

COAL VALLEY RESOURCES INC. OBED MOUNTAIN MINE

May 2014 – MONTHLY MINE WASTEWATER REPORT

1. INTRODUCTION

As per section 4.2.26 of CVRI's Obed Mountain Mine ("OMM") EPEA Approval No. 10119-02-01 (the "Approval"), the following report summarizes the performance of Obed Mountain Mine wastewater system for the month of May 2014.

2. MONITORING RESULTS

Table 1 presents the results of all routine wastewater samples taken from major and minor ponds for the month of May 2014. During OMM's summer sampling schedule for major ponds, sampling requirements are as follows: TSS 3x/week and when NTU>50, turbidity and pH 3x/week and nitrate-nitrogen bi-weekly. The sampling requirements for Minor ponds includes: TSS and pH 1x/week and nitrate-nitrogen 1x/month. While pumping activities are occurring at Pond 5 (commencing November 26, 2013), OMM has adopted a major pond sampling schedule to ensure that water quality remains within limits set out by the Approval.

As described in Section 4.2.10 of the Approval, releases from the mine wastewater handling facilities shall not exceed the limits specified in Table 4.2-A. The maximum daily allowable and maximum monthly average allowable concentrations for TSS are 350 mg/L and 50 mg/L respectively. Values that exceed these limits are highlighted grey and font bolded. Note that values of 0 are used when results are below detection limits (TSS<3.0 and Nitrates<0.10) and used in calculating the monthly average. The pH values must measure in the range of 6.0 – 9.5 for all samples.

In May 2014, there were no floating solids, visible foam or oil/grease sheen to report from the daily visual inspections.

3. APPROVAL CONTRAVENTIONS

All detailed 7 day reports for approval contraventions can be found in Appendix 1.

Summaries:

Reference No. 284021 – As outlined in Section 4.4.13, notification is to be given 7 days prior to discharge from the Sewage Lagoon. On May 13, 2014 it was found that the Sewage Lagoon was discharging over the top of the berm.

Required samples were taken for analysis and notification was given to open the discharge valve. Discharge prior to notification was reported.

Reference No. 284041 – As outlined in Section 4.2.1 “The approval holder shall not release any substances from the mine to the surrounding watershed except as authorized by this approval.” On May 15, 2014 it was found that water was leaving the mine from Yellow Pit, an unlicensed discharge point.

Reference No. 284571 – Following an internal procedure for reporting in a timely manner OMM notified that ELP2 was found to have an NTU of 659 on May 28, 2014 that may result in non-compliance for TSS concentration. Upon receipt of the results it was found that ELP2 remained in compliance with a TSS concentration of 32.8mg/L and no 7-day report was required.

Reference No 284886 – As outlined in Table 4.2-A, maximum daily TSS concentrations are not to exceed 350mg/L and monthly average TSS concentrations are not to exceed 50 mg/L. May 28, 2014 samples were collected at ELP1 and SPP3 and sent to ALS Laboratory to be analyzed for TSS. Results were found to show that the TSS concentrations were analyzed at 393mg/L and 368mg/L respectively. It was later found that ELP1 had exceeded the 350mg/L daily limit for May 27, 2014 as well with a TSS concentration of 499mg/L.

4. WAIVERS OF DAILY LIMIT FOR TOTAL SUSPENDED SOLIDS

There were no precipitation events in May 2014 to merit the exemption of the daily limit of 350 mg/L for TSS. Total Precipitation for the month was 71.2mm.

5. FLOCCULANT USE

As a precautionary method, OMM placed Clearflow Water Lynx product in two of the inflow ditches of Main Tailings Pond (“MTP”) on May 1, 2014. Through the month of May continued use of the Water Lynx product occurred at ELP2 and ECP as well.

6. DETAILED ANALYSIS OF THE MAIN TAILING POND

A detailed water chemistry sample was taken May 1, 2014 as required under section 4.2.19 of the Approval. Results are shown in Table 7.

Table 1 – May 2014 Routine Analysis of Major and Minor Ponds

Pond	Parameter	1-May	2-May	3-May	4-May	5-May	6-May	7-May	8-May	9-May	10-May	Average	Min	Max
SPP1	TSS (mg/l)	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	26.6	9.8	46.0
	Turb. (NTU)	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	30.96	4.08	48.30
	pH	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	8.52	8.27	8.78
	Nitrates (mg/l)	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	0.125	0.075	0.152
SPP2	TSS (mg/l)	26.0	11.4	-	14.0	3.5	5.0	4.5	5.0	6.5	14.0	10.4	0.0	27.2
	Turb. (NTU)	25.60	32.20	-	13.50	9.12	8.50	8.21	8.04	13.10	16.90	13.50	7.32	39.40
	pH	8.05	8.21	-	8.29	8.22	8.32	8.38	8.40	8.37	8.37	8.48	8.05	8.84
	Nitrates (mg/l)	-	-	-	-	-	-	-	-	-	-	0.197	0.170	0.228
SPP3	TSS (mg/l)	26.0	32.6	-	14.0	20.3	32.0	7.9	32.0	8.8	26.0	39.7	7.9	368.0
	Turb. (NTU)	27.90	92.50	-	57.00	39.40	34.30	30.90	32.20	26.20	23.70	47.68	23.10	93.80
	pH	8.16	8.24	-	8.42	8.31	8.44	8.38	8.44	8.49	8.55	8.47	8.16	8.68
	Nitrates (mg/l)	-	-	-	-	-	-	-	-	-	-	0.553	0.209	0.999
ELP2	TSS (mg/l)	30.5	39.1	-	17.2	19.1	46.0	330.0	26.0	7.5	26.0	26.2	0.0	330.0
	Turb. (NTU)	96.80	104.00	-	85.10	67.50	42.80	69.40	22.10	18.10	20.00	50.55	5.35	659.00
	pH	8.10	8.57	-	8.61	8.67	8.70	8.76	8.78	8.79	8.80	8.84	8.10	9.14
	Nitrates (mg/l)	-	-	-	-	-	-	-	-	-	-	0.807	0.221	1.110
Yellow Pit	TSS (mg/l)	-	-	-	-	-	-	-	-	-	-	19.6	11.3	32.0
	Turb. (NTU)	-	-	-	-	-	-	-	-	-	-	28.47	22.20	38.60
	pH	-	-	-	-	-	-	-	-	-	-	8.57	8.24	8.81
	Nitrates (mg/l)	-	-	-	-	-	-	-	-	-	-	0.000	0.000	0.000
LSP-2	TSS (mg/l)	-	-	-	-	-	-	-	-	0.0	-	27.2	0.0	76.0
	Turb. (NTU)	-	-	-	-	5.74	-	-	-	-	-	5.95	2.66	11.10
	pH	-	-	-	-	8.39	-	-	-	-	-	8.47	8.39	8.54
	Nitrates (mg/l)	-	-	-	-	-	-	-	-	-	0.000	0.000	0.000	0.000
LSP-3	TSS (mg/l)	-	-	-	-	ND	-	-	-	-	-	NA	NA	NA
	Turb. (NTU)	-	-	-	-	ND	-	-	-	-	-	NA	NA	NA
	pH	-	-	-	-	ND	-	-	-	-	-	NA	NA	NA
	Nitrates (mg/l)	-	-	-	-	ND	-	-	-	-	-	NA	NA	NA

Notes: Cells hi-lighted blue represent results received from ALS Laboratory
Cells hi-lighted grey and bolded represent results over limits outlined in Table 4.2A
 Cells not hi-lighted use the converted TSS vaue outlined in Section 4.2.8a

