SECOND PERIODIC REVIEW REPORT
FINAL

Louisiana Pacific Corporation
(aka Pony Lumber Company)
Facility Site ID#: 1209
Cleanup Site ID#: 2317

3701 Taylor Way
Tacoma, Washington 98421

Southwest Regional Office

TOXICS CLEANUP PROGRAM

November, 2016

TABLE OF CONTENTS

1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup site conditions and monitoring data to ensure that human health and the environment are being protected at the former Louisiana-Pacific Corporation (aka Pony Lumber Company) site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC). The first periodic review was completed in October 2011. This periodic review evaluates the period from November 2011 through September 2016.

Cleanup activities at this Site were completed under an enforcement order issued by Ecology in 1992. The cleanup actions resulted in concentrations of metals in soil exceeding MTCA Method A cleanup levels remaining at the Site. The MTCA Method A cleanup levels for soil are established under WAC 173-340-740(2). WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

(a) Whenever the department conducts a cleanup action.
(b) Whenever the department approves a cleanup action under an order, agreed order or consent decree.
(c) Or, as resources permit, whenever the department issues a no further action (NFA) opinion and one of the following conditions exists:
    1. Institutional controls or financial assurance are required as part of the cleanup.
    2. Where the cleanup level is based on a practical quantitation limit.
    3. Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

(a) The effectiveness of ongoing or completed cleanup actions.
(b) New scientific information for individual hazardous substances of mixtures present at the Site.
(c) New applicable state and federal laws for hazardous substances present at the Site.
(d) Current and projected Site use.
(e) Availability and practicability of higher preference technologies.
(f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site History

The former Pony Lumber Company property is located at 3701 Taylor Way in the City of Tacoma in Pierce County, Washington (Vicinity Map - Appendix 6.1). Ecology issued an Enforcement Order No. DE 92TC-S312 for the Site in 1992. Later in 1992, a Restrictive Covenant was recorded for the property. Following the installation of a soil cap in 1997, the Site received a No Further Action determination.

The former Pony Lumber Company property was developed as a Louisiana Pacific Log Yard in 1968. The log storage area has expanded from 3.5 acres in 1969 to 18 acres prior to closure of the log yard. During operation of the log yard, slag from the nearby American Smelting and Refining Company (ASARCO) copper smelter was imported and used as ballast at the Site. Approximately 1,800 tons of slag was imported during that time. In 2004, the Site was sold by Louisianan Pacific to Pony Lumber Company, LLC. In 2006, the Site was sold to the Port of Tacoma. Pony Lumber Company continued to operate at the Site under a lease agreement with the Port and continued to meet the obligations of the Enforcement Order until the lease ended in September, 2008. With the termination of the lease Enforcement Order responsibilities passed on to the Port. The Site is no longer used as a log sorting yard. In August and September 2015, all the cracks developed in the cap were sealed with a sealant and the entire Site was top coated with slurry sealant. Currently the northern portion of the Site is leased by the Auto Warehouse to store/park new cars and the southern portion of the Site is leased by Wallenius Wilhelmsen Logistics Services, LLC (WWL) to store/park new Track Hoes.

Stormwater on the northern portion of the Site is managed under the Port's MS4 permit (Port of Tacoma Phase I Municipal Stormwater Permit). Stormwater on the southern portion of the Site is managed under WWL's Industrial Stormwater Permit (Permit #WAR303836).

2.2 Site Investigations

During 1983 and 1984, Ecology conducted a survey of logyards as possible sources of metal contamination in Commencement Bay sediments. Water samples were collected in December 1983 from three locations and in June 1984 from four additional locations along the perimeter of the Louisiana Pacific Log Sort Yard. Samples results indicated elevated concentrations of arsenic, copper, lead and zinc. Ecology determined that leachate from the ASARCO slag was the source of these metals and that the Site was contributing to contamination in Hylebos Creek and Hylebos Waterway via storm water runoff from the Site.

