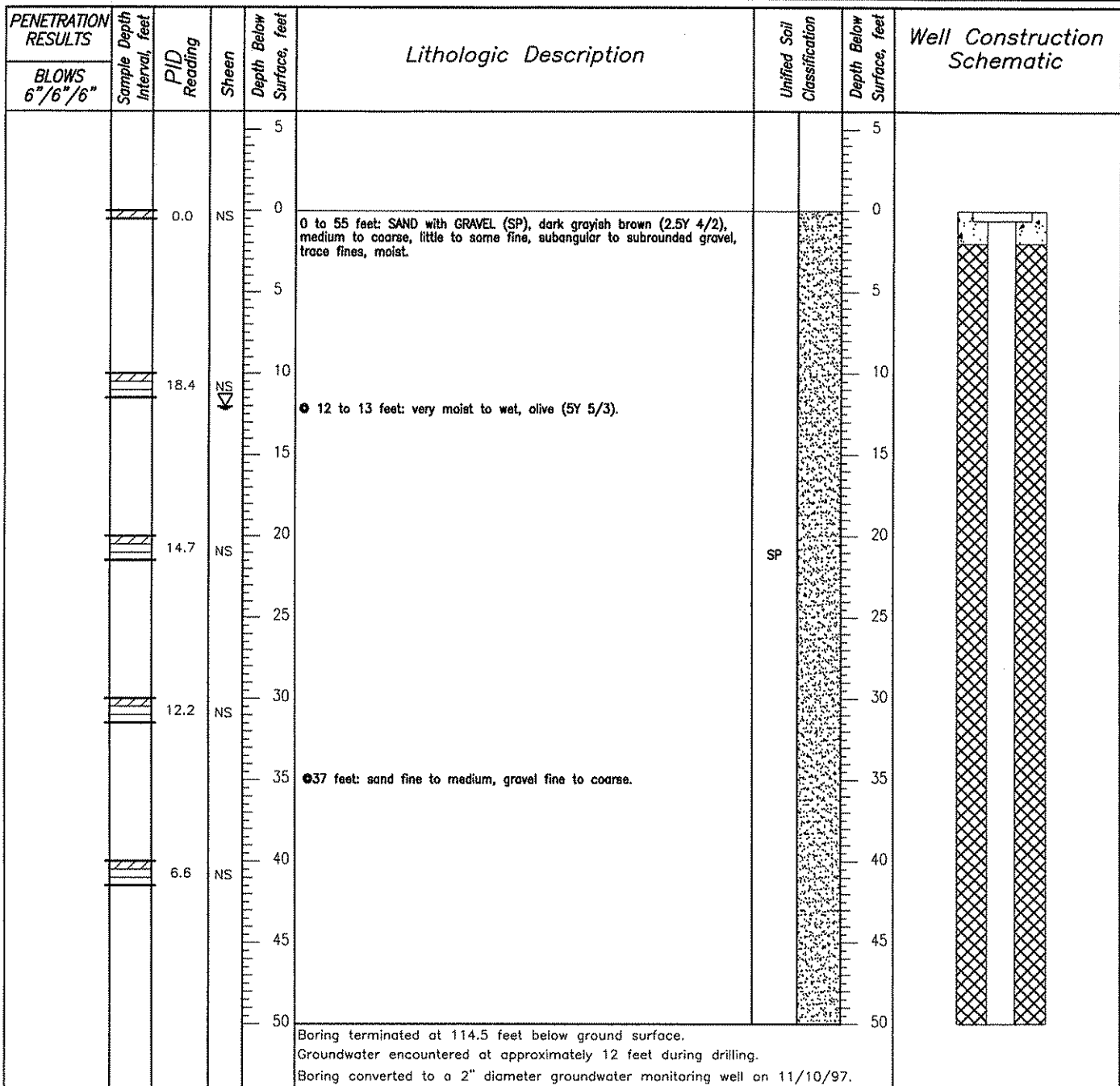
FACILITY **YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION** JOB # **00378-001-01 (3)** BORING **RI-9d**  
 LOCATION **YAKIMA, WASHINGTON** WELL \_\_\_\_\_  
 START **10/23/97** FINISH **10/23/97** CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY **H. CORNER** MONITORING DEVICE **PHOTOVAC 2020 PHOTOIONIZATION DETECTOR**  
 SUBCONTRACTOR AND EQUIPMENT **CASCADE DRILLING, INC. AIR ROTARY**  
 COMMENTS \_\_\_\_\_

PENETRATION RESULTS		Sample Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
BLOWS 6"/6"/6"									
		105 - 110	0.2	NS	105 - 110		GP	105 - 110	
		110 - 160			110 - 160			110 - 160	

Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

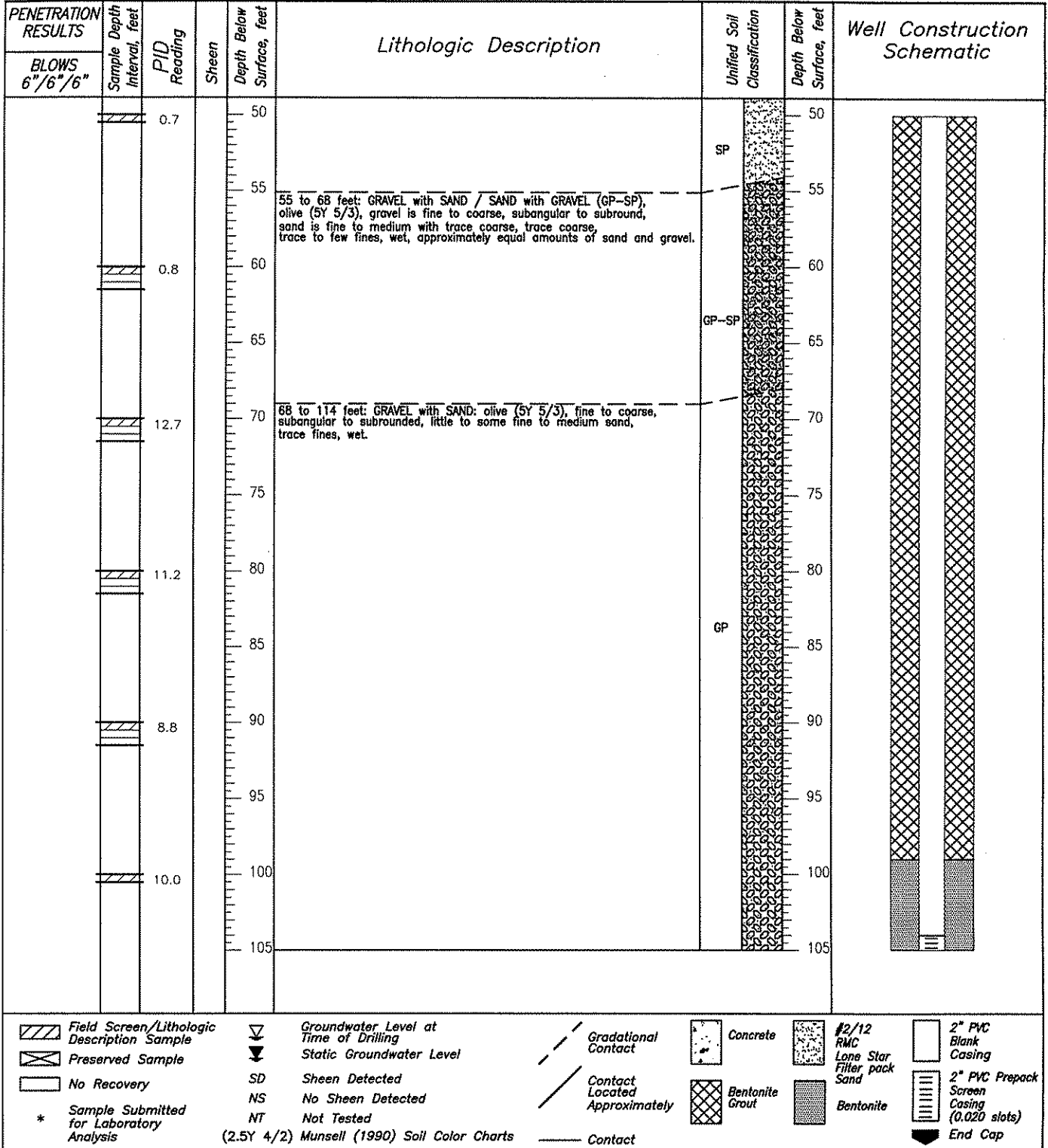
(2.SY 4/2) Munsell (1990) Soil Color Charts

