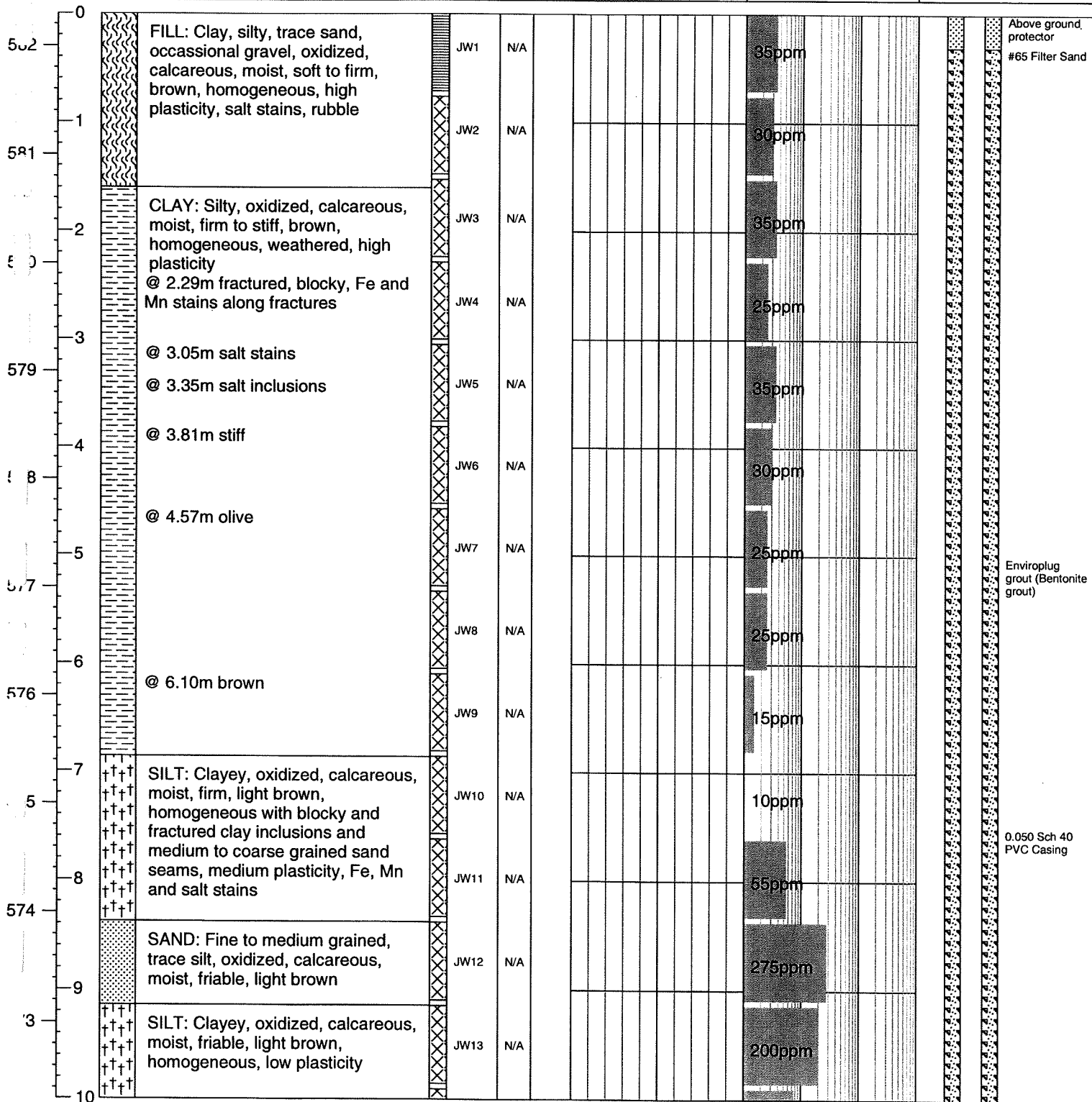




BORE HOLE LOG

Client: Imperial Oil Ltd.	Northing: -	Date: 03 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.30	Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 583.14	Logged by: JDW

Elev (m) Depth (m)	Symbol	Soil Description	Sample Type No.	SPT 'N'	USC	Moisture Content percent			Headspace Vapour ppm				Monitor Well Construction Detail
						Plastic Limit ▲	Natural Moisture ●	Liquid Limit ◆	0	10	100	1000	



Above ground protector
#65 Filter Sand

Enviroplug grout (Bentonite grout)

0.050 Sch 40 PVC Casing

ENV 101 m elev CAL v03.001



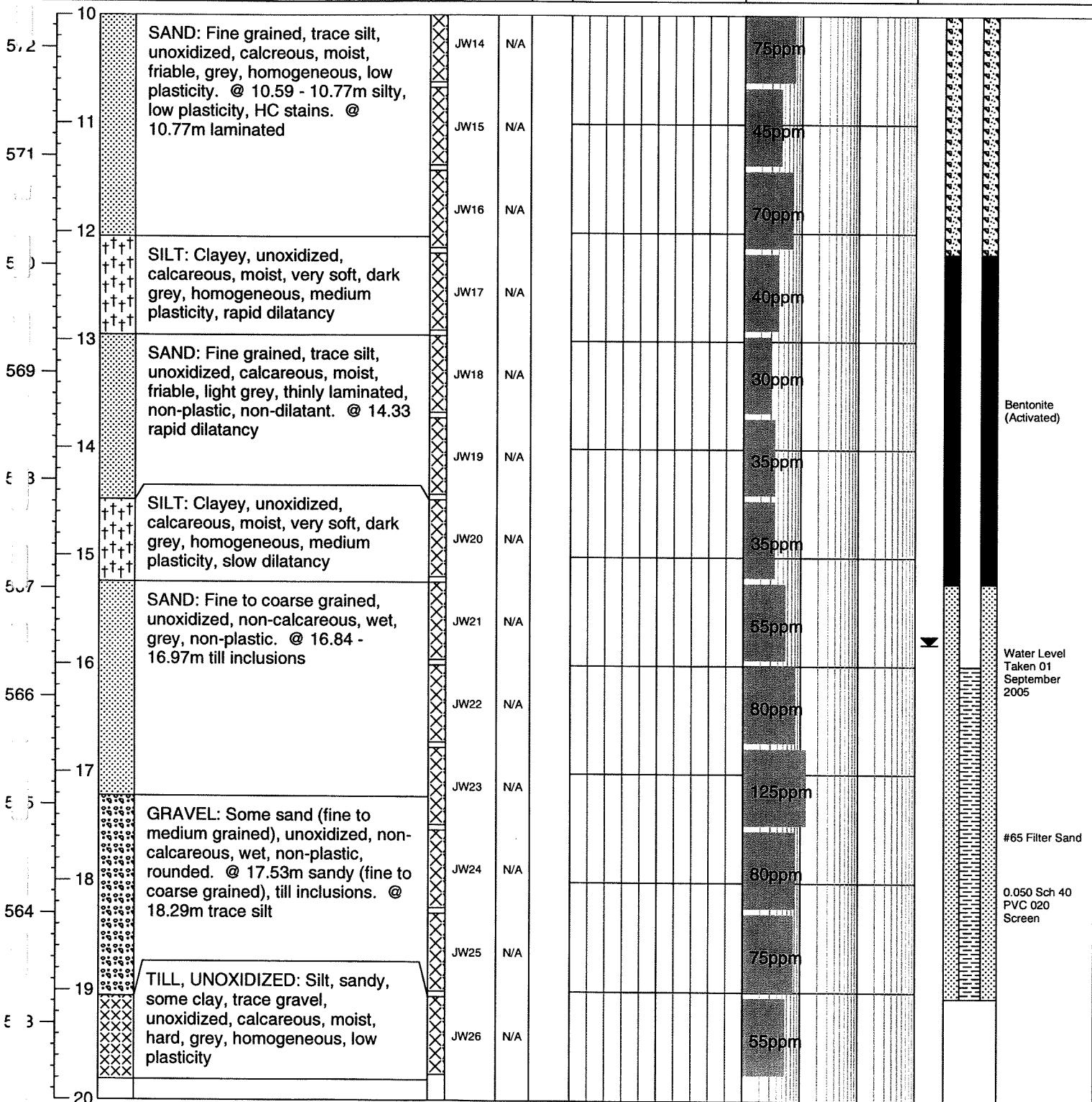
Clifton Associates Ltd.
engineering science technology

