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www.CRAworld.com

July 7, 2010 Reference No. 059546

Joe Shea, P.Eng Manager of Minewater – Land Holdings Enterprise Cape Breton Corporation (ECBC) 70 Crescent Street, Sydney, NS B1P 6T7

Dear Mr. Shea:

Re: ECBC Drilling Program

Investigate Mine Water at No. 2 and No. 9 Collieries, Glace Bay, Cape Breton County, Nova Scotia

Conestoga-Rovers and Associates (CRA) is pleased to provide Enterprise Cape Breton Corporation (ECBC) with the following documents:

- Table 1 Static Water Levels and Elevations in Dominion No. 2 and No. 9 Collieries

 This table lists the static water levels and mine water elevations measured over a period of time from March 25, 2010 to May 11, 2010 in Boreholes B-218 (No. 9 Colliery) and B-219 (No. 2 Colliery).
- Table 2 Mine Water Sample Analysis Filtered and Unfiltered
 This table presents the water chemistry analytical results from drill blow and flow cell mine water samples collected from Boreholes B-218 and B-219. Selected chemical and physical field-measured parameters are also included. Parameters that exceed the CCME
- Map 1 Cross Section Through Monitor Wells B-218 & B-219 and Mine Workings on the Harbour Phalen and Emery Seams
 - The cross section shows a relationship between Boreholes B-218 and B-219 and the following Collieries: Dominion No. 2, No. 3, No. 7, No. 8, No. 9, No. 11 Collieries and Sterling Mine. Also included on this map are the borehole casing details for B-218 and B-219, and a plan view showing sectional location.
- Figure 1 Precipitation and Elevation in Dominion No. 2 and No. 9 Collieries
 This figure shows the variation in mine water elevation measurements over time as compared to the variation in precipitation levels obtained from weather data.
- Figure 2 Atmospheric Pressure and Elevation in Dominion No. 2 and No. 9 Collieries

 This figure shows the variation in mine water elevation measurements over time as compared to the variation in atmospheric pressure obtained from weather data.
- Well logs for B-218 and B-219

guidelines are highlighted.



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When this project was initiated, previous work suggested that No. 2 and No. 9 Collieries were directly connected to the No 1B Mine Pool and therefore their mine water elevations would be expected to be the same (the mine water elevation in the No 1B Mine Pool is held at -18 feet by pumping at the Neville Street Wellfield). This assumption may not be incorrect. The mine water elevations in No. 2 and No. 9 Collieries were recorder over a period of approximately 47 days as shown on Figures 1 and 2 and the final recorded elevations for the two collieries are -29.95 and -14.29 feet respectively. The elevations varied by several feet over that time. This data was charted against precipitation and barometric pressure to see if a correlation could be identified, however a direct correlation was not identified. Further investigation is required to determine if such a relationship exists between the mine water elevation change, precipitation, and barometric pressure.

The sample analysis for the well water confirms that the sampled water is mine water. This is especially evident from the elevated concentrations of iron, sulphate and aluminum. In B-218, the moderately high calcium, pH and alkalinity suggests that dissolution of limestones has taken place; limestones are known to exist in coastline outcrops of the Harbour Seam in the Glace Bay area.

We trust that this letter is clear; however, should you have any questions, please do not hesitate to contact our office.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Glenn MacLeod, B.Sc.S., P.Geo.

Project Manager

GPM/klm/002

Attachments

Peter Oram (CRA)

Table 1 - Static Water Levels and Elevations in Dominion No. 2 and No. 9 Collieries ECBC Drilling Program

Investigate Mine Water at No. 2 and No. 9 Collieries, Glace Bay, Cape Breton County, Nova Scotia

Mine:		No. 9 (Colliery		No. 2 Colliery				
Borehole No. :		B-2	218		B-219				
ATS77 E:	4,61	8,211.670			4,61	8,200.550			
N:	5,120,656.080				5,120,616.080				
Units:	met		fe	et	met		feet		
Total depth of hole:		3.75		6.00	253	3.29	831	1.00	
TOC Elevation:	20.66		67.78		20.77		68.14		
Casing stick up:	1.24		4.07		1.25		4.10		
Ground elevation:	19.42		63.71		19.52		64.04		
Date static collected	static elev		static elev		static elev		static elev		
2010/03/25 13:00	26.160	-5.500	85.83	-18.04					
2010/04/05 09:00	25.222	-4.562	82.75	-14.97					
2010/04/08 11:30	25.225	-4.565	82.76	-14.98	28.657	-7.887	94.02	-25.88	
2010/04/09 10:00	25.283	-4.623	82.95	-15.17	29.002	-8.232	95.15	-27.01	
2010/04/09 11:00	25.280	-4.620	82.94	-15.16	29.042	-8.272	95.28	-27.14	
2010/04/09 13:00	25.207	-4.547	82.70	-14.92	29.032	-8.262	95.25	-27.11	
2010/04/11 14:00	25.272	-4.612	82.91	-15.13	29.443	-8.673	96.60	-28.45	
2010/04/12 08:30	25.173	-4.513	82.59	-14.81	29.475	-8.705	96.70	-28.56	
2010/04/14 08:00	25.041	-4.381	82.16	-14.37	29.457	-8.687	96.64	-28.50	
2010/04/14 11:34					29.580	-8.810	97.05	-28.90	
2010/04/14 12:45					29.090	-8.320	95.44	-27.30	
2010/04/14 15:05					28.914	-8.144	94.86	-26.72	
2010/04/14 15:10	25.300	-4.640	83.01	-15.22					
2010/04/14 16:15	25.490	-4.830	83.63	-15.85					
2010/04/14 16:40					29.000	-8.230	95.14	-27.00	
2010/04/15 11:00	25.040	-4.380	82.15	-14.37	29.398	-8.628	96.45	-28.31	
2010/04/16 10:00	24.872	-4.212	81.60	-13.82	29.566	-8.796	97.00	-28.86	
2010/04/19 14:25	25.058	-4.398	81.25	-14.26	29.865	-9.095	96.84	-29.84	
2010/04/20 16:45	25.126	-4.466	81.47	-14.48	29.901	-9.131	96.96	-29.96	
2010/04/21 17:15	25.116	-4.456	81.44	-14.45	29.910	-9.140	96.98	-29.99	
2010/04/22 16:30	24.991	-4.331	81.03	-14.04	29.852	-9.082	96.80	-29.80	
2010/04/23 16:00	24.896	-4.236	80.73	-13.74	29.798	-9.028	96.62	-29.62	
2010/04/26 17:45	24.891	-4.231	80.71	-13.72	29.836	-9.066	96.74	-29.74	
2010/04/27 16:25	25.076	-4.416	81.31	-14.32	29.964	-9.194	97.16	-30.16	
2010/04/28 17:20	25.043	-4.383	81.20	-14.21	29.917	-9.147	97.01	-30.01	
2010/04/29 18:00	25.080	-4.420	81.32	-14.33	29.993	-9.223	97.25	-30.26	
2010/04/30 16:10	25.254	-4.594	81.89	-14.90	30.094	-9.324	97.58	-30.59	
2010/05/01 17:25	25.274	-4.614	81.95	-14.96	30.039	-9.269	97.40	-30.41	
2010/05/02 17:15	25.252	-4.592	81.88	-14.89	30.046	-9.276	97.43	-30.43	
2010/05/03 16:15	25.119	-4.459	81.45	-14.46	29.990	-9.220	97.24	-30.25	
2010/05/04 17:00	25.172	-4.512	81.62	-14.63	29.998	-9.228	97.27	-30.28	
2010/05/05 16:20	25.083	-4.423	81.33	-14.34	29.914	-9.144	97.00	-30.00	
2010/05/06 19:35	25.109	-4.449	81.42	-14.43	29.951	-9.181	97.12	-30.12	
2010/05/07 17:30	25.056	-4.396	81.25	-14.25	29.936	-9.166	97.07	-30.07	
2010/05/10 19:35	25.046	-4.386	81.21	-14.22	29.871	-9.101	96.86	-29.86	
2010/05/11 17:10	25.068	-4.408	81.28	-14.29	29.900	-9.130	96.95	-29.95	

Red measurements were collected during sampling. Pumping rate was 75 ImpGal/Min Blue measurements were collected by ECBC.