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-10d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/10/97 FINISH 11/10/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

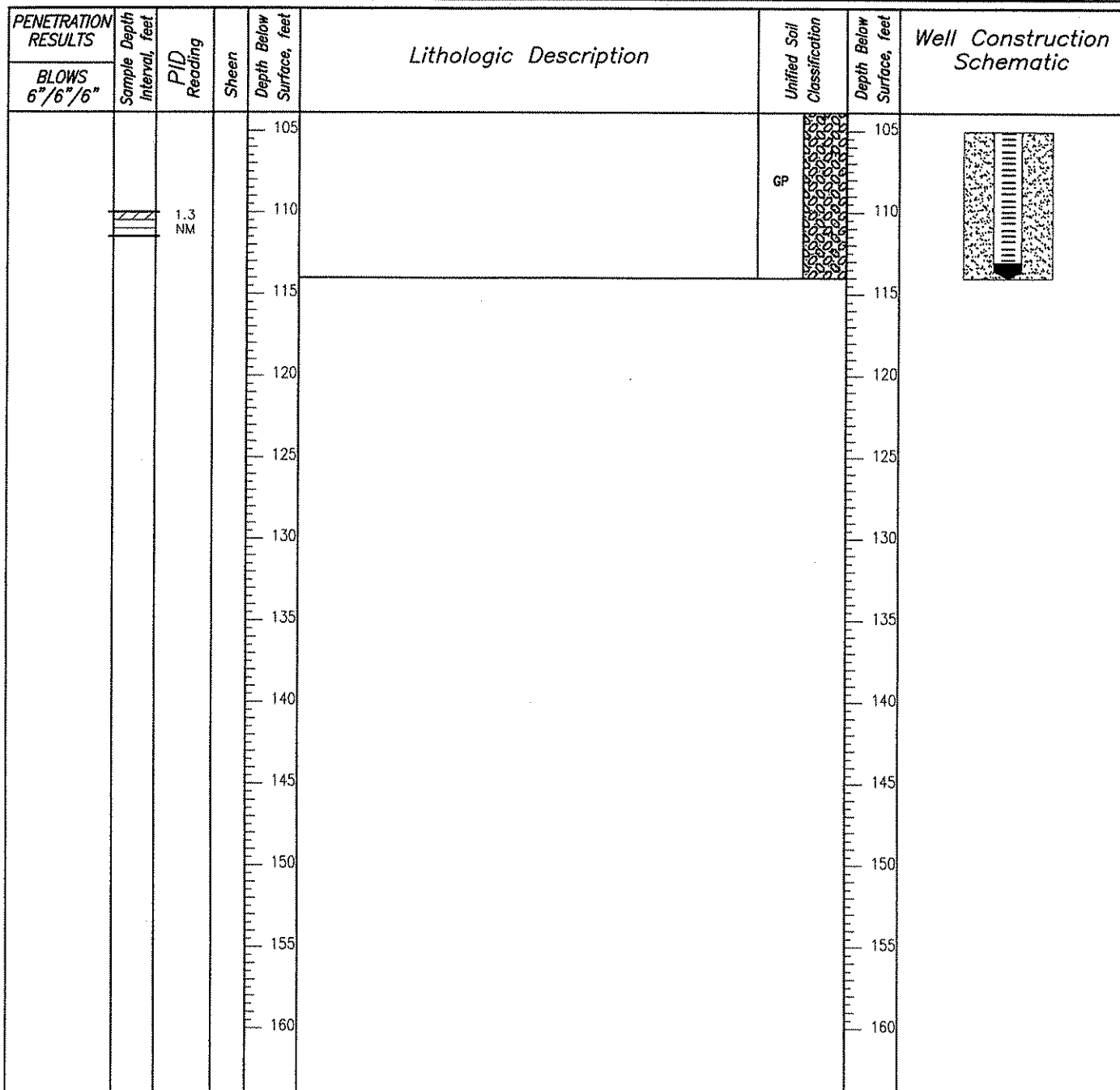


Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-10d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/10/97 FINISH 11/10/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