BORE HOLE LOG

Bore Hole: **401**
Page: 2 of 3

Client: Imperial Oil Ltd.	Northing: -	Date: 03 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.30	Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 583.14	Logged by: JDW

Elev (m) Depth (m)	Symbol	Soil Description	Sample		Moisture Content percent			Headspace Vapour ppm				Monitor Well Construction Detail
			Type	No.	SPT 'N'	USC	Plastic Limit ▲	Natural Moisture ●	Liquid Limit ◆	10	100	





BORE HOLE LOG

Client: Imperial Oil Ltd.	Northing: -	Date: 03 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.30	Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 583.14	Logged by: JDW

Elev (m)	Depth (m)	Symbol	Soil Description	Sample				Moisture Content				Headspace Vapour				Monitor Well Construction Detail
				Type	No.	SPT 'N'	USC	Plastic Limit	Natural Moisture	Liquid Limit	0	50	100	1000	10000	

20			NOTES: End of hole at 19.05m. Pounded splitspoon to 19.81m. Above ground monitoring well installed.															
502																		
561																		
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Geotech Bore Hole Log CAL-V03-01



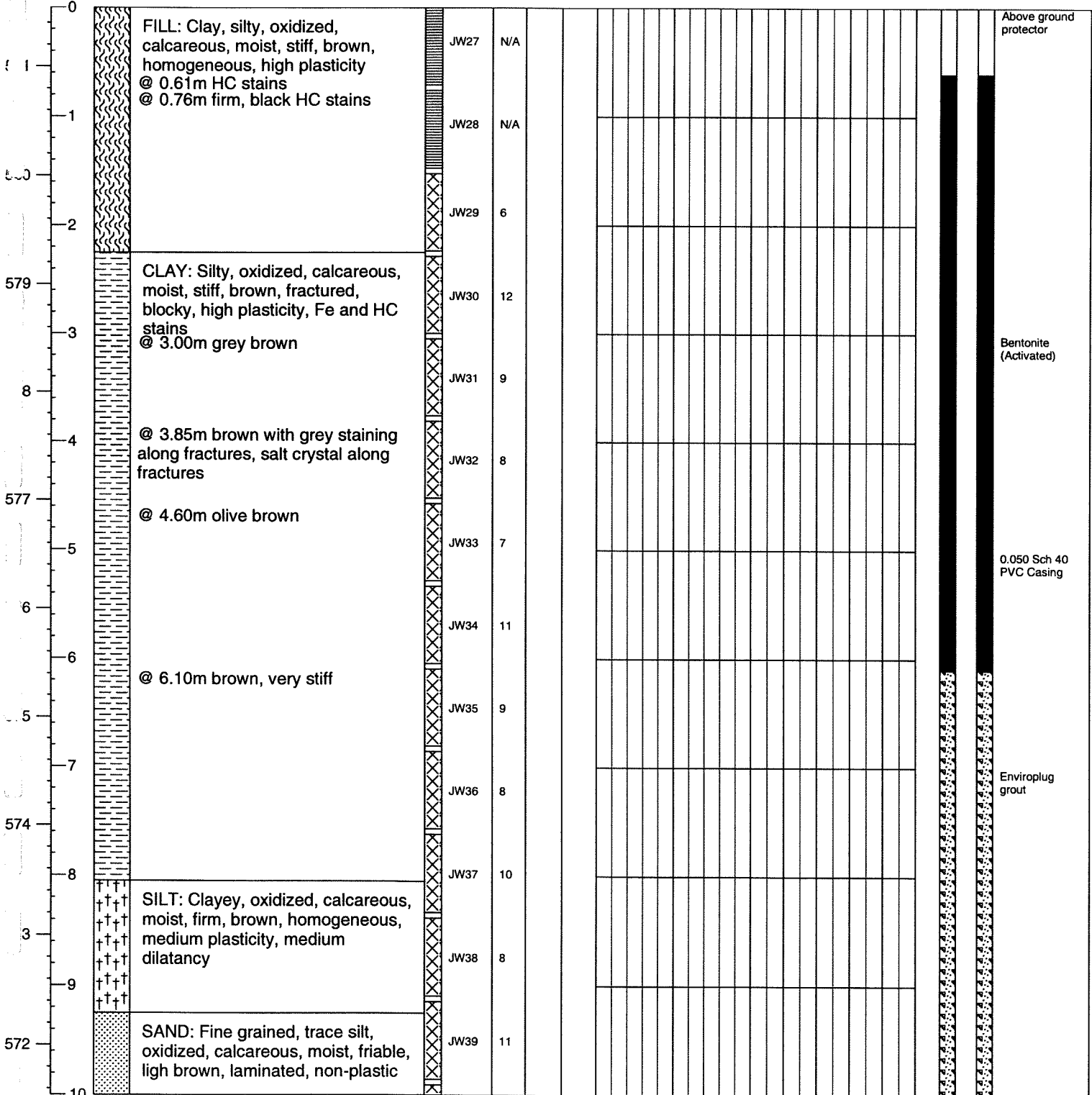
Clifton Associates Ltd.
engineering science technology

BORE HOLE LOG

Bore Hole: 402
Page: 1 of 2

Client: Imperial Oil Ltd.	Northing: -	Date Drilled: 04 Aug 2005
Project: Environmental Investigation	Easting: -	Drill: Canterra 250
Location: Regina, SK	Ground Elev.: 581.54	Drilling Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 582.53	Logged by: JDW

Elev (m)	Depth (m)	Symbol	Soil Description	Sample		USC	% Sulphate	Moisture Content			Dry Density - kg/m ³			Piezometer Construction Detail
				Type	No.			SPT 'N'	Plastic Limit	Natural Moisture	Liquid Limit	1800	2000	