In 1987, Ecology issued an order which required a Site investigation, groundwater investigation and feasibility study. These studies were conducted by CH2M-Hill in 1987. Following the feasibility study, Ecology prepared an addendum containing Ecology's preferred cleanup

alternative which involved capping the Site. In 1990, Ecology issued Remedial Action Order No. DE 90-S170. This order required Louisiana-Pacific Corporation to evaluate the expected effectiveness of capping as a cleanup method, to conduct subgrade testing of the Site, and to prepare a cap design.

Measured levels of the contaminants of concern during the above Site investigation are available in the table below:

Table 1: Measured Contaminant Concentrations

Contaminant	Surface Water Maximum	Groundwater Range	1990 Marine Acute Standard	1990 Marine Chronic Standard
	(µg/l)	(µg/l)	(µg/l)	(µg/l)
Total arsenic	3850	4 to 7	69	36
Dissolved arsenic	NM	4 to 7	69	36
Total copper	1030	11 to 33	2.9	2.9
Dissolved copper	NM	< 3	2.9	2.9
Total lead	310	< 1	220	8.5
Dissolved lead	NM	< 1	220	8.5
Total zinc	1800	37 to 91	95	86
Dissolved zinc	NM	11 to 31	95	86

NM = Not measured

2.3 Remedial Activities

In 1992, Ecology issued an Enforcement Order DE 92TC-S312 which required remedial actions at the Site, including the construction of an impervious cap over the entire log yard area of 18 acres. The cap was designed to prevent storm water from percolating into the slag and leaching metal contaminants into the Hylebos Waterway. Components were integrated into the cap to divert storm water off of the cap surface and into a storm water drainage system. Storm water was collected in six sedimentation basins on the logyard cap and passed through an oil/water separator before entering the Hylebos Waterway.

Cap construction began in 1993. Once a grade was established across the Site to promote storm water drainage, geotextile material was installed over the entire logyard. The geotextile was covered in two 24-inch lifts of compacted crushed ballast. A leveling course of 3-inch to 5/8-inch crushed rock was placed on top of the ballast. A reinforced concrete cap was placed in 9-inch and 7-inch lifts on top of the leveling course.

2.4 Cleanup Levels

Cleanup levels for the Site were established in the Final Cleanup Action Plan, which was submitted to Ecology in 1992. These cleanup levels are available in the table below:

Table 2: Site Cleanup Levels

Contaminant	Groundwater	Soil	Surface Water
	(µg/l)	(mg/kg)	(µg/l)
Arsenic	36	200	36
Copper	2.9	N/A	2.9
Lead	8.5	1000	8.5
Zinc	86	N/A	86

Soil cleanup levels were based upon MTCA Method A standards for Industrial Use. Groundwater cleanup levels were based upon United States Environmental Protection Agency Water Quality Criteria – Marine Chronic Criteria. It was also stated that natural background values could be substituted as cleanup objectives by Ecology if human health risk assessment procedures set forth in WAC 73-340-708 are met. Surface Water standards are based on groundwater standards for the Site.

2.5 Groundwater Monitoring

As required by the Final Cleanup Action Plan and the Site Operations and Maintenance Plan, regularly scheduled groundwater monitoring has been conducted at the Site since 1995 at four groundwater monitoring wells (LP-1, LP-2, LP-4 and LP-5). Sampling was conducted quarterly from 1995 until 1997. Beginning in 1998, Ecology approved a reduction in groundwater sampling frequency. Groundwater sampling frequency was reduced from quarterly to annually, and it was alternated between the wet season and the dry season each year. In October 2000, Ecology approved reducing the groundwater sampling frequency from annually to biennially (once every two years), alternating wet and dry season monitoring every sampling event. The required groundwater sampling events were not conducted in 2004 and 2006. Between 1995 and 2002, copper exceeded Marine Chronic Standards in 21 of 62 samples, and zinc exceeded Marine Chronic Standards in 2 of 62 samples. Copper and Zinc did not exceed Marine Chronic Standards in 2007 or 2008. In June 2011, Ecology approved to discontinue the monitoring of lead, zinc and conventional test parameters, requiring the monitoring of arsenic and copper only.