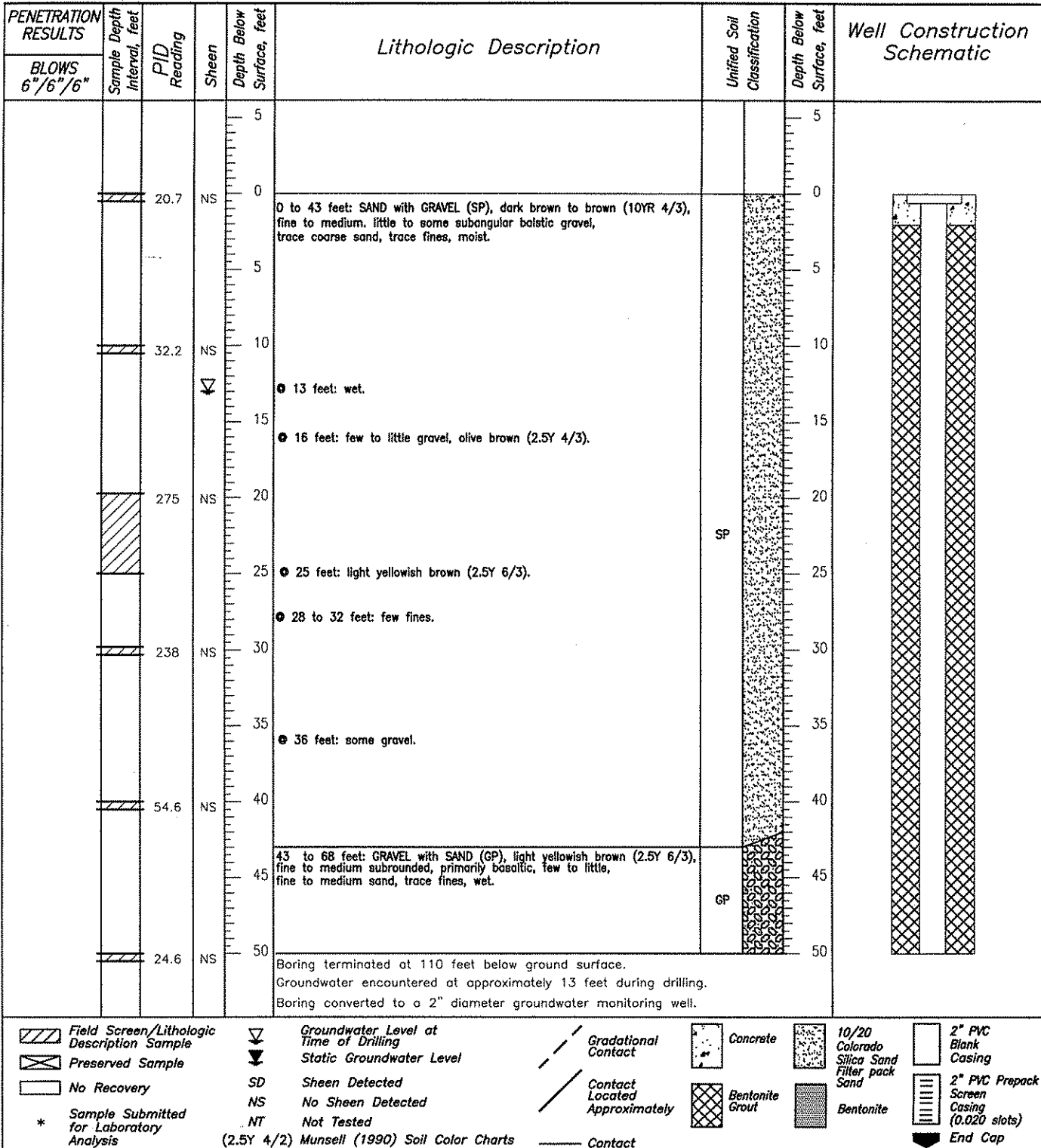


FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-10d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/10/97 FINISH 11/10/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



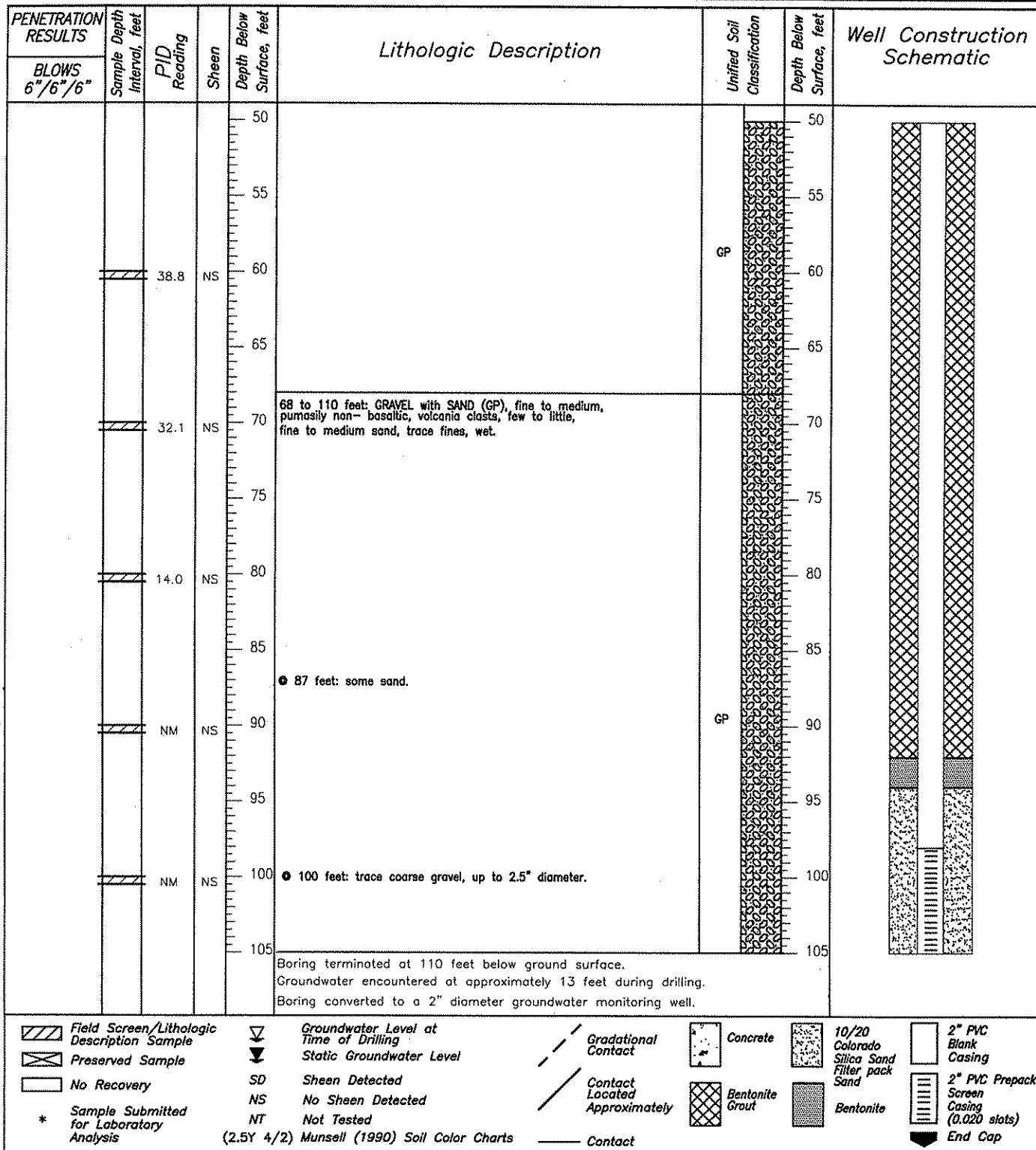
Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lane Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY **YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION** JOB #**00378-001-01 (3)** BORING **RI-11d**  
 LOCATION **YAKIMA, WASHINGTON** WELL \_\_\_\_\_  
 START **11/18/97** FINISH **11/18/97** CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY **H.CORNER** MONITORING DEVICE **PHOTOVAC 2020 PHOTOIONIZATION DETECTOR**  
 SUBCONTRACTOR AND EQUIPMENT **CASCADE DRILLING, INC. AIR ROTARY**  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	10/20 Colorado Silica Sand Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-11d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/17/97 FINISH 11/17/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_