Table 1 – May 2014 Routine Analysis of Major and Minor Ponds Continued

Pond	Parameter	11-May	12-May	13-May	14-May	15-May	16-May	17-May	18-May	19-May	20-May	21-May	22-May	23-May	Average	Min	Max
SPP1	TSS (mg/l)	46.0	22.8	26.0	12.6	46.0	26.0	46.0	32.0	18.5	26.0	ND	ND	ND	26.6	9.8	46.0
	Turb. (NTU)	47.10	36.80	29.70	34.90	46.40	48.30	43.50	35.00	28.50	24.90	ND	ND	ND	30.96	4.08	48.30
	pH	8.55	8.50	8.53	8.31	8.53	8.45	8.49	8.61	8.63	8.66	ND	ND	ND	8.52	8.27	8.78
	Nitrates (mg/l)	-	0.148	-	-	-	-	-	-	-	0.152	-	ND	ND	ND	0.125	0.075
SPP2	TSS (mg/l)	14.0	6.1	5.0	0.0	14.0	10.0	14.0	14.0	9.7	14.0	4.1	5.0	4.6	10.4	0.0	27.2
	Turb. (NTU)	14.30	8.45	8.33	9.57	15.20	16.40	12.20	12.00	11.00	11.30	7.69	7.45	9.74	13.50	7.32	39.40
	pH	8.41	8.38	8.50	8.48	8.57	8.45	8.51	8.62	8.57	8.54	8.62	8.68	8.70	8.48	8.05	8.84
	Nitrates (mg/l)	-	0.228	-	-	-	-	-	-	-	0.194	-	-	-	-	0.197	0.170
SPP3	TSS (mg/l)	26.0	9.3	32.0	22.1	46.1	38.1	30.2	25.8	28.0	28.0	24.5	46.0	16.0	39.7	7.9	368.0
	Turb. (NTU)	23.10	27.20	36.10	44.70	65.70	57.90	52.50	50.10	49.40	52.10	45.70	44.50	42.40	47.68	23.10	93.80
	pH	8.64	8.57	8.54	8.58	8.58	8.55	8.54	8.54	8.61	8.54	8.57	8.52	8.51	8.47	8.16	8.68
	Nitrates (mg/l)	-	0.450	-	-	-	-	-	-	-	0.209	-	-	-	-	0.553	0.209
ELP2	TSS (mg/l)	14.0	14.4	14.0	9.0	14.0	8.0	5.0	5.0	9.3	5.0	0.0	5.0	3.6	26.2	0.0	330.0
	Turb. (NTU)	17.50	16.40	13.00	12.40	10.40	7.62	6.41	6.67	8.91	8.64	5.35	5.40	6.24	50.55	5.35	659.00
	pH	8.76	8.81	8.86	8.87	8.49	8.88	8.98	9.01	9.04	9.08	9.07	9.09	9.13	8.84	8.10	9.14
	Nitrates (mg/l)	-	-	-	1.090	-	-	-	-	-	1.110	-	-	-	-	0.807	0.221
Yellow Pit	TSS (mg/l)	-	-	-	-	-	-	26.6	12.4	19.4	11.9	13.2	17.3	11.3	19.6	11.3	32.0
	Turb. (NTU)	-	-	-	-	-	-	29.9	24.5	-	22.2	22.60	25.10	26.10	28.47	22.20	38.60
	pH	-	-	-	-	-	-	-	-	-	-	-	-	-	8.57	8.24	8.81
	Nitrates (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-	0.000	0.000	0.000
LSP-2	TSS (mg/l)	-	-	11.9	-	-	-	-	-	-	76.0	-	-	-	27.2	0.0	76.0
	Turb. (NTU)	-	-	2.66	-	-	-	-	-	-	11.10	-	-	-	5.95	2.66	11.10
	pH	-	-	8.46	-	-	-	-	-	-	8.50	-	-	-	8.47	8.39	8.54
	Nitrates (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-	0.000	0.000	0.000
LSP-3	TSS (mg/l)	-	-	ND	-	-	-	-	-	-	ND	-	-	-	NA	NA	NA
	Turb. (NTU)	-	-	ND	-	-	-	-	-	-	ND	-	-	-	NA	NA	NA
	pH	-	-	ND	-	-	-	-	-	-	ND	-	-	-	NA	NA	NA
	Nitrates (mg/l)	-	-	ND	-	-	-	-	-	-	ND	-	-	-	NA	NA	NA

Notes: Cells hi-lighted blue represent results received from ALS Laboratory
Cells hi-lighted grey and bolded represent results over limits outlined in Table 4.2A
Cells not hi-lighted use the converted TSS value outlined in Section 4.2.8a

Table 1 – May 2014 Routine Analysis of Major and Minor Ponds Continued

Pond	Parameter	24-May	25-May	26-May	27-May	28-May	28-May	29-May	29-May	29-May	30-May	30-May	31-May	Average	Min	Max
SPP1	TSS (mg/l)	ND	ND	ND	ND	20.6	-	-	26.0	-	-	9.8	14.0	26.6	9.8	46.0
	Turb. (NTU)	ND	ND	ND	ND	4.08	-	-	22.50	-	-	16.50	15.20	30.96	4.08	48.30
	pH	ND	ND	ND	ND	8.78	-	-	8.27	-	-	8.40	8.50	8.52	8.27	8.78
	Nitrates (mg/l)	ND	ND	ND	ND	0.075	-	-	-	-	-	-	-	0.125	0.075	0.152
SPP2	TSS (mg/l)	5.0	14.0	4.4	5.0	27.2	-	-	26.0	-	-	10.7	14.0	10.4	0.0	27.2
	Turb. (NTU)	7.32	10.00	8.69	9.30	39.40	-	-	23.50	-	-	16.40	11.50	13.50	7.32	39.40
	pH	8.67	8.84	8.76	8.74	8.70	-	-	8.31	-	-	8.39	8.40	8.48	8.05	8.84
	Nitrates (mg/l)	-	-	-	-	0.170	-	-	-	-	-	-	-	0.197	0.170	0.228
SPP3	TSS (mg/l)	46.0	46.0	15.8	46.0	368.0	-	-	29.1	-	-	45.4	24.0	39.7	7.9	368.0
	Turb. (NTU)	40.10	41.80	44.90	46.70	60.20	-	-	84.60	-	-	93.80	62.90	47.68	23.10	93.80
	pH	8.46	8.68	8.50	8.64	8.47	-	-	8.23	-	-	8.28	8.16	8.47	8.16	8.68
	Nitrates (mg/l)	-	-	-	-	0.999	-	-	-	-	-	-	-	0.553	0.209	0.999
ELP2	TSS (mg/l)	5.0	5.0	7.4	14.0	32.8	-	-	47.5	-	-	15.8	11.4	26.2	0.0	330.0
	Turb. (NTU)	8.76	6.51	8.24	10.90	659.00	-	-	128.00	-	-	27.30	17.00	50.55	5.35	659.00
	pH	9.10	9.12	9.14	9.14	9.00	-	-	8.63	-	-	8.62	8.56	8.84	8.10	9.14
	Nitrates (mg/l)	-	-	-	-	0.221	-	-	-	-	-	-	-	0.807	0.221	1.110
Yellow Pit	TSS (mg/l)	ND	ND	ND	ND	23.3	14.3	18.1	32.0	19.2	20.2	22.1	32.0	19.6	11.3	32.0
	Turb. (NTU)	ND	ND	ND	ND	28.00	26.1	28.4	38.60	-	-	35.40	34.70	28.47	22.20	38.60
	pH	ND	ND	ND	ND	8.66	8.78	8.81	8.54	-	-	8.37	8.24	8.57	8.24	8.81
	Nitrates (mg/l)	ND	ND	ND	ND	0.000	-	-	-	-	-	-	-	0.000	0.000	0.000
LSP-2	TSS (mg/l)	-	-	-	21.0	-	-	-	-	-	-	-	-	27.2	0.0	76.0
	Turb. (NTU)	-	-	-	4.28	-	-	-	-	-	-	-	-	5.95	2.66	11.10
	pH	-	-	-	8.54	-	-	-	-	-	-	-	-	8.47	8.39	8.54
	Nitrates (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	0.000	0.000	0.000
LSP-3	TSS (mg/l)	-	-	-	ND	-	-	-	-	-	-	-	-	NA	NA	NA
	Turb. (NTU)	-	-	-	ND	-	-	-	-	-	-	-	-	NA	NA	NA
	pH	-	-	-	ND	-	-	-	-	-	-	-	-	NA	NA	NA
	Nitrates (mg/l)	-	-	-	ND	-	-	-	-	-	-	-	-	NA	NA	NA

Notes: Cells hi-lighted blue represent results received from ALS Laboratory
 Cells hi-lighted grey and bolded represent results over limits outlined in Table 4.2A
 Cells not hi-lighted use the converted TSS vaue outlined in Section 4.2.8a