Table 2 - Mine Water Sample Analysis - Filtered and Unfiltered **ECBC Drilling Program** Investigate Mine Water at No. 2 and No. 9 Collieries, **Glace Bay, Cape Breton County, Nova Scotia**

		Sample ID		B-218		GBGT-BH01 (B-218)	B-219		B-219-01		
	Date Collected		Apr 14 2010 Flow Cell Sample		Mar 23 2010	Apr 14		Apr 08 2010			
			ample Method ratory Number	FO9580	FO9581	Drill Blow Sample FJ9960	Flow Cel FO7656	FO7657	Drill Blow Sample FN2919		
ĺ	PARAMETERS	UNITS	CCME-FWAL	Unfiltered	Filtered	Unfiltered	Unfiltered	Filtered	Unfiltered		
	Sodium	mg/L	NG	2000	2100	1400	5400	5400	5800		
	Potassium	mg/L	NG	63	73	57	<60	60	59		
lons:	Calcium	mg/L	NG	470	580	400	1200	1100	1100		
◙	Magnesium	mg/L	NG	440	520	440	1200	1000	1300		
Major	Alkalinity (as CaCO3)	mg/L	NG	720		520	130		3		
Ma	Sulphate	mg/L	NG	2900		2000	4200		3400		
	Chloride	mg/L	NG	2900		1800	11000		12000		
	Silica	mg/L	NG NG	10 12		81	12 74		36		
	Bromide	mg/L									
	Ortho-Phosphorus (as P) Phosphorus	mg/L	NG NG	<0.01 <0.1	 <0.1	<3 0.24	0.05 <10	 <10	<3 <0.5		
::	Nitrite+Nitrate (as N)	mg/L mg/L	NG	<0.05		0.24 <6	0.26		<0.06		
nts	Nitrate (as N)	mg/L	2.9	<0.05		<0.6	0.26		<0.6		
Nutrients	Nitrite (as N)	mg/L	0.06	<0.03		< <u><6</u>	<0.01		< <u><60</u>		
Ž	TKN	mg/L	NG	3.1			11				
_	Ammonia as (N)	mg/L	Narrative	1.9		1.8	8.4		8.2		
	Total Organic Carbon	mg/L	NG	<0.5		1.4	<0.5		<0.5		
::	Hardness (as CaCO3)	mg/L	NG	3600		2800	6900		7800		
ter	Bicarbonate	mg/L	NG	715		515	126		3		
Parameters:	Carbonate	mg/L	NG	<1		2	<1		<1		
ıraı	Colour	TCU	Narrative	130		<5	160		20		
	Turbidity	NTU	Narrative	180		>1000	330		810		
cal	Conductivity	μS/cm	NG	12000		8500	31000		36000		
Physical	рН	Units	6.5 - 9.0	7.00		7.69	5.90		5.20		
Ph	Acidity	mg/L	NG	320			1900				
	TDS	mg/L	NG	9520		6490	23300		24100		
3::	Cation Sum	mmol(eq)/L	NG	164		119	402		441		
ue	Anion Sum	mmol(eq)/L	NG	157		102	390		397		
Values:	Ion Sum	mmol(eq)/L	NG								
5	Ion Balance	%	<5	2.24		7.89	1.52		5.26		
Š	Total Coliforms	MPN/100mL	NG	<1			<10				
a-			_				-				
Para-	Faecal Coliforms (E. coli)	MPN/100mL	NG NG	<1			<10				
<u> </u>	COD BOD	mg/L	NG	140 11			660 40				
		mg/L									
	Iron	μg/L	300	19000	24000	35000	710000	720000	830000		
	Ferrous Iron	mg/L	NG NG	20 2100	20 2500	2700	730 33000	730 35000	39000		
	Manganese	μg/L									
	Copper	μg/L	2 - 4 30	<2.0	<2.0	22 82	<u><200</u>	<u><200</u>	<u><10</u>		
	Zinc Aluminum	μg/L	*5-100	16 53	<5.0 51	25000	<500 <500	<500 <500	84 180		
	Antimony	μg/L μg/L	NG	0.52	1.0	1.8	<u><500</u> <40	<u><500</u> 42	3.3		
	•										
	Arsenic Barium	μg/L	5 NG	<0.60 99	<0.60 100	5.1 270	<u><60</u> <40	<60 <40	<3.0 36		
	Beryllium	μg/L μg/L	NG	<0.50	<0.50	1.6	<50	<50	<2.5		
	Bismuth	μg/L	NG	<2.0	<2.0	<2.0	<200	<200	<10		
	Boron	μg/L	NG	260	290	270	<10000	<10000	<500		
	Cadmium	μg/L	*calculation	0.11	0.089	0.72	<u><1.7</u>	<1.7	0.42		
	Chromium	μg/L	*1 - 8.9	<1.0	<1.0	<1.0	<u><100</u>	<u><100</u>	8.6		
Metals:	Cobalt	μg/L	NG	13	15	48	<100	<100	58		
let:	Lead	μg/L	*1 - 7	<1.0	<1.0	21	<u><100</u>	<u><100</u>	<5.0		
2	Lithium	μg/L	NG	200	210	180	530	650	490		
	Mercury	μg/L	0.26	<0.013	<0.013		<0.013	<0.013			
	Molybdenum Niekol	μg/L	7.3	<4.0	<4.0	8.8	<400 -300	<400 -300	<u><20</u>		
	Nickel Selenium	μg/L μg/L	*25 - 150 1	15 3.7	16 3.9	110 2.9	<300 <100	<300 <100	91 21		
	Silicon	μg/L μg/L	NG	2500	3. 9 	2.9	110000	<u><100</u> 	<u> </u>		
	Silver	μg/L	0.1	0.73	<0.10	0.49	<10	<10	2.5		
	Strontium	μg/L	NG	9400	11000	7300	35000	34000	37000		
	Sulfur	μg/L	NG								
	Thallium	μg/L	0.8	<0.80	<0.80	<0.80	<u><80</u>	<u><80</u>	<u><4.0</u>		
	Tin	μg/L	NG	<20	<20	<20	<2000	<2000	<100		
	Titanium	μg/L	NG	<3.0	<3.0	760	<300	<300	<15		
	Uranium	μg/L	NG	5.8	6.5	8.4	<15	<15	<0.75		
	Vanadium	μg/L	NG	<2.0	<2.0	24	<200	<200	<10		
	Cadmium guideline	μg/L	-	0.72		0.581508	1.26		1.403464		
nts:	Conductivity	μS/cm	-	8310			27240 33140				
	Specific Conductivity	μS/cm	-	11600 0.7			33140 2.6				
Ē	DO DO	% mg/l	-		. <i>7</i> 08		0.3				
ē	TDS	mg/L g/L	-								
sn	pH	g/L units	6.5 - 9.0	7.506 6.64 -12.1 -88.0		6.64		21.53 5.58			
~	pHmv	units	-						49.9		
Mea								-15.6			
d Measurements:	ORP	l mv	-	-88	3.0		- 13	J.U			
Field Mea	ORP Temperature	mV °C	- Narrative		96		15.				

Notes:

NG = No Guideline value;

_CCME = Canadian Council of Ministers of the Environment, Canadian Environmental Quality Guidelines , July 2006. FWAL = Freshwater Aquatic Life.

= Exceedance of CCME FWAL; bold and underlined indicates the reportable detection is above the guideline.

*Aluminum CCME Guideline: 5 μ g/L at pH<6.5; or 100 μ g/L at pH≥6.5. *Cadmium CCME Guideline: 10 {0.86[log(hardness)]-3.2} in μ g/L.

*Lead CCME Guideline: 1 μ g/L at [CaCO3] = 0-60 mg/L; 2 μ g/L at [CaCO3] = 60-120 mg/L; 4 μ g/L at [CaCO3] = 120-180 mg/L;

7 μg/L at [CaCO3] > 180 mg/L.

*Nickel CCME Guideline: 25 ug/L at [CaCO3] = 0-60 mg/l; 65 ug/L at [CaCO3] = 60-120 mg/l; 110 ug/L at [CaCO3] = 120-180 mg/l; 150 ug/L at [CaCO3] > 180 mg/L.

^{--- =} Paramer not analyzed.

^{*}Copper CCME Guideline: $2 \mu g/L$ at [CaCO3] = 0-120 mg/L;3 $\mu g/L$ at [CaCO3] = 120-180 mg/L;4 $\mu g/L$ at [CaCO3] > 180 mg/L. *Chromium CCME Guidleline:Cr (VI) 1.0 $\mu g/L$ Cr (III) 8.9 $\mu g/L$. As the Cr species is unknow 1.0 $\mu g/L$ is used.

