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Mr. Steven Petrin
520 SW Yamhill, Ste 700
Portland, Oregon 97204-1335

Subject:
Stimson Lumber Company, Former Josephine Mill No. 1, Pend Oreille County, Washington, 2012 Annual Monitoring Maintenance and Repairs Report.

Environment

Date:
November 30, 2012

Contact:
Paula A. Lyon

Phone:
509.928.3369

Email:
Paula.Lyon@
Arcadis-us.com

Our ref:
SK030321.0000

Dear Mr. Petrin:

ARCADIS U.S., Inc. (ARCADIS) is pleased to present this 2012 Annual Monitoring Maintenance and Repairs Report (the "Report") for the Stimson Lumber Company, (Stimson) Former Josephine Mill No.1., Pend Oreille County, Washington (the "Site").

ARCADIS prepared the Post Removal Site Control Plan (PRSCP) found in Appendix E to the Final Removal Action Report (RAR) dated February 10, 2012 [ARCADIS, 2012]. The PRSCP provides for the long-term maintenance and monitoring necessary to ensure the property and long-term stability of the mine waste repository constructed at the former the Site. The mine waste repository was constructed pursuant to the Administrative Settlement Agreement and Order on Consent Docket No. CERCLA-10-2010-0180 (ASAOC) between the United States Environmental Protection Agency (EPA) and Stimson in accordance with the EPA-approved Removal Action Work Plan (RAWP).

ARCADIS completed the final construction and "as-built" topographic survey in September and October, 2011. The Record drawings of the completed mine waste repository are presented in Appendix A of the RAR. [ARCADIS, 2012].

The repository consists of consolidated mine tailings and waste into a compacted, graded repository capped with a low-permeability cover system. The cover system consists of a 16-ounce non-woven geotextile directly over the mine waste, overlain by a 40-milimeter low-density polyethylene liner, overlain by a geocomposite drainage layer, and 18-inches of soil and vegetative cover. Large woody debris was placed on the cap to limit disturbance of the cover system by wildlife and more importantly trespassing human activities. To further maintain the stability of the repository, perimeter under-drains were installed to route groundwater around the repository. The repository is graded to shed stormwater toward the diversion ditch

along the eastern perimeter of the repository which ultimately discharges across a bed of rip-rap and to Flume Creek.

ARCADIS did not perform the initial Spring inspection due to continuous daily precipitation events which persisted throughout late winter and spring months well into the early July 2012. However, no specific or particular peak event such as a 100-year 24-hour storm event occurred during this timeframe. Nor did any singularly damaging event, earthquake(s), extreme wind, heat, forest fires, or any other extreme weather events occur.

ARCADIS developed a Site-specific inspection checklist for the Josephine Mill No. 1 repository. On September 14, 2012, ARCADIS field construction personnel performed the annual inspection of the cover and drainage systems, stormwater erosion controls, and site security control measures. The Site-specific Inspection Checklist is presented in Appendix A. Photo documentation to support the site inspection observations are presented in Appendix B.

Inspection Observations

Based on the September 14, 2012, annual inspection, the following observations were noted:

- Slash piles and large wood debris overlying and along the cover system are remain in good physical condition.

- The vegetative cover on the repository and surrounding areas where disturbances occurred from consolidation and construction activities consists of a plant identified by several local individuals as “sweet clover”. The plant is roughly six to seven-feet in height and appears to be highly prolific. The root system is a relatively shallow single root that extends from 6 to 12-inches in depth, which does not appear to pose a threat to the integrity of the repository cover system at this time.

- No visual evidence of large mass movement of cover materials was observed other than minor erosion rills as would be expected consistent with unusually persistent seasonal precipitation during the 2011-2012 months.

- The drainage systems including cleanouts were observed to be functional and free of debris.

- No visual evidence of significant damage to rip-rap in the stormwater management area was observed.

- No visual evidence of underlying compacted consolidated mine waste was observed.

- No visual evidence of damage to the access roads was observed. Conditions of the access road provide for proper and normal use.

- No visual evidence indicating the presence of extreme weather related conditions were observed.

- Signage is present on the gate to the property. However, temporary signage placed on trees at the Site does not constitute permanent signage nor provide adequate warning for unauthorized individuals (trespassers) to avoid the repository.

- No conditions such as releases of mine waste or potential for releases to Flume Creek were observed. Therefore, preparation of a Damage Assessment Repair Plan and immediate response were not required.