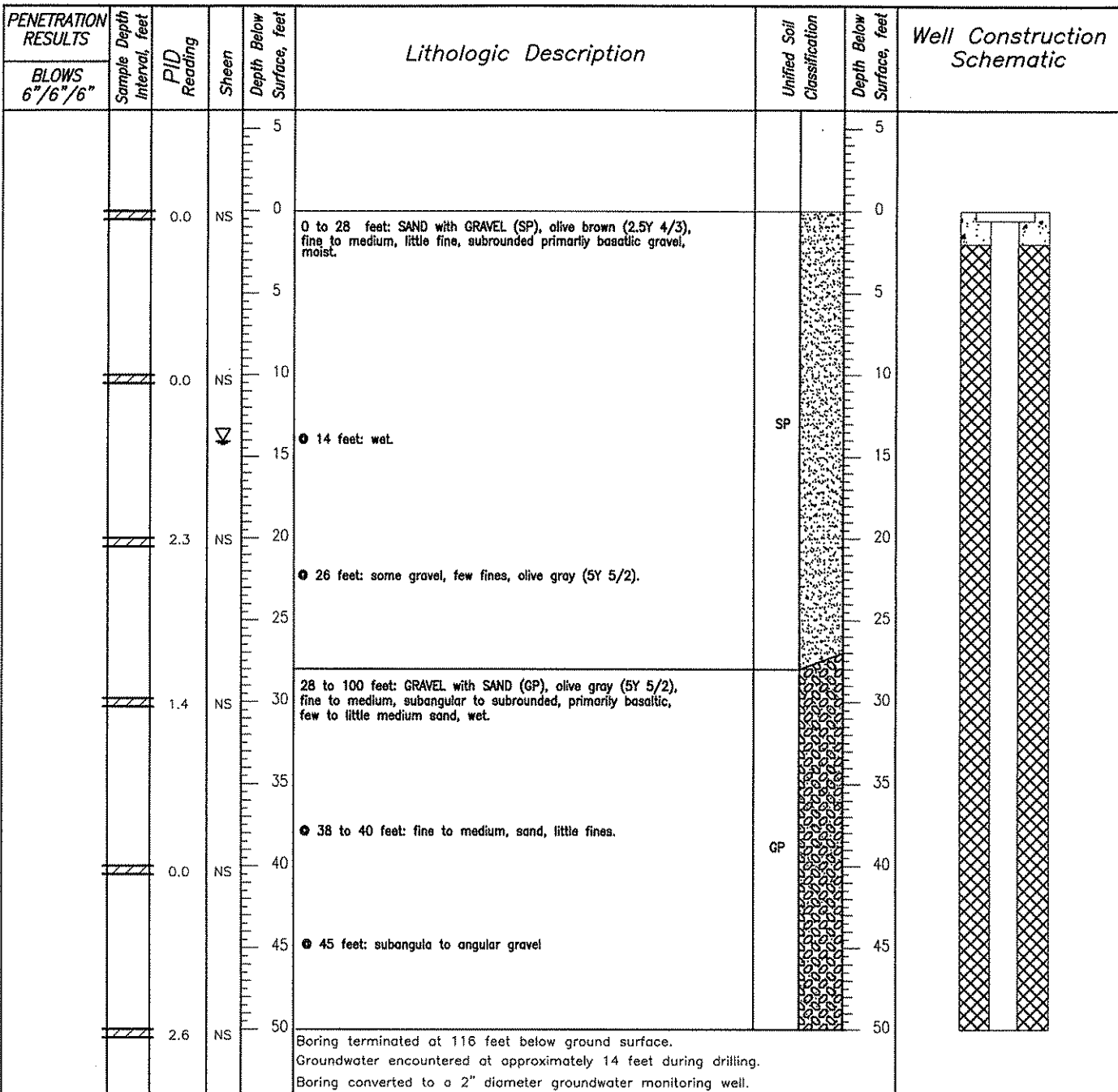
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-11d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/17/97 FINISH 11/17/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

PENETRATION RESULTS	Sample Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
				105			105	
	0.4	0.4	NS	110		GP	110	
				115			115	
				120			120	
				125			125	
				130			130	
				135			135	
				140			140	
				145			145	
				150			150	
				155			155	
				160			160	

Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	2" PVC Prepack Screen Casing (0.020 slots)	End Cap
No Recovery	SD Sheen Detected	Contact			
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

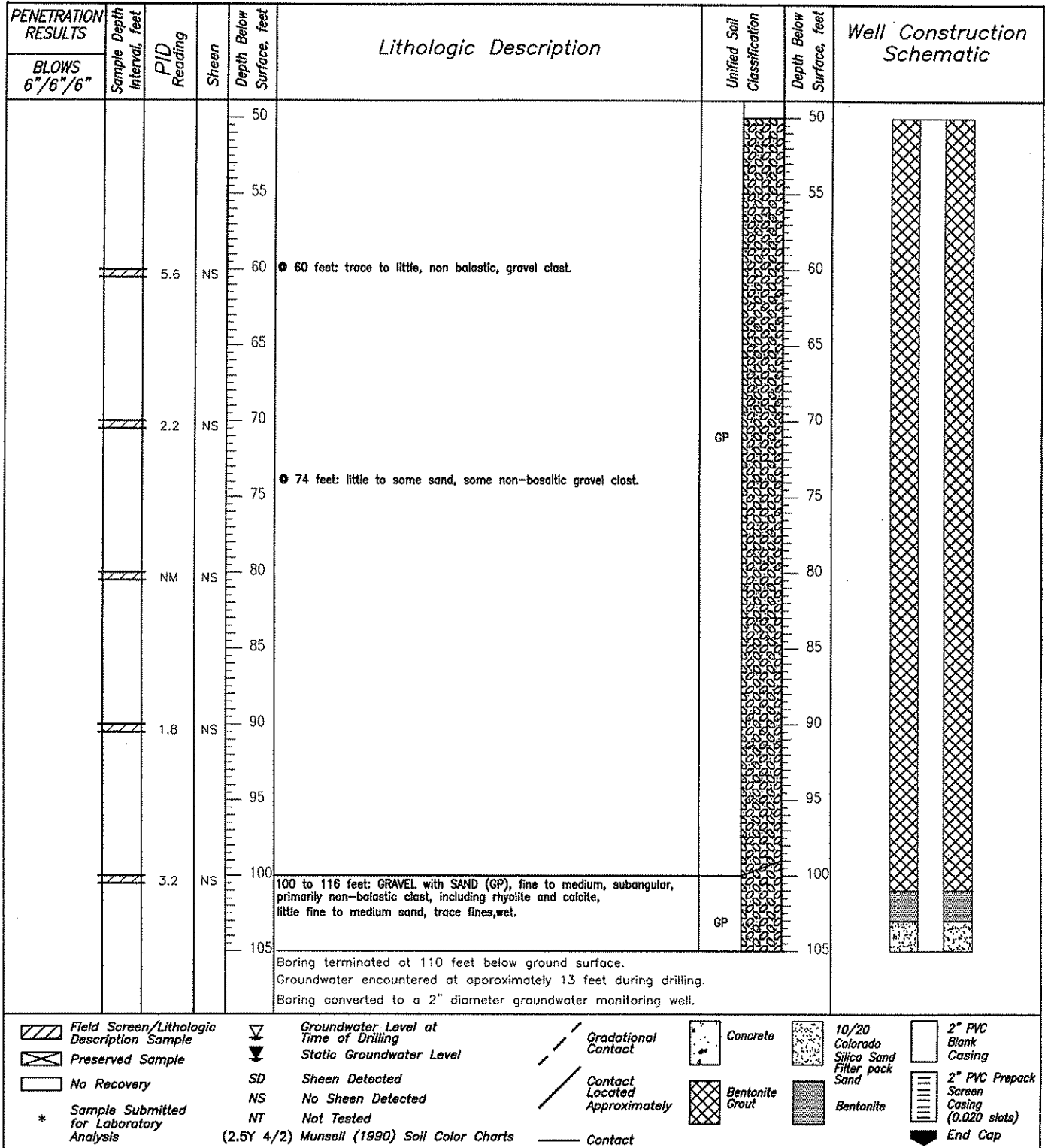
(2.5Y 4/2) Munsell (1990) Soil Color Charts

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-12d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/19/97 FINISH 11/19/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