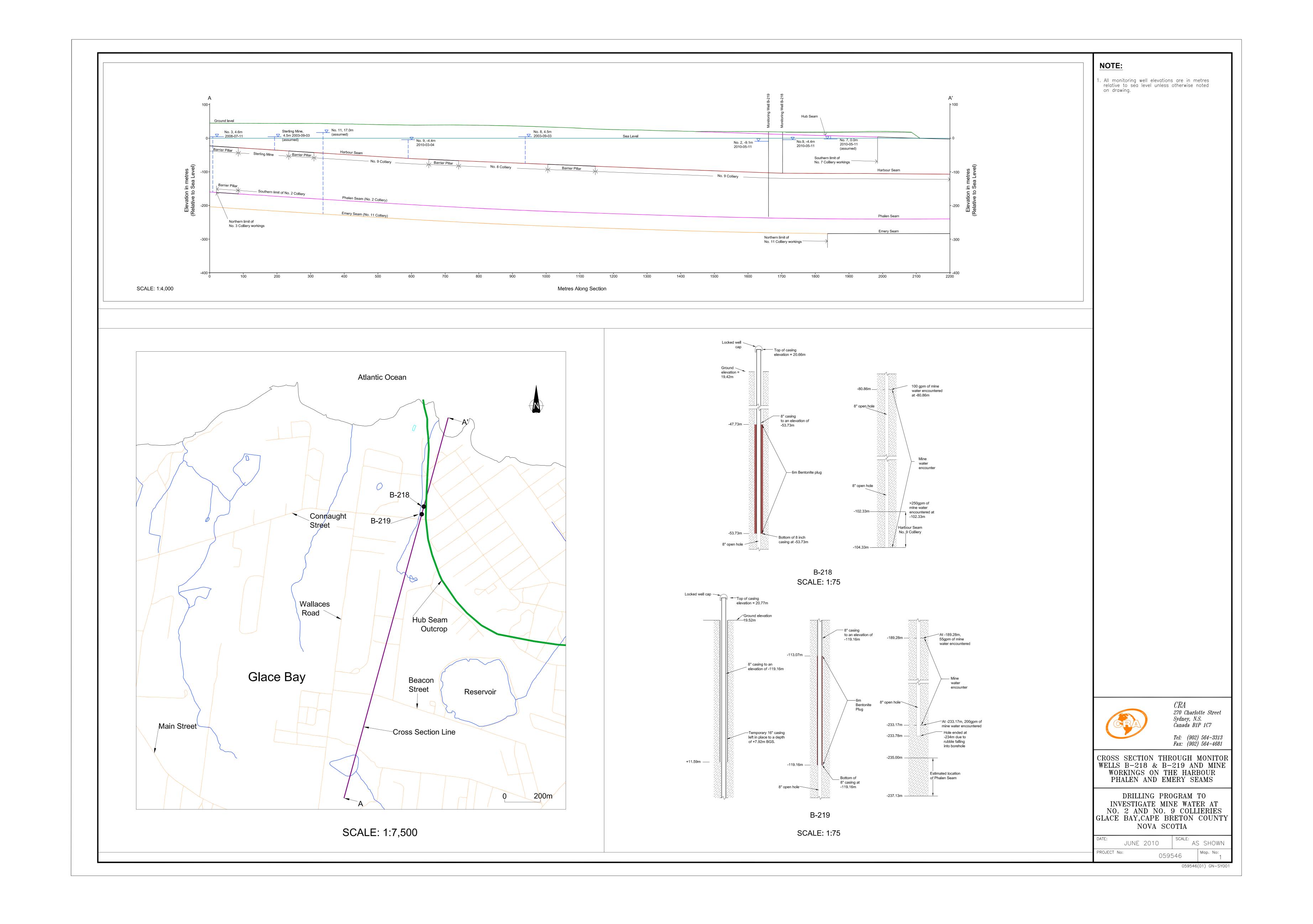
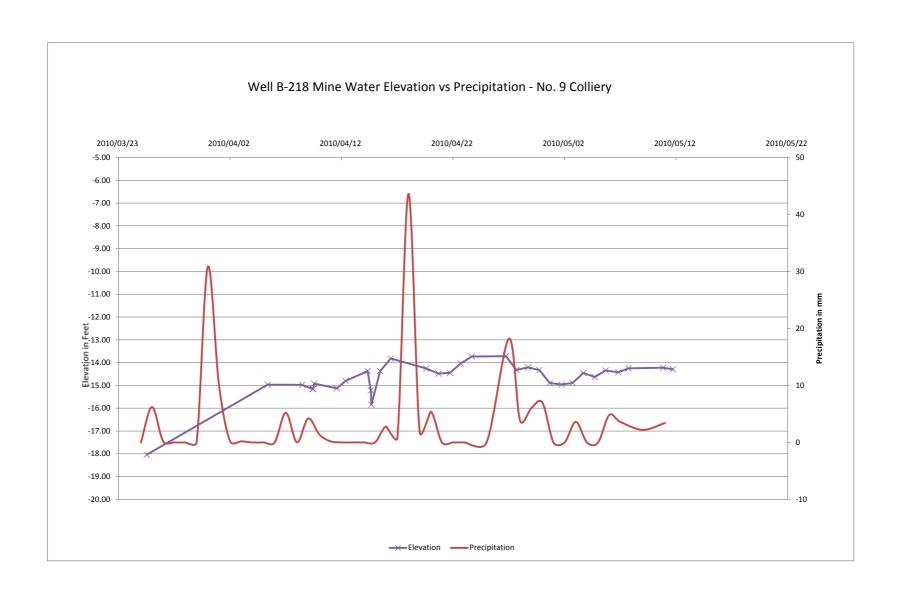


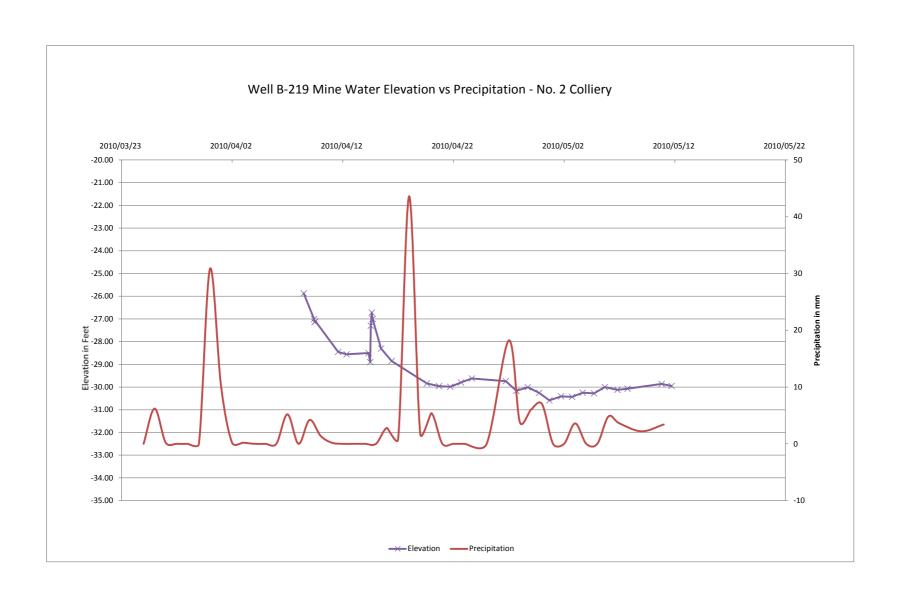
Figure 1 - Precipitation and Elevation in Dominion No. 2 and No. 9 Collieries