Table 2 – May 2014 Routine Analysis of MTP to Baseline Creek Pump System

<u>DATE</u>	<u>TIME</u>	<u>NTU</u>	<u>pH</u>	<u>PUMPING RATE (m³/min)</u>	<u>VOLUME (m³)</u>	<u>TSS</u>	<u>NO3</u>
May 4/14	21:25	60.2	8.29			33.3	
May 5/14	3:20	60.6	8.37	4.896		36.5	
	9:30	62.8	8.48			28.1	
	15:40	53.2	8.51			28.2	
	21:20	179.9	8.52	4.881	156312	123	Pump Switched to ECP
May 6/14	10:06	93.2	8.55			51.3	
	14:48	77.8	8.49			44.9	
	21:00	67.8	8.59	4.859	164130	40.7	
May 7/14	3:10	59.7	8.57	4.838	165667	40.7	
	9:28	63.9	8.49			32.2	
	14:50	52.2	8.44			16.8	
	20:55	64.6	8.5	5.049	171369	44.4	
May 8/14	3:35	54.6	8.52	5.049	173041	37.5	
	9:55	57.8	8.44			36.8	
	14:50	58.8	8.45			26.4	
	21:15	132	8.62	5.049	179218	110	
May 9/14	3:00	112	8.51	5.049	180348	63.1	
	9:43	133	8.47			99	
	16:25	116	8.53			73	
	21:00	149	8.63	5.112		92.7	
May 10/14	0:30	91.5	8.6	5.112	186748	55.8	
	2:50	74.4	8.64	5.091	187377	48.7	
	10:07	58.6	8.63			29.6	
	15:41	66.7	8.6			36.5	
	21:05	199	8.6	5.112	193173	133	Pump Switched to ECP
May 11/14	3:45	92	8.74	6.016	194973	68.7	
	9:28	57.9	8.64			40.7	
	16:01	51.3	8.56			26.9	
	21:39	78.9	8.64	5.175	200565	42.7	
May 12/14	3:10	49.2	8.7	5.175	202172	35.1	0.075
	9:54	43.5	8.6			32.6	
	16:18	46.2	8.61			46	
	21:00	61.9	8.6	5.175	207518	59.5	
May 13/14	3:10	68.5	8.67	5.175	209411	59.5	
	9:12	56.1	8.65			24.7	
	14:38	47.6	8.63			46	
	21:00	46.3	8.78	5.178	215310	23.2	
May 14/14	3:40	50.4	8.62	5.175	517233	22.2	
	9:40	46.6	8.59			33.4	
	14:52	41.7	8.6			46	
	21:40	41.6	8.74	5.154	222877	21.7	
May 15/14	3:45	47.2	8.76	5.112	224602	26.1	
	9:26	47	8.65		225300	46	
	14:37	116	8.7			113	
	21:25	166	8.69	5.049		134	

**Table 2 – May 2014 Routine Analysis of MTP to Baseline Creek
Pump System Continued**

<u>DATE</u>	<u>TIME</u>	<u>NTU</u>	<u>pH</u>	<u>PUMPING RATE (m³/min)</u>	<u>VOLUME (m³)</u>	<u>TSS</u>	<u>NO3</u>
May 16/14	3:05	48.1	8.55	5.89		40.6	
	9:08	44.5	8.66			32	
	16:01	42.4	8.64			46	
May 17/14	21:10	49.1	8.73	5.154		34.7	
	3:50	37.8	8.7	5.112		28.4	
	8:53	32.6	8.61			32	
May 18/14	14:38	36.5	8.7			32	
	21:15	58.1	8.73	5.133		29.6	
	3:30	36.5	8.53	5.112		28	
May 19/14	9:16	33.5	8.68			32	
	14:28	27.3	8.73			26	
	21:10	35	8.78	5.112		29.6	
May 20/14	3:30	31	8.68	5.092		22.5	
	9:26	27	8.71			33	
	14:44	43.7	8.71			46	
May 21/14	21:30	83.8	8.72	5.07		51.9	
	3:00	89.1	8.92	5.028		50.7	
	9:28	72.8	8.67			44.7	0.059
May 22/14	21:40	38.7	8.81	5.115		33.2	
	3:44	33.2	8.8	5.133		28.7	
	9:30	26.4	8.68		269120	21.5	
May 23/14	15:10	21.3	8.74			26	
	21:00	20.1	8.63	5.133		14.2	
	3:46	20.2	8.8			16.1	
May 24/14	9:13	18.6	8.78		276465	14	
	15:22	21.2	8.76			26	
	21:20	20.6	8.78	5.091		52.1	
May 25/14	3:00	22	8.9	5.133		53.6	
	9:28	23.1	8.79			17.7	
	15:16	21.9	8.82			26	
May 26/14	21:55	22.7	8.95	5.031		23.6	
	3:18	18.5	8.93	5.091		15.8	
	9:49	13.9	8.88			14	
May 27/14	15:48	18.6	8.82			14	
	21:35	19.4	8.87	5.091		15.7	
	3:00	17.1	8.94	5.091		13.2	
May 28/14	9:17	41.3	8.91			46	
	15:46	-	-	PUMP SHUT DOWN	300447	-	
	9:41	-	-	PUMP SHUT DOWN		-	
May 29/14	15:45	-	-	PUMP SHUT DOWN		-	
	9:42	19.1	8.84			14	
	16:16	29.2	8.87			26	
May 30/14	21:16	83.1	8.85			78.8	
	3:15	52.6	8.8			31.8	
	9:46	34.1	8.84		306617	17.6	
May 31/14	16:09	89	8.79			46.1	
	21:15	60.6	8.83			43.7	
	3:20	61.7	8.81			21.8	
May 31/14	10:25	59	8.43			34	
	16:13	76.1	8.49			44.9	
	21:10	42.9	8.43			48.6	
May 31/14	3:10	28	8.57			24.6	
	10:50	61.7	8.52			49.9	
	16:48	104	8.47			84.3	
May 31/14	20:45	45.2	8.46			38.9	
	3:05	31.1	8.49			25.3	
	10:05	24.8	8.46			32	
AVERAGES	16:20	42.4	8.43			46	
	20:45	20.1	8.45			16.7	
AVERAGES		56.3		5.1		41.1	

Table 3 – May 2014 Routine Analysis of MTP Spillway Discharge

<u>DATE</u>	<u>TIME</u>	<u>NTU</u>	<u>pH</u>	<u>Flow (cm)</u>	<u>VOLUME (m³)</u>	<u>TSS</u>
May 1/14	3:10					110
	10:10					157
	10:30					92
May 2/14	3:30					143
	7:00					172
	14:43					131
	10:30					93.2
May 3/14	22:10					
	3:20					65.5
	14:43					62.4
May 4/14	21:40					41.1
	3:20					38.7
	9:00					42.7
	16:30					23.2
May 5/14	21:30					24.5
	3:15					35.8
	9:00					32.2
	15:00					54.9
	21:00					
	3:00					
	21:50	64	8.41			37.6
May 6/14	3:45	61.9	8.32			34.8
	21:15	56.7	8.46			33.7
May 7/14	3:20	Not Flowing				-
May 8/14	21:25	65.4	8.66			50.8
May 9/14	3:25	Not Flowing				-
May 13/14	9:48	31.2	8.65			32
	15:54	29.1	8.65			12.7
May 14/14	10:05	27	8.65			25
	16:12	27.5	8.73			20.9
May 15/14	9:47	32.2	8.7			32
	16:16	35.3	8.57			32
May 16/14	9:14	-	-	NO FLOW		-
	16:09	38.7	8.6			31.2
	21:20	43.5	8.64			39.3
May 17/14	3:40	35.8	8.66			37
	9:05	28.5	8.65			26
	15:54	41.5	8.58			46
	21:25	40.7	8.72			36.2
May 18/14	3:35	36.3	8.59			28.5
	9:28	32.4	8.65			32
	15:52	32.4	8.62			32
	21:15	30	8.15			25.3

Table 3 – May 2014 Routine Analysis of MTP Spillway Discharge

<u>DATE</u>	<u>TIME</u>	<u>NTU</u>	<u>pH</u>	<u>Flow (cm)</u>	<u>VOLUME (m³)</u>	<u>TSS</u>
May 19/14	3:35	27.7	8.71			23.8
	9:34	24.1	8.71			18.5
	16:10	35.1	8.65			35.4
	21:35	69.9	8.73			47.9
May 20/14	3:05	68.9	8.81			50
	9:40	61.7	8.65			43.8
	14:28	51.7	8.66			53.2
	21:30	-	-	Not flowing		-
May 21/14	9:40	-	-	NO FLOW		-
	14:53	25.4	8.69			21.5
	21:05	20.7	8.72			21.3
May 22/14	3:35	18	8.78			15.6
	9:22	16.8	8.76			14
	15:31	17.4	8.78			14
	21:28	13.6	8.8			43.3
May 23/14	3:10	12.2	8.85			42.5
	9:38	9.87	8.76			5.9
	15:23	7.07	8.86			5
	21:45	-	-	NO FLOW		-
May 24/14	9:53	-	-	NO FLOW		-
	15:54	-	-	NO FLOW		-
May 25/14	9:26	-	-	NO FLOW		-
	15:53	-	-	NO FLOW		-
May 26/14	9:43	-	-	NO FLOW		-
	15:49	-	-	NO FLOW		-
May 27/14	9:49	-	-	NO FLOW		-
	16:25	-	-	NO FLOW		-
May 28/14	9:52	-	-	NO FLOW		-
	16:19	25.9	8.69			18.9
May 29/14	10:38	-	-	NO FLOW		-
	16:51	-	-	NO FLOW		-
May 30/14	11:03	-	-	NO FLOW		-
	17:00	-	-	NO FLOW		-
May 31/14	10:15	-	-	NO FLOW		-
	16:30	-	-	NO FLOW		-
AVERAGES		35.0				45.2