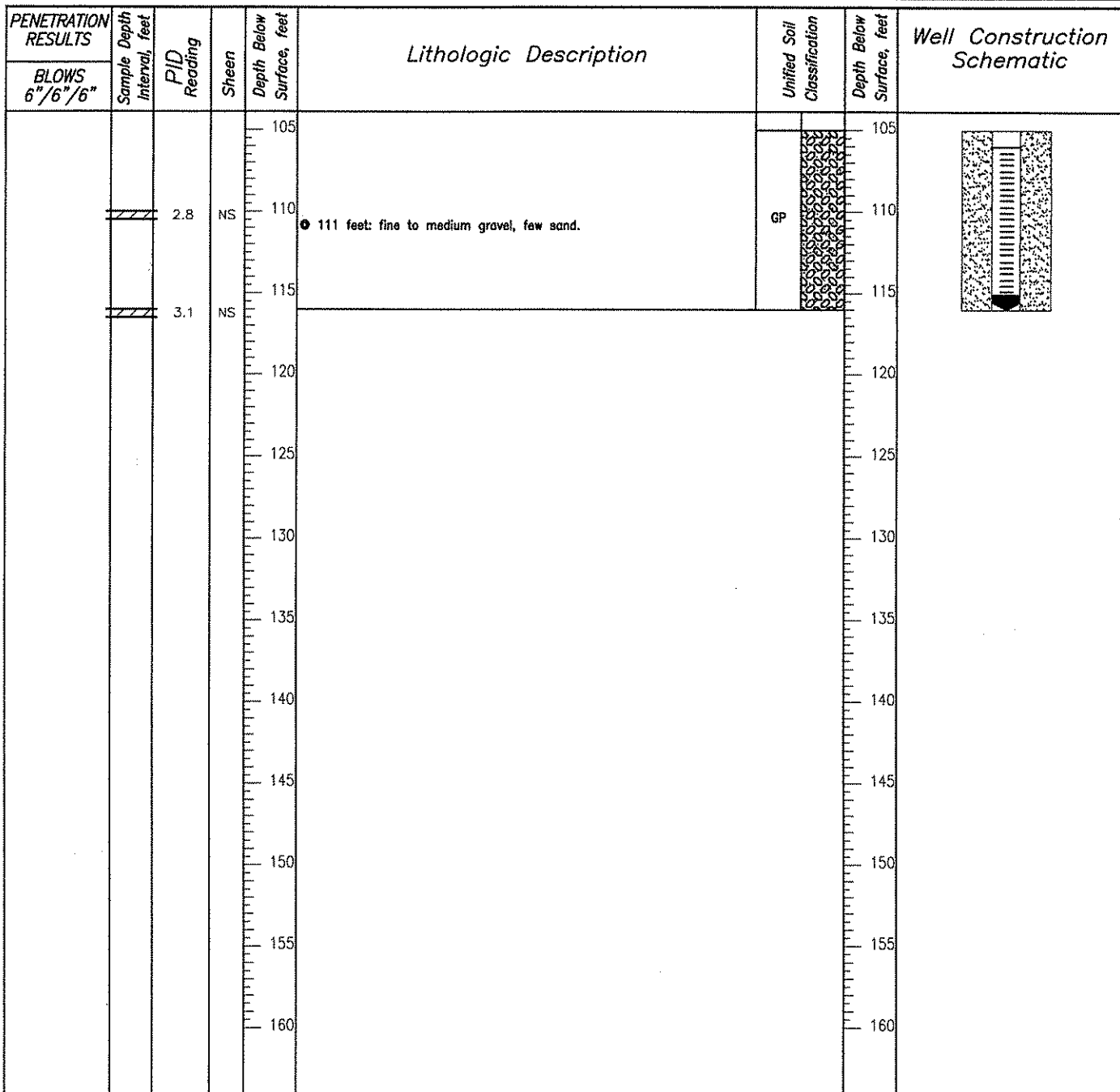


Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	10/20 Colorado Silica Sand Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-12d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/19/87 FINISH 11/19/87 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

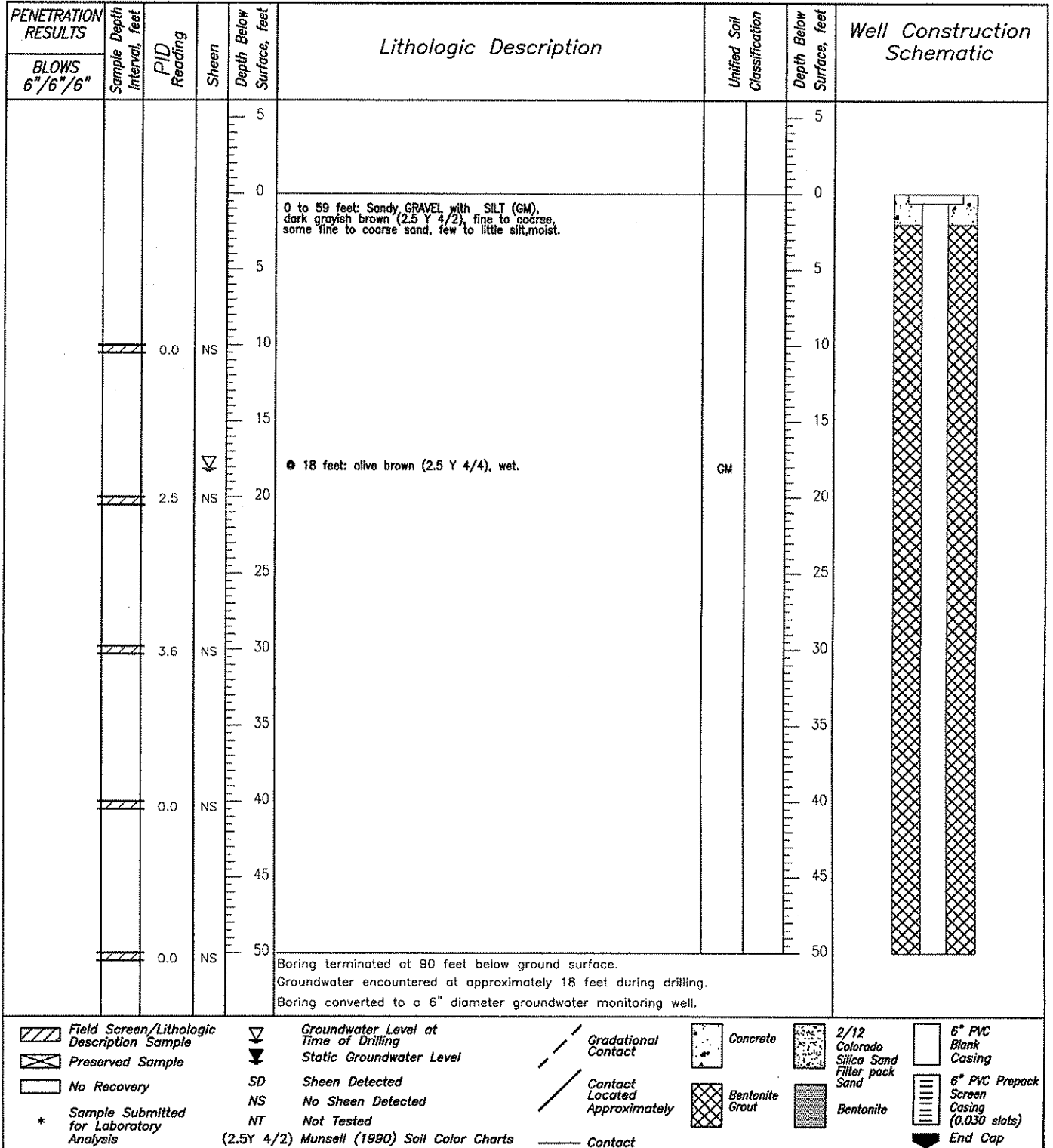


FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-12d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/19/97 FINISH 11/19/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lane Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