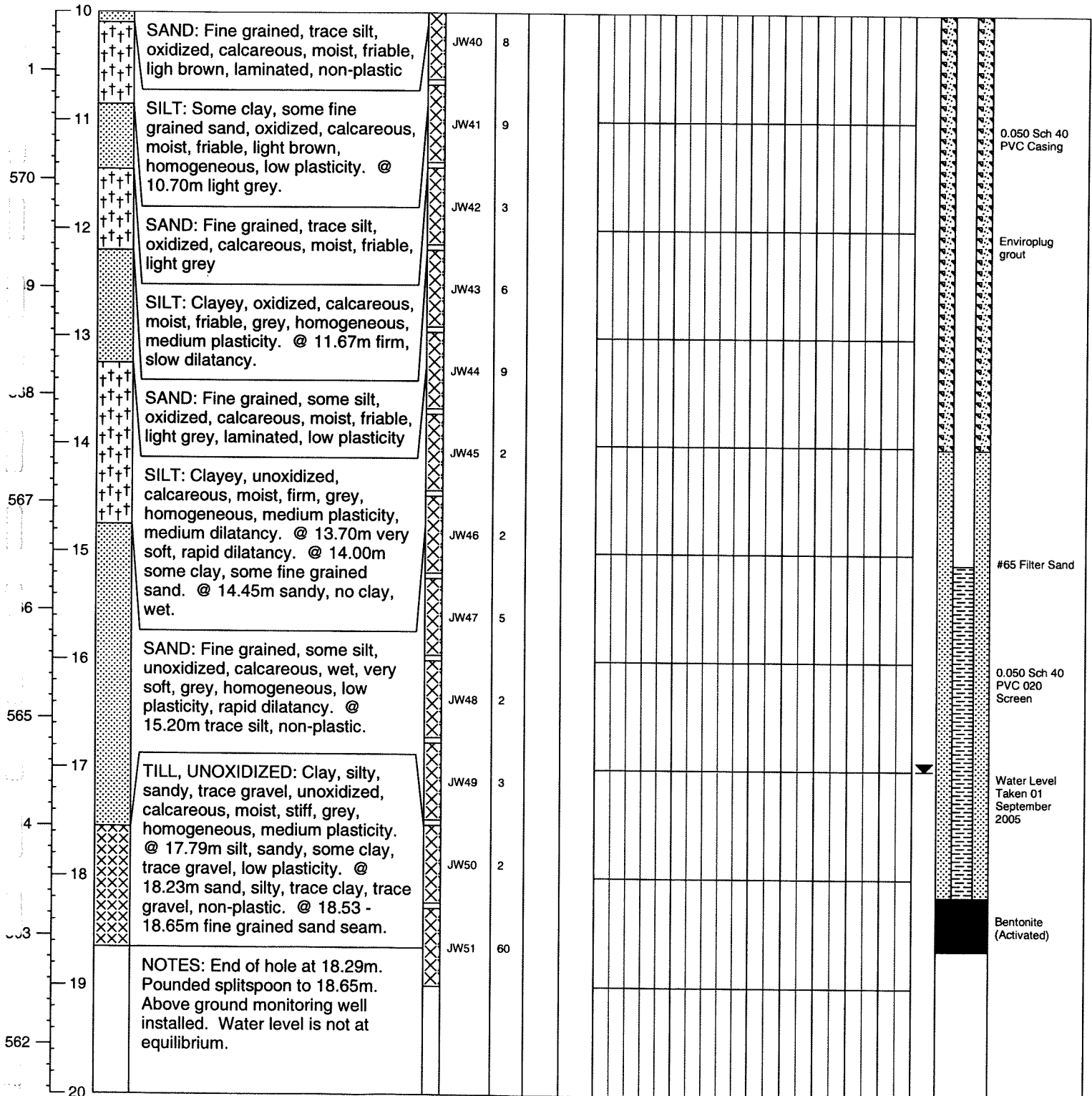
BORE HOLE LOG

Bore Hole: 402

Page: 2 of 2

Client: Imperial Oil Ltd.	Northing: -	Date Drilled: 04 Aug 2005
Project: Environmental Investigation	Easting: -	Drill: Canterra 250
Location: Regina, SK	Ground Elev.: 581.54	Drilling Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 582.53	Logged by: JDW

Elev (m) Depth (m)	Symbol	Soil Description	Sample Type No.	SPT 'N'	USC	% Sulphate	Moisture Content percent			Dry Density - kg/m ³				Piezometer Construction Detail
							Plastic Limit	Natural Moisture	Liquid Limit	1600	2000	Shear Strength - kPa		



NOTES: End of hole at 18.29m. Pounded splitspoon to 18.65m. Above ground monitoring well installed. Water level is not at equilibrium.



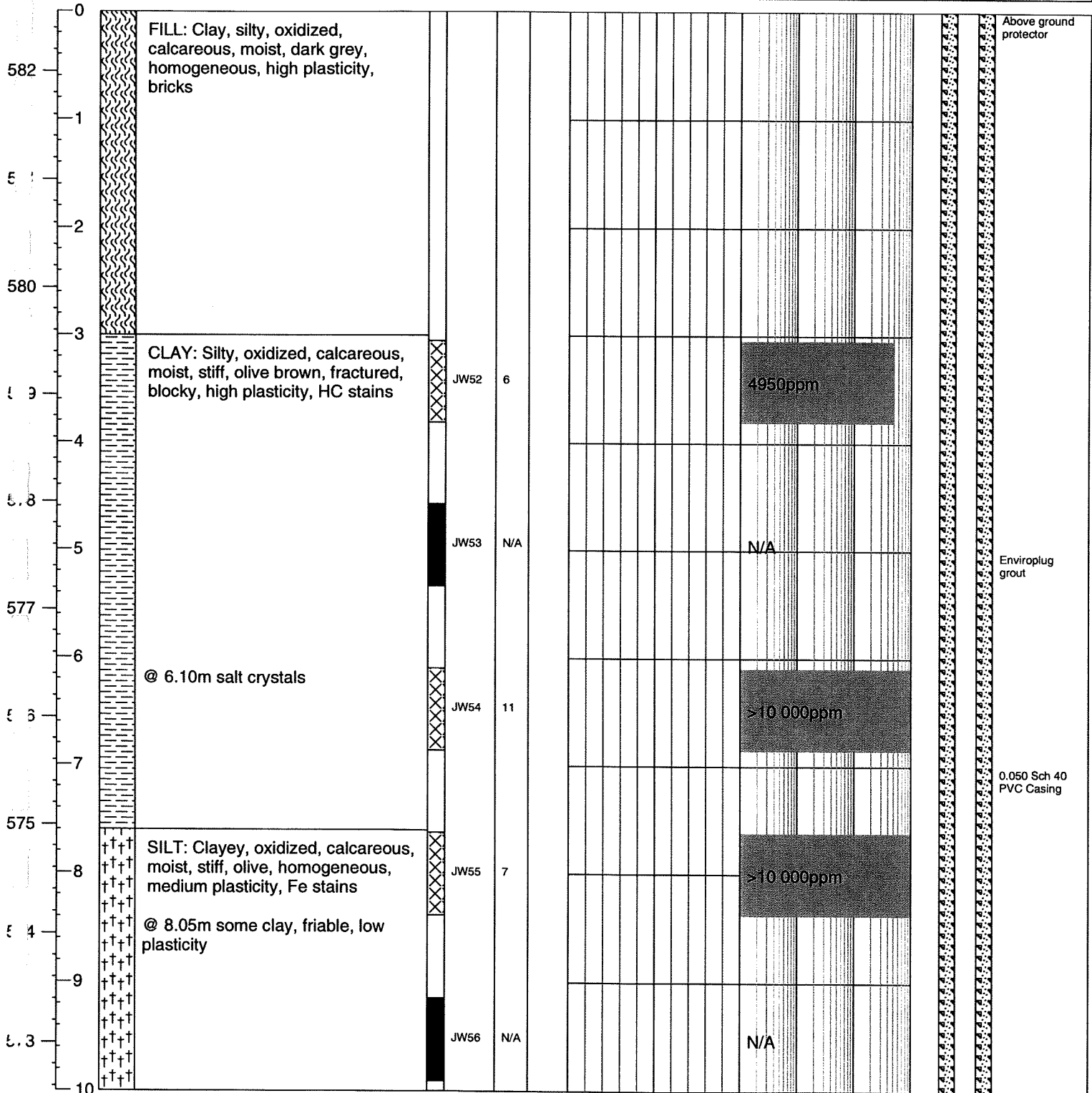
BORE HOLE LOG

Bore Hole: **403**

Page: 1 of 3

Client: Imperial Oil Ltd.	Northing: -	Date: 05 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.56	Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 583.50	Logged by: JDW

