DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF MINING PROGRAMS

BACKGROUND SAMPLE REPORT

Operator:		Rosebud	I Mining Co	ompany		Monitoring	Point ID:	SW-1				Descriptior	n of sample	point:				
Operation nan	ne:	Mine 78	Surface No	. 3 Mine		Latitude:		40° 14' 04	4.97'						1	Paint Creek	a - Upstrear	n
Township:		Paint				Longitude:		78° 46' 53	3.68'									
County:		Somerse	et			Surface el	evation:	1863					Ve	rsion date:	03/2	2021		
					Us	e a separate	e sheet for e	each monito	ring point a	nd list resu	lts consecut	tively by dat	e.					
Sample Date	Methoo measu	Iethod of flow measurement Depth to Water from TOC (ft) Flow (GPM) 			Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
11/6/2019		TOC (ft,		3600 GPM	4.5	3.8	910.0	7.0	<5	50.2	4.57	6.23	3.87	422.9	6.0			
12/12/2019				8900 GPM	4.4	4.2	404.0	2.0	0.0	31.9	3.52	4.42	3.05	184.1	<5			
1/31/2020				7200 GPM	4.4	3.7	665.0	3.0	<2	66.9	5.14	7.64	6.71	328.7	<5			
2/26/2020				3500 GPM	4.5	3.9	884.0	8.0	<2	53.3	3.20	7.28	5.74	454.3	<5			
3/12/2020				3300 GPM	4.5	3.9	781.0	9.0	<2	64.4	5.10	7.94	6.95	349.5	5.0			
4/23/2020				6300 GPM	4.8	4.8	697.0	8.0	<2	22.2	7.61	8.27	7.68	356.8	43.0			

Operator:		Rosebud	I Mining Co	ompany		Monitoring	Point ID:	SW-2				Description	of sample	point:	Pa	aint Creek -	Downstrea	am
Operation nam	ne:	Mine 78	Surface No	. 3 Mine		Latitude:		40° 14' 19	9.17'								Downourou	
County:		Somerse	t			Surface el	evation:	1744	5.09				Ve	rsion date:	03/2	2021		
			-		Use	e a separate	e sheet for e	ach monito	ring point ar	nd list result	ts consecut	ively by date	Э.					
Sample Date	Method measu	Method of flow measurement Depth to Water from TOC (ft) 37 90			Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
11/6/2019				3700 gpm	4.4	3.8	939.0	7.0	<5	46.2	3.67	6.23	3.94	419.0	5.0			
12/12/2019				9000 gpm	4.5	4.3	436.0	2.0	-0.9	31.6	2.92	4.10	2.81	202.6	<5			
1/31/2020				7300 gpm	4.4	3.8	702.0	3.0	<2	62.5	4.07	6.76	6.05	356.9	<5			
2/26/2020				3700 gpm	4.5	4.0	848.0	8.0	<2	51.2	2.86	7.05	5.61	445.5	<5			
3/12/2020				3500 gpm	4.5	3.9	814.0	9.0	<2	58.3	4.01	7.36	6.43	393.6	5.0			
4/23/2020				6600 gpm	4.8	4.8	787.0	8.0	<2	18.1	6.19	7.06	6.53	414.7	34.0			

2021	

Operator:		Rosebud	I Mining Co	ompany		Monitoring	Point ID:	SW-3				Description	of sample	point:		Tributar	y 45258	
Operation nam	ne:	Mine 78	Surface No	. 3 Mine		Latitude:		40° 14' 27	7.93'			-				to Pain	t Creek	
Township:		Paint				Longitude:		78° 48' 35	5.58'							Downs	Sileani	
County:		Somerse	et			Surface el	evation:	1776					Ve	rsion date:	03/2	2021		
					Use	e a separate	e sheet for e	each monito	ring point ar	nd list resul	ts consecut	ively by date	Э.					
Sample Date	Methoo measu	Method of flow measurementDepth to Water from TOC (ft)Flow (GPM) 			Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
12/12/2019				45 gpm	6.5	7.3	126.0	3.0	22.8	<5	0.05	<0.04	0.04	15.4	<5			
1/31/2020				80 gpm	6.9	7.4	124.0	4.0	26.2	-15.9	<0.04	<0.04	<0.04	15.8	<5			
2/26/2020				60 gpm	7.1	7.1	123.0	9.0	27.4	-19.2	<0.04	<0.04	<0.04	17.4	<5			
3/12/2020				50 gpm	7.2	7.6	129.0	8.0	29.3	-21.3	0.05	<0.04	0.04	16.3	<5			
4/23/2020				75 gpm	7.0	7.4	109.0	9.0	25.9	-17.7	0.26	<0.04	0.15	14.9	6.0			

