2015 ANNUAL ACTIVITY AND MONITORING REPORT

SUMITOMO METAL MINING POGO LLC

Submitted To:

Alaska Department of Conservation
Division of Water, Compliance Program
555 Cordova Street
Anchorage, Alaska 99501

Alaska Department of Natural Resources
Division of Mining, Land, and Water
550 West 7th Avenue, Suite 900D
Anchorage, AK 99501-3577

Prepared by:

Sumitomo Metal Mining Pogo LLC
P.O. Box 145
Delta Junction, Alaska 99737

March 1, 2016

Table of Contents

LIST OF CHARTS

List of Tables

List of Photos

Appendices

Electronic Appendices

List of Acronyms

***ADEC**: Alaska Department of Environmental Conservation*

***ADNR**: Alaska Department of Natural Resources*

***ADF&G**: Alaska Department Fish & Game*

***APDES**: Alaska Pollutant Discharge Elimination System*

***APMA**: Alaska Placer Mining Application*

***BMP**: Best Management Plan*

***BOD**: Biological Oxygen Demand*

***CIP**: Carbon in Pulp*

***CISWI**: Commercial and Industrial Solid Waste Incineration*

***COBC**: Compliance Order by Consent*

***COE**: Corp of Engineers*

***CRC**: Cultural Resources Consultants*

***DMR:** Discharge Monitoring Report*

***DSTF:** Dry Stack Tailing Facility*

***EPA:** Environmental Protection Agency*

***GPM**: Gallons per Minute*

***ISO14001**: International Standard Organization, Environmental Management*

***MDL**: Method Detection Limit*

***ORTW**: Off River Treatment Works*

***QAP**: Quality Assurance Plant*

***ROW**: Right of Way*

***RTP:** Recycle Tailing Pond*

***SHPO**: State Historical Preservation Office*

***SRCE**: Standardized Reclamation Cost Model*

***STP:** Sewage Treatment Plant*

***TDS**: Total Dissolved Solids*

***TKN**: Total Kjehldahl Nitrogen (ammonia)*

***TSS**: Total Suspended Solids*

***TU_c**: Toxicity Units, chronic*

***TWUP**: Temporary Water Use Permits*

***WAD**: Weak Acid Dissociable (cyanide)*

***WET**: Whole Effluent Toxicity test*

***WTP**: Water Treatment Plant*

1. Introduction

Sumitomo Metal Mining Pogo LLC (Pogo) prepared this report to fulfill the requirements of the *Alaska Department of Environmental Conservation (ADEC) APDES Permit AK005334-1 (5/1/11), Alaska Department of Environmental Conservation (ADEC) Waste Management Permit 2011DB0012 (2/7/2012), Alaska Department of Natural Resources (ADNR) Pogo Mine Millsite Lease ADL416949 (3/9/04)*, *and ADNR Plan of Operations Approval F20129500 (2/7/2012)*. This report covers the period from January 1, 2015 through December 31, 2015. A General Location Map can be found in **Figure 1, Appendix A**.

2. 2015 Monitoring

A prescriptive program of environmental monitoring is conducted as required by Pogo's permits and in accordance with Pogo's approved *Pogo Mine Monitoring Plan* and *Quality Assurance Plan (QAP)*.

The objectives of Pogo's monitoring programs are to:

- Monitor the water quality of the effluent discharged from the facility,
- Monitor water quality changes in the Goodpaster River and in the groundwater below the facility that may occur as a result of mining activities or discharges from the facility,
- Monitor the CIP Tailings Processes associated with the underground paste backfill, and
- Monitor the Flotation Tailings and the materials placed in the Dry Stack Tailings Facility.

Samples collected from the Water Treatment Plant #2 (WTP#2) and Water Treatment Plant #3 (WTP#3), groundwater stations, surface water stations, the sewage treatment plant (STP) and the Off River Treatment Works (ORTW) effluent were submitted to Energy Laboratories, Inc. Analytica Environmental Laboratories, Inc. analyzes sewage treatment plant samples. Samples collected from PC002 to monitor mineralized waste rock and PC003 floatation tailings were analyzed by ALS Chemex. Annual WET Test samples were submitted to TRE Environmental Laboratory and CH2MHill Laboratory. Annual fish tissue samples were analyzed by Test America Laboratory, Tacoma.

2.1 ANNUAL VERIFICATION OF LABORATORY SPECIFIC MDL STUDY

ADEC Waste Management Permit 2011DB0012 (2/7/12), Section I.3.1.4, 1.7.3

Laboratories perform lab quality assurance and quality control procedures at regular intervals to verify the accuracy of the established MDLs. EPA-accredited laboratories' routinely spike and run replicate samples once or twice a year to either confirm or re-establish laboratory MDLs. A copy of the most recent MDL studies from the laboratories listed in Section 2 above are provided in **Appendix D**.

2.2 SUMMARY

A summary of the 2015 monitoring results show:

- **Outfall 011-** Pogo reported no exceedances during 2015. Refer to **Section 2.3.1** for more detail.
- **Outfall 001:** Pogo reported no exceedances at Outfall 001 during 2015. Refer to **Section 2.3.2** for more detail.
- **Outfall 002:** Pogo reported no exceedances at Outfall 002 during 2015. Refer to **Section 2.3.3** for more detail.
- **Whole Effluent Toxicity (WET):** WET testing took place in June with two laboratories concurrently. All final test results were within the permit limits. Refer to **Section 2.3.4** for more detail.
- **Compliance Order by Consent:** A Compliance Order by Consent (COBC) was executed between Pogo and ADEC on May 9, 2012. The COBC was amended on October 1, 2013 and June 30, 2014. All action items are complete. Refer to **Section 2.3.5** for more detail
- **Surface Water:** No adverse trends were observed in the surface water samples collected during 2015. Refer to **Section 2.4.1** for more detail.
- **Fish Tissue:** Annual fish tissue sampling was completed during September. No adverse trends were observed. Refer to **Section 2.4.2** for more detail.

Groundwater:

- **2011 Series Wells:** Two wells are located below the Drystack Tailings Facility (DSTF), MW11-001A and MW11-001B. The wells monitor groundwater downstream of the DSTF and upstream of the Recycled Tailings Pond (RTP). Refer to **Section 2.5.1** for more detail.

- **500 Series Wells:** Three wells are located below the Recycled Tailings Pond (RTP) Dam (MW12-500, MW12-501, and MW12-502). The wells monitor groundwater downstream of the RTP seepage collection system. Chloride, Sodium, Nitrate were detected above the trigger limits in all of the wellsRefer to **Section 2.5.3** for more detail.

- **200 Series Wells:** Two wells, MW04-213 and MW11-216, are located downgradient of the ore body to monitor groundwater quality. No adverse trends were observed. Refer to **Section 2.5.4** for more detail.

- **LL Series Wells:** LL04-031 and LL04-032 are located downgradient of the ORTW to monitor groundwater between the ORTW and Goodpaster River. Samples were collected during the third quarter. No adverse trends were observed. Refer to **Section 2.5.5** for more detail.

2012 Series Wells: Two wells are located adjacent to the Pogo Airstrip, MW12-001A and MW12-001B. Refer to **Section 2.5.6** for more detail.

- **PC001:** PC001 monitors CIP tails prior to use in paste backfill. All samples are within limits and conditions set forth within the permit. Refer to **Section 2.6.4** for more detail.

- **PC002, PC003 Solids:** PC002 samples monitor mineralized waste rock that is placed within the Drystack Tailings Facility (DSTF). PC003 Solids samples monitor floatation tailings that are placed within the DSTF. No adverse trends were observed. Refer to **Sections 2.6.5 and 2.6.6** for more detail.