ECBC Drilling Program

Investigate Mine Water at No. 2 and No. 9 Collieries,

Glace Bay, Cape Breton County, Nova Scotia





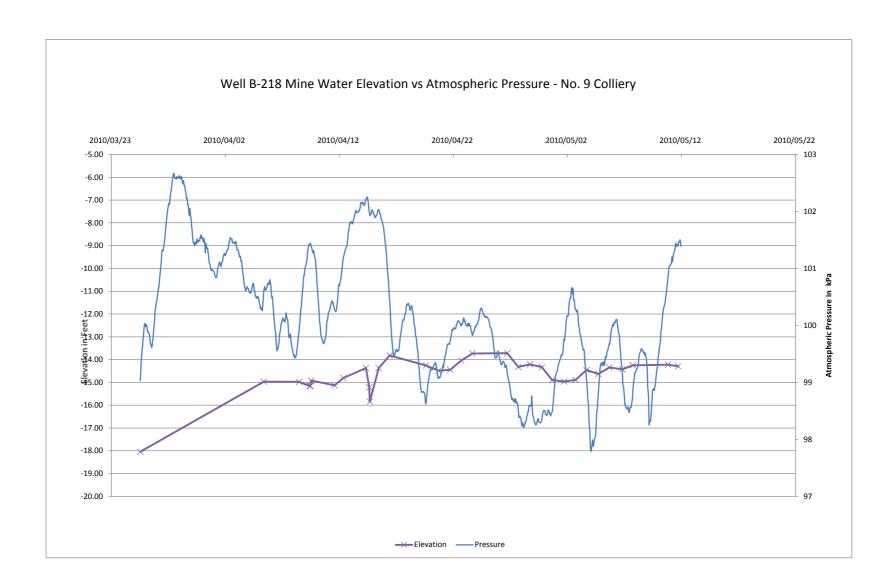
CRA 059546 Ltr002 JShea Attachment - Figure 1

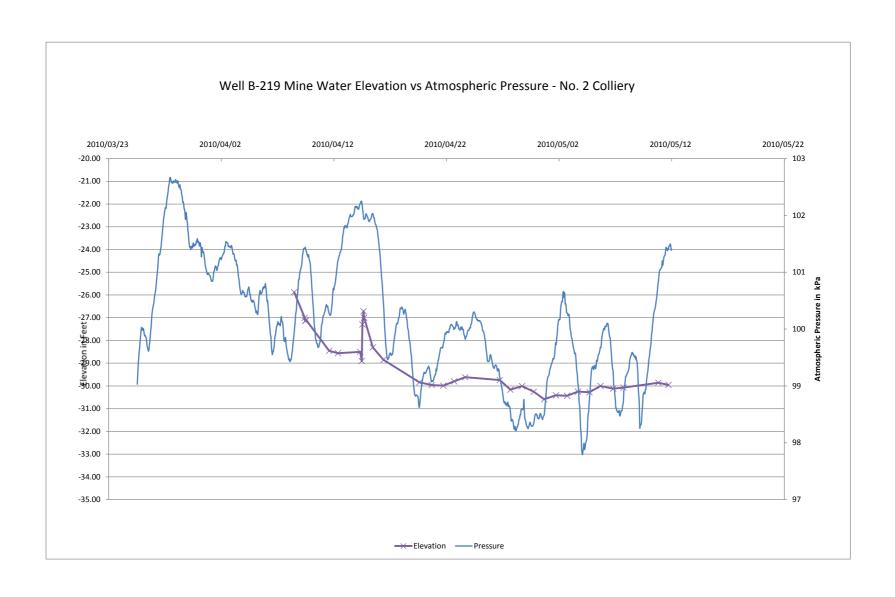
Figure 2 - Atmospheric Pressure and Elevation in Dominion No. 2 and No. 9 Collieries

ECBC Drilling Program

Investigate Mine Water at No. 2 and No. 9 Collieries,

Glace Bay, Cape Breton County, Nova Scotia





CRA 059546 Ltr002 JShea Attachment - Figure 2

ATTACHMENT

WELL LOG B-218



Client

BORE HOLE No. B-218

Coordinates ATS77

E 4618211.590

Location New Aberdeen, Glace Bay **Logged By** R. Pierrynowski

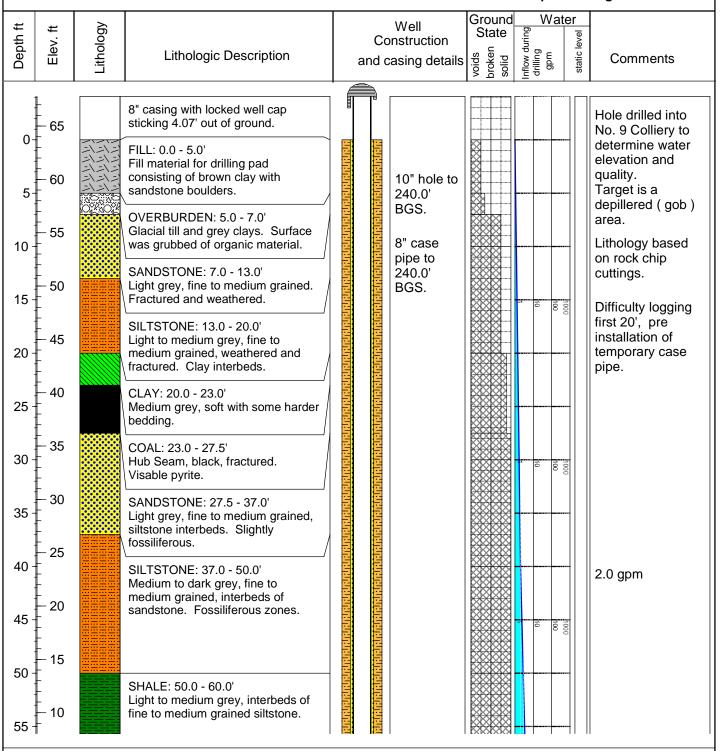
E.C.B.C. **Drilling Type** Rotary Percussion N 5120656.140

Drilling Co. Island Well Drillers **Casing** 240' BGS

 Date Started
 22/03/2010
 Total Depth
 406' BGS
 Elevation

 63.71'
 63.71'

Date Ended 25/03/2010 Hole orientation -90 Ground 63.71 Top of Casing 67.78



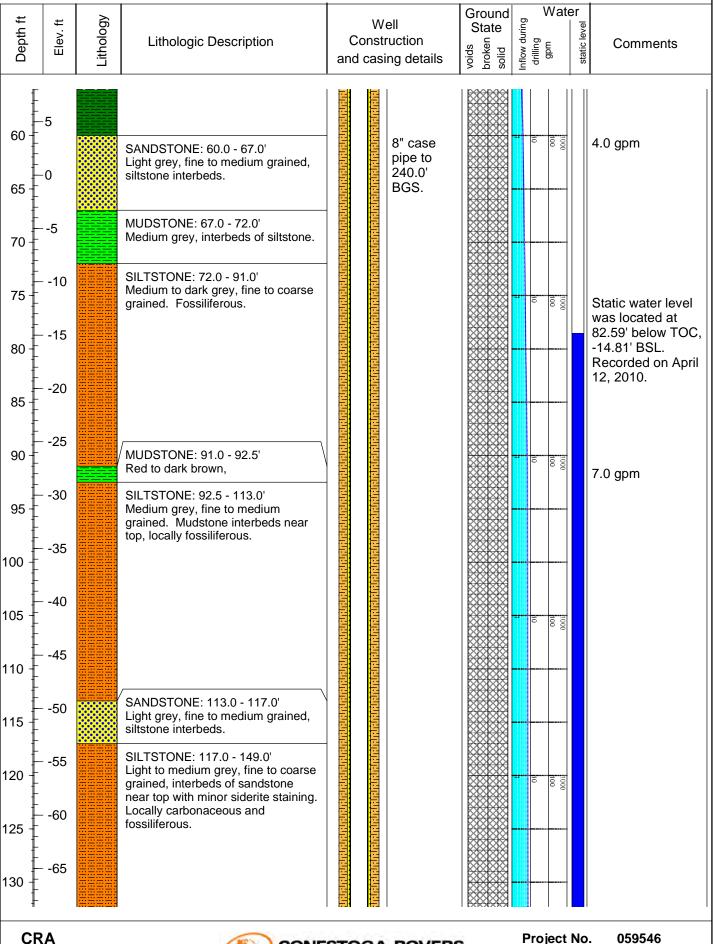
CRA 270 Charlotte St., P.O. Box 1234 Sydney, Nova Scotia Canada B1P 6J9 Tel. 902 564 3313



