



SNC-LAVALIN
Environment

Client :
Shell Canada Products

Borehole No. : 09-1D

Location :
69 Centennial Drive, Mackenzie, BC

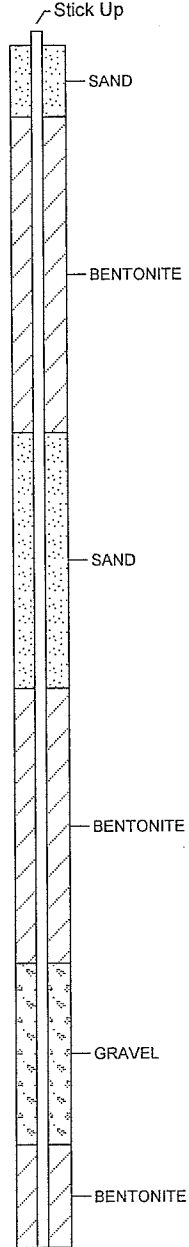
(Page 1 of 2)

Drilling Contractor: Geotech Drilling Services Ltd.
Drilling Method : Odex
Borehole Dia. (m) : 0.11
Pipe/Slotted Pipe Dia. (m): 0.05, 0.05

Date Monitored : 2010 06 28
Ground Surf Elev. (m) : 99.688
Top of Casing Elev. (m) : 100.703

Project Number :133006
Borehole Logged By :JM
Date Drilled :2009 10 30
Log Typed By :NN

Depth in Metres	Drilling Legend	Water/NAPL Levels	Stratigraphy Plot	Sample Interval/ Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm)	Well Name: MW09-1D
	Sample Interval Odex	Water Level 1 Water Level 2 NAPL NAPL							
	Soil Description								
0	SAND and GRAVEL (FILL), fine to coarse grained sand, fine to coarse gravel, subangular, subrounded, brown, medium dense, dry, frozen. Below 0.6 m - some silt, wet.								SAND
1									
2									
3									
4	At 4.0 m - fiberglass liner, hydrocarbon-like odour. SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subangular, some silt, trace cobble, grey, dense, wet, hydrocarbon-like odour.								SAND
5	SILT, clayey, some sand, fine to coarse grained, grey-brown, mottling, hard, damp. Below 5.2 m - dry to damp.								
6	SAND, fine to coarse grained, some silt, some gravel, fine to coarse, subrounded, brown, very dense, wet.								
7									
8	SAND, fine to coarse grained, some gravel, fine to coarse, subangular, brown and grey, very dense, dry to damp.				1-01B			○ 25	
					1-02B			●	GRAVEL
9	Below 9.1 m - gravelly, sand/silt lenses, fine grained.				1-03B			○ 25	
					1-04B			○ 15	
10									



Print Date: 2010 11 29, Date Approved: 2009 12 07

...Continued

Notes:
 Bolded sample denotes sample analyzed.
 *Sample 1-07B is a blind field duplicate of sample 1-06B.
 Well was lowered to flushmount on October 12, 2010.



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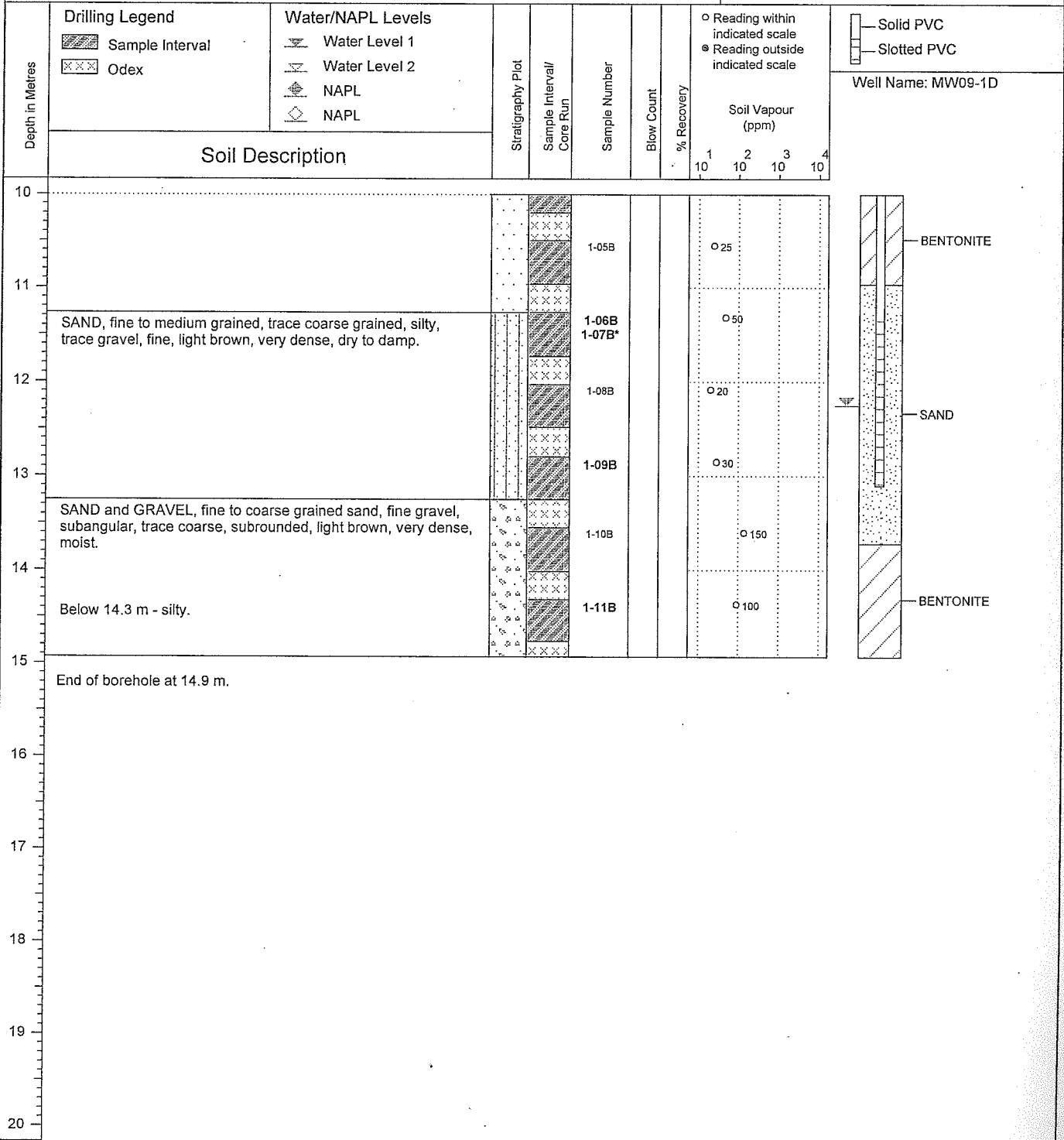
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Slug Test Analysis Report