- **PC003 Liquid:** PC003 Liquid samples monitor interstitial water pressed from the flotation tailings prior to placement within the DSTF. Selenium values are trending downward. Refer

to **Section 2.6.7** for more detail.

A discussion of the results for each sampling program is provided below. Time series graphs are provided in **Appendix C**.

2.3 TREATED EFFLUENT MONITORING

ADEC APDES AK0053341 (5/1/11), Appendix A, 3.0

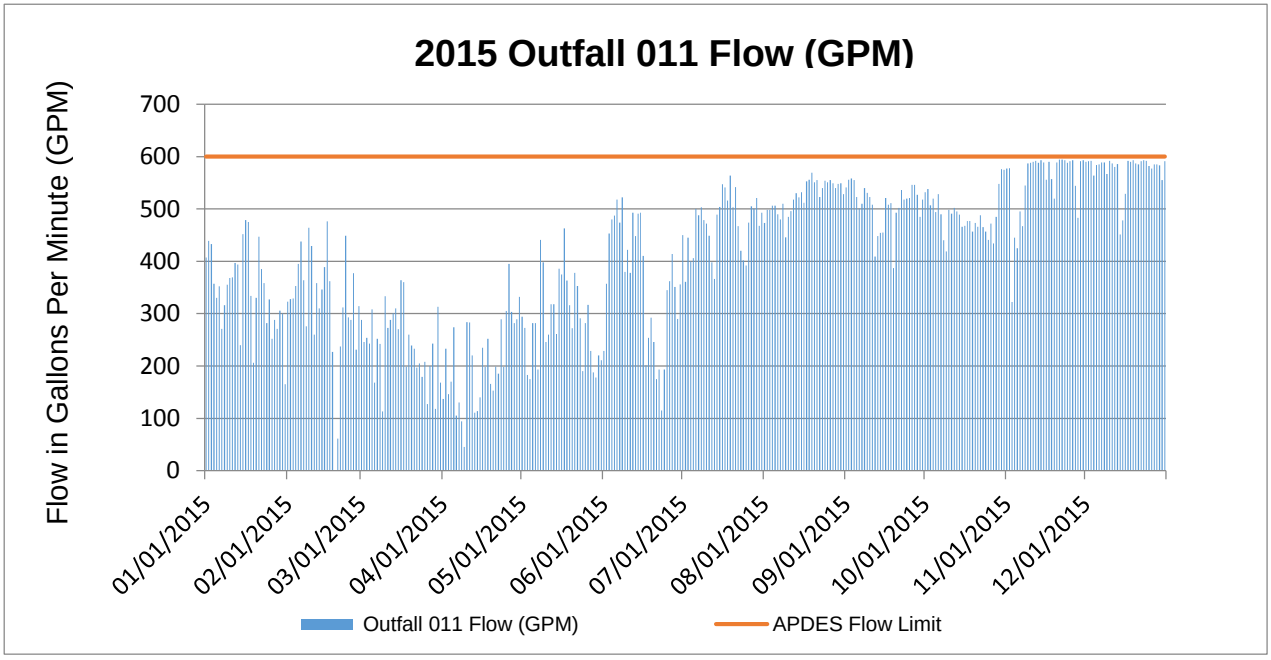
Treated effluent data were previously submitted to ADEC via copies of the Discharge Monitoring Report**s (DMRs)** under the APDES Permit. The monitoring locations for treated effluent are shown on **Figure 2 in Appendix A**.

2.3.1 Outfall 011- Treated Effluent from Mine Water Treatment Plant

ADEC APDES AK0053341 (5/1/11), 1.2

Groundwater and drill water collected from the underground workings are sent to Water Treatment Plant #1 (WTP#1), treated and returned for use underground, sent to the mill to be used as process water, or sent to WTP#2 or WTP#3 (discharges from WTP#3 were conditionally approved in October 2015) for discharge to the ORTW. Surface runoff and groundwater collected in the RTP, as well as some mine seepage water, are sent to the WTP#3 (located near the 1525 portal), treated and then discharged to the ORTW or directed to the mill for use as process water. Discharge to the ORTW occurred throughout the year. The volume of water discharged from Outfall 011 in 2015 is shown below in **Chart 1.**

Chart 1: 2015 Water Treatment Plant #2 & #3 Outfall 011 Discharge to ORTW



Continuous pH data is collected at Outfall 011 along with weekly and quarterly laboratory samples for metals, Total Suspended Solids (TSS), Hardness, Weak-Acid Dissociable (WAD) Cyanide, Anions, Cations, and Total Dissolved Solids (TDS).

Outfall 011 has a dual system of continuous pH Meters. pH readings taken during the year all show compliance within permit limits except as noted below.

On November 3, the continuous monitor, Meter A, recorded a pH level above the 9.0 su permit level for 37 minutes; the maximum pH was reported at 9.42 su and the continuous monitor, Meter B, recorded a pH level above the 9.0 su permit level for 34 minutes; the maximum pH was reported at 9.37 su. Neither reading exceeding 60 minutes as allowed under 40 CFR § 401.17

Pogo investigated the elevated readings. Pogo believes the cleaning of a micro filter left residual chemicals sodium hypochlorite) in the filter which caused the pH at Outfall 011 to climb to 9.4. Discharge shut down, as designed, when the high alarm of 8.8 pH was reached. However, a vacuum break in the discharge line that should have prevented siphoning through the line malfunctioned. This allowed approximately 50 gpm of treated water with a pH between 9.1 to 9.4) to gravity flow to the ORTW between 04:34 – 05:01 am. To prevent re-occurrence Pogo is developing new procedures to check pH after cleaning micro-filters, test the vacuum break, and add alarms to the DCS for increased monitoring of micro-filters.

All results are within the limits and conditions set forth within the permit. Time series graphs are

provided in **Appendix C**. Monitoring and historic data are provided in **Appendix G**.

2.3.2 Outfall 001 – Discharge from Off River Treatment Works

ADEC APDES AK0053341 (5/1/11), 1.1

Treated effluent from WTP#2 and WTP#3 is sent to the ORTW. After mixing in the ORTW, water flows over the weir of Pond 2 (Outfall 001) and into the Goodpaster River. The sampling location is at the weir.

Continuous turbidity data and twice-daily pH readings are collected along with weekly laboratory samples for metals, WAD Cyanide, TDS, Turbidity, Sulfate, and Hardness at Outfall 001. In addition, daily field parameters and weekly samples required by the permit, (Lead, Mercury, and Turbidity) and other parameters, were collected upstream from the discharge point (NPDES001B) to determine background water quality of the Goodpaster River.

On February 18, 2015, the USGS reported the Goodpaster River flow at 18 cubic feet per second (cfs). As per Pogo's Plan of Operations (POO), the minimum flow rate of the Goodpaster River must be at least 20 cfs for Pogo to discharge to the river. Upon receipt of the USGS report, Pogo stopped all discharge to the Goodpaster River until flow rates were reevaluated. On February 20, 2015, the USGS reported the Goodpaster River flow at 54 cfs. At that time, Pogo resumed discharging to the Goodpaster River.

On July 2, Pogo reported flooding from the Goodpaster River into the ORTW and a potential exceedance of the maximum daily flow limit at Outfall 001. Pogo ceased discharging treated wastewater through Outfall 011. ADEC authorized Pogo to resume discharges of treated wastewater through Outfall 011 provided the flow from Outfall 011 did not exceed the maximum daily flow limit (600 gpm) and temporarily suspended the maximum daily flow limit at Outfall 001 due to the flood conditions.