Inspection Findings and Recommendations

ARCADIS recommended the following *de minimus* maintenance and repairs be performed based on ARCADIS' inspection observations and findings:

- Current temporary signage is not sufficient. It is recommended that additional permanent signage be installed in the vicinity of the repository, in addition to that posted on the security gate.

- Minor erosion rills were noted on the cover system as indicated on the inspection checklist (Appendix A) and photographs (Appendix B).

- Exposed drainage fabric was observed along the eastern portion of the drainage system. Additional topsoil to cover the drainage fabric is needed.

Maintenance and Repairs Implemented

ARCADIS on behalf of Stimson subcontracted with local contractors to perform the recommended repairs on October 2, 2012 and November 27, 2012. Jonathan Burton, P.E., and Myles Perkins, E.I.T of ARCADIS were on-site to direct and oversee the above repairs to the repository cover system and stormwater controls in addition to the installation of signage. The following repairs were conducted by Z&Z Enterprises, with materials provided by Dawson Construction and Concrete, both of Ione, Washington. The photo documentation of the repairs is presented in Appendix B. The October 2, 2012 and November 27, 2012 field notes documenting the maintenance and repairs are presented in Appendix C.

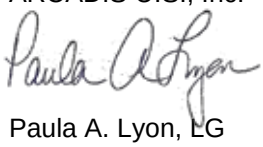
In general, the repairs consisted of the following activities:

- The erosion rills on the cover system and the stormwater drainage ditch were covered and repaired utilizing ¾-inch minus gravel as specified in the Contract Drawings for repository cover material or by installing larger screened ballast as determined necessary.

- Three permanent metal 24-inch by 30-inch metal signs with 8-foot metal posts with the words “Private Property - No Trespassing” were installed. The signage was placed along both the northeast and northwest extent of the repository along the access road and at the base of southern extent of the repository in the vicinity of Flume Creek.

Sincerely,

ARCADIS U.S., Inc.



Paula A. Lyon, LG
Senior Geologist

Copies:
Earl Liverman, USEPA, Idaho Operations Office

Attachments: Attachment A – September 2012 Inspection Checklist
Attachment B – Photo Log
Attachment C – 2012 Field Notes

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Josephine Mill Site Inspection Checklist

Inspector	Date
J. DeJong	9-14-12 @ 0930

Observations	OK	Needs Repair	Comments
1. Is the appropriate signage in place?		X	
2. Site controls in Place			
a. Site control "slash" piles still present along slope of cover system	X		No Evidence of any use
b. Site control logs along the cover system in place.	X		
3. Cover System			
a. Visual erosion rills present	~~X~~ JD	X	
b. Presence or observed large mass movement of material	X		
c. Erosion present in swale	X		
d. Deficiencies observed	X	X	Some rills but Mostly very Nice
4. Drainage system			
a. Cleanouts opened and are clear of debris	X		
b. Cleanout caps in place	X		
c. Observed water draining from outlets			No H_2O Observed
5. Other Observations			
a. Mine waste material observed?			No
b. Is the road intact and useable	X		

REMARKS: Explain all items needing attention or repair; use number to identify.