The Port of Tacoma (Port) is conducting the groundwater monitoring and cap maintenance as required by an Agreed Order or a Consent Decree with similar contaminants at five of Port's sites. To standardize the groundwater monitoring frequency and cap inspection amongst all these sites, the Department of Ecology (Ecology) and the Port of Tacoma entered into a Memorandum of Agreement (MOU) on September 1, 2011. As per this MOU, the Port is

required to conduct the groundwater monitoring and cap inspection on a 30-months frequency. A copy of the MOU is included as Appendix 6.4.

Based on the requirements of the above MOU, the groundwater sampling was conducted in March 2012 and October 2014. During March 2012 sampling event, only dissolved copper (13 µg/L) exceeded the cleanup level of 2.9 µg/L, whereas dissolved arsenic concentration did not exceed the cleanup level. Both dissolved arsenic and copper concentrations were either below the cleanup levels or below the laboratory detection limits during October 2014 sampling event. No significant trends in groundwater contaminant concentrations have been observed during this period. The groundwater monitoring well (LP-1, LP-2, LP-4 and LP-5) locations and all the groundwater monitoring results are presented in figure below and Table 3, respectively.

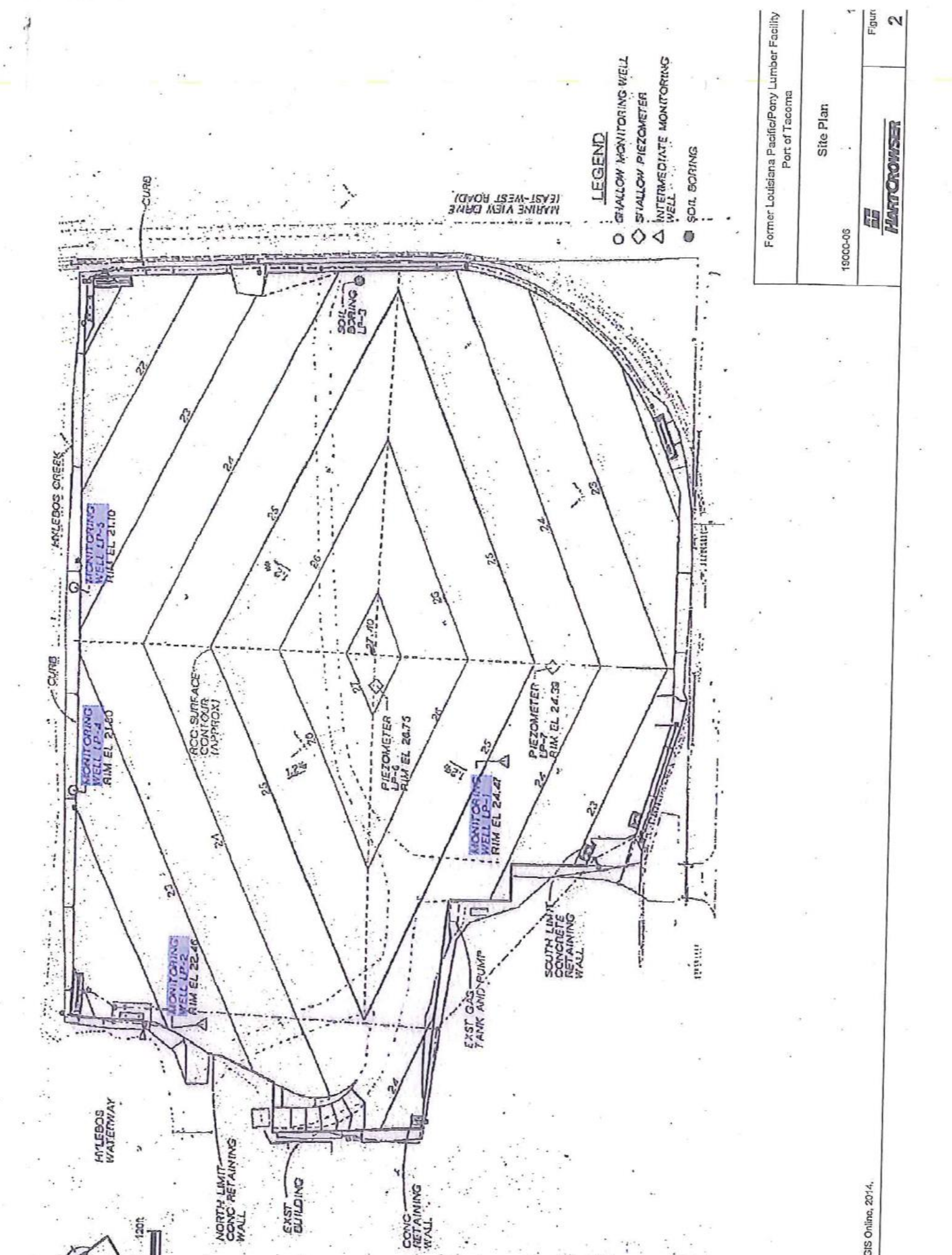

LEGEND
SHALLOW MONITORING WELL
SHALLOW PIEZOMETER
INTERMEDIATE MONITORING WELL
SOIL BORING
MARINE VIEW DRIVE (EAST-WEST ROAD)