The site-specific reporting limit for Weak Acid Dissociable (WAD) Cyanide samples at Outfall 001 is 20 ug/L. Three times during 2015 the WAD Cyanide samples for Outfall 001 were above the Method Quantitation Limit (PQL) of 10 ug/L. On April 8, April 29, and October 7 the WAD Cyanide analysis were 13, 15 and 11 ug/L respectively, however, no adverse trends were observed. All results were within the limes and conditions set forth within the permit. Time series graphs are provided in **Appendix C**. Monitoring and historic data are provided in **Appendix G**.

2.3.3 Outfall 002 – Treated Effluent from Sewage Treatment Plant

ADEC APDES AK0053341 (5/1/11), 1.3

The STP operated throughout 2015 with discharge flows ranging between 10,951 and 32,129 gallons per day. Daily field parameters were collected to assess quality of treated effluent prior to discharge in the mixing zone in the Goodpaster River. Weekly samples were also collected for Biological Oxygen Demand (BOD5), TSS, Fecal Coliform, Nitrates, and Chlorine. Influent data from STP002 were collected for BOD5 and TSS on a monthly basis to determine quarterly percent removal.

All results were within the limits and conditions set forth within the permit. Time series graphs are provided in **Appendix C.** Monitoring and historic data are provided in **Appendix G**.

2.3.4 Whole Effluent Toxicity

ADEC APDES Permit AK-005334-1 (5/1/11), 1.4

The annual Whole Effluent Toxicity test was conducted June 23 through June 29, 2015 by CH2M Hill's Aquatic Toxicology Laboratory in Corvallis, Oregon. A split of the same sample was also sent to TRE Environmental Strategies in Fort Collins, CO. Results from both laboratories are presented in **Appendix B, Table 1.** All results were within the limits and conditions set forth within the permit. Laboratory reports are provided in **Appendix E**.

2.3.5 Compliance Order by Consent

ADEC APDES Permit AK-005334-1 (5/1/11), 1.1, 1.2, 1.3, Appendix A 1.6, 2.6

In June 2012 Pogo and ADEC entered into COBC 11-0929-50-0002 to fully address several alleged violations from 2011. Under the COBC, Pogo agreed to complete corrective actions. All corrective action have been completed except for the construction of the additional waste water treatment plant. On October 1, 2013, ADEC amended the COBC to allow Pogo to construct an additional waste water treatment plan in lieu of upgrading WTP#2. On March 5, 2014 Pogo requested an extension of time to start construction of the additional waste water treatment plant (WTP#3). ADEC granted the extension of time on March 12, 2014. On June 30, 2014, ADEC also amended the COBC to allow Pogo an extension of time to complete construction of WTP#3. Pogo completed

construction of WTP#3 in August 2015. In October 2015, ADEC conditionally approved discharges from WTP#3 to Outfall 011.

2.4 SURFACE WATER MONITORING

2.4.1 Goodpaster River

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.6.2.2 & 1.6.4; ADEC APDES AK0053341 (5/1/11), 1.5; Pogo Mine Monitoring Plan (6/13) 5.0

Four surface water stations are monitored to evaluate water quality along the Goodpaster River. They are SW01 located upstream of the Pogo Mine, SW41 located downstream of Outfall 001, SW42 downstream of Outfall 002, and SW15 located downstream from all Pogo facilities.

Surface water samples are analyzed for WAD cyanide, ionic balance, major cations and anions, and total and dissolved metals. Physical and aggregate properties of ammonia, conductivity, hardness, nitrates, pH, TDS, TSS, Turbidity, TKN, and Temperature are also measured.

Surface water samples were collected on March 3, May 19, June 24, August 4, September 29, and December 9, 2015. Fish Tissue samples were collected in conjunction with the September 29, 2015 sampling event. Results of the fish tissue sampling are provided in the **Section 2.4.2**.

All surface water sampling results were within the limits and conditions set forth within the permit. The locations of the surface water monitoring stations are shown in **Appendix A, Figure 2.** Time series graphs are provided in **Appendix C**. Monitoring and historic data are provided in **Appendix G**.

2.4.2 Fish Tissue

ADEC APDES Permit AK-005334-1 (5/1/11), 1.5.5

In order to assess long term trends in Goodpaster River quality, annual whole body analysis of juvenile Chinook salmon are required at monitoring sites both upstream (SW01) and downstream (SW12) from the project facilities. Juvenile Chinook salmon were collected from these stations on September 30, 2015. In an effort to better assess any long term trends Pogo obtained permission to collect an additional 5 Slimy Sculpin from both SW01 and SW12.

The juvenile Chinook were collected at both locations, SW01 and SW12. Metals analysis was

conducted on individual Chinook and a composite sample of fish for each location was also analyzed. No Slimy Sculpin were captured in 2015. As required by **Fish Resource Permit SF2015-224** a report of collecting activities and data submission form was submitted to ADF&G on October 28, 2015.

All results are consistent with historical data. Time series graphs are provided in **Appendix C**. Monitoring and historic data are provided in **Appendix G**.

2.5 GROUNDWATER QUALITY MONITORING

Groundwater samples are analyzed for WAD cyanide, ionic balance, major cations and anions, and total and dissolved metals. Physical and aggregate properties of ammonia, conductivity, hardness, nitrates, pH, TDS, TSS Turbidity, TKN, and Temperature are also measured.

The locations of the groundwater monitoring stations are shown in **Appendix A**, **Figure 2.**

2.5.1 Downgradient of DSTF

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.1.4, 1.2.7, 1.6.4; Pogo Mine Monitoring Plan (6/13), 6.0

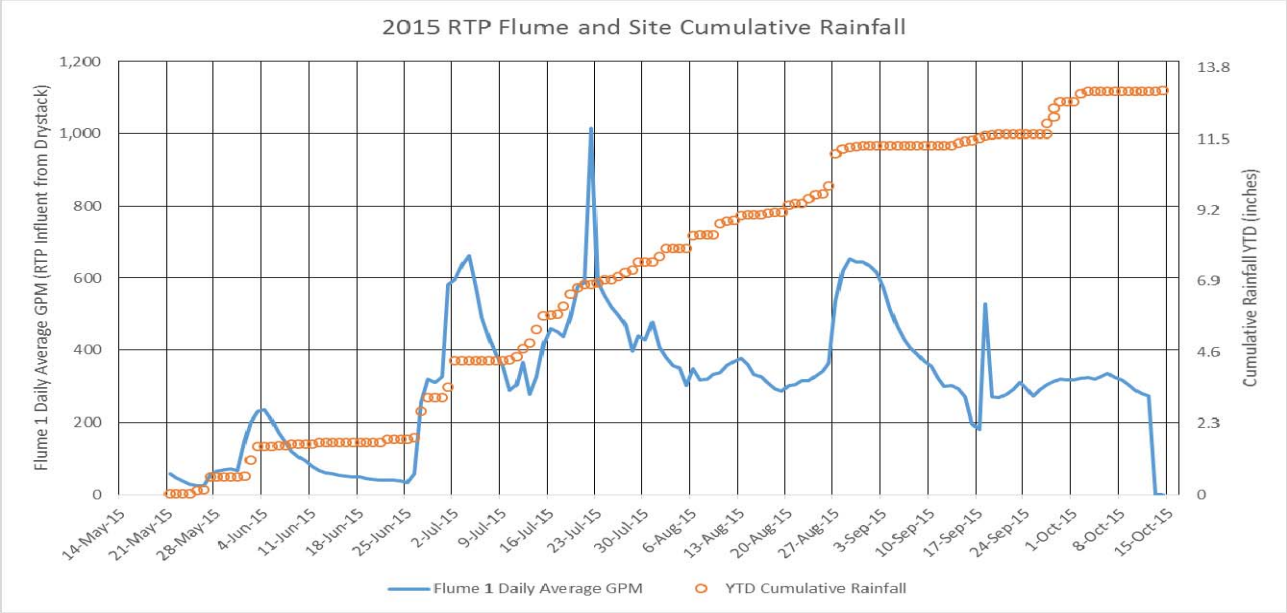
MW11-001A and MW11-001B provide information on water quality trends down-gradient from the DSTF and up-gradient of the RTP. MW11-001A is an alluvial well and MW11-001B is a bedrock well. MW11-001A was not sampled in 2015 as no water was present. MW11-001B was sampled February 17, April 21, and November 21.