1	Erosion Rill to Fabric - Needs Repair
2	Additional Topsoil Needed. Exposed Drainage fabric (see pictures)
	cont'd →

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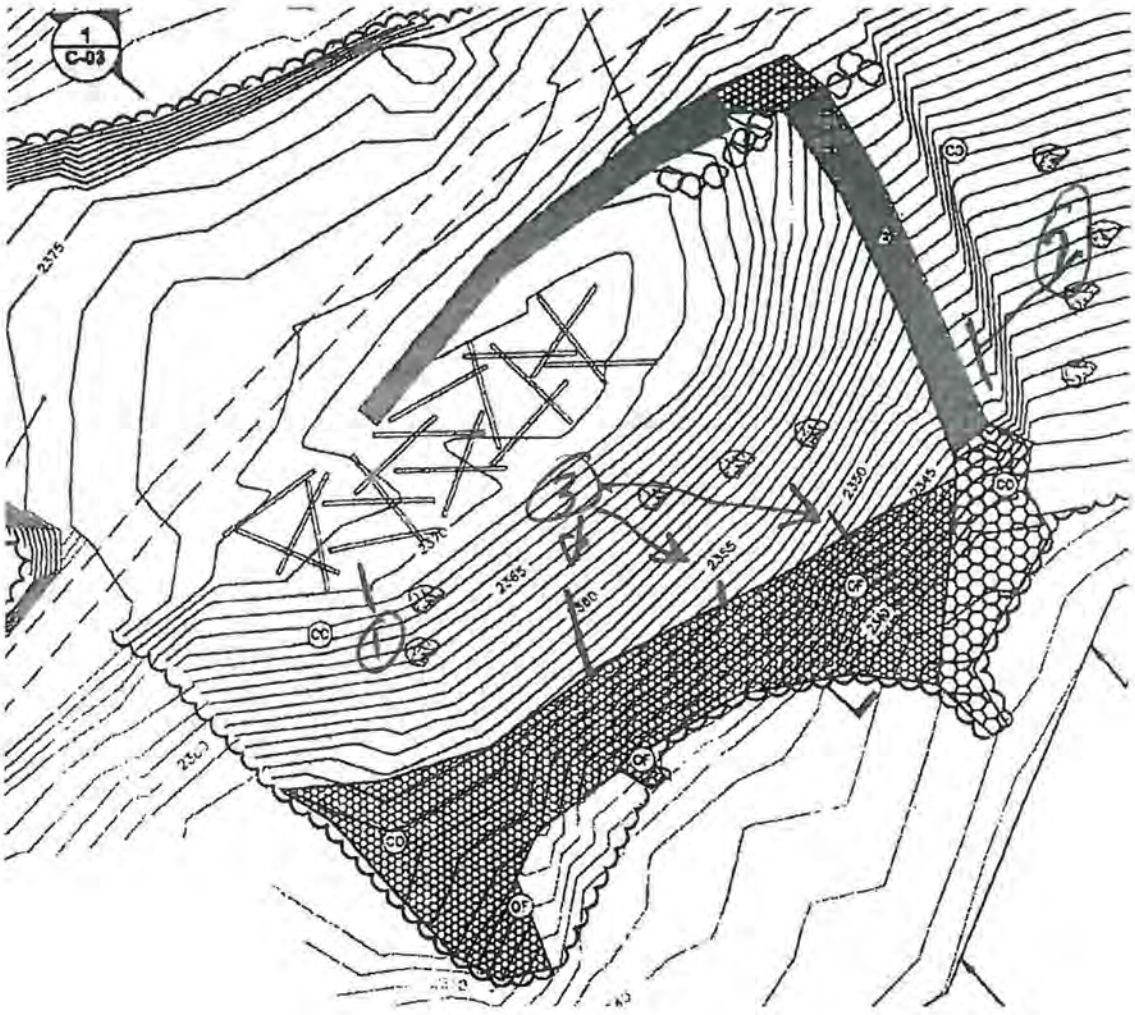
(5)	Erosion Rills which should be repaired Before They get Deeper
(4)	Signage Needed



(4)

Photo Log - Former Josephine Mill No. 1

Erosion Rill #1

Erosion rill along the toe of the slope, approximately 4" deep

Photo of the rill repaired during site work on 10/2/2012

Erosion Rill #2

]

Erosion rill along western edge of cap, penetrating to the underlying liner material

Same erosion rill as pictured above

Above erosion rill filled and compacted with additional cover material on 10/2/12

Erosion Rill #3

Erosion rill and cover material loss along the top of the termination trench and stormwater swale on the eastern side of the repository

Same erosion rill as pictured above

Erosion rill repaired 10/2/12 cover material that was lost was replaced to the required depth

Erosion Rill #4

Erosion rill along the toe of slope, rill was approximately 4" deep and 5' long

Repair of Erosion Rill #4, filled in and compacted 10/2/12

Erosion Rill #5

Erosion rills along the Access Road on the northeastern corner of the repository

Erosion rills re-graded, material added, and compacted on 10/12/12

1 to 3-inch screened crushed permeable ballast installed and compacted on 11/27/2012 to further prevent erosion rills

Additional Engineering Controls

Signage placed on the eastern extent of repository

Signage placed on southern extent of the repository, adjacent to Flume Creek

Signage placed on western extent of the repository, as site is approached from the access road

11/5/10 JOSEPHINE HILL NO. 1

PERSONNEL, GEARY, CHRIS, DAVE, ANDY, NORTHWEST

WEATHER: OVERCAST, PM RAIN - 32 - 35

0700 - DAWSON DELIVERS FILL MATERIAL TO SITE.