Elev (m)	Depth (m)	Symbol	Soil Description	Sample		Moisture Content percent			Headspace Vapour ppm				Monitor Well Construction Detail
				Type	No.	SPT 'N'	USC	Plastic Limit	Natural Moisture	Liquid Limit	10	100	

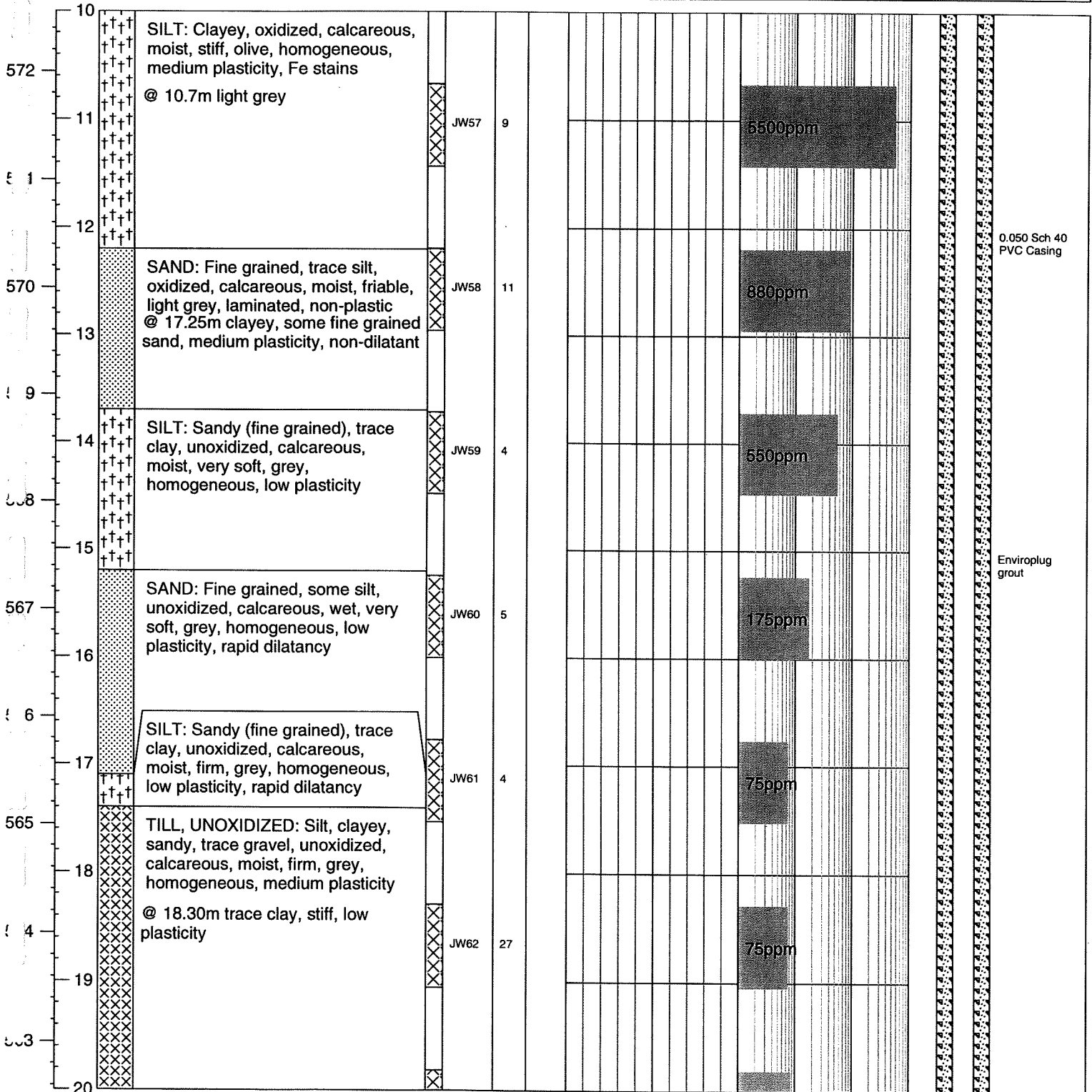




BORE HOLE LOG

Client: Imperial Oil Ltd.	Northing: -	Date: 05 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.56	Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 583.50	Logged by: JDW

Elev (m)	Depth (m)	Symbol	Soil Description	Sample		Moisture Content			Headspace Vapour				Monitor Well Construction Detail
				Type	No.	SPT 'N'	USC	Plastic Limit	percent Natural Moisture	Liquid Limit	ppm	10	



Env BH (m elev CAL v03.01)



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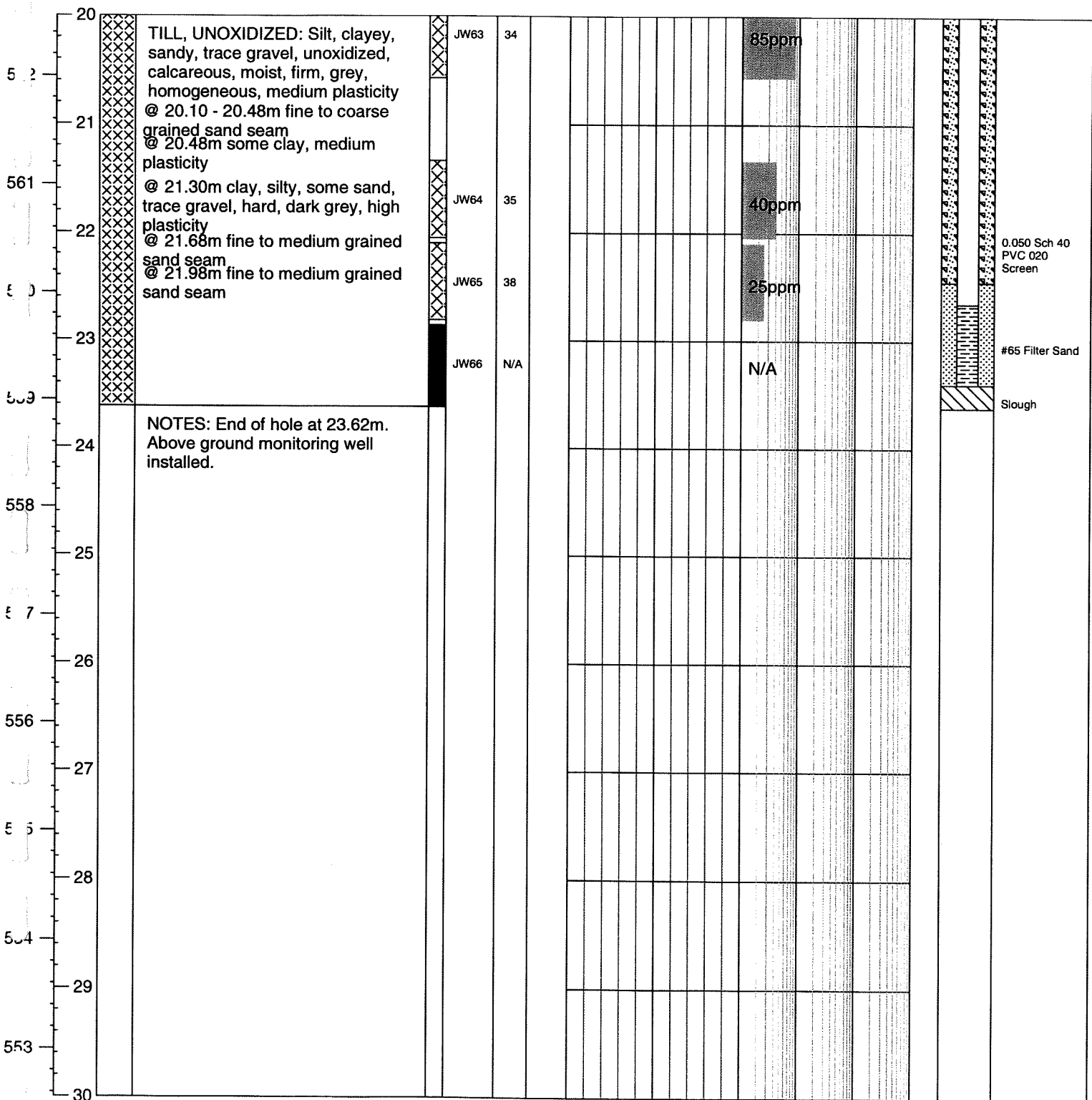
BORE HOLE LOG