Copper values in MW11-001B decreased. Nitrate values in MW11-001B continued to fluctuate with no apparent trend. Piezometer well LT99-099 below the drystack is monitored for water elevation on a quarterly basis. Time series graphs are provided in **Appendix C**. Monitoring and historic data are provided in **Appendix G**.

2.5.2 Liese Creek Flumes

Four flumes were installed in Liese Creek in 2012. **Chart 2** provides flow data for Flume #1 (near the toe of the DSTF) versus precipitation rate in 2015.

Chart 2: 2015 Liese Creek Flume #1 Flow Rate vs. Precipitation



2.5.3 Downgradient of RTP Dam

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.1.4, 1.2.6, 1.6.4, Pogo Mine Monitoring Plan (6/13), 6.0

Three wells located below the RTP Dam, MW12-500, MW12-501, and MW12-502 monitor groundwater downstream of the RTP seepage collection system. Samples for these wells were collected quarterly throughout 2015 (provided sufficient water was available). Trigger limits for groundwater monitoring at these locations are set forth in Pogo's ADEC Waste Management Permit 2011DB0012 and Pogo Mine Quality Assurance Project Plan.

Five sampling events occurred in 2015 for MW12-500. (provided sufficient water was available). Chloride, Sodium, and Nitrate were detected above the trigger limits on all sampling events.

Four sampling events occurred in 2015 for MW12-501 when water was present in the well. Chloride, Sodium, Nitrate were detected above the trigger limits on all sampling events.

Four sampling events occurred in 2015 for MW12-502 when water was present in the well. Chloride, Sodium, Nitrate were detected above the trigger limits on all sampling events.

Other parameters are also analyzed and compared to the Water Quality Standards. Except as noted above, all results are within the limits and conditions set forth within the permit. Time series graphs are provided in **Appendix C**. Monitoring and historic data are provided in **Appendix G**.

2.5.4 Downgradient of Ore Zone

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.1.4, 1.2.7, 1.6; Pogo Mine Monitoring Plan (6/13), 6.0

Monitoring wells MW04-213 and MW11-216 provide information on water quality trends down-gradient from the ore zones. Samples are collected semi-annually at MW04-213 and MW11-216. Samples were collected from MW04-213 on June 23, August 18, and November 8, 2015. Samples were collected from MW11-216 on June 23, and November 8, 2015, as the well was dry earlier in the year. Slightly elevated concentrations of arsenic were detected in the November 8, 2015 sample collected from MW04-213. Elevated concentrations of WAD cyanide were detected in the June 23, 2015 sample but were not evident in the November 8, 2015 sample. Except as noted, no other adverse trends were observed.

Piezometer well MW99-216 is monitored quarterly for water elevation. Time series graphs are provided in **Appendix C**. Monitoring and historic data are provided in **Appendix G**.

2.5.5 Downgradient of ORTW

Not required by permit.

Monitoring stations LL04-031 and LL04-032 are sampled annually and provide information on ground water quality trends between the ORTW and the Goodpaster River. Samples were collected August 5, 2015. No adverse trends were observed. Time series graphs are provided in **Appendix C**. Monitoring and historic data are provided in **Appendix G**.

2.5.6 Goodpaster River Area

Not required by permit.

MW12-001A and MW12-001B were established in support of the hydrogeologic study that was initiated during 2012. Dedicated pumps were installed in 2013 and samples were collected monthly during the entire year to establish background water quality data and continued through 2015 quarterly. Time series graphs are provided in **Appendix C**. Monitoring and historic data are provided in **Appendix G**.

2.6 PROCESS CONTROL MONITORING

Process facilities are monitored as follows.

2.6.1 Water Balance

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.6.2.4; Pogo Plan of Operations (11/1/2011), 8.0; Water Rights LAS 24611 – LAS 24617

At the beginning of the 2015, RTP reservoir volume was 12.0 million gallons. The ending RTP volume was 16.7 million gallons.

Added to RTP

- 115.1 million gallons of runoff and seepage water was collected in the RTP; and
- 18.8 million gallons of treated water was recycled to the RTP distribution system.

Removed from RTP distribution system

- 20.8 million gallons were pumped from the RTP for underground drill water;
- 45.2 million gallons were pumped from the RTP to the mill process; and
- 47.0 million gallons were pumped from the RTP to the WTP#2.

Recycled Treated Water

- 32.4 million gallons were recycled at the Mill from Water Treatment Plant; and
- 15.6 million gallons were recycled to the RTP distribution system from the Water Treatment Plant.

Discharge to ORTW

- 213.5 million gallons were treated and discharged via the ORTW.

2.6.2 Permits to Appropriate Water and Temporary Water Use Permit Summary

ADNR Permits to Appropriate Water, LAS 24616, 24613, 24611, 24612 Condition 6; ADNR Temporary Water Use Authorization TWUP F2011-131, F2011-76, F2011-130, F2013-023, F2013-143, Condition 14. A summary of water usage for Permits to Appropriate Water and Temporary Water Use Permits is provided in **Table 1** and **Table 2.**

Table 1: Permits to Appropriate Water 2015 Monthly Total Flows

Month	LAS 24616 Surface Water Collected in Recycle Tailings Pond (RTP)	LAS 24617 Groundwater from Underground Mine Discharged to ORTW and Recycled Underground**	LAS 24613 Goodpaster River ORTW Influent	LAS 24611 Drinking Water Wells DW02 & DW03	LAS 24612 Gravel Pit Pond*
	(gallons)	(gallons)	(gallons)	(gallons)	(gallons)
January	1,620,401	17,640,784	266,444,744	770,094	0
February	2,194,864	14,199,459	228,251,626	721,635	0
March	1,699,559	12,843,981	192,317,160	799,860	0
April	1,901,249	10,535,120	156,180,578	786,779	0
May	6,785,737	15,941,388	221,380,504	791,678	0
June	11,427,512	18,283,257	272,124,470	822,762	0
July	27,393,674	23,827,619	363,696,506	784,827	0
August	23,891,408	26,789,576	391,737,129	789,868	0
September	16,718,484	25,042,565	364,385,709	794,586	0
October	13,135,991	25,077,688	364,512,400	814,873	0
November	5,925,792	26,987,503	355,284,663	853,280	0
December	2,421,389	27,015,581	374,944,708	801,159	0
Total (gallons)	**115,116,059**	**244,184,521**	**3,551,260,198**	**9,531,401**	**0**
Total in Acre-ft	**353.3**	**749**	**10,898.4**	**29.3**	**0.00**
Permit Limit Acre-ft	**387.12**		**24,195.11**	**81.77**	**241.95**