- SAFETY MEETING CONDUCTED - FILL PLACED ON CAP.

0730 - NORTHWEST ON SITE. TAG 2 REPLACEMENT CREW MEMBERS WERE CALLED OFF FOR ANOTHER JOB.

0830 - ANDY SENDS DESTRUCTS TO LAB.

0930 - ANDY ON SITE.

1200 - LUNCH.

1230 - WORK ACTIVITIES RESUME. NORTHWEST TAKES LUNCH.

1300 - STEADY RAIN DEVELOPS.

1500 - NORTHWEST RAINED OUT.

1630 - OFF SITE. 380 CY. FILL DELIVERED.

10-2-12 Josephine Mill

Objective: Post No Tresspassing signs around property and fill in erosion rills on CAP.

Weather: Clear, Sunny, upper 60's

Personnel: Jonathan Burton / ARCADIS
Leon + Mitch / Z+Z Excavating

0945 Arrive onsite
Conduct site walk w/ SUB -
hold Tailgate H+S meeting - slips, trips + falls

1030 Order 1 load of 3/4" stone for fill material
Borrow available onsite does not appear suitable - too much fines in borrow that skid steer can reach, would erode too fast.
Stone ordered is of same grade and from same supplier that delivered material here during construction.

1045 Begin digging post holes for signs.
Place 3 post around CAP perimeter.

1130 Stone delivered.
Begin repairing erosion rills
Repair 5 spots along south edge of CAP, just above rip-rap.
Repair rill along east edge, near swale.
Repair area between road and northern section of swale. Repair rill near easternmost clean-out.

1300 Depart site

JBT 10-2-12

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SUBJECT:

JOB NO: Myles Perkins / Josephine Mill

BY: DATE:

CHKD: DATE:

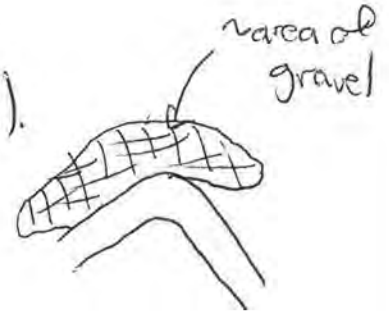
PAGE

SHEET 1

0830: on-site

0850: Leon on-site / begin H&S Meeting.

0950: Dump truck arrive on-site / Dump material in specified Diagram. (Pictures taken.



1015: Begin Laying out gravel (1-2.5 inch rock).

1045: de-mob and off site.

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Document Control Number:TGM - _____

TGM + *project number plus date as follows: xxxxxxxx.xxxx.xxxxx - dd/mm/year*

TAILGATE HEALTH & SAFETY MEETING FORM

This form documents the tailgate meeting conducted in accordance with the Project HASP. Personnel who perform work operations on-site during the day are required to attend this meeting and to acknowledge their attendance, at least daily.

Project Name: Josephine Mine		**Project Location:** Metaline, WA	
Date: ~	**Time:**	**Conducted by:** Myles Perkins	**Signature/Title:**
Client: Stimson		**Client Contact:**	**Subcontractor companies:** Zandz

TRACKing the Tailgate Meeting

Think through the Tasks (list the tasks for the day):

1 ATS tailgate
2 mobilize on-site
3 Dump gravel
4 Spread on area
5 de-mobilize
6 off-site

Other Hazardous Activities - Check the box if there are any other ARCADIS, Client or other party activities that may pose hazards to ARCADIS operations ☐ If there are none, write "None" here: _____

If yes, describe them here: _____

How will they be controlled? _____

Prework Authorization - check activities to be conducted that require permit issuance or completion of a checklist or similar before work begins:

	Doc #		Doc #		Doc #
☒ Not applicable		☐ Working at Height		☐ Confined Space	
☐ Energy Isolation (LOTO)		☐ Excavation/Trenching		☐ Hot Work	
☐ Mechanical Lifting Ops		☐ Overhead & Buried Utilities		☐ Other permit	

Discuss following questions (for some review previous day's post activities). **Check if yes :**

☐ Incidents from day before to review?	☐ Lessons learned from the day before?	☒ Topics from Corp H&S to cover?
☐ Any corrective actions from yesterday?	☐ Will any work deviate from plan?	☐ Any Stop Work Interventions yesterday?
☒ JLAs or procedures are available?	☒ Field teams to "dirty" JLAs, as needed?	☐ If deviations, notify PM & client
☒ Staff has appropriate PPE?	☒ Staff knows Emergency Plan (EAP)?	☒ All equipment checked & OK?
		☒ Staff knows gathering points?