		1	bud Mining Company			1												
Operator:		Rosebud	I Mining Co	ompany		Monitoring	Point ID:	SW-4				Descriptior	of sample	point:		Trbutar	y 45258	
Operation nan	ne:	Mine 78	Surface No	. 3 Mine		Latitude:		40° 14' 42	2.46'							to Pain	t Creek	
Township:		Paint				Longitude:		78° 48' 28	3.32'							Upst	ream	
County:		Somerse	et			Surface el	evation:	1980					Ve	rsion date:	03/2	2021		
					Us	e a separate	e sheet for e	each monito	ring point a	nd list resul	ts consecu	tively by date	е.					
Sample Date	Methoo measu	d of flow urement	Depth to Water from TOC (ft)	Flow (GPM) or Static water elev (ft msl)	Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
12/12/2019		80 gpm 70 gpm			6.8	7.2	123.0	3.0	20.9	<5	0.13	<0.04	0.06	15.3	<5			
1/31/2020				70 gpm	7.0	7.3	111.0	4.0	22.3	-14.7	0.09	<0.04	0.06	14.8	<5			
2/26/2020		70 gg 45 gg 45 gr			7.0	7.1	113.0	9.0	25.2	-17.0	0.17	<0.04	0.12	16.5	5.0			
3/12/2020		70 gp 45 gp 45 gp			7.1	7.5	114.0	8.0	27.7	-19.4	0.24	<0.04	0.15	15.6	13.0			
4/23/2020				60 gpm	7.1	7.7	119.0	9.0	29.7	-24.2	0.12	<0.04	0.08	15.7	<5			

Operator:		Rosebuc	d Mining Co	ompany		Monitoring	Point ID:	SW-5				Descriptior	of sample	point:	Ur	nammed Tr	ibutary No	. 2
Operation nam	ne:	Mine 78	Surface No	o. 3 Mine		Latitude:		40° 14' 10	0.73'							to Pain	t Creek	
Township:		Paint				Longitude:		78° 47' 56	6.86'							Down	stream	
County:		Somerse	et			Surface el	evation:	1802					Ve	rsion date:	03/2	2021		
					Use	e a separate	e sheet for e	each monito	ring point ai	nd list resul	ts consecut	tively by dat	9.					
Sample Date	Methoo measu	Method of flow measurement Depth t Water fro TOC (1		Flow (GPM) or Static water elev (ft msl)	Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
11/6/2019				3 gpm	6.5	6.7	1,283.0	8.0	23.8	<5	0.25	0.18	0.52	667.7	<5			
12/12/2019				150 gpm	7.0	7.0	1,412.0	3.0	30.4	<5	2.46	1.40	0.40	761.9	20.0			
1/31/2020				10 gpm	6.3	6.3	481.0	4.0	2.9	1.5	0.06	0.21	0.20	223.3	<5			
2/26/2020				70 gpm	7.7	7.8	1,925.0	9.0	89.8	-80.0	0.50	0.61	0.24	1,183.2	<5			
3/12/2020				6 gpm	6.5	6.8	659.0	8.0	8.3	-3.3	0.06	0.16	0.38	296.2	<5			
4/23/2020				120 gpm	7.4	7.5	1,808.0	10.0	45.7	-28.9	0.16	0.64	0.23	1,140.7	14.0			