* includes water used for Mill make-up and for road dust control

** Please refer to TWUP F2013-023 to cover over use LAS24617

Table 2: Temporary Water Use Permits 2015 Monthly Total Flows

Month	TWUP F2011-131 RTP Seepage Collection System Wells	TWUP F2011-76 Rosa Creek, Caribou Creek, Gilles Creek, Shaw Creek	TWUP F2011-130 Diversion Ditches	TWUP F2013-023 Underground Water Recycle	TWUP F2013-143 2150 portal Underground Workings
	(gallons)	(gallons)	(acre-feet)	(gallons)	(gallons)
January	3,979,154	0	Annual Calculated Amount	22,481,308	158,879
February	2,631,541	0		18,547,791	565
March	2,291,885	0		20,467,501	15,536
April	2,145,633	0		17,146,532	207,126
May	2,121,877	484,000		19,237,432	323,987
June	2,238,671	380,000		18,727,707	207,008
July	3,210,621	112,000		17,924,533	68,770
August	5,222,793	48,000		17,581,612	0
September	5,639,704	0		20,057,163	0
October	6,337,087	0		22,728,293	0
November	6,199,136	0		27,612,818	0
December	6,061,179	0		23,842,209	0
Total Gallons	**48,079,281**	**1,024,000**	**476,842,633**	**246,354,898**	**981,870**
Total Acre-feet	**148**	**3**	**1,464**	**756.0**	**3**
Permit Limit	**1,945,000,000 gals**	**14,400,000 gals**	**1460 acre-ft**	**1613.3 acre-ft**	**646.97 acre-ft**

2.6.3 CIP Tailings Cyanide Destruction

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.2.3, 1.6.2.3; Pogo Mine Monitoring Plan (6/13), 4.2

After cyanide destruction, the CIP tailings are stored in the CIP tank prior to being mixed with cement and used as backfill in the mine. Pogo's Mine Monitoring Plan requires grab samples at station PC001 (CIP Stock Tank), which is located directly after the cyanide destruction circuit. Pogo collects a daily sample during a paste pour. The Waste Management Permit 2011DB0012 requires that samples contain less than 10 mg/kg of WAD Cyanide as a monthly average with no samples can contain more than 20 mg/kg of WAD cyanide. During 2015, 100% of the monthly averages of the PC001 samples measured less than 10 mg/kg WAD Cyanide zero samples were greater than 20 mg/kg WAD cyanide. Time series graphs are provided in **Appendix C**. Monitoring and historic data are provided in **Appendix G**.

2.6.4 Mineralized Development Rock Geochemistry

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.2.1, 1.6.2.6; Pogo Mine Monitoring Plan (6/13) 4.1.1, Appendix A

Samples of mineralized waste rock placed in the DSTF (PC002) are collected monthly and composited to form a quarterly sample which is then analyzed. Quarterly samples were analyzed and showed no adverse trends for 2015.

Appendix B, **Table 2**, shows selected parameters for the PC002 mineralized waste rock samples. Monitoring and historic data are provided in **Appendix G**.

2.6.5 Flotation Tailings Geochemistry

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.6.4; Pogo Mine Monitoring Plan (6/13) 4.0

Flotation tailings geochemistry solid samples were collected on March 22, June 21, September 15, and December 21, 2015 at PC003, the underflow of the filter-feed tank at the end of the mill circuit, prior to disposal on the DSTF. No adverse trends were observed. **Appendix B**, **Table 3**, shows

selected parameters for the PC003 Solid flotation tailings samples. Monitoring and historic data are provided in **Appendix G**.

2.6.6 Flotation Tailings Interstitial Water Chemistry

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.6.4; Pogo Mine Monitoring Plan (6/13) 4.0

The interstitial water from the tailings samples was collected at PC003 on March 21, June 29, September 27, and December 12, 2015. Pogo transitioned to a low selenium mill reagent (Copper Sulfate) during the first quarter of 2014. Selenium concentration is currently trending downward in 2015. Elevated Nickel was detected during the first quarter but was well below the Operating Target Range Limit for the remainder of the year. Elevated Arsenic was detected during the fourth quarter. Pogo believes this is due to variation in ore chemistry. Time series graphs are provided in **Appendix C**. Monitoring and historic data are provided in **Appendix G**.

2.7 VISUAL MONITORING

2.7.1 Facility Inspection

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.6.2.1, 1.6.9.3, 1.6.9.4; Pogo Mine Monitoring Plan (6/13) 2.0, 3.1; Pogo RTP Operating and Maintenance Manual (10/13), 4.0.

Visual inspections of the DSTF, RTP Dam, and monitoring wells were completed throughout 2015. No cracks, bulging, settlement, geotechnical concerns, erosion or damage were observed.

2.7.2 Biological Survey

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.6.2.5; Pogo Mine Monitoring Plan (6/13) 2.4

The objective of the visual biological survey program is to monitor wildlife interaction with the surface waste disposal facilities.

No wildlife issues with the surface waste disposal facilities occurred during 2015.

2.8 DEVELOPMENT ROCK SEGREGATION AND STORAGE

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.2.1, 1.6.2.6; Pogo Mine Monitoring Plan (6/13), 4.1.1, Appendix A

During 2015, 1,481 rounds were blasted underground and sampled in accordance with the Rock Segregation Procedure. Three hundred and ninety-eight rounds (30%) exceeded either the Arsenic threshold of 600 mg/l or the Sulfide threshold of 0.5% and these were encapsulated in the DSTF. Three hundred and fifty-five rounds were not sampled due to operational challenges and these rounds were also placed internally in the DSTF.

2.9 WASTE DISPOSAL

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.2.1, 1.5.4

During 2015, 638,850 dry tons of flotation tailings and 224,150 tons of mineralized rock were placed in the DSTF. Also during 2015, 36,558 dry tons of CIP Tailing and 185,633 tons of filtered flotation tailings were placed underground as paste backfill.

The quantities of miscellaneous waste materials placed either into the DSTF or underground during the year are shown in **Table 3**.

Table 3: Miscellaneous Waste Disposal in DSTF and Underground

Material	Disposal Location	Quantity	unit
Grinding Media Flotation Debris Screen Residue	DSTF	190	tons
Filter Press Waste	DSTF	42	yds
Filter Press Waste	Underground	18	yds
Water Treatment Plant Sludge	Underground	626	yds
Lab Ore Samples	DSTF	32	lbs

2.10 SPILL REPORTING

ADEC APDES AK0053341 (5/1/11), Appendix A, 1.14; ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.5.10

During 2015, reportable spills occurred. Please see **Table 4** below.

Table 4: 2015 Reportable Spills

Date	Time	Location	Material	Responsible Party	Quantity	Area	Equipment	Cause	Cleanup Measures	Disposal
1/4/2015	15:00	East side Paste Plant	Glycol	Pogo	2 gallons	24 ft^2	Compressor at Paste Plant	Leak in copper tubing.	Absorbs used to soak up free glycol, contaminated ice and snow material was shoveled up.	Absorbs will be incinerated on-site, contaminated ice and snow deposited in wash bay to go through oil/water separator.
3/21/2015	10:00	Dry Stack	Hydraulic Oil	Pogo	2 gallon	24 ft^2	Volvo Excavator	Split hose flange	Absorbs used to soak up free glycol, contaminated ice and snow material was shoveled up.	Absorbs will be incinerated, contaminated ice and snow deposited in wash bay to go through oil/water separator.
4/29/2015	22:00	Main Camp kitchen sewer line	Sewage & Grey Water	Pogo	360 gallon	50 ft^2	Cracked sewer line	Cracked sewer line	Spread lime over spilled area	None Required
5/7/2015	6:00	Paste Spill outside CV002 splice house, 1690 Portal	Paste Backfill	Pogo	90,000 gallons	8,100 ft^2	Paste Pipe	Paste Pipe Failure	Paste removed with equipment and hand-shoveling.	Paste returned to process underground.
5/21/2015	16:00	Next to Main Containment Building, by Lower Fuel Island	Water with petroleum contamination.	Pogo	30 gallon	100 ft^2	Totes of contaminated soil and rain /snowmelt	While moving totes, water was not showing any sheen, so was allowed to splash on ground during transportation of totes.	Contaminated material cleaned up and place in container.	Contaminated soil to be incinerated off site.