Notes:

Cells hi-lighted blue represent results received from ALS Laboratory

Cells hi-lighted grey and bolded represent results over limits outlined in Table 4.2A

Cells not hi-lighted use the converted TSS Maue outlined in Section 4.2.8a

Table 4 – May 2014 Routine Analysis of ECP

<u>DATE</u>	<u>TIME</u>	<u>NTU</u>	<u>pH</u>	<u>PUMPING RATE (m³/min)</u>	<u>VOLUME (m³)</u>	<u>TSS</u>	<u>NO3</u>
May 1/14	3:00	66.7	8.28	5.89		45.4	
	10:00	93.9	8.29			58.2	
	16:07	95.6	8.33			54.8	
May 2/14	21:55	94.3	8.43	5.869		65.7	
	3:05	90.9	8.33	5.869		51.5	
	9:00	85.9	8.43			41.8	
	15:00	75.6	8.47			35.1	
May 3/14	21:10	53.8	8.4	5.869		38.7	
	3:10	51.9	8.32	5.869		34.3	
	9:08					37.7	
	16:40	34.7	8.47			39	
May 4/14	21:10	44.5	8.36	5.89		40.4	
	3:00	42.3	8.41			33.6	
	9:54	47.5	8.49			37	
May 5/14	10:15	53.9	8.37			21.4	
	15:20	23	8.53			26	
	22:00	19.7	8.44			14	
May 6/14	3:00	21.6	8.57	5.806	158310	93.5	
	9:53	39.8	8.54			32	
	14:35	37.9	8.53			32	
	21:10	34.7	8.5			27.5	
May 7/14	4:00	28.6	8.33			21	
	10:05	24	8.55			26	
	14:32	22.7	8.54			12.4	
	21:00	17.7	8.57			14	
May 8/14	3:45	15.8	8.56			14	
	10:27	13.5	8.55			14	
	14:31	14.5	8.56			14	
	21:10	11.4	8.54			9	
May 9/14	3:15	11.6	8.66			8	
	10:40	9.8	8.58			106	
	15:40	9.39	8.57			8.8	
	21:10	12.4	8.58			8.1	
May 10/14	4:00	10.1	8.51			6.6	
	9:55	8.81	8.6			5	
	14:34	7.71	8.67			5	
	21:20	12.7	8.65			6.3	
May 11/14	3:35	7.29	8.55			11.2	
	9:38	7.59	8.66			5	
	14:49	18.1	8.65			14	
	21:30	13.3	8.64			5.7	

Table 4 – May 2014 Routine Analysis of ECP Continued

<u>DATE</u>	<u>TIME</u>	<u>NTU</u>	<u>pH</u>	<u>PUMPING RATE</u> <u>(m³/min)</u>	<u>VOLUME (m³)</u>	<u>TSS</u>	<u>NO3</u>
May 12/14	3:00	11.9	8.76			12.3	
	10:30	10.2	8.67			9.8	
	15:03	9.63	8.66			10.9	
	21:10	9.52	8.64			5	0.068
May 13/14	3:00	8.49	8.7			5	
	9:38	7.31	8.72			5	
	16:02	8.4	8.71			5	
	21:05	7.89	8.71			4.3	
May 14/14	3:34	9.38	8.69			6	
	9:52	8.63	8.71			4.5	
	16:02	8.66	8.68			5	
	21:35	9.08	8.71			7.2	
May 15/14	3:35	10.9	8.71			6.7	
	9:37	8.87	8.72			5	
	16:08	8.18	8.7			5	
	21:35	10.7	8.67	5.049		6.5	
May 16/14	3:10	3.65	8.8			6.6	
	9:21	10.4	8.67			10	
	16:17	10.5	8.7			5	
	21:00	10.7	8.71			20.4	
May 17/14	3:45	11.2	8.7			11.4	
	9:18	8.97	8.73			5	
	13:59	8.3	8.74			5	
	21:20	10	8.71			7.2	
May 18/14	3:30	7.74	8.68			8.7	
	9:33	7.63	8.73			5	
	16:02	6.88	8.76			5	
	21:25	7.53	8.73			7.8	
May 19/14	3:42	8.34	8.7			6.3	
	9:44	6.16	8.77			7	
	16:16	6.76	8.79			7.8	
	21:40	9.02	8.73			8.1	
May 20/14	3:12	9.36	8.76			5.2	
	9:49	7.59	8.78			5	
	16:40	7.42	8.74			5	
	21:35	9.11	8.66			9	0
May 21/14	3:37	9.11	8.67			9.3	
	9:43	7.91	8.83			6.1	
	14:47	6.55	8.79			5	
	21:10	8.45	8.7			10.9	
May 22/14	3:40	9.57	8.74			5	
	9:32	5.78	8.82			5	
	15:41	5.52	8.84			11.9	
	21:35	7.8	8.75			86.4	

Table 4 – May 2014 Routine Analysis of ECP Continued

<u>DATE</u>	<u>TIME</u>	<u>NTU</u>	<u>pH</u>	<u>PUMPING RATE</u> <u>(m³/min)</u>	<u>VOLUME (m³)</u>	<u>TSS</u>	<u>NO3</u>
May 23/14	3:15	7.44	8.82			84.8	
	9:44	6.83	8.86			3.6	
	15:30	6.51	8.83			5	
	21:50	6.5	8.8			6.5	
May 24/14	3:26	7.21	8.83			8.9	
	9:57	6.36	8.84			5	
	15:58	6.37	8.8			5	
	21:29	10.2	8.77			7.8	
May 25/14	3:15	8.78	8.86			6.7	
	9:31	6.65	8.87			5	
	15:58	7.94	8.83			5	
May 26/14	9:47	6.83	8.83			6.1	
	15:53	6.45	8.83			5	
May 27/14	9:54	7.24	8.83			5	
	16:31	7.46	8.82			5	
May 28/14	9:58	9.17	8.81			10	0.219
	16:33	23.5	8.73			26	
May 29/14	10:44	12.1	8.43			14	
	16:54	12.4	8.43			14	
May 30/14	11:11	10.7	8.4			7.3	
	17:05	9.01	8.42			5	
May 31/14	10:18	8.38	8.4			5	
	16:34	8.33	8.38			5	
AVERAGES		18.3				16.8	

Notes:

Cells hi-lighted blue represent results received from ALS Laboratory

Cells hi-lighted grey and bolded represent results over limits outlined in Table 4.2A

Cells not hi-lighted use the converted TSS value outlined in Section 4.2.8a

Table 5 – May 2014 Routine Analysis of ELP1

DATE	TIME	NTU	pH	PUMPING RATE	VOLUME	TSS	NO3
May 1/14	3:00	49.6	8.23			46	
	9:00	89	8.44	NOT PUMPING	314222	16.7	
	15:06	91.8	8.23			42.6	
	21:00	PUMP OFF				-	
May 2/14	3:20	65.8	8.33			33.1	
	9:45	86	8.42			40.7	
	14:30	74.5	8.28			35.6	
	21:30	108	8.37	7.982		42.7	
May 3/14	3:20	69.6	8.42	7.982		36.5	
	8:40					40.7	
	16:30					50.4	
	21:30	44.3	8.41			37.8	
May 4/14	3:10	60.9	8.32	5.869		29.3	
	9:10					35.1	
	10:30	60.5	8.39			27.9	
	15:54	52.4	8.34			20	
	21:10	42.6	8.39			21.5	
	21:25	38.6	8.46			32	
May 5/14	3:30	47	8.37	10.169		25.1	
	10:00	32.7	8.51	10.09	357619	25.2	
	15:02	46.6	8.39			46	
	21:00	48.4	8.45	9.8		46	
May 6/14	3:30	51.3	8.41	10.3		23.5	
	9:44	47.9	8.47		386085	46	
	14:18	41.7	8.45			46	
	21:50	42.7	8.43	9.8		20.6	
May 7/14	3:00	47.7	8.54	9.8		25.5	
	9:53	54.3	8.51	10.2	386085	32.4	
	14:20	48.2	8.47			46	
	21:20	41.5	8.47	9.1		46	
May 8/14	3:00	53.2	8.35	9.1		18.9	
	10:17	68.9	8.53			25.6	
	14:18	84.5	8.52			75	
	22:15	55.4	8.5	10.244		27.3	
May 9/14	3:00	53	8.53	10.05		24.7	
	10:20	69.3	8.55			66.9	
	15:20	68.3	8.53			30.6	
	21:45	60.4	8.63	9.4		34.7	
May 10/14	3:30	60.2	8.65			30.3	
	9:36	59.8	8.56			29.3	
	14:25	67.5	8.54			35.7	
	21:50	57.2	8.55	9.223		31.6	
May 11/14	3:15	59	8.64	9.224		28.4	
	9:57	59.6	8.64			25	
				PUMP OFF/OUTFLOWING OVER WEIR			
	14:33	25.5	8.62			-	
	21:00	58.7	8.6	10.577		32	