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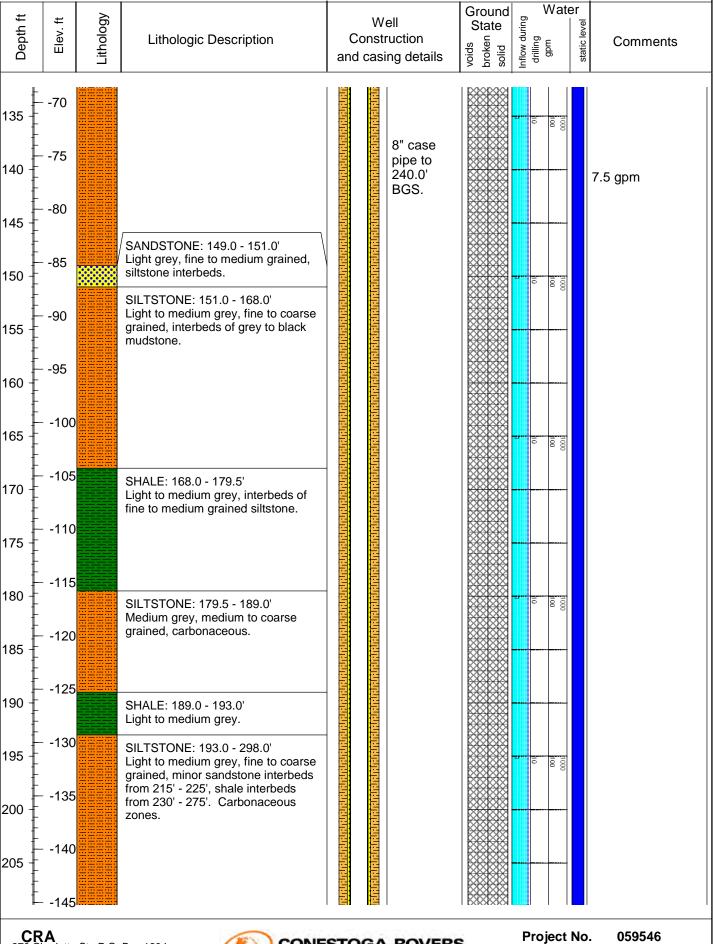
Sheet 1 of 6

B-218



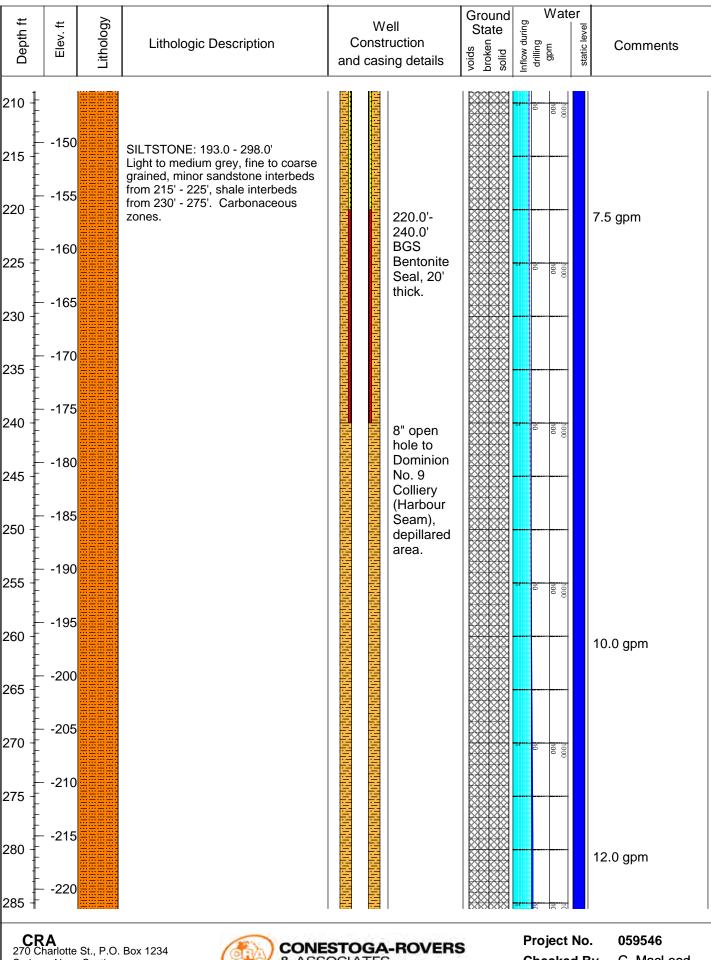


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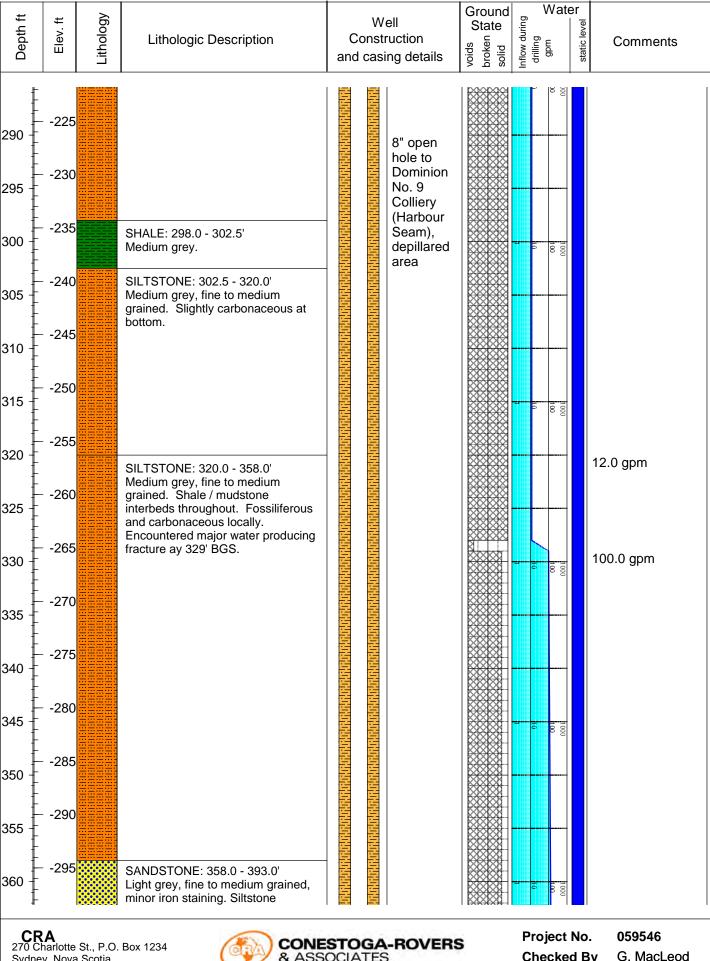


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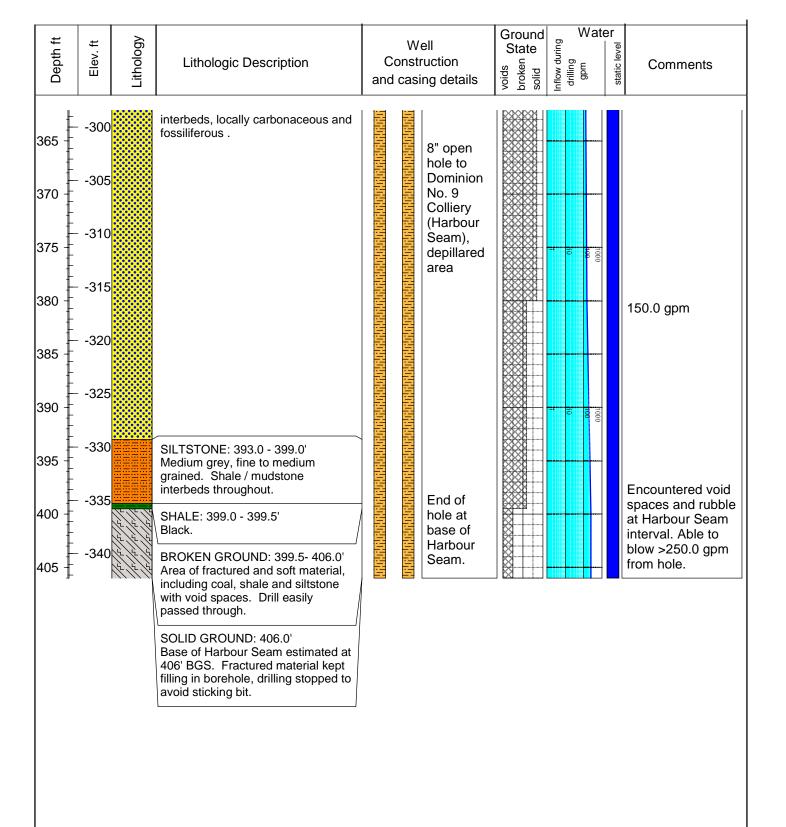