Date	Time	Location	Material	Responsible Party	Quantity	Area	Equipment	Cause	Cleanup Measures	Disposal
7/29/2015	18:30	Road #4	Coolant	M2C1	15 gallons	100 ft^2	Rental Haul Truck VHT07	Failed hose connection.	Absorbs used on free product. Shoveled up contaminated soil and containerized.	Contaminated absorbs and soil to be incinerated off-site.
7/30/2015	15:00	Road #1	Coolant	M2C1	15 gallons	100 ft^2	Rental Haul Truck VHT07	Failed hose connection, repair did not hold. Rental truck being sent off site.	Absorbs used on free product. Shoveled up contaminated soil and containerized.	Contaminated absorbs and soil to be incinerated off-site.
9/8/2015	20:30	Mile 37 Pogo Access Road	Coolant	Alaska West Express	8 gallons	~350 ft^2	Alaska West Truck	Blown Radiator Hose	Small leak spread over long distance before discovered, not recoverable.	None Required
9/13/2015	1:30	Air Strip Crusher Area	Hydraulic Oil	Heritage Rock and Services	5 gallons	20 ft^2	Portable Jaw Gravel Crusher	Hose Failure	Contaminated material scraped up and containerized.	Contaminated soil to be incinerated off-site.
9/14/2015	11:00	1525 Loading Area	Coolant	Pogo	3 gallons	12 ft^2	VHT04	Frost Plug Leak	Absorbs used on free product. Shoveled up contaminated soil.	Small amount of soil to Washbay.
9/28/2015	8:30	Mile 17 Pogo Access Road	15W/40W Oil	Alaska West Express	1 gallon	12 ft^2	Alaska West Truck	Truck Roll Over	Absorbs used on free product. Shoveled up contaminated soil.	AWE to dispose of contaminated soil and absorbs.
12/9/2015	16:20	Mill Bench, North End Chateau	Hydraulic Oil	Pogo	5 gallon	8 ft^2	Hose popped off.	Hose came loose at connection and popped off.	Absorbs used on free product. Shovel up contaminated snow.	Absorbs to be incinerated. Small amount of snow to Washbay.
12/24/2015	14:30	1525 Portal road, near bottom	Hydraulic Oil	Pogo	25 gallons	60 ft^2	VHT 03	Failed Hose	Absorbs used on free product. Shovel up contaminated snow.	Absorbs to be incinerated. Small amount of snow to Washbay.

2.11 GEOTECHNICAL MONITORING

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.5.3, 1.5.3.4; Pogo Mine Plan of Operations F20129500 (11/3/11) Appendix F: Pogo DSTF Construction and Maintenance Plan

No shell construction took place at the DSTF during 2015; therefore, no geotechnical monitoring took place. Currently there are no plans to continue shell construction in 2016.

3. 2015 AS-BUILT REPORTS AND MAPS

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.5.9.1; ADNR Plan of Operations Approval F20129500 (2/7/12), pg. 5

- DSTF Expansion Final As-Built Report for Diversion Channels was submitted to ADNR and ADEC on January 31, 2015

Pogo Mine Site 2013 As-built maps are located in **Appendix A. Figure 3** provides an overview of all facilities within the Pogo Millsite lease boundary at end of 2013. **Figures 3a** through **3d Appendix A** provide additional detail for the major areas of the mine. As-built reports located in **Appendix G**.

4. RECLAMATION AND FINANCIAL RESPONSIBILITY

ADEC Waste Management Permit 2011DB0012 (2/7/12), 1.11, 3. ADNR Plan of Operations Approval F20129500 (2/7/12), pg. 3, 9; ADNR Pogo Mine Millsite Lease ADL416949 (3/9/04), Section 8

The Pogo Mine reclamation and closure bond is currently $52.29 million (refer to Table 4). The road/transmission line reclamation and closure cost estimate is currently at $4.8 million. Neither Bond changed during 2015 (refer to Table 5).

In 2014, SRK consulting contracted to convert the current bond to a Standardized Reclamation Cost Estimator (SRCE) model for a newer estimation of the reclamation bond. The SRCE model will more accurately estimate the bond using updated

techniques and calculations.

Table 5: Summary of Mine Reclamation and Closure Cost Estimates as of December 2012

SUMMARY OF ESTIMATED RECLAMATION AND CLOSURE COSTS-POGO MINE SITE									
Item Description		**1 year holding cost**	**Phase I**	**Phase II**	**Phase III**	**Phase IV Water Treatment**	**Phase IV Reclamation**	**Phase V**	**Total**
Direct Cost		$ 812,700	$ -	$ 952,400	$ 10,819,000	$ 6,298,300	$ 3,686,000	$ 109,500	$ 22,677,900
Site Management Cost		$ 1,221,900	$ -	$ 27,800	$ 2,953,800	$ 5,374,833	$ 2,001,700	$ -	$ 11,580,033
Subtotal Direct Cost		**$ 2,034,600**	**$ -**	**$ 980,200**	**$ 13,772,800**	**$ 11,673,133**	**$ 5,687,700**	**$ 109,500**	**$ 34,257,933**
Indirect Costs	**% of Subtotal**								
Mobilization/Demobilization	**5.0%**	$ -	$ -	$ 49,010	$ 688,640	$ -	$ 284,385	$ 5,475	$ 1,027,510
Subtotal		**$ 2,034,600**	**$ -**	**$ 1,029,210**	**$ 14,461,440**	**$ 11,673,133**	**$ 5,972,085**	**$ 114,975**	**$ 35,285,443**
Contractor Overhead and Profit	**15.0%**	$ 305,190	$ -	$ 154,382	$ 2,169,216	$ 1,750,970	$ 895,813	$ 17,246	$ 5,292,816
Subtotal		**$ 2,339,790**	**$ -**	**$ 1,183,592**	**$ 16,630,656**	**$ 13,424,103**	**$ 6,867,898**	**$ 132,221**	**$ 40,578,259**
Performance Bond	**3.0%**	$ 70,194	$ -	$ 35,508	$ 498,920	$ 402,723	$ 206,037	$ 3,967	$ 1,217,348
Insurance	**1.5%**	$ 35,097	$ -	$ 17,754	$ 249,460	$ 201,362	$ 103,018	$ 1,983	$ 608,674
Subtotal		**$ 2,445,081**	**$ -**	**$ 1,236,853**	**$ 17,379,036**	**$ 14,028,187**	**$ 7,176,953**	**$ 138,171**	**$ 42,404,281**
Contract Administration	**4.0%**	$ 97,803	$ -	$ 49,474	$ 695,161	$ 561,127	$ 287,078	$ 5,527	$ 1,696,171
Engineering Re-Design	**3.0%**	$ -	$ -	$ 37,106	$ 521,371	$ -	$ 215,309	$ 4,145	$ 777,930
Contingency	**15.0%**	$ 366,762	$ -	$ 185,528	$ 2,606,855	$ 2,104,228	$ 1,076,543	$ 20,726	$ 6,360,642
Total Indirects		**$ 875,046**	**$ -**	**$ 528,761**	**$ 7,429,623**	**$ 5,020,410**	**$ 3,068,183**	**$ 59,069**	**$ 16,981,092**
Total Direct + Indirect		$ 2,909,646	$ -	$ 1,508,961	$ 21,202,423	$ 16,693,543	$ 8,755,883	$ 168,569	$ 51,239,025
Inflation Proofing	**2.06%**	$ 59,926	$ -	$ 31,078	$ 436,676	$ 343,813	$ 180,332	$ 3,472	$ 1,055,297
Total Closure Cost		**$ 2,969,572**	**$ -**	**$ 1,540,039**	**$ 21,639,099**	**$ 17,037,356**	**$ 8,936,215**	**$ 172,041**	**$ 52,294,322**
								Rounded	$ 52,294,000