Bore Hole: 403

Page: 3 of 3

Client: Imperial Oil Ltd.	Northing: -	Date: 05 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.56	Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 583.50	Logged by: JDW

Elev (m) Depth (m)	Symbol	Soil Description	Sample		Moisture Content percent			Headspace Vapour ppm		Monitor Well Construction Detail
			Type	No.	SPT IN	USC	Plastic Limit ▲	Natural Moisture ●	Liquid Limit ◆	



EM 101 (11/04) CAL. Version



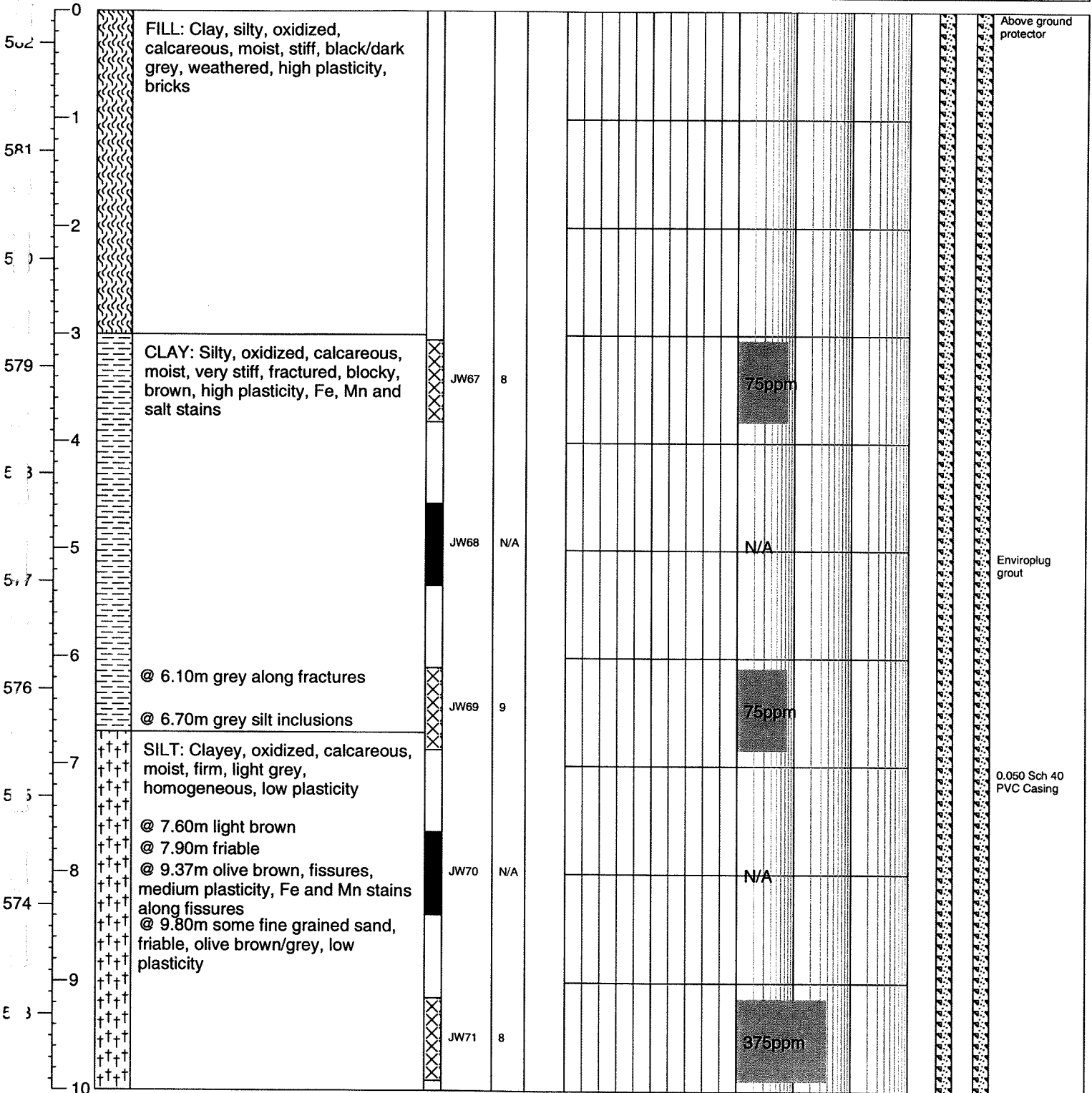
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BORE HOLE LOG

Bore Hole: **404**
Page: 1 of 3

Client: Imperial Oil Ltd.	Northing: -	Date: 06 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.30	Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 583.10	Logged by: JDW

Elev (m) Depth (m)	Symbol	Soil Description	Sample		Moisture Content			Headspace Vapour				Monitor Well Construction Detail
			Type	No.	SPT 'N'	USC	Plastic Limit	percent Natural Moisture	Liquid Limit	ppm	10	