Comments: _____

Recognize the hazards (check all those that are discussed) (Examples are provided) and **Assess** the Risks (Low, Medium, High - circle risk level) - Provide an overall assessment of hazards to be encountered today and briefly list them under the hazard category.

☒ Gravity (i.e., ladder, scaffold, trips) (L (M) H) Slopes	☒ Motion (i.e., traffic, moving water) (L (M) H) H.E.	☐ Mechanical (i.e., augers, motors) (L M H)
☐ Electrical (i.e., utilities, lightning) (L M H)	☒ Pressure (i.e., gas cylinders, wells) (L M H) Hydraulics	☒ Environment (i.e., heat, (cold) (ice) (L (M) H)
☐ Chemical (i.e., fuel, acid, paint) (L M H)	☐ Biological (i.e., ticks, poison ivy) (L M H)	☒ Radiation (i.e., alpha, (sun) laser) (L) M H)
☒ Sound (i.e. (machinery) generators) (L) M H)	☐ Personal (i.e. alone, night, not fit) (L M H)	☒ Driving (i.e. (car) ATV, boat, dozer) (L (M) H)

Continue TRACK Process on Page 2

TAILGATE HEALTH & SAFETY MEETING FORM - Pg. 2

Control the hazards (Check all and discuss those methods to control the hazards that will be implemented for the day): Review the HASP, applicable JLAs, and other control processes. Discuss and document any additional control processes.

- [x] **STOP WORK AUTHORITY** (Must be addressed in every Tailgate meeting - (*See statements below*)

☐ Elimination	☐ Substitution	☐ Isolation
☐ Engineering controls	☐ Administrative controls	☐ Monitoring
☐ General PPE Usage	☐ Hearing Conservation	☐ Respiratory Protection
☐ Personal Hygiene	☐ Exposure Guidelines	☐ Decon Procedures
☐ Emergency Action Plan (EAP)	☐ Fall Protection	☐ Work Zones/Site Control
☐ JLA to be developed/used ***(specify)***	☐ LPO conducted ***(specify job/JLA)***	☐ Traffic Control
☐	☐	☐ Other ***(specify)***
☐	☐	☐

Signature and Certification Section - Site Staff and Visitors

Name/Company/Signature	Initial & Sign in Time	Initial & Sign out Time	I have read and understand the HASP
Myles Perkins / ARC /			

Important Information and Numbers

All site staff should arrive fit for work. If not, they should report to the supervisor any restrictions or concerns.

In the event of an injury, employees will call WorkCare at 1.800.455.6155 and then notify the field supervisor who will, in turn, notify Corp H&S at 1.720.344.3844.

In the event of a motor vehicle accident, employees will notify the field supervisor who will then notify Corp H&S at 1.720.344.3844 and then Corp Legal at 1.720.344.3756.

In the event of a utility strike or other damage to property of a client or 3rd party, employees will immediately notify the field supervisor, who will then immediately notify Corp Legal at 1.678.373.9556 and Corp H&S at 1.720.344.3500

Visitor Name/Co - not involved in work

	In	Out
	In	Out
	In	Out
	In	Out

I will STOP the job any time anyone is concerned or uncertain about health & safety or if anyone identifies a hazard or additional mitigation not recorded in the site, project, job or task hazard assessment.

I will be alert to any changes in personnel, conditions at the work site or hazards not covered by the original hazard assessments.

If it is necessary to **STOP THE JOB,** I will perform **TRACK**; and then amend the hazard assessments or the HASP as needed.

I will not assist a subcontractor or other party with their work unless it is absolutely necessary and then only after I have done TRACK and I have thoroughly controlled the hazard.

Post Daily Activities Review - Review at end of day or before next day's work (Check those applicable and explain:)

- ☐ Lessons learned and best practices learned today: _____
- ☐ Incidents that occurred today: _____
- ☐ Any Stop Work interventions today? _____
- ☐ Corrective/Preventive Actions needed for future work: _____
- ☐ Any other H&S issues: _____

Keep H&S 1st in all things

WorkCare - 1.800.455.6155
Near Loss Hotline - 1.866.242.4304