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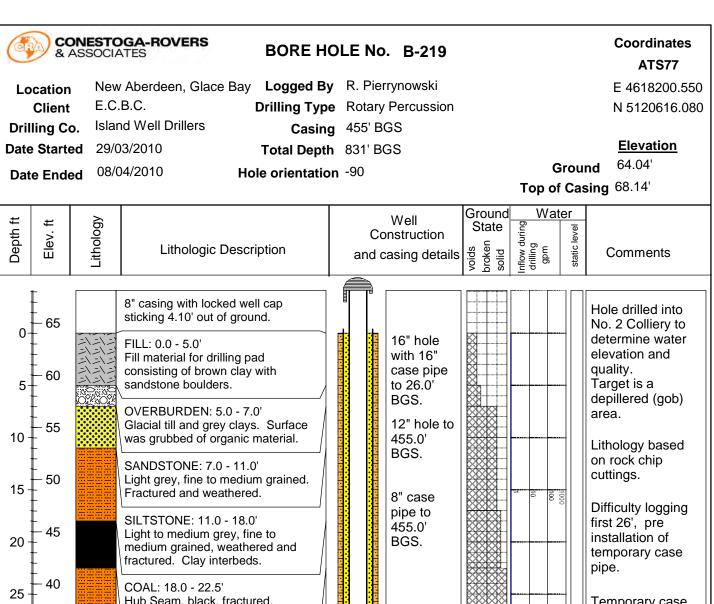
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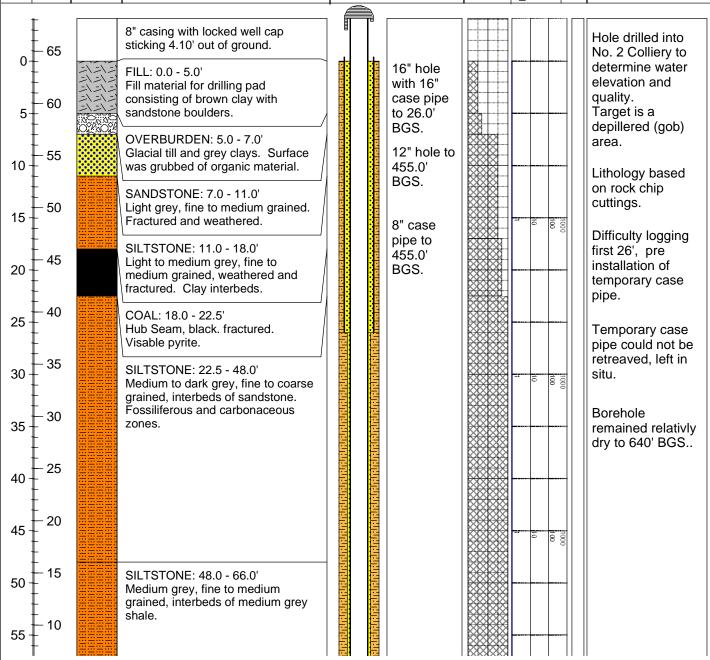




ATTACHMENT

WELL LOG B-219



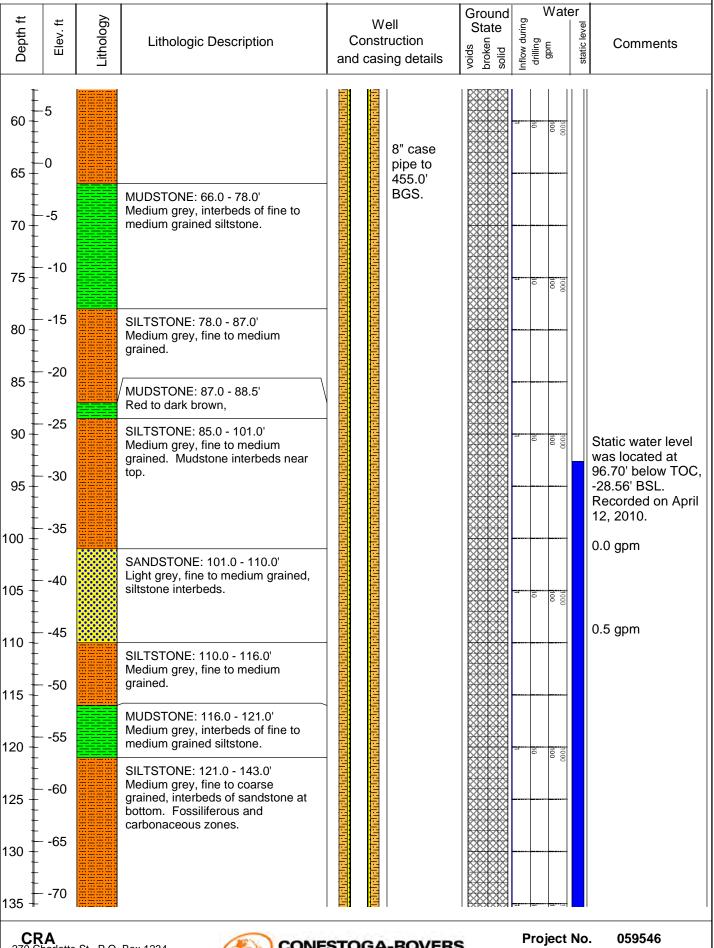




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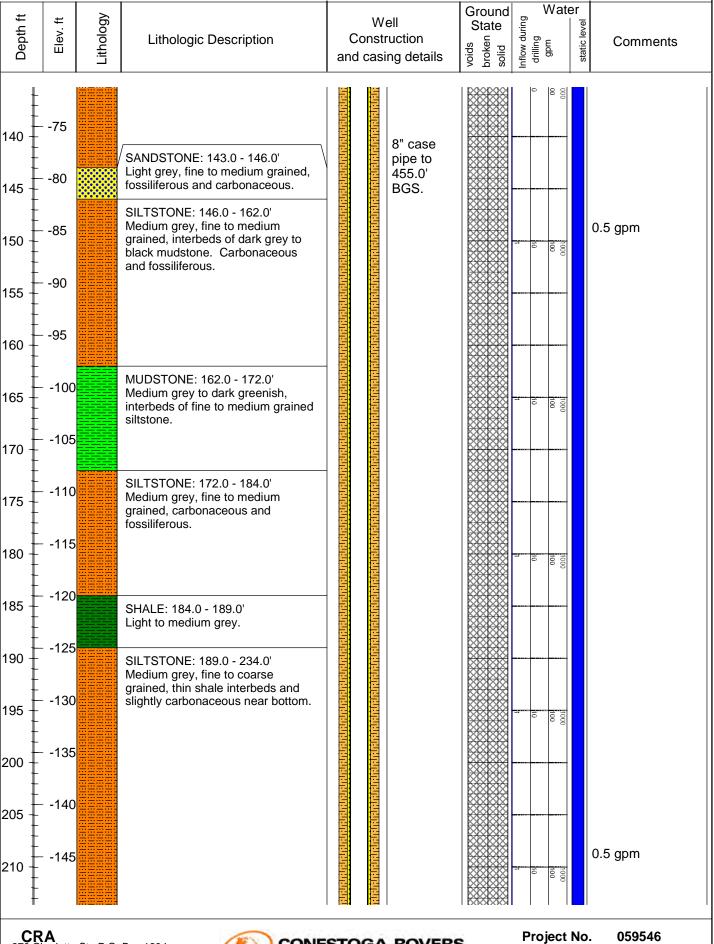
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B-219