Above ground protector

Enviroplug grout

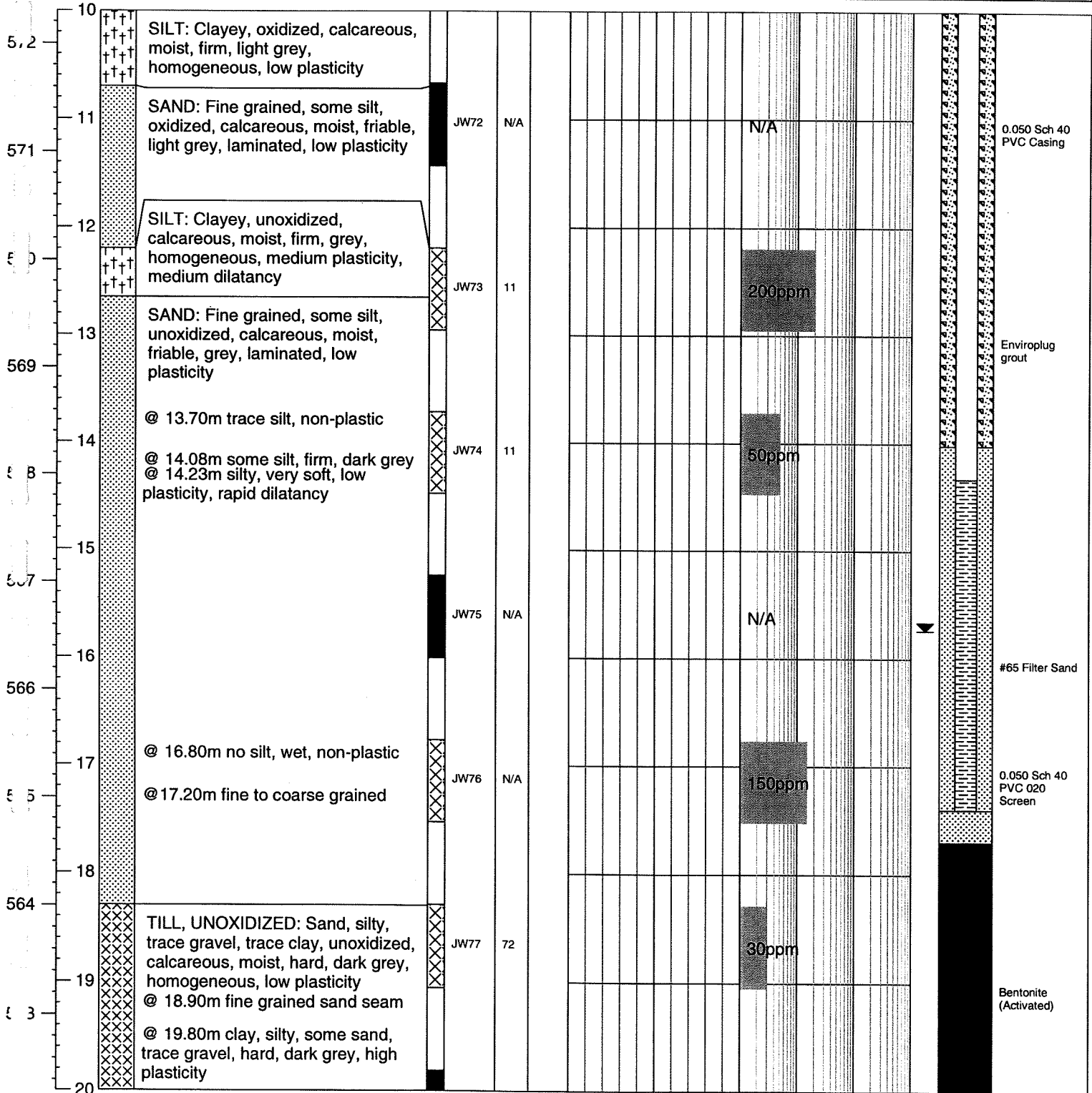
0.050 Sch 40 PVC Casing



BORE HOLE LOG

Client: Imperial Oil Ltd.	Northing: -	Date: 06 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.30	Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 583.10	Logged by: JDW

Elev (m)	Depth (m)	Symbol	Soil Description	Sample Type	No.	SPT 'N'	USC	Moisture Content percent			Headspace Vapour ppm				Monitor Well Construction Detail
								Plastic Limit ▲	Natural Moisture ●	Liquid Limit ◆	100	100	1000	10000	

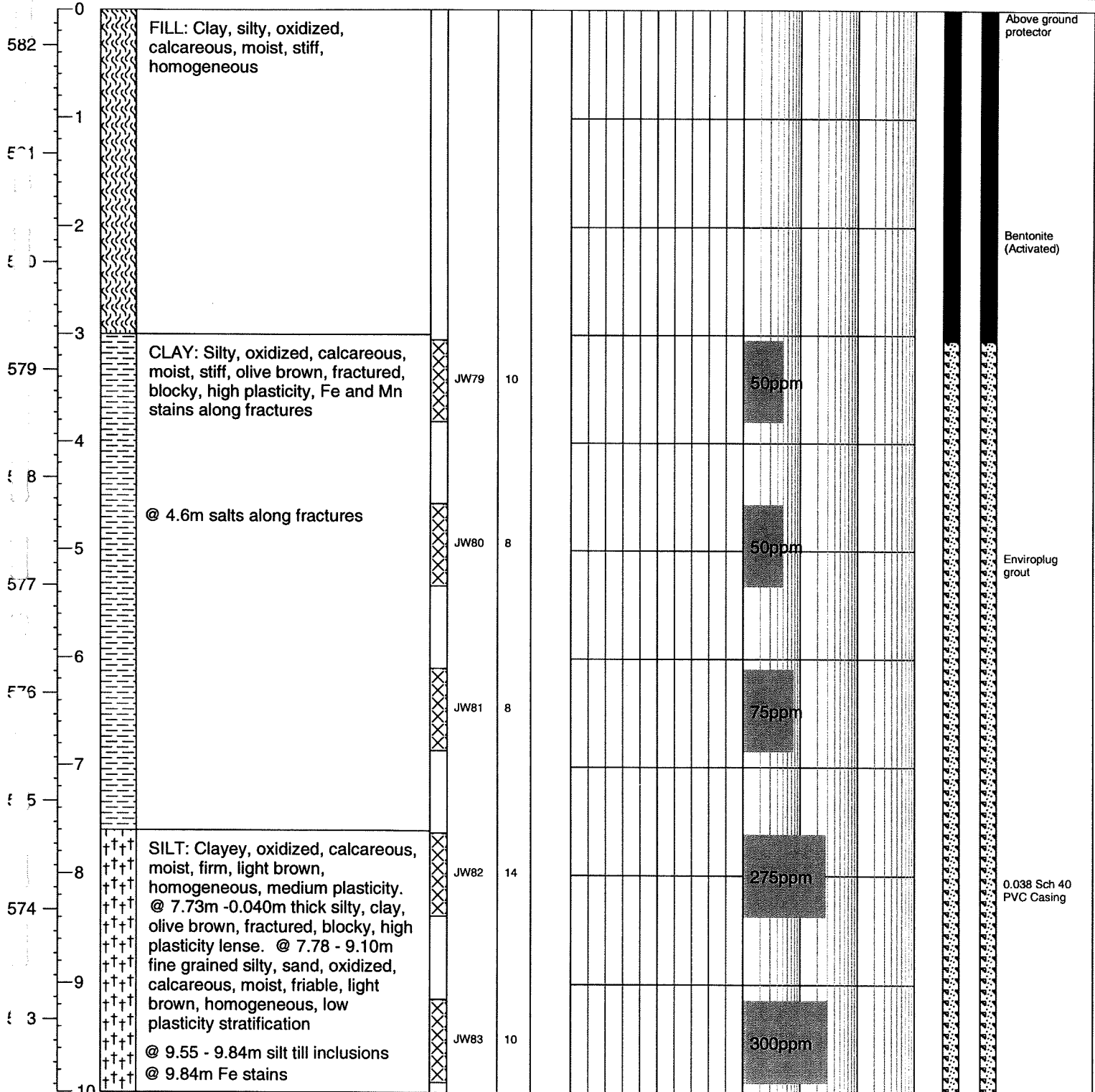




BORE HOLE LOG

Client: Imperial Oil Ltd.	Northing: -	Date: 08 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.33	Method: HSA/Casing Adv.
Project No.: R3667.1	Top Casing Elev.: 583.08	Logged by: JDW

Elev (m)	Depth (m)	Symbol	Soil Description	Sample		Moisture Content			Headspace Vapour				Monitor Well Construction Detail
				Type	No.	SPT 'N'	USC	Plastic Limit	percent Natural Moisture	Liquid Limit	ppm		