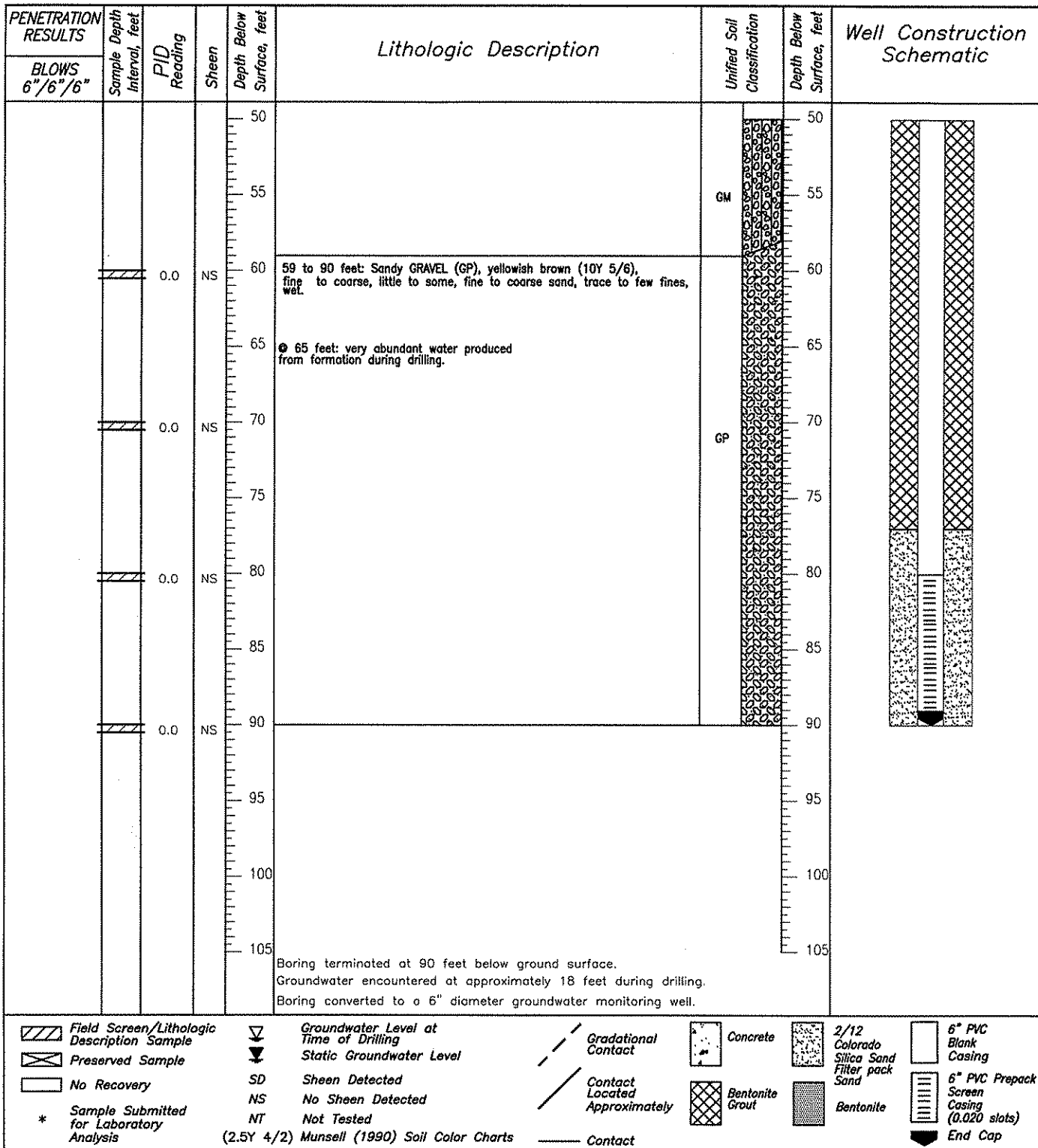
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-131  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/30/97 FINISH 10/31/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H.CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



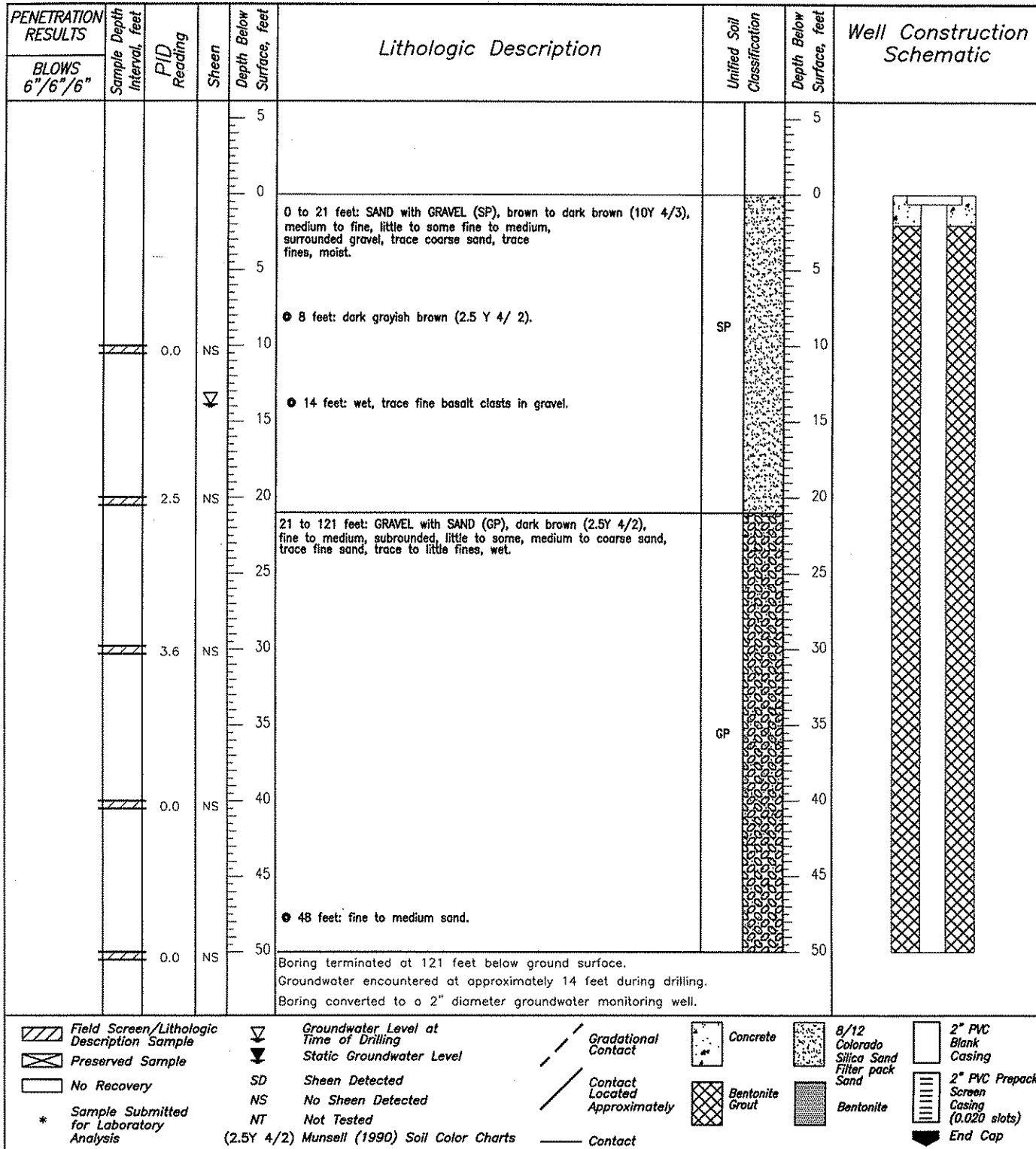
Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	2/12 Colorado Silica Sand Filter pack Sand	6" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	6" PVC Prepack Screen Casing (0.030 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