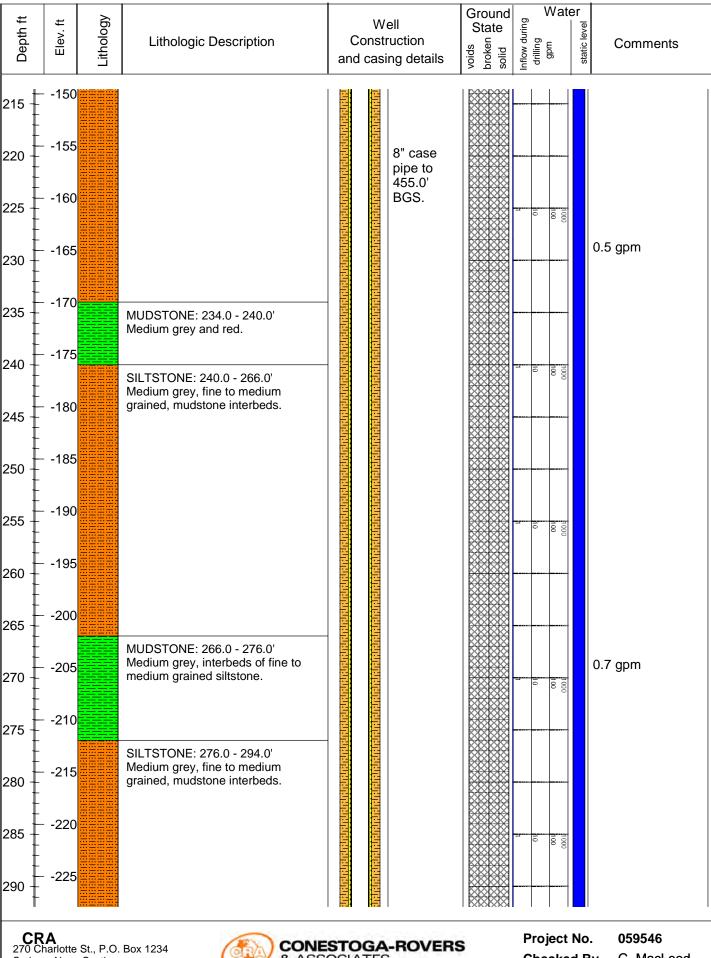


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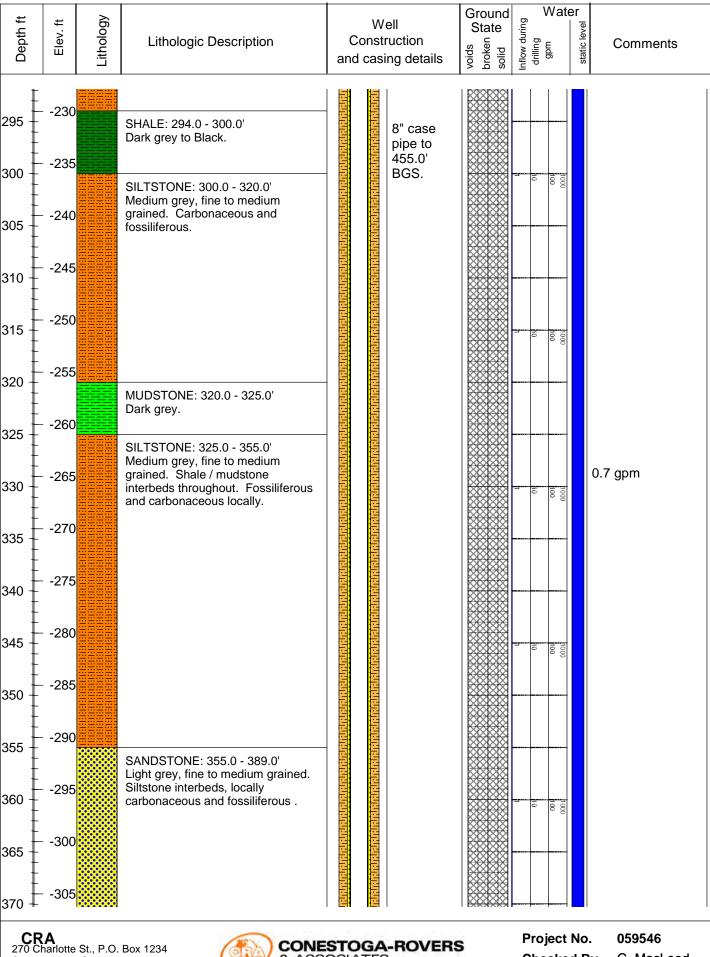


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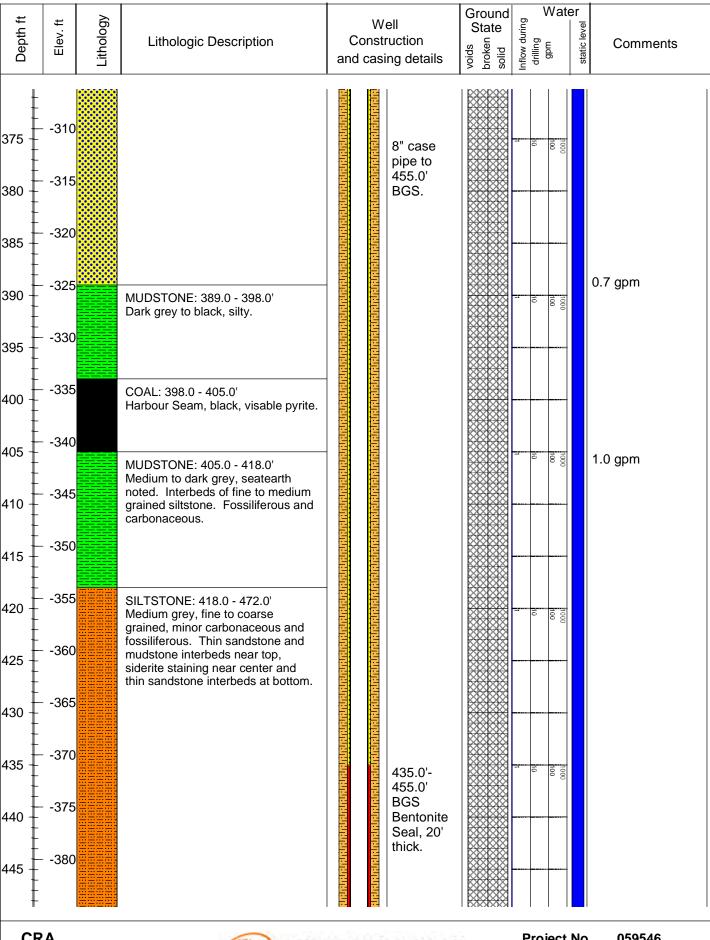


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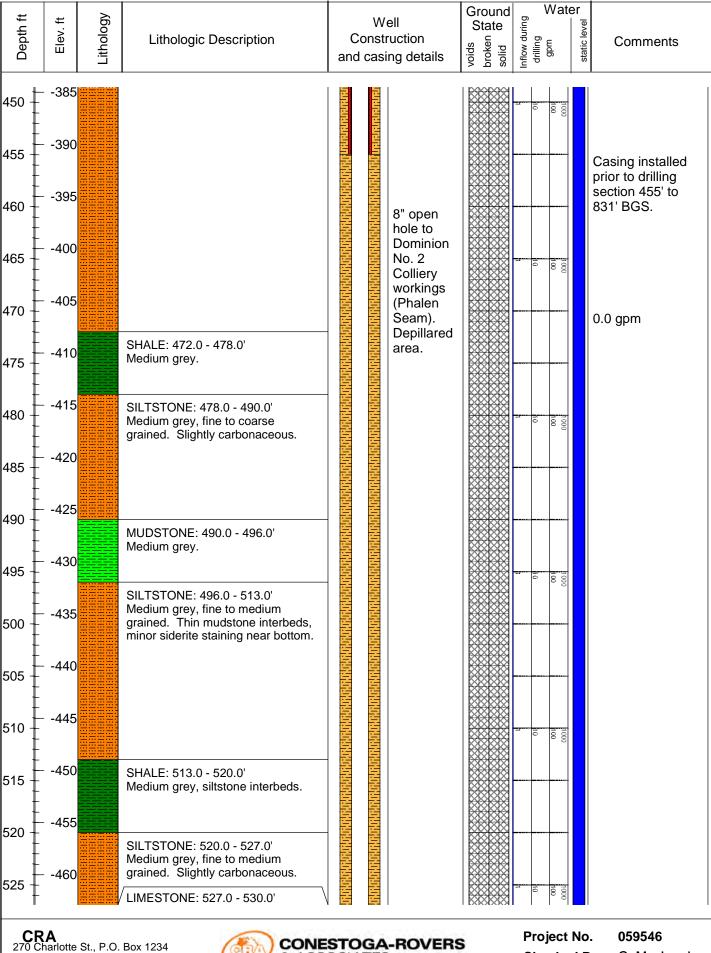