Table 6: Summary of Pogo Access Road/Transmission Line Reclamation and Closure Cost Estimates as of December 2012

Pogo Access Road and Transmission Line - Estimated Closure Cost							
		Phase I	Phase II	Phase III	Phase IV	Phase V	Total
Direct Cost		$ -	$ 13,666	$ -	$ 2,478,500	$ -	$ 2,492,167
Site Management Cost		$ -	$ 128	$ -	$ 582,645		$ 582,773
Subtotal Direct Cost		**$ -**	**$ 13,794**	**$ -**	**$ 3,061,145**	**$ -**	**$ 3,074,940**
Indirect Costs	**% of Subtotal**						
Mobilization/Demobilization	**6.5%**	$ -	$ 897	$ -	$ 198,974	$ -	$ 199,871
Subtotal		$ -	$ 14,691	$ -	$ 3,260,119	$ -	$ 3,274,811
Contractor Overhead and Profit	**15.0%**	$ -	$ 2,204	$ -	$ 489,018	$ -	$ 491,222
Subtotal		$ -	$ 16,895	$ -	$ 3,749,137	$ -	$ 3,766,032
Performance Bond	**3.0%**	$ -	$ 507	$ -	$ 112,474	$ -	$ 112,981
Insurance	**1.5%**	$ -	$ 253	$ -	$ 56,237	$ -	$ 56,490
Subtotal		$ -	$ 17,655	$ -	$ 3,917,849	$ -	$ 3,935,504
Contract Administration	**4.0%**	$ -	$ 706	$ -	$ 156,714	$ -	$ 157,420
Engineering Re-Design	**4.0%**	$ -	$ 706	$ -	$ 156,714	$ -	$ 157,420
Contingency	**10.0%**	$ -	$ 1,766	$ -	$ 391,785	$ -	$ 393,550
1 year holding cost			$ 41,000				$ 41,000
Total Indirects		**$ -**	**$ 48,038**	**$ -**	**$ 1,561,916**	**$ -**	**$ 1,609,955**
Total directs and indirects		$ -	$ 61,833	$ -	$ 4,623,061	$ -	$ 4,684,894
Inflation Proofing	2.66%	$ -	$ 1,645	$ -	$ 122,973	$ -	$ 124,618
Total Closure Cost		**$ -**	**$ 63,478**	**$ -**	**$ 4,746,035**	**$ -**	**$ 4,809,513**
						Rounded	**$ 4,810,000**

4.1 ALL-SEASON ROAD AND TRANSMISSION LINE

Right-of-Way permits for Pogo Access Road ADL 416809 (5/7/14), Transmission Line ADL 416817 (5/7/14), and Communication Site Access Road ADL 417247 (5/7/14).

4.1.1 Transmission Line Easement BMPs

In 2014 clearing activity along the Transmission Line Easement to meet Fire Prevention Protection Liability stipulation in its Early Entry Authorization occurred before sensitive areas were identified. SHPO approved Pogo's proposed mitigation plan and BMPs were installed by April 30, 2014. Below are the erosion control measures, performing effectively, during the summer of 2015.

Photo 1 through **4** show erosion control measures implemented near Mile 20 of the Pogo Access Road on August 10, 2015.

Photo 1 & 2: Erosion control under transmission line along Pogo Access Road

Photo 3 & 4: Erosion control under transmission line along Pogo Access Road

4.1.2 Revegetation Test Trial Program at the Pogo Mine

Based on the *Revegetation Test Trial Program for Reclamation at Pogo Mine* submitted May 1, 2012, native seed collection, and purchase of grass seed, for the revegetation trials began in the summer and fall of 2013. The forth and last test plot was developed during 2015 for mesic and xeric alpine meadow establishment on shell 2 of the drystack against the south diversion ditch wall. The application of fertilizer and agrotain took place in the spring for the trial plots established in 2014 (Alluvial Shrub, Wetland, and Broadleaf Forest plots).

4.1.2.1 MESIC AND XERIC ALPINE MEADOW

As with the establishment of previous trial plots, as-built plot plans were recorded, as well as a photo record of each plot and plot label. The seed mix described in the plan, however was altered somewhat using locally collected wildflower seed that was in abundance during the fall of 2015. Seeds were weighed out for each plot into labeled bags and were then hand-broadcast after test plots were measured, staked and labeled. However, because seeding took place at freeze up, no fertilizer was applied. Fertilizer,

and agrotain will be applied in the spring.

Table 7: Changes to Alpine Seed Mixture #2 and #3, 2015

Species	Scientific Name	Percent of mixture	Growth Characteristics	Seed per Test Plot lbs	Total Seed for Test Plots lbs
Erigeron (additional)		1	Prefers dry, sandy/gravel soils, quick invader of open areas, common locally	0.045	0.405
Siberian Aster (additional)		2	Prefers dry, sandy/gravel soils, quick invader of open areas, common locally	0.009	0.08
Hairy Scorpion Weed (replacing Pasque flower)		1	Prefers dry, sandy/gravel soils, quick invader of open areas, common locally	0.0045	0.04
Alaska Poppy (replacing Pale Corydalis)		2	Prefers dry, sandy/gravel soils, quick invader of open areas, common locally	0.009	0.08

Photo 5: Alpine Meadow Trial Plots September 27, 2015 newly seeded.

4.1.2.2 ALLUVIAL SHRUBS AND WETLANDS

Test plots were monitored and percent cover and plant species was documented and photographed. Willow cuttings will be collected and planted in these plots and the wetland trial plots in spring of 2016. **Photo 6** shows a large portion of the alluvial shrub

trial plots with burn pit fence in the upper right. **Photo 7** a close up measuring percent cover.