(2.5Y 4/2) Munsell (1990) Soil Color Charts

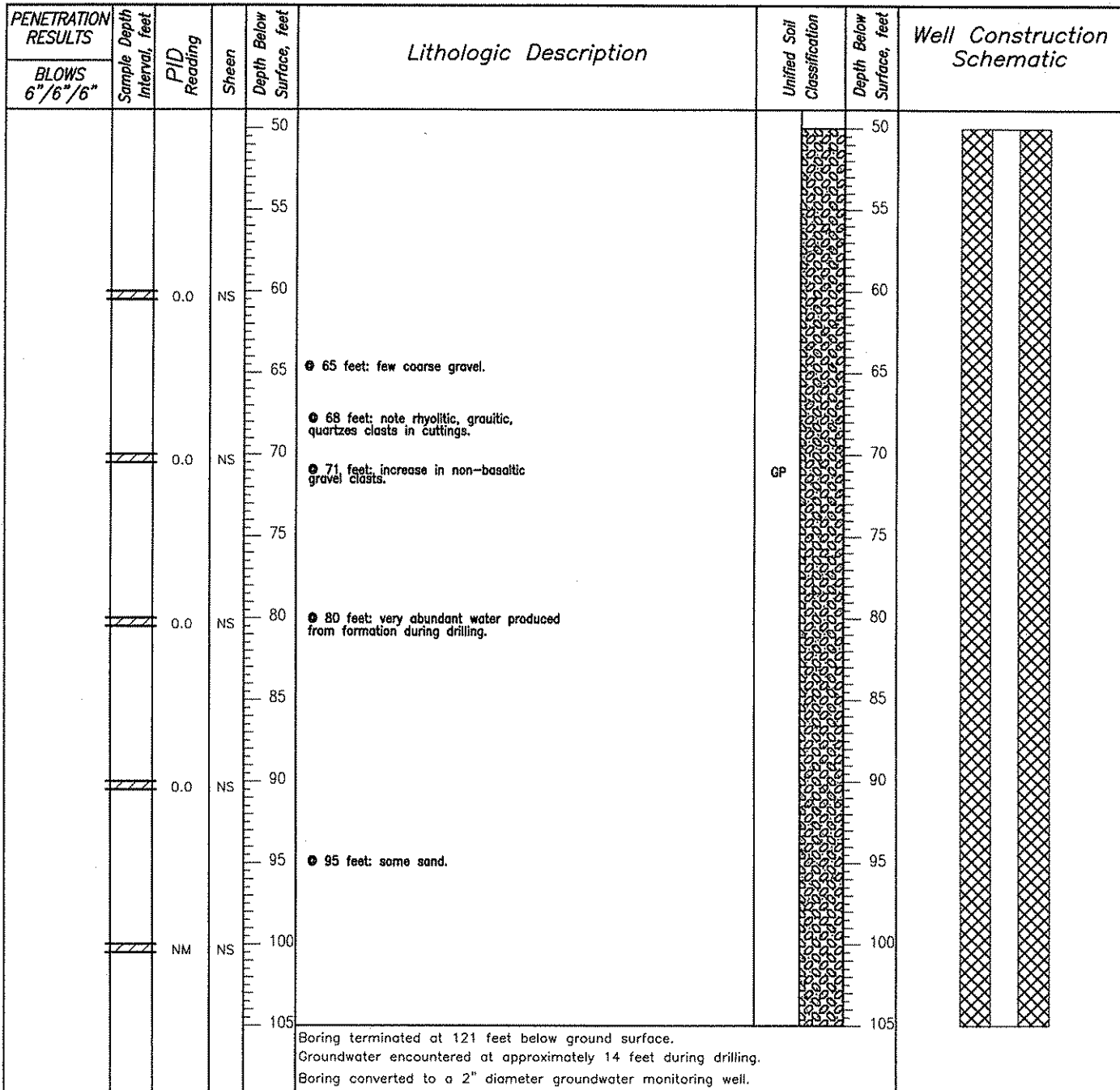
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-131  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 10/30/97 FINISH 10/31/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-13d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/14/97 FINISH 11/14/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-13d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/14/87 FINISH 11/14/87 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	8/12 Colorado Silica Sand Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