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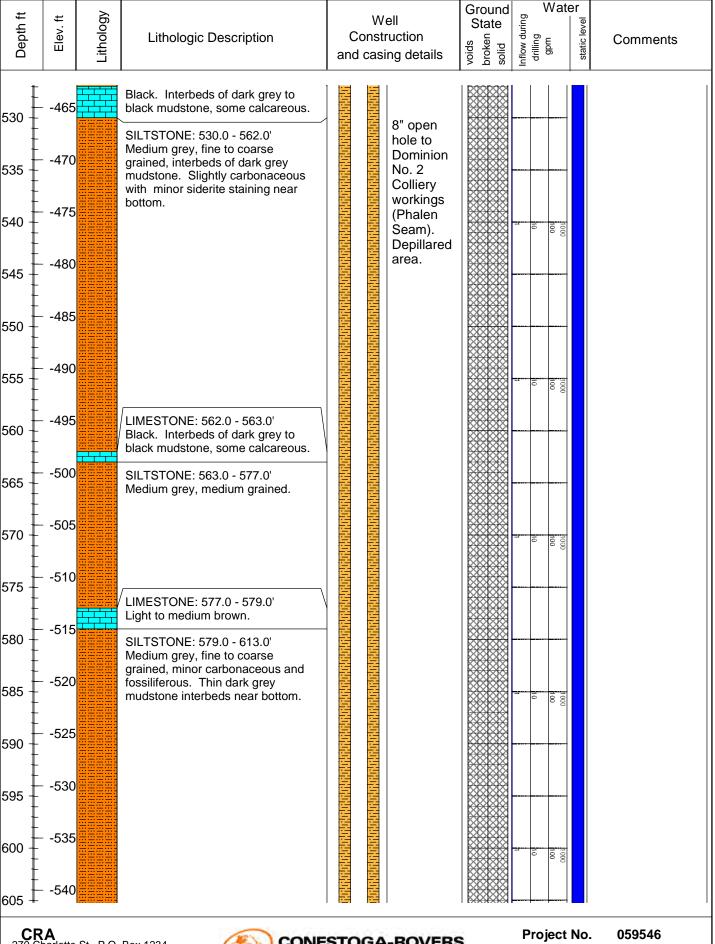


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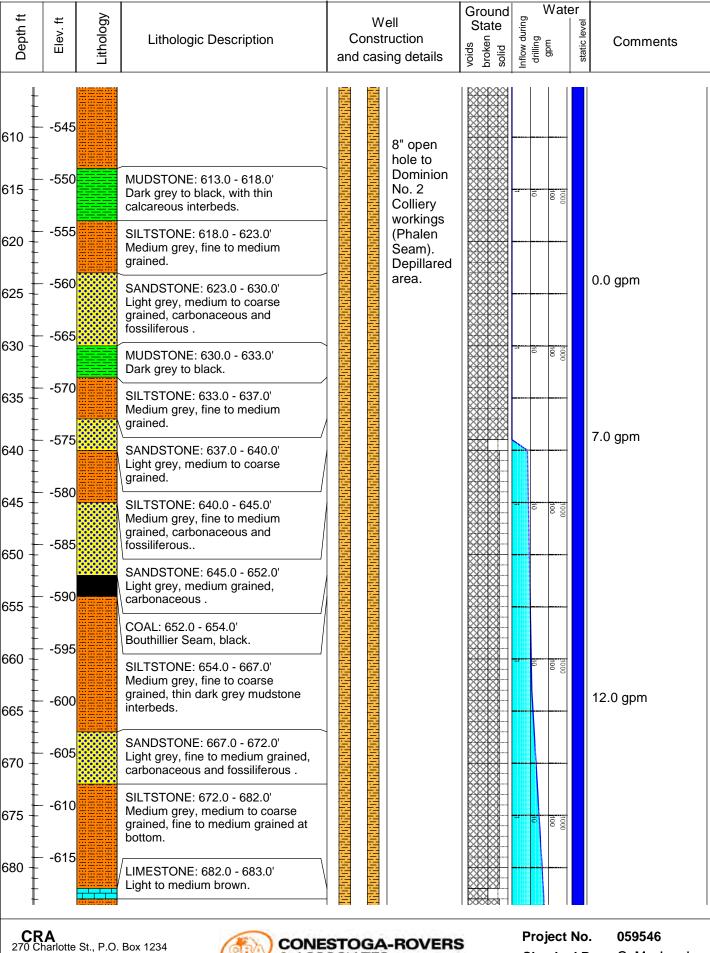


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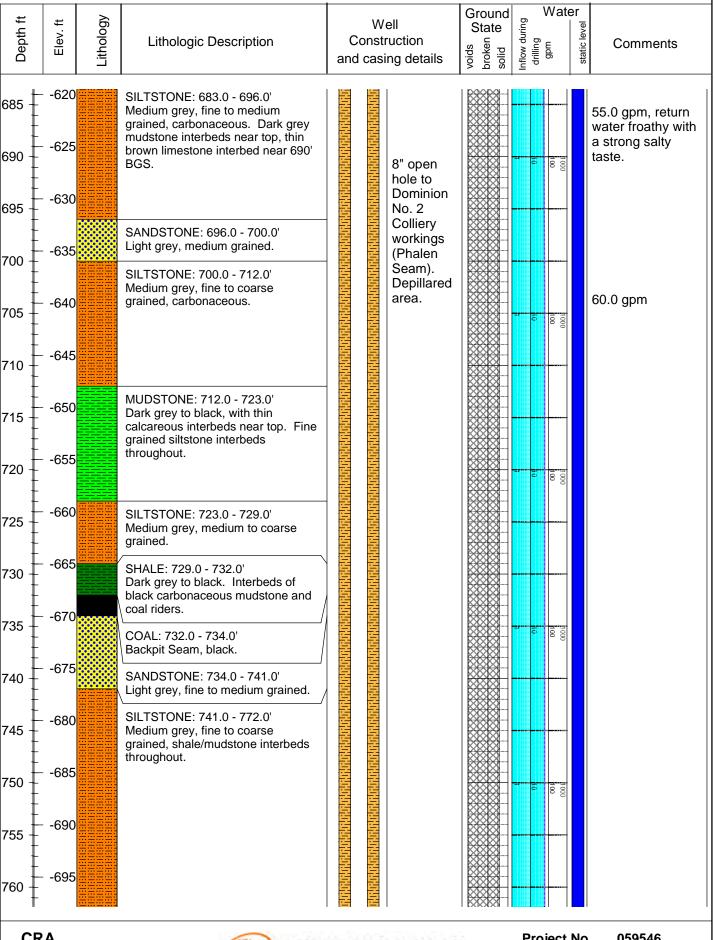


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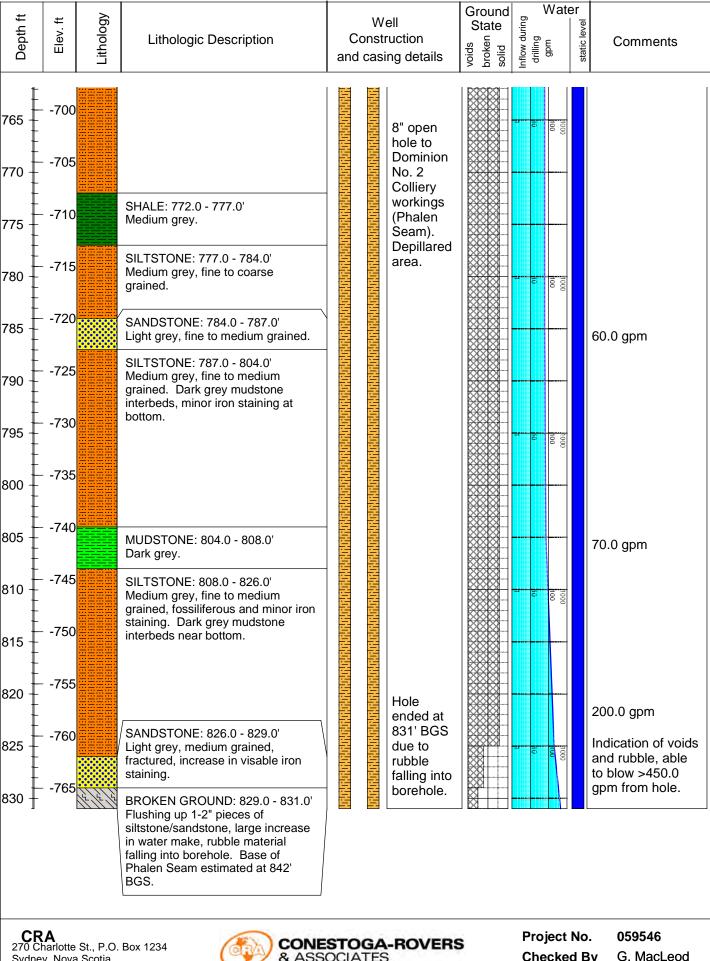


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