Table 5 – May 2014 Routine Analysis of ELP1 Continued

<u>DATE</u>	<u>TIME</u>	<u>NTU</u>	<u>pH</u>	<u>PUMPING RATE</u>	<u>VOLUME</u>	<u>TSS</u>	<u>NO3</u>
May 12/14	3:40	63.9	8.79	10.598		30	1.59
	10:11	69	8.5	10.5	452415	33.2	
	14:46	75.3	8.41			38.5	
	21:31	62.7	8.69	10.471		28.6	
May 13/14	3:30	59.8	8.7	10.384		24.5	
	10:02	58.5	8.6			16.5	
	14:28	54.9	8.59			21.2	
	21:33	59.8	8.4	10.432		24.2	
May 14/14	3:20	68	8.68	9.981		24.5	
	10:25	67.5	8.58			20.3	
	14:41	71	8.6			31.5	
	21:00	65.4	8.57	10.411		44.3	
May 15/14	2:50	76.8	8.69	10.39		38.5	
	10:17	72.8	8.43	10.39	495470	28.7	
	14:27	66	8.7			26.3	
	21:10	71.7	8.64	10.453		36.1	
May 16/14	3:40	79.6	8.5	10.432		44.5	
	9:38	68.6	8.5			33	
	14:36	73	8.57			35.5	
	21:35	86.1	8.71	10.473		49.2	
May 17/14	3:00	75.4	8.58	10.473		42.7	
	9:31	67.2	8.63			29.6	
	14:30	76.9	8.66			34.1	
	21:30	75.4	8.72	10.42		42.5	
May 18/14	3:00	72.2	8.66	10.515		33.2	
	9:49	75.7	8.68			37.9	
	14:18	87.7	8.72			33.9	
	21:00	85.3	8.7	10.473		37.3	
May 19/14	3:18	78.4	8.72	10.494		27.9	
	9:58	85.8	8.75			36.1	
	14:32	74.3	8.72			35.6	
	21:20	86.4	8.64	10.469		35.4	
May 20/14	3:40	70.4	8.74	10.473		28.3	
	9:59	66.9	8.79			25	1.42
	14:48					41.1	
	21:00	84.5	8.54	10.661		33.7	
May 21/14	3:00	55.1	8.83	10.64		37.5	
	10:00	47.4	8.72	10.51	586242	7.4	
	14:34	41	8.75			46	
	21:40	45.3	8.65	10.515		22.2	
May 22/14	3:12	41.6	8.83	10.494		23.3	
	9:45	41.2	8.77			46	
	14:14	51.9	8.64			29.8	
	21:45	20.6	8.7	9.244		51.1	

Table 5 – May 2014 Routine Analysis of ELP1 Continued

DATE	TIME	NTU	pH	PUMPING RATE	VOLUME	TSS	NO3
May 23/14	3:50	54.7	8.79			76	
	10:01	51.6	8.72			25.8	
	14:18	50.5	8.67			28.2	
	21:35	47	8.76	9.973		30	
May 24/14	3:39	32.2	8.89	9.97		18.3	
	10:10	22.6	8.81			26	
	15:14	25	8.61			26	
	21:45	23.3	8.79			14.9	
May 25/14	3:35	20.3	8.92			10.4	
	9:48	36.5	8.78			32	
	15:05	40.3	8.75			46	
	21:00	30.5	8.85			16.2	
May 26/14	3:20	25.8	8.76			13.3	
	10:07	18.9	8.8		654460	8	
	14:14	17.2	8.8			9.4	
	21:15	19.6	8.87			9.1	
May 27/14	2:45	24.5	8.85			12.5	
	10:14	16.4	8.87			14	
	14:26	15.4	8.73			14	
	21:30	18.2	8.75			13.6	
May 28/14	3:00	17.5	8.71			8.1	
	10:17	31.6	8.64		678174	19.8	
	14:13	38.8	8.54			36.6	1.48
	16:10					62	
May 29/14	9:13	235	8.42			499	
	14:42	62.5	8.51			33.5	
	21:30	40.5	8.49			31.6	
	May 30/14	3:30	40	8.51			36.2
9:50		40.2	8.46			27.3	
15:23						27.1	
21:00		53.8	8.26			24	
May 31/14	3:30	37.3	8.41			18.6	
	9:08	35.9	8.4			32	
	21:00	35.8	8.32			20.5	
AVERAGES		56.2		9.98		38.2	

Pond Discharge
Pond+Pump Discharge

Notes: Cells hi-lighted blue represent results received from ALS Laboratory
Cells hi-lighted grey and bolded represent results over limits set out in Table 4.2A
 Cells not hi-lighted use the converted TSS value outlined in section 4.2.8a

Table 6 – May 2014 Routine Analysis of Pond 5

<u>DATE</u>	<u>TIME</u>	<u>NTU</u>	<u>pH</u>	<u>PUMPING RATE</u>	<u>Volume (m³)</u>	<u>TSS</u>	<u>NO3</u>
May 1/14	10:57am	<u>PUMP OFF</u>				-	
	4:33pm	<u>PUMP OFF</u>				-	
May 2/14	9:59am	<u>PUMP OFF</u>				-	
	4:02pm	<u>PUMP OFF</u>				-	
May 3/14	10:00am	<u>PUMP OFF</u>				-	
May 4/14	12:50pm	<u>PUMP OFF</u>				-	
	5:32pm	<u>PUMP OFF</u>				-	
May 5/14	12:48	<u>PUMP OFF</u>				-	
May 6/14	12:00	<u>PUMP OFF</u>				-	
	16:47	78.6	8.32			36.8	
May 7/14	21:30	78.3	8.58	3.68	1617	34.5	
	3:45	82.4	8.57	3.67	3280	40.9	
	12:02	89.6	8.44			33.5	
	16:38	64.9	8.39			34	
May 8/14	21:40	77.1	8.66	3.65	6920	34.7	
	3:25	68.5	8.59	3.65	8200	29.2	
	11:56	83.6	8.4			24.3	
	17:00	71.6	8.43			33.8	
May 9/14	21:45	80.7	8.6	3.628	12107	37.3	
	3:30	84.8	8.4	3.628	13133	30.1	
	12:34	68.3	8.44			30	
	17:51	68.9	8.38			33.7	
May 10/14	21:30	74.4	8.89	3.628	18694	36.3	
	3:15	73.9	8.56	3.628	18694	29.1	
	11:36	71.7	8.36			35.4	
	16:39	75.4	8.44			78.5	
May 11/14	21:35	75.4	8.64	3.628	22613	29.2	
	3:00	75.6	8.5	3.628	23628	32.2	
	11:25	71.3	8.43			33.5	
	16:59	71.5	8.45			39	
May 12/14	21:20	74.5	8.64	3.649	27632	42.5	
	3:25	64.4	8.74			33.7	0.124
	12:01	53.3	8.44			25.8	
	17:09	57.1	8.36			29.4	
May 13/14	21:20	82.2	8.7	3.586	32867	40.9	
	3:20	66.9	8.74	3.628	34191	33.3	
	11:36	66.4	8.3			22.1	
	16:51	71.3	8.41			28.5	
May 14/14	21:20	65.4	8.66	3.628	38087	32.7	
	3:00	68.9	8.65	3.649	39355	47.1	
	12:08	75.9	8.25			52.2	
	17:09	84.8	8.3			55.5	
May 15/14	21:20	90.4	8.8	3.67	43531	37.8	
	3:15	95.5	8.86	3.649	44761	36.8	
	11:45	113	8.41			59.7	
	17:12	117.8	8.42			55.2	
May 16/14	11:17	3.11	8.2	NOT PUMPING		3.2	
	17:20	129	8.42	PUMPING		73.2	
May 17/14	22:15	112	8.63	6.276	50505	64.1	
	3:25	95.2	8.68	6.255	52516	33.1	
	11:16	101	8.41			88.4	
	17:25	99.7	8.48			59.8	
May 18/14	21:10	99.3	8.67	6.025	58762	57	
	3:10	95.2	8.65	6.214	60977	54.2	
	11:25	88.5	8.45			47.3	
	17:02	94.9	8.5			37.2	
	21:40	88.5	8.8	6.276	67840	41.8	