Photo 6: Alluvial Shrub Trial Plots 2015

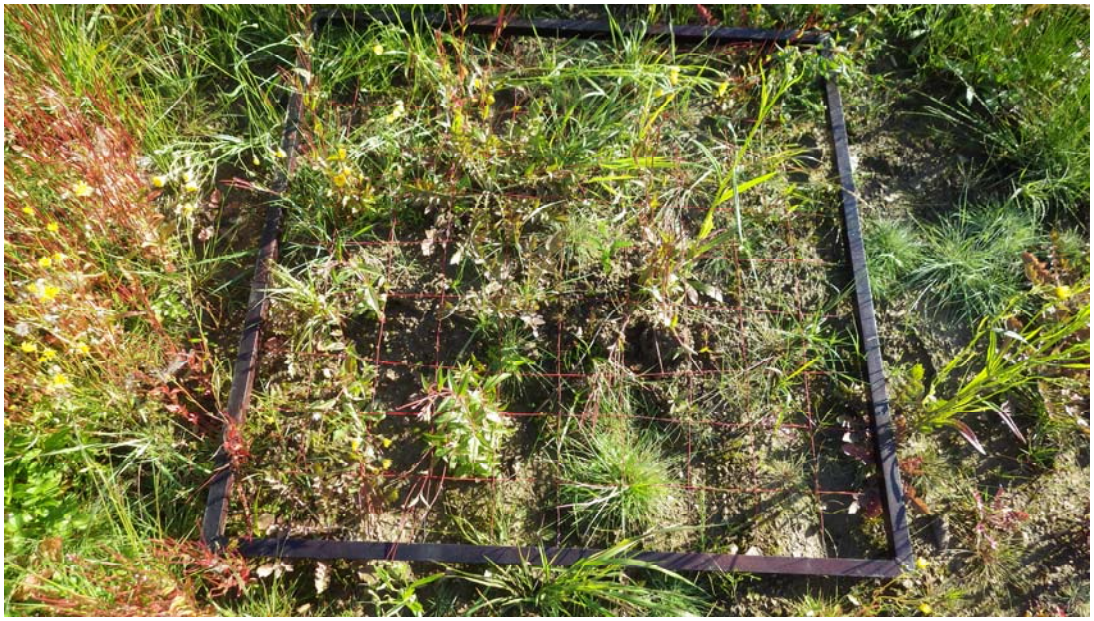


Photo 7: Alluvial Shrub Trial Plots 2015, %Cover Measurement

Photo 8: Wetland Trial Plots, %Cover Measurement

Photo 8 shows the establishment of Egan Slough grass, Wild Iris and Northwest Territory Sedge in a Wetland trial plot.

Photo 9 shows the Broadleaf Forest trial plots, located at the end of the south diversion ditch road, where a road cut is in the process of being reclaimed.

Photo 9: Broadleaf Forest Trial Plots 2015

4.2 POGO MILLSITE LEASE

ADNR Pogo Mine Millsite Lease ADL416949 (3/9/04), Section 23 Modifications

4.2.1 Plan of Operations F20129500 Revision 7

The Plan of Operations F20129500 Revision 7 for Construction of WTP#3 was submitted to ADNR on October 31, 2013. It was approved on December 3, 2013.

- In February, 2014, Pogo paid an in lieu mitigation fee in the amount of $1,650 to The Conservation Fund for 0.15 acres of wetland disturbance for the MWTP#3.
- On March 5, 2014, Pogo requested an extension of time to start construction of WTP#3. ADEC granted the extension of time on March 12, 2014.
- Pogo notified ADEC that construction of WTP#3 had started on May 8. An extension of time was also requested to complete construction in 2015. ADEC granted the extension of time on June 30, 2014.
- Pogo completed construction of WTP#3 in August 2015.
- In October 2015, ADEC conditionally approved discharges from MWTP#3 to Outfall 011.

4.2.2 Plan of Operations F20129500 Revision 9

Pogo submitted POO Rev 9 for a new CIP Tailings Stock Tank on Feb 19, 2014. It was approved by ADEC on Feb 27, 2014. It was approved by ADNR on March 6, 2014. Detailed design drawings were submitted to ADEC on May 22, 2014. Final approval was granted by ADEC on June 11, 2014. Construction is continued through 2015. As-built drawings were…….

5. PERMIT ACTIVITIES

5.1 2015 PERMIT ACTIVITIES

Permitting activities conducted during 2015 included:

February 2015- received *ADNR APMA #9500 Multi-Year 2015-2019 Miscellaneous Land Use Permit for Hardrock Exploration & Reclamation* Effective August 6, 1994, State Mining Regulation 11AAC96.040 was amended to allow the State of Alaska, Department of Natural Resources, to issue Land Use Permits for a specified term of up to five years, provided the application meets the requirements for multi-year permits.

February 2015- Certificate of Approval to Modify a Dam received.
The State of Alaska under AS 46.17, and the regulations adopted under this statute, granted Sumitomo Metal Mining Pogo LLC approval to modify the following structure at Pogo Mine in accordance with the terms and conditions contained in this certificate: Pogo R.T.P Dam (NID ID# AK00304) The certificate approved constructing RTP head tank #2 as described in the *Application for Certificate of Approval to Modify* a *Dam* received on November 12, 2014 including "General Structural Notes, Pogo Mine, RTP Head Tank #2 Foundation, Delta Junction, Alaska" dated October 7, 2014 and "RTP Head Tank #2 Review and Observations" dated September 30, 2014 from Shannon & Wilson, Inc.

April 2015- ADNR approved applications for Material extraction of material from two existing sites along Pogo Road (MS 7 and MS 18).

- ADL 420173 MS 7 Sections 14 and 15, Township 7 South, Range 9 East, FM, containing approximately 25 acres; and,

- ADL 420174 MS 18 Section 15, Township 6 South, Range 13 East, FM, containing approximately 11 acres

July 2015, Pogo submitted it notice of intent to renew coverage under the Alaska Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities. ADEC authorized coverage under the permit on August 5, 2015.

July 2015-Pogo submitted the application to modify its Title V Air Quality Operating Permit adding its small, remote incinerator as required by the CISWI Rule. Permit No. AQ04046TVP01 was issued January 12, 2016.

August 2015- Temporary Water Use Authorizations received for multiple sources. Water Withdrawal -Exploration Operation- APMA F9500 I TWUA F2015-043. Temporary Water Use Authorization is issued pursuant to 11 AAC 93.220.

September 2015- APDES Permit Application submittal in for review DEC Division of Water-Reissuance of Alaska Pollutant Discharge Elimination System (APDES) Permit Pogo Mine, AK0053341- DEC completed review of application and determined that is administratively complete on December 2, 2015.

September 2015- ADNR Division of Mining Land and Water Site Inspection for permit compliance.

October 2015-DEC conditionally approved discharging Mine Water Treatment Plant #3 (MWTP#3) directly through outfall 011 to the Off River Treatment Works.

November 2015-*DNR-DMLW- Mining Section and DEC-Water Division's General Inspection at Pogo Mine on October 14, 2015*-Received Pogo Mine Inspection Report from ADNR Large Mine Project Manager, Action Item- *"Continue operations as permitted".*

November 2015-*AQ0406TVP01*-Receipt and Acceptance of Source Test Report for EU IDs 1 - 3, 5 and 6 testing was conducted to demonstrate compliance with Condition 5 of Permit No. AQ0406TVP01. The Department received Sumitomo's report on August 11,

2015 and completed its review on November 12, 2015. The Department found no compliance issues with regard to the testing program.

December 2015-DEC Division of Water- APDES Inspection of Sumitomo Metal Mining Co. LLC. Pogo Gold Mine permit numbers AK0053341 and AKR06AC58; report received and inspection approved by ADEC.

5.2 FUTURE PERMIT ACTIVITIES

- 2016- Pogo will complete and submit a Periodic Safety Inspection to renew its Certificate of Approval to Operate a Dam

- 2016- Pogo will carry out the periodic 5 year Environmental Audit in compliance for permit renewal, a third party audit with an agency approved consultant and scope of work. Every 5 years prior to renewal of the permit in coordination with the environmental audit conducted under the Plan of Operations (To be completed in 2016; last audit completed in 2009). This environmental audit is the same as the environmental audits required under the Plan of Operations Approval and the Millsite Lease.

- 2016- Pogo will complete and submit a Periodic Safety Inspection to renew its Certificate of Approval to Operate a Dam.

- 2016-Toxic Release Inventory (TRI) Reporting Requirements: Community Right-to-Know TRI Report

- 2016 Toxic Substance Control Act (TSCA) Report 5 year requirement is due to USEPA Region 10.

- 2016 Air Quality Title V Operating Permit #AQ0406TVP01 Revision 1 Annual Mercury Compliance Testing.