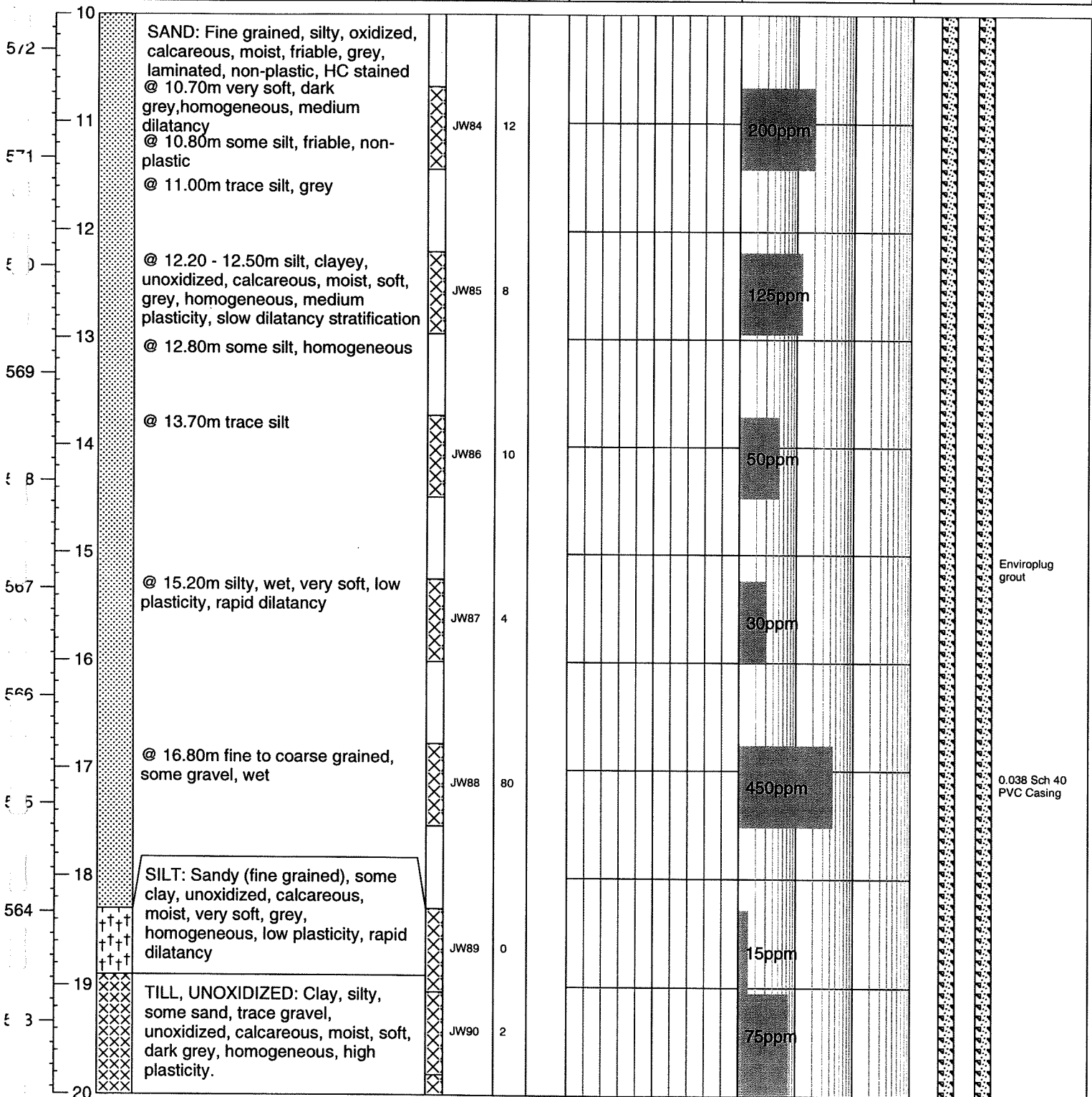




BORE HOLE LOG

Client: Imperial Oil Ltd.	Northing: -	Date: 08 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.33	Method: HSA/Casing Adv.
Project No.: R3667.1	Top Casing Elev.: 583.08	Logged by: JDW

Elev (m) Depth (m)	Symbol	Soil Description	Sample		Moisture Content			Headspace Vapour				Monitor Well Construction Detail
			Type	No.	plastic Limit	percent Natural Moisture	Liquid Limit	ppm	100	1000	10000	



Enviroplug grout

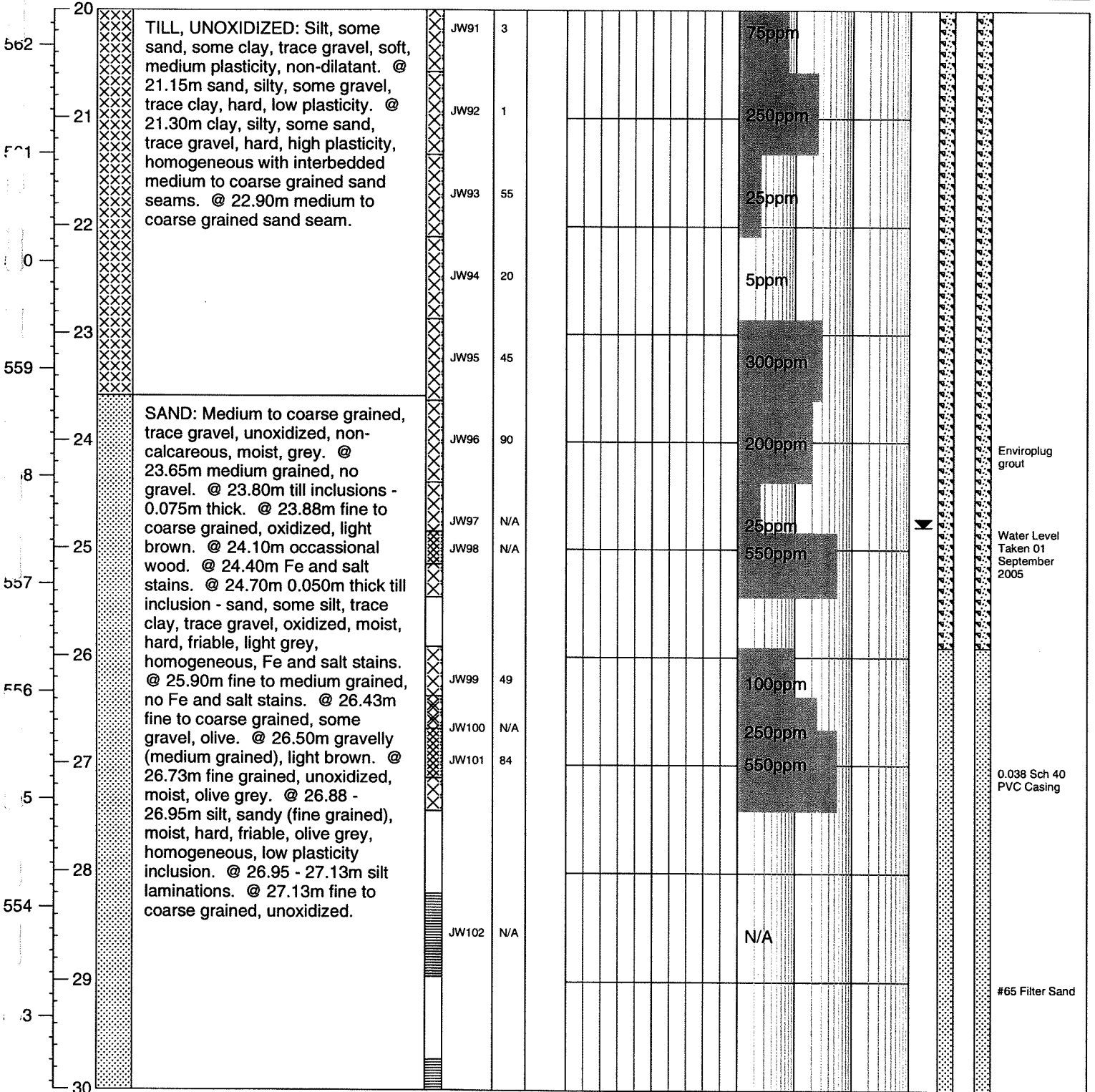
0.038 Sch 40 PVC Casing



BORE HOLE LOG

Client: Imperial Oil Ltd.	Northing: -	Date: 08 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.33	Method: HSA/Casing Adv.
Project No.: R3667.1	Top Casing Elev.: 583.08	Logged by: JDW