Table 6 – May 2014 Routine Analysis of Pond 5 Continued

<u>DATE</u>	<u>TIME</u>	<u>NTU</u>	<u>pH</u>	<u>PUMPING RATE</u>	<u>Volume (m³)</u>	<u>TSS</u>	<u>NO3</u>
May 19/14	3:00	81	8.62	6.255	69965	45	
	11:33	81.9	8.49			43.4	
	17:24	77.8	8.54			38.8	
	21:00	89	8.57	6.297	76480	6	
May 20/14	3:28	97.5	8.87	6.276	79152	40.7	
	11:33	98.2	8.5			56.5	0.148
	17:39	139	8.51			73.7	
	21:20	127	8.77	6.297	85812	62.5	
May 21/14	3:18	109	8.86	6.276	88120	53.3	
	11:56	126	8.5			84.9	
	16:46	131.5	8.47			77.2	
	21:27	136	8.91	6.297	94976	71.8	
May 22/14	3:24	148	8.78	6.297	97238	63	
	10:07	1.96	8.46	NOT PUMPING		5	
	16:02	140	8.62			102	
	21:00	142	8.67	6.005	103079	120	
May 23/14	3:35	136	8.96	6.0005	105560	98.1	
	8:36	194	8.66			108	
	10:31	2.79	8.52	NOT PUMPING		5	
	16:27	1.89	8.46	NOT PUMPING		5	
	21:12	150	8.86	SHUT DOWN		70	
May 24/14	4:00	181	8.83	SHUT DOWN		73	
	9:04	157	8.67			-	
	10:37	153	8.72			77.7	
	11:43	147	8.52			-	
	14:45	142.5	8.53			-	
	16:52	141.5	8.57			68.4	
	21:09	169	8.79	5.567	112217	66.4	
May 25/14	4:00	168	8.78			78	
	10:22	123	8.7			56.9	
	11:35	119	8.62			-	
	14:37	115	8.72			-	
	16:49	117	8.62			49.8	
	21:25	124	8.71			42.2	
May 26/14	2:50	117	8.78			56.5	
	10:42	111	8.68		119317	50.8	
	16:27	95.6	8.69			47.4	
	21:00	111	8.82			72	
May 27/14	3:15	102	8.7			64.3	
	10:42	94.5	8.76			59	
	17:00	87.5	8.52			47.9	
	19:00	78.6	8.7			22	
May 28/14	2:45	82	8.72			27.3	
	10:52	74.6	8.49		136534	33.5	
	17:30	66.8	8.55			28.8	
	21:00	71.8	8.53			37.9	0.156
May 29/14	3:00	87.9	8.78			43.4	
	11:15	77.1	8.41			36	
	18:00	74.8	8.32			30.3	
	21:00	68.4	8.35			35.8	
May 30/14	3:00	63.9	8.41			44.8	
	11:45	69.4	8.4			35.5	
	18:00	65.3	8.21			33.8	
	21:00	68.1	8.22			36.2	
May 31/14	3:30	62.1	8.47			33.3	
	10:45	60	8.3			26.5	
	17:30	47.4	8.25			46	
	21:00	50	8.37			37.3	
MAY AVERAGES		92.4				46.2	0.143

Notes: Cells hi-lighted blue represent results received from ALS Laboratory
 Cells hi-lighted grey and bolded represent results over limits set out in Table 4.2A
 Cells not hi-lighted use the converted TSS value outlined in section 4.2.8a

Table 7 – May 2014 MTP Detailed Analysis

Obed Mountain Mine				
Monthly Detailed Sampling - Main Tailings Pond - May 1, 2014				
Parameter	CCME/Alberta Guidelines	CDWQ Aesthetic Objective (mg/L)	May Discharge (mg/L)	Comments
Aluminum	0.005-0.1 mg/L		3.97	
Arsenic	0.005 mg/L		0.0025	
Boron	1.5 mg/L		0.03	
Cadmium	0.00005-0.000097 mg/L		0.000306	
Chromium	0.0089 mg/L		0.00369	
Copper	0.002-0.004 mg/L		0.00696	
Iron	0.3 mg/L		3.83	
Lead	0.001 - 0.007 mg/L		0.00345	
Mercury	0.0001 mg/L		0.0000177	
Molybdenum	0.073 mg/L		0.00193	
Nickel	0.025 - 0.15 mg/L		0.00579	
Selenium	0.001 mg/L		0.00044	
Silver	0.0001 mg/L		0.000048	
Thallium	0.0008 mg/L		0.000042	
Zinc	0.03 mg/L		0.0195	
Ammonia	1.37-2.2 mg/L		0.085	
BOD			<2.0	
Colour, True	Background + 30 TCU		12.6	
Cyanide	0.005 mg/L		<0.0050	
Hardness			136	
Nitrate - N	*		0.092	
Nitrite - N	0.06 mg/L		<0.020	
Oil and Grease			<1.0	
Oxygen, Dissolved	5.5 - 9.5 mg/L		10	
pH	6.5 -9.0		8.76	
Phenols	0.004 mg/L		0.0046	
Phosphorous, Total	0.05 mg/L		0.098	
Sulfate		<500	72.3	
Sulfide, Total		<0.05	<0.0015	
Total Suspended Solids	Background + 10 mg/L		219	
Temperature	Degrees Celsius		0.6	
Total Dissolved Solids		<500	257	
Benzene	0.37mg/L		<0.00050	
Ethylbenzene	0.09 mg/L		<0.00050	
Xylene		<0.3	<0.00071	
Toluene	0.002 mg/L		<0.00050	

Note: Bolded and hi-lighted cells show results over CCME guidelines

Appendix 1



RELEASE REPORT

Initial verbal notification of release to the AER is required prior to completing this Release Report.

AER FIS Incident No: 284021

AER Notified Date: 15-May-14 & Time: 10:00am

AER Contact: Angela Atherton

General Information: Type of Report: Final Projected Date for Final Report:

Incident Date: 13-May-14 & Time: 13:45 Incident Location: SW 23-53-24W5

Licensee Name: Coal Valley Resources Inc. Licence #: Disposition Number:

Approval Number: 10119-02-00

Form Completed by: Amber Schram Telephone Number: (780) 223-4198

Volumes Details: Reminder: If volumes change from what was initially reported then verbal notification to AER is required.

What was released?	Released	Fluids Recovered	Waste Receiver & Licence/Approval #	Location
Water	est. 5000m ³	m ³	*Shipped to: Click here for list	W
	m ³	m ³	*Shipped to: Click here for list	W
Gas	10 ³ m ³		*Reference complete location name - WMTs should reference the AER approval code	
Excavated soil removed:	m ³		*Shipped to: Click here for list	W
Contaminated Freshwater removed		m ³	*Shipped to: Click here for list	W
Contaminated Soils Storage:	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Onsite <input type="checkbox"/> Off-site (If off-site, enter location):		W	
Release Rate:	Duration of release:	*Refer to ST107 for AER Approved Oilfield Waste Management Facilities List		

Release Site Details:

Release Off lease Release On lease
 Land Jurisdiction Type: Click here for list Within Disposition Boundary Outside Disposition Boundary- TFA #:
 Environment Affected: Click here for list Area Affected: m²
 Distance to closest Water body: m Distance to Nearest Town: km Name of Nearest Town:

Impacts:

H₂S Concentration: (unit of measurement): % ppm mole/kmole
 Wildlife/Livestock Affected: Click here for list Equipment Loss: Click here for list
 Public Affected Public Evacuation Number Evacuated
 Landowner Notified (specify details in Additional Notifications box) Lease Holder Notified (specify details in Additional Notifications box)
 Number of Injuries: Number of Fatalities: WH& S Notified (specify details in Additional Notifications box)

Pipeline Incident Details: Reminder: Pipeline is not to be returned to service without permission from the AER.

Pipeline Failure Cause: Click here for list
 Licence Number: Line Number: Start Location: W End Location: W
 Associated Facility Location: W
 Test Failure Retest Segment Pipe Repair Pretested Cathodic Protection
 Type of External Coating: Corrosion Mitigation/Monitoring Program:
 Normal Operating Pressure kPa Maximum Operating Pressure kPa
 Date line shut in: Pipeline Returned to service: No Yes Date:

Remediation Details: Reminder: All releases must be remediated, managed, or removed in a matter satisfactory to the AER.