Project: 69 Centennial Drive, Mackenzie, BC

Number: 133006

Client: Shell Canada Products

Location: Mackenzie, BC

Slug Test: MW09-1D RH#2

Test Well: MW09-1D

Test Conducted by:

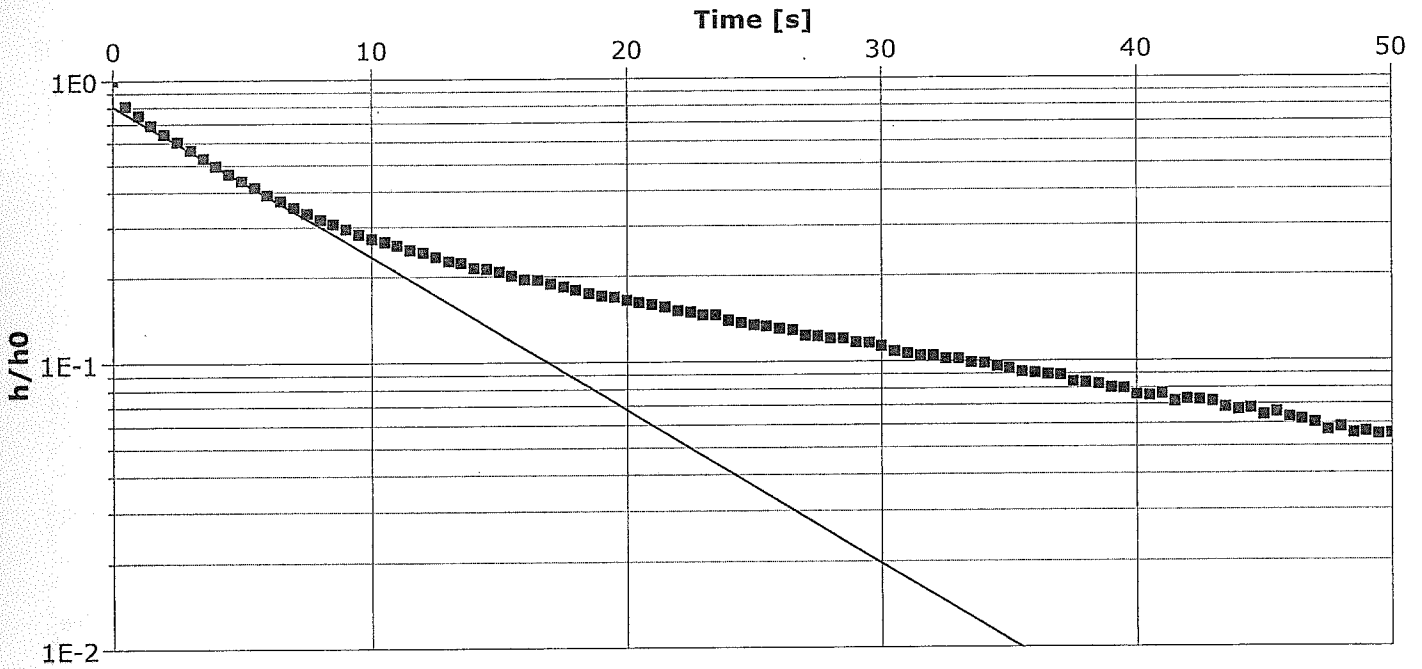
Test Date: 2010-07-13

Analysis Performed by: DKT

New analysis 1

Analysis Date: 2010-07-13

Aquifer Thickness: 15.00 m



Calculation after Bouwer & Rice

Observation Well	Hydraulic Conductivity [m/s]
MW09-1D	8.51×10^{-5}