Elev (m)	Depth (m)	Symbol	Soil Description	Sample		USC	Moisture Content percent			Headspace Vapour ppm				Monitor Well Construction Detail
				Type	No.		SPT 'N'	Plastic Limit	Natural Moisture	Liquid Limit	10	100	1000	





BORE HOLE LOG

Bore Hole: 406

Page: 1 of 3

Client: Imperial Oil Ltd.
Project: Environmental Investigation
Location: Regina, SK
Project No.: R3667.1

Northing: -
Easting: -
Ground Elev.: 582.35
Top Casing Elev.: 583.30

Date Drilled: 11 Aug 2005
Drill: Canterra 250
Drilling Method: Hollow Stem
Logged by: JDW

Depth (m)	Symbol	Soil Description	Sample				Moisture Content percent			Headspace Vapour ppm				Monitor Well Construction Detail
			Type	No.	SPT 'N'	USC	Plastic Limit ▲	Natural Moisture ●	Liquid Limit ◆	0	50	100	10	

0		FILL: Clay, silty, oxidized, calcareous, moist, stiff, weathered, high plasticity, bricks													Above ground protector
1															
2															
3															
4		CLAY: Silty, oxidized, calcareous, moist, stiff, olive, fractured, blocky, high plasticity, HC stains along fractures	X	JW104	8								1100ppm		
5		@ 4.57m salt stains and crystals													
6															
7		@ 6.10m brown, no salt crystals	X	JW106	12								50ppm		
8		SILT: Clayey, oxidized, calcareous, moist, friable, light brown, homogeneous, low plasticity	X	JW107	14								> 10,000ppm		
9															
10													1100ppm		

Enviroplug grout

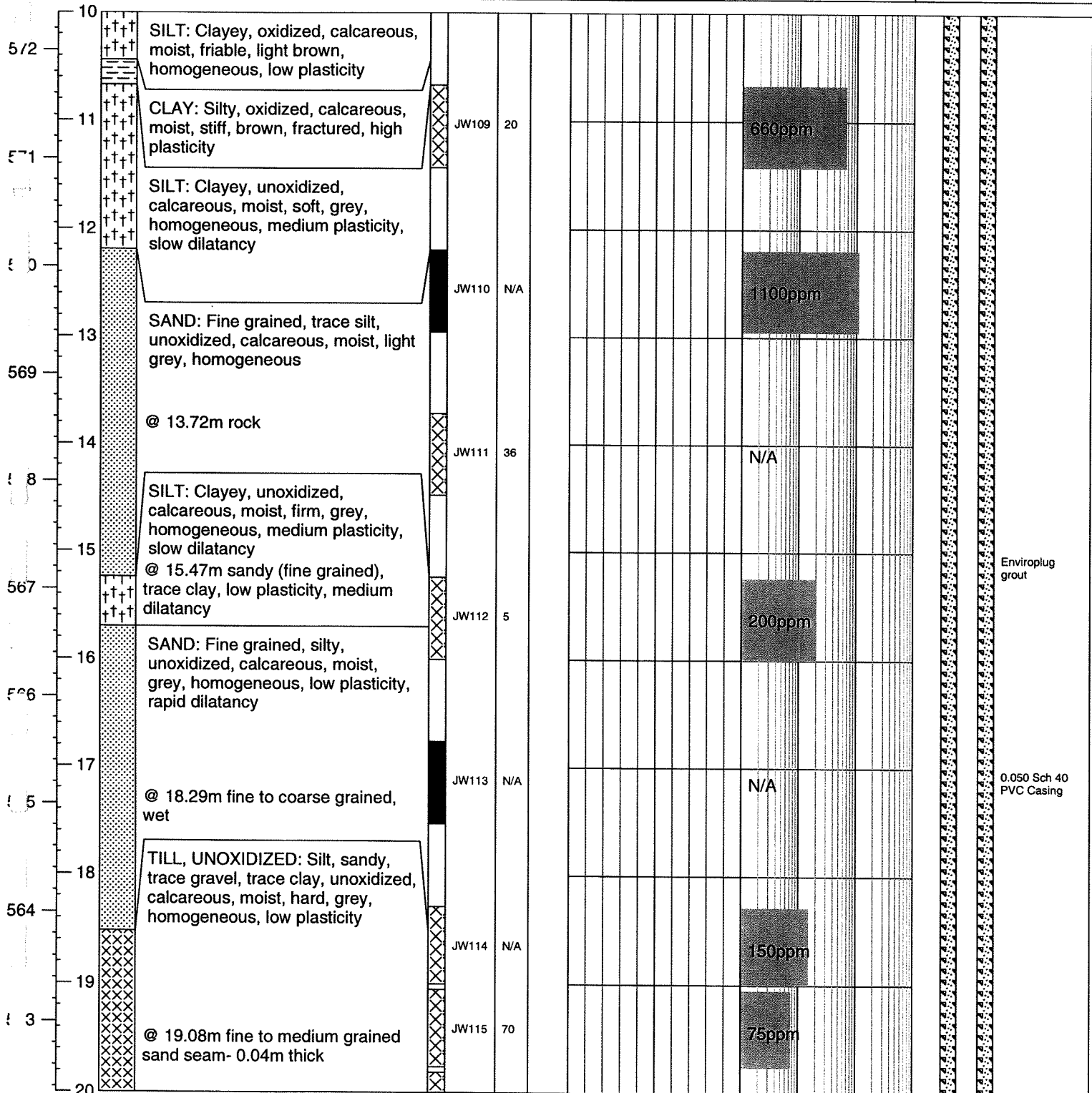
0.050 Sch 40 PVC Casing



BORE HOLE LOG

Client: Imperial Oil Ltd.	Northing: -	Date: 11 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.35	Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 583.30	Logged by: JDW

Elev (m)	Depth (m)	Symbol	Soil Description	Sample				Moisture Content				Headspace Vapour				Monitor Well Construction Detail
				Type	No.	SPT 'N'	USC	Plastic Limit	percent Natural Moisture	Liquid Limit	ppm	ppm	ppm	ppm		





BORE HOLE LOG

Client: Imperial Oil Ltd.	Northing: -	Date: 11 Aug 2005
Project: Environmental Investigation	Easting: -	Equipment: Canterra 250
Location: Regina, SK	Ground Elev.: 582.35	Method: Hollow Stem
Project No.: R3667.1	Top Casing Elev.: 583.30	Logged by: JDW

Elev (m) Depth (m)	Symbol	Soil Description	Sample				Moisture Content				Headspace Vapour				Monitor Well Construction Detail
			Type	No.	SPT 'N'	USC	Plastic Limit	Natural Moisture	Liquid Limit	ppm	ppm	ppm	ppm		