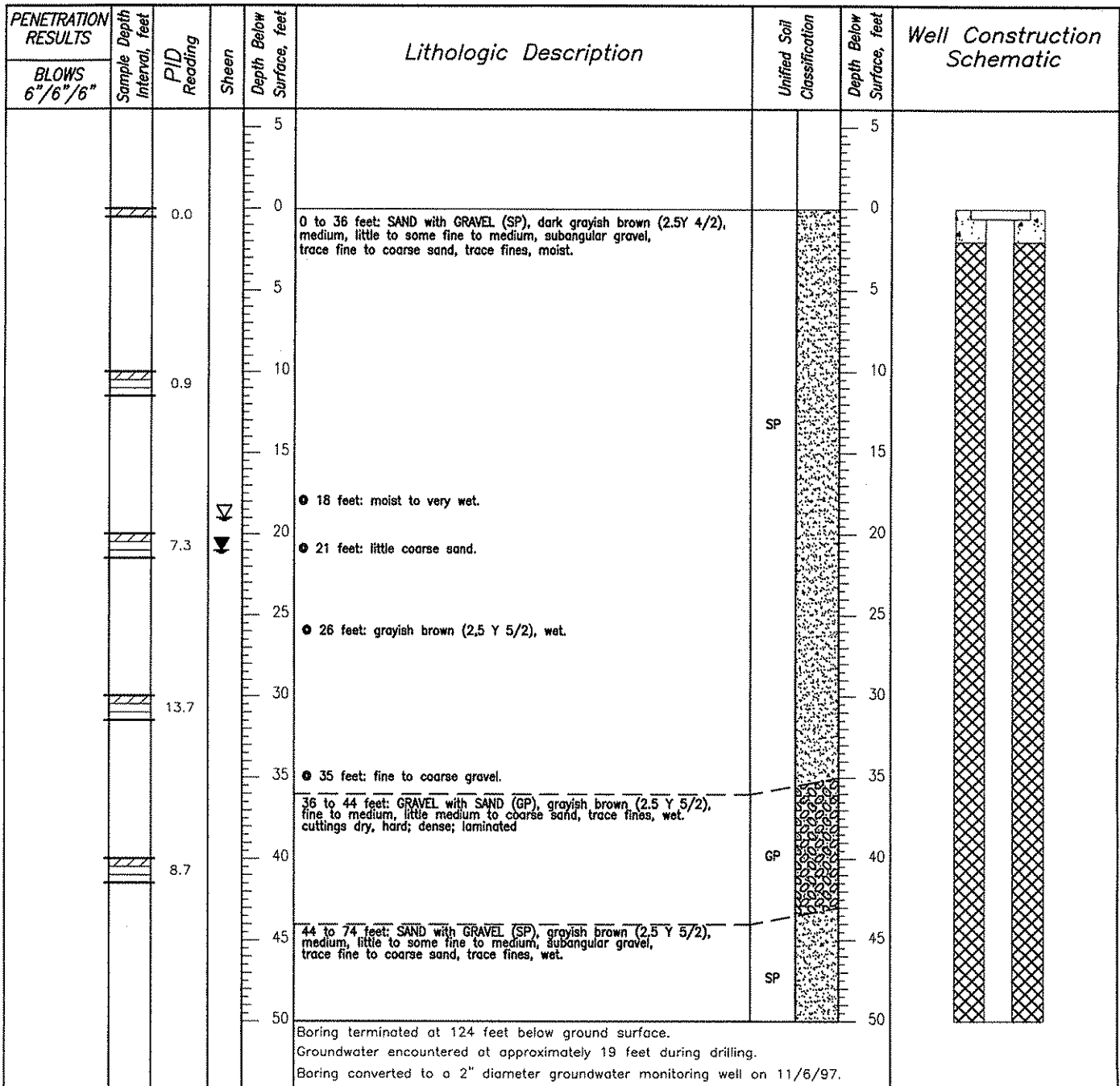


FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-13d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/14/97 FINISH 11/14/97 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

PENETRATION RESULTS		Sample Depth Interval, feet	PID Reading	Sheen	Depth Below Surface, feet	Lithologic Description	Unified Soil Classification	Depth Below Surface, feet	Well Construction Schematic
BLOWS	6"/6"/6"								
					105			105	
			NM	NS	110		GP	110	
					115			115	
			NM	NS	120			120	
					125			125	
					130			130	
					135			135	
					140			140	
					145			145	
					150			150	
					155			155	
					160			160	

Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	8/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				
	(2.5Y 4/2) Munsell (1990) Soil Color Charts				

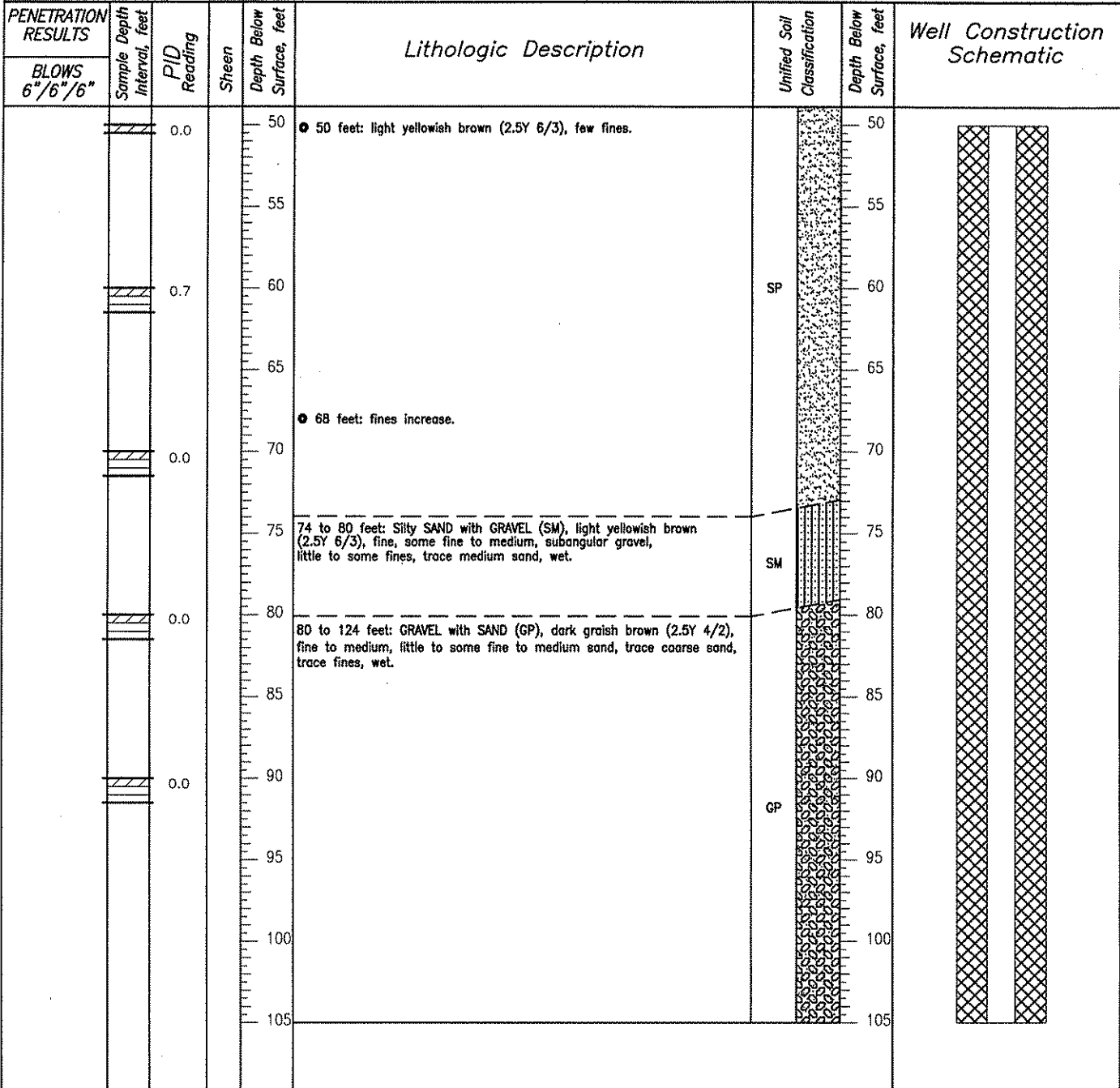
FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-14d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/5/97 FINISH 11/6/98 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lone Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

(2.5Y 4/2) Munsell (1990) Soil Color Charts

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB #00378-001-01 (3) BORING RI-14d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/5/97 FINISH 11/6/98 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_



Field Screen/Lithologic Description Sample	Groundwater Level at Time of Drilling	Gradational Contact	Concrete	#2/12 RMC Lane Star Filter pack Sand	2" PVC Blank Casing
Preserved Sample	Static Groundwater Level	Contact Located Approximately	Bentonite Grout	Bentonite	2" PVC Prepack Screen Casing (0.020 slots)
No Recovery	SD Sheen Detected	Contact			End Cap
* Sample Submitted for Laboratory Analysis	NS No Sheen Detected				
	NT Not Tested				

(2.5Y 4/2) Munsell (1990) Soil Color Charts

FACILITY YAKIMA RAILROAD AREA REMEDIAL INVESTIGATION JOB # 00378-001-01 (3) BORING RI-14d  
 LOCATION YAKIMA, WASHINGTON WELL \_\_\_\_\_  
 START 11/5/97 FINISH 11/6/98 CASING TOP ELEVATION \_\_\_\_\_  
 LOGGED BY H. CORNER MONITORING DEVICE PHOTOVAC 2020 PHOTOIONIZATION DETECTOR  
 SUBCONTRACTOR AND EQUIPMENT CASCADE DRILLING, INC. AIR ROTARY  
 COMMENTS \_\_\_\_\_