Operator: Operation nam Township:	ne:	Rosebud Mine 78 S Paint	Mining Co Surface No	ompany . 3 Mine		Monitoring Latitude: Longitude:	Point ID:	SW-6 40° 14' 30 78° 47' 44).27' 4.49'			Description	of sample	point:	U	nnamed Tr to Pain Upst	ibutary No. t Creek ream	2
County:		Somerse	t			Surface el	evation:	2066					Ve	rsion date:	03/2	2021		
					Use	e a separate	e sheet for e	ach monito	ring point a	nd list resuli	ts consecut	ively by date	Э.					
Sample Date	Methoo measu	l of flow irement	Depth to Water from TOC (ft)	Flow (GPM) or Static water elev (ft msl)	Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
12/12/2019		4 gpm 4 gpm			6.2	6.6	91.0	4.0	9.6	-7.6	0.11	<0.04	0.09	13.5	<5			
1/31/2020		4 gpm 4 gpm 3 gpm		4 gpm	6.3	6.6	74.0	5.0	8.4	-2.5	0.06	<0.04	0.05	13.0	<5			
2/26/2020		4 gpm 6.3 3 gpm 6.4			6.4	6.5	67.0	9.0	9.1	-3.9	0.10	<0.04	0.09	14.6	<5			
3/12/2020		4 gpm 6.3 3 gpm 6.4 2 gpm 6.2			6.2	6.6	69.0	10.0	9.9	-4.9	0.11	<0.04	0.09	13.8	<5			
4/23/2020				5 gpm	6.5	6.7	64.0	8.0	9.1	-3.8	0.12	<0.04	0.13	13.4	<5			

Operator: Operation nam Township:	ne:	Rosebud Mine 78 S Paint	I Mining Co Surface No	ompany . 3 Mine		Monitoring Latitude: Longitude:	Point ID:	SW-7 40° 14' 29 78° 47' 4' 2030	5' 1'				Ve	rsion date:	Un	inamed Tril to Pain	butary No. t Creek	2A
County.		- Oomer se			Use	e a separate	e sheet for e	each monito	ring point a	nd list result	ts consecut	ively by date	э.	ision date.	001			
Sample Date	Methoo measu	d of flow irement	Depth to Water from TOC (ft)	Flow (GPM) or Static water elev (ft msl)	Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
10/18/2007		Dry 0.2																
11/30/2007				0.2	6.5	5.3	231.0	8.0	3.0	Neg	0.12	2.30	0.93	89.0	1.6			

Operator: Operation nan Township:	ne:	Rosebud Mine 78 S Paint	Mining Co Surface No	ompany . 3 Mine		Monitoring Latitude: Longitude:	Point ID:	SW-8 40° 14' 2 78° 47' 43	7' 3'						Un	named Tri to Pain	butary No. t Creek	2B
County:		Somerse	t			Surface ele	evation:	2050					Ve	rsion date:	03/2	2021		
					Use	e a separate	e sheet for e	each monito	ring point ai	nd list result	ts consecut	ively by dat	е.					
Sample Date	Methoo measu	d of flow irement	Depth to Water from TOC (ft)	Flow (GPM) or Static water elev (ft msl)	Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
10/18/2007		Vol		Dry														
11/30/2007	V	ol		0.5	7.1	7.1	170.0	8.0	29.0	Neg	0.24	0.30	<0.1	46.0	0.9			

Operator: Operation nan Township:	ne:	Rosebud Mine 78 \$ Paint	Mining Co Surface No	ompany . 3 Mine		Monitoring Latitude: Longitude:	Point ID:	0004-W1 40° 14' 07 78° 47' 12	7' 2'						Jam	nes D. & Ce Water Well	leste M. Ma - Domestic	arsh ;
County:		Somerse	t			Surface ele	evation:	1878					Ve	rsion date:	03/2	2021		
					Use	e a separate	e sheet for e	ach monito	ring point a	nd list resuli	ts consecut	ively by date	ə.					
Sample Date	Methoo measu	d of flow irement	Depth to Water from TOC (ft)	Flow (GPM) or Static water elev (ft msl)	Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
10/29/2007				6.5	6.2	68.0	16.0	11.0	6.0	6.08	0.50	<0.1	21.0	0.1				
11/29/2007					6.3	6.3	73.0	11.0	8.0	6.0	5.88	0.30	<0.1	20.0	0.8			
5/31/2012					6.3			19.0										

r						1						r			r			
Operator:		Rosebud	Mining Co	ompany		Monitoring	Point ID:	0006-W1								Invin I	Stifflor	
Operation nam	ne:	Mine 78	Surface No	. 3 Mine		Latitude:		40° 14' 04	4'						v	Vater Well -	Abandone	d
Township:		Paint				Longitude:		78° 47' 12	2'									
County:		Somerse	t			Surface ele	evation:	1858					Ve	rsion date:	03/2	2021		
					Use	e a separate	sheet for e	each monito	ring point ai	nd list result	ts consecut	ively by date	е.					
Sample Date	Methoo measu	d of flow irement	Depth to Water from TOC (ft)	Flow (GPM) or Static water elev (ft msl)	Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
11/15/2004		1, 1,		1,828.7	6.1	6.1	17.0	21.8	104.3	59.9	5.32		687.90	17.0	1,140.0			
12/30/2004				1,829.1	6.4	5.8	18.0	14.7	96.0	77.3	5.64		673.80	22.0	1,139.0			