Contamination left in place: No Yes In-situ remediation implemented
 Remediation Guidelines used: choose all applicable
 Tier 1 Tier 2 SST SCARG CCME Exposure Control
 Method of subsurface delineation: Confirmatory samples taken Number of samples:
 Remediation Certificate Applied for: No Yes

Environmental Contractor: _____ & Phone Number: () _____

Additional Notifications	NAME OF AGENCY / LANDOWNER	PERSON NOTIFIED / REFERENCE #	TELEPHONE	DATE
			() _____	
			() _____	
			() _____	

Written Incident Details: Reminder: Please submit photos of the incident and clean up/remediation.

Detailed description of circumstances leading up to the release: Section 4.4.10 of EPEA Approval 10119-02-00 (the "Approval") states: "The approval holder shall monitor the domestic wastewater system immediately prior to discharge to Apetowun Creek as specified in Table 4.4-B." During routine inspections at the Obed Mountain Mine (the "Mine") on May 13, 2014, Coal Valley Resources Inc.'s ("CVRI") Environmental Planner found that the settling cell of the sewage lagoon was filled to capacity and was flowing over the berm at a rate of less than 1 L/s. Samples were collected and sent to the lab for rush analysis. Section 4.4.13 of the Approval states: "The approval holder shall notify the Director in writing seven days prior to discharge of treated domestic wastewater from the stabilization ponds." A notification letter requesting that approval be granted to CVRI to allow the discharge valve on the lagoon to be opened prior to the 7-day period was sent to the AER May 13, 2014. Approval for early discharge was not received and, pursuant to EPO-2013/34-CR (the "EPO"), CVRI has been ordered to carry out further water quality testing at the lagoon. The discharge was reported to the Emergency Service Response Centre on May 15, 2014 at 10:00 am after discussions with Alberta Energy Regulator ("AER").

How release was identified: The incident was identified during routine inspections of the Mine by CVRI personnel.

Steps/procedures taken to minimize, control, or stop release: As required by Section 4.4.13 of the Approval, a notification letter was sent to the AER giving 7 days notice that CVRI would be opening the release valve at the lagoon and requesting that approval to open the discharge valve sooner than the 7 day notice period be granted. Approval was not received and an AER inspector was on site May 15, 2014 to inspect the area. Discharge rates on the day of the inspection were estimated to be 0.5 m3/min

Description of how release volume(s) were determined and verified (include any calculations used): Using the flow estimate from May 15, 2014 of 0.5 m3/min, CVRI calculated that the sewage lagoon has been releasing 720 cubic meters per day.

How was the area affected was determined (include any calculations used): N/A.

Description of Environmental Impact: The sewage lagoon discharges into Apetowun Creek, which is currently under the protection of the EPO. Discharge from the lagoon is currently low given the flow over the berm. In the event CVRI receives approval to open the discharge valve, environmental professionals contracted by CVRI have indicated that they have no concerns with the lagoon discharging into Apetowun Creek. Apetowun Creek will be monitored throughout the controlled release of the lagoon settling cell.

Root cause of release: Rapid snow melt is believed to be the reason the sewage lagoon filled to capacity in such a short, unexpected time period.

Clean-up operation details: N/A.

Remediation operation details: N/A.

Steps/procedures taken to prevent similar future releases: CVRI will carry out weekly inspections of the sewage lagoon and will record sampling and monitoring data moving forward. In times of decreased freeboard, monitoring frequency will be increased.

Additional comments: The approximate storage capacity of the settling cell = 75, 000 m3. All limits set out in Table 4.4-A of the Approval have been met. Testing results of the parameters in Table 4.4-A are as follows: BOD5 = 2.8 mg/L, CBOD = 2.1 mg/L, TSS = 5.1mg/L At this time, CVRI is waiting for the final lab results of a 96-hr Acute Lethality Test and approval from the AER to open the discharge valve of the sewage lagoon.



RELEASE REPORT

Initial verbal notification of release to the AER is required prior to completing this Release Report.

AER FIS Incident No: 284041

AER Notified Date: 15-May-14 & Time: 3:45pm AER Contact: Angela Atherton

General Information: Type of Report: Final Projected Date for Final Report:

Incident Date: 15-May-14 & Time: 11:00am Incident Location: SE 18-53-24W5

Licensee Name: Coal Valley Resources Inc. Licence #: Disposition Number: Approval Number: 10119-02-00

Form Completed by: Amber Schram Telephone Number: (780) 223-4198

Volumes Details: Reminder: If volumes change from what was initially reported then verbal notification to AER is required.

What was released?	Released	Fluids Recovered	Waste Receiver & Licence/Approval #	Location
Water	40,000m ³	m ³	*Shipped to: Click here for list	W
	m ³	m ³	*Shipped to: Click here for list	W
Gas	10 ³ m ³		*Reference complete location name - WMTs should reference the AER approval code	
Excavated soil removed:	m ³		*Shipped to: Click here for list	W
Contaminated Freshwater removed		m ³	*Shipped to: Click here for list	W
Contaminated Soils Storage:	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Onsite <input type="checkbox"/> Off-site (If off-site, enter location):			W
Release Rate: see below	Duration of release:	*Refer to ST107 for AER Approved Oilfield Waste Management Facilities List		

Release Site Details:

Release Off lease Release On lease
 Land Jurisdiction Type: Click here for list Within Disposition Boundary Outside Disposition Boundary- TFA #:
 Environment Affected: Click here for list Area Affected: m²
 Distance to closest Water body: m Distance to Nearest Town: km Name of Nearest Town:

Impacts:

H₂S Concentration: (unit of measurement): % ppm mole/kmole
 Wildlife/Livestock Affected: Click here for list Equipment Loss: Click here for list
 Public Affected Public Evacuation Number Evacuated
 Landowner Notified (specify details in Additional Notifications box) Lease Holder Notified (specify details in Additional Notifications box)
 Number of Injuries: Number of Fatalities: WH& S Notified (specify details in Additional Notifications box)

Pipeline Incident Details: Reminder: Pipeline is not to be returned to service without permission from the AER.

Pipeline Failure Cause: Click here for list
 Licence Number: Line Number: Start Location: W End Location: W
 Associated Facility Location: W
 Test Failure Retest Segment Pipe Repair Pretested Cathodic Protection
 Type of External Coating: Corrosion Mitigation/Monitoring Program:
 Normal Operating Pressure kPa Maximum Operating Pressure kPa
 Date line shut in: Pipeline Returned to service: No Yes Date:

Remediation Details: Reminder: All releases must be remediated, managed, or removed in a matter satisfactory to the AER.

Contamination left in place: No Yes In-situ remediation implemented
 Remediation Guidelines used: choose all applicable
 Tier 1 Tier 2 SST SCARG CCME Exposure Control
 Method of subsurface delineation: Confirmatory samples taken Number of samples:
 Remediation Certificate Applied for: No Yes

Environmental Contractor: _____ & Phone Number: () _____

Additional Notifications	NAME OF AGENCY / LANDOWNER	PERSON NOTIFIED / REFERENCE #	TELEPHONE	DATE
			()	
			()	
			()	

Written Incident Details: Reminder: Please submit photos of the incident and clean up/remediation.

Detailed description of circumstances leading up to the release: Section 4.2.1 of EPEA Approval No 10119-02-00 (the "Approval") states: "The approval holder shall not release any substances from the mine to the surrounding watershed except as authorized by this approval." At 11:00 am May 15, 2014, a Coal Valley Resources Inc. ("CVRI") employee at Obed Mountain Mine (the "Mine") discovered that water was leaving the Mine site and crossing the Marsh Creek Road through an existing culvert. The source of the discharge was determined to be Yellow Pit, which is an unlicensed discharge point. A sample was collected from the discharge and had a turbidity of 31.9 NTU. The employee notified the Mine's Environmental Planner and the contravention was called in to the Emergency Service Response Centre at 15:45 and Reference #284041 was given. The sample collected was sent to an accredited lab for Total Suspended Solids ("TSS") analysis.

How release was identified: A CVRI employee noticed increased water flow running through a culvert on the Marsh Creek Road North-West of the Mine.

Steps/procedures taken to minimize, control, or stop release: At this time, CVRI is monitoring the water quality upslope and downslope of Yellow Pit and watching for any further erosion occurring on the slope daily.

Description of how release volume(s) were determined and verified (include any calculations used): Volume released is estimated to be 40,000 m³. This volume was calculated using estimated flow rates from the discharge. The original flow rate on May 15, 2014 was estimated to be 13 m³/min. The flow rate has since decreased and was estimated to be 2.5 m³/min on May 16, 2014 and has been flowing at this rate for 6 days.