Operator:		Rosebud	Mining Co	ompany		Monitoring	Point ID:	0009-W1									ator Woll	
Operation nam	ne:	Mine 78 S	Surface No	. 3 Mine		Latitude:		40° 14' 09	9'			4				Dom	estic	
Township:		Paint				Longitude:		78° 47' 0	5'									
County:		Somerse	t			Surface el	evation:	1898					Ve	rsion date:	03/2	2021		
					Us	e a separate	e sheet for e	each monito	ring point a	nd list resul	ts consecut	tively by date	e.					
Sample Date	Methoo measu	d of flow urement	Depth to Water from TOC (ft)	Flow (GPM) or Static water elev (ft msl)	Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
6/14/2011	т	ар	N/A	Unk.	6.0	6.0	149.0	17.0	28.0		2.10	<1.0	<0.05	41.0	67.0			
9/27/2011	т	ар	N/A	Unk.	6.5	6.0	149.0	19.0	29.0		2.76	0.96	<0.01	40.0	10.0			
12/12/2011			Prope	erty owner	refused sar	npling, state	ed that well	no longer p	olumbed to	the house a	ind spring is	s now preim	ary water s	upply.				
2/8/2012			Prope	erty owner	refused sar	npling, state	ed that well	no longer p	olumbed to	the house a	ind spring is	s now preim	ary water s	upply.				
						1												

Operator: Operation name: Township: County:		Rosebuc	d Mining Co	ompany		Monitoring Point ID: Latitude: Longitude:		0009-S1									
		Mine 78	Surface No	o. 3 Mine				40° 14' 10)'								
		Paint						78° 47' 0	5'								
		Somerse	et			Surface el	evation:	1920					Ve	rsion date:	03/2		
					Use	e a separate sheet for each monitoring point and list results consecutively by date.											
Sample Date Metho meas		d of flow urement	Depth to Water from TOC (ft)	Flow (GPM) or Static water elev (ft msl)	Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)		
9/27/2011				2.2	6.7	5.3	111.0	14.0	<15	<15	0.06	0.06	0.15	33.0	4.0		
12/12/2011				10.4	5.1	5.4	107.0	11.0	<15	<15	0.01	0.07	0.08	23.0	0.0		
2/8/2012				0.4	6.6	5.5	115.0	8.0	<15	<15	0.03	<0.01	0.10	33.0	2.0		

Total Dissolved Solids (mg/L) Image: Control of the second se

Operator: Operation nam Township: County:	ne:	Rosebud Mine 78 S Paint Somerse	Mining Co Surface No	ompany . 3 Mine		Monitoring Point ID: 0010-W1 Latitude: 40° 14' 07' Longitude: 78° 47' 10' Surface elevation: 1878						Ve	rsion date:	Robert D. Marsh Water Well - Domestic 03/2021				
Use a separate sheet for each monitoring point and list results consecutively by date.																		
Sample Date	Sample Date Methor measu		Depth to Water from TOC (ft)	Flow (GPM) or Static water elev (ft msl)	Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		
10/30/2007	007				5.9	6.4	61.0	15.0	6.0	5.0	<0.1	0.40	<0.1	23.0	0.1			
11/30/2007					5.7	6.5	74.0	15.0	9.0	5.0	1.00	0.20	<0.1	21.0	0.2			
5/31/2012					5.5			18.0										

Operator: Operation name:		Rosebud Mine 78 \$	l Mining Co Surface No	mpany . 3 Mine		Monitoring Latitude:	Point ID:): 00° 00' 00.00'										
Township:		Paint				Longitude:		00° 00' 00).00'									
County:		Somerset				Surface ele	evation:	0000				Version date: 03/2021						
Use a separate sheet for each monitoring point and list results consecutively by date.																		
Sample Date	ple Date Metho meas		Depth to Water from TOC (ft)	Flow (GPM) or Static water elev (ft msl)	Field pH	Lab pH	Specific Conductanc e at 25°C (µS/cm)	Field Temp (°C)	Alkalinity (mg/L)	Acidity (mg/L)	Total Iron (mg/L)	Total Manganese (mg/L)	Total Aluminum (mg/L)	Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)		