How was the area affected was determined (include any calculations used): N/A

Description of Environmental Impact: Upon inspection of the area it was noted that erosion has occurred in the past several years. The discharge has been flowing through erosion channels and water quality samples have been collected. TSS analysis results have not yet been received from the lab.

Root cause of release: The discharge was caused by ground water and snow melt collecting in the Yellow Pit area and filling the area to capacity.

Clean-up operation details: N/A

Remediation operation details: CVRI is considering applying to have Yellow Pit licensed as a discharge point and is also exploring the option of setting up a pump system in the area to mitigate any further discharge.

Steps/procedures taken to prevent similar future releases: The channel will be profiled and armoured to prevent any further erosion issues and water quality will continue to be monitored.

Additional comments: NTU Results for Yellow Pit are as follows: May 15, 2014 at 11:00 am upslope = 31.9 NTU; May 17, 2014 upslope = 29.9 NTU, downslope = 88.4 NTU; May 18, 2014 upslope = 24.5 NTU, downslope = 54.8 NTU; May 20, 2014 upslope = 22.2 NTU, downslope = 54.8 NTU; May 21, 2014 upslope = 22.8 NTU, downslope = 62.4 NTU. Samples that have been collected daily have been sent to an accredited lab for TSS analysis.



RELEASE REPORT

Initial verbal notification of release to the AER is required prior to completing this Release Report.

AER FIS Incident No: 284886

AER Notified Date: 5-Jun-14 & Time: 8:30am AER Contact: Angela Atherton

General Information: Type of Report: Final Projected Date for Final Report:

Incident Date: 28-May-14 & Time: 2:00pm Incident Location: SE31-52-24W5

Licensee Name: Coal Valley Resources Inc. Licence #: Disposition Number: Approval Number: 10119-02-00

Form Completed by: Amber Schram Telephone Number: (780) 223-4198

Volumes Details: Reminder: If volumes change from what was initially reported then verbal notification to AER is required.

What was released?	Released	Fluids Recovered	Waste Receiver & Licence/Approval #	Location
SPP3 Turbid Water		4155m ³	m ³ *Shipped to: Click here for list	W
ELP1 Turbid Water		6150m ³	m ³ *Shipped to: Click here for list	W
Gas	10 ³ m ³			
Excavated soil removed:	m ³		*Shipped to: Click here for list	W
Contaminated Freshwater removed		m ³	*Shipped to: Click here for list	W
Contaminated Soils Storage:	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Onsite <input type="checkbox"/> Off-site (If off-site, enter location):		W	
Release Rate:	Duration of release:	*Refer to ST107 for AER Approved Oilfield Waste Management Facilities List		

Release Site Details:

Release Off lease Release On lease
 Land Jurisdiction Type: Click here for list Within Disposition Boundary Outside Disposition Boundary- TFA #:
 Environment Affected: Click here for list Area Affected: m²
 Distance to closest Water body: m Distance to Nearest Town: km Name of Nearest Town:

Impacts:

H₂S Concentration: (unit of measurement): % ppm mole/kmole
 Wildlife/Livestock Affected: Click here for list Equipment Loss: Click here for list
 Public Affected Public Evacuation Number Evacuated
 Landowner Notified (specify details in Additional Notifications box) Lease Holder Notified (specify details in Additional Notifications box)
 Number of Injuries: Number of Fatalities: WH& S Notified (specify details in Additional Notifications box)

Pipeline Incident Details: Reminder: Pipeline is not to be returned to service without permission from the AER.

Pipeline Failure Cause: Click here for list
 Licence Number: Line Number: Start Location: W End Location: W
 Associated Facility Location: W
 Test Failure Retest Segment Pipe Repair Pretested Cathodic Protection
 Type of External Coating: Corrosion Mitigation/Monitoring Program:
 Normal Operating Pressure kPa Maximum Operating Pressure kPa
 Date line shut in: Pipeline Returned to service: No Yes Date:

Remediation Details: Reminder: All releases must be remediated, managed, or removed in a matter satisfactory to the AER.

Contamination left in place: No Yes In-situ remediation implemented
 Remediation Guidelines used: choose all applicable
 Tier 1 Tier 2 SST SCARG CCME Exposure Control
 Method of subsurface delineation: Confirmatory samples taken Number of samples:
 Remediation Certificate Applied for: No Yes

Environmental Contractor: _____ & Phone Number: () _____

Additional Notifications	NAME OF AGENCY / LANDOWNER	PERSON NOTIFIED / REFERENCE #	TELEPHONE	DATE
			()	
			()	
			()	

Written Incident Details: Reminder: Please submit photos of the incident and clean up/remediation.

Detailed description of circumstances leading up to the release: During routine water monitoring and sampling procedures at Obed Mountain Mine (the "Mine"), routine water samples were collected from South Plateau Pond 3 ("SPP3") on May 28, 2014 and from East Limb Pond 1 ("ELP1") on May 29, 2014. The reporting procedure adhered to at the Mine requires that if NTU is greater than 600, a potential non-compliance is reported to the Alberta Environment Service Response Centre ("ESRC"). In these instances, the field turbidity was measured to be 60.2 NTU at the time of sampling SPP3 (13:57 hrs on May 28, 2014) and 235 NTU at the time of sampling ELP1 (8:13 hrs on May 29, 2014), which is below the limit set out in Coal Valley Resource's Inc.'s ("CVRI") reporting procedure. A potential non-compliance was not reported to the ESRC in respect of the samples collected at SPP3 or ELP1. However, pursuant to Clause 4.2.8(b) of EPEA Approval No. 10119-02-00 (the "Approval"), which requires CVRI to analyze a sample for total suspended solids ("TSS") where turbidity is greater than 50 NTU, the samples were properly sent to the lab to be analyzed for TSS. Results for May 28th at ELP-1 were received after the non-compliance was reported, and indicate a TSS above the daily discharge limit. The response center was phoned on June 11th and the file was updated. May 28th results for ELP-1 indicate a TSS of 499.

How release was identified: Initial results for TSS were received from the lab on June 5, 2014 and showed that the TSS concentration at the discharge of SPP3 was at a concentration of 388 mg/L and that the discharge of ELP1 was at a concentration of 393 mg/L. Clause 4.2.10 of the Approval states: "Releases from the mine wastewater handling facilities shall not exceed the limits for the parameters specified in Table 4.2-A." The limit for TSS in Table 4.2-A of the Approval is 350 mg/L for maximum daily and 50 mg/L for monthly average. CVRI notified the ESRC and Reference #284886 was given

Steps/procedures taken to minimize, control, or stop release: At the time of the sampling, CVRI did not believe there to be an increased TSS concentration in the discharges of SPP3 or ELP1 based on the NTU values collected in the field.

Description of how release volume(s) were determined and verified (include any calculations used): Flow at the discharge weir of SPP3 on May 28, 2014 was found to be 2.9 m3/min. Based on a 24 hour period, 4155 m3 of water with increased TSS concentrations left SPP3. Flow at the discharge weir of ELP1 on May 29, 2014 was found to be 0.85 m3/min. At 14:42 hrs on May 29, 2014, the turbidity at ELP1 had dropped to 62.5NTU and CVRI expects this sample to be under the 350 mg/L daily maximum limit, although the sample results have not yet been received. Based on a 6 hour release of water with increased TSS from ELP1, CVRI estimates that 300 m3 of turbid water left ELP1 on May 29th. The discharge weir was measured and recorded at 30 cm at this pond on May 28th, resulting in a calculation of approximately 5850 m3 of turbid water added to the 300 m3 on May 29th for a total of 6150 m3 of turbid water estimated..

How was the area affected was determined (include any calculations used): N/A

Description of Environmental Impact: Discharge from both locations enters Baseline Creek. Corresponding NTU values at Baseline Creek are as follows: May 28, 2014 at 09:28 hrs = 46.1, 15:49 hrs = 47.4; May 29, 2014 at 09:55 hrs = 52.7, 15:55 hrs = 28.6; May 30, 2014 at 10:30 hrs = 33.0, 16:30 hrs = 25.5.

Root cause of release: Rainfall and increased run-off are believed to be the cause of the increased TSS.

Clean-up operation details: N/A

Remediation operation details: N/A

Steps/procedures taken to prevent similar future releases: CVRI continues to monitor the water quality of the settling ponds on a daily basis.

Additional comments: TSS results from subsequent samples of both SPP3 and ELP1 have not yet been received from the lab. Upon receipt of lab analysis results, this file will be updated to ensure that the TSS concentrations are within applicable Approval limits.