HYLEBOS CREEK
HYLEBOS WATERWAY
CURB
MONITORING WELL LP-5 RIM EL 21.10
MONITORING WELL LP-4 RIM EL 21.60
MONITORING WELL LP-2 RIM EL 22.46
MONITORING WELL LP-1 RIM EL 24.47
PIEZOMETER LP-6 RIM EL 26.75
PIEZOMETER LP-7 RIM EL 24.39
SOIL BORING LP-3
RCC SURFACE CONTOUR (APPROX)
NORTH LIMIT CONC RETAINING WALL
EXST BUILDING
CONC RETAINING WALL
EXST GAS TANK AND PUMP
SOUTH LIMIT CONCRETE RETAINING WALL
Former Louisiana Pacific/Pony Lumber Facility
Port of Tacoma
Site Plan
19000-08
Figure
2
HARTCROWSER
map prepared from ArcGIS Online, 2014.

Table 3: Groundwater Contaminant Concentrations

		Concentration in µg/L				General Parameters					
Well ID	Date	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Zinc	pH in SU	Conductivity in µmhos/cm	Total Organic Carbon in mg/L	Salinity in ppt	TDS in mg/L	TSS in mg/L
Groundwater Cleanup Levels[a]:		36	2.9	8.5	86	--	--	--	--	--	--
LP-1	03/22/95	<10	3	<3	<20	6.81	--	43	1.5	1,600	26
LP-1	06/21/95	4.6	1.9	<1	3	8.43	--	40	1.5	1,500	30
LP-1	09/25/95	<5	1.4	<3	<20	6.64	--	37	1.7	2,000	66
LP-1	12/28/95	<5	<10	<3	50	6.57	--	46	0.9	940	32
LP-1	04/19/96	<5	3	<3	<10	6.82	--	35	1.3	1,400	31
LP-1	06/27/96	<10	<2	<8	<10	6.75	--	30	--	1,400	18
LP-1	11/25/96	<5	<2	<2	<5	6.79	--	27	1	1,300	22
LP-1	12/17/96	<200	<20	<50	<20	6.79	--	27	1	1,300	22
LP-1	03/28/97	<10	<2	<8	<80	7.10	--	29	1.1	1,200	11
LP-1	07/09/97	<1	<1	<0.5	9.4	6.66	--	29	1.1	1,100	16
LP-1	09/26/97	2.7	<1	<0.5	4.3	6.65	--	25	1	1,200	29
LP-1	12/18/97	3.3	1.8	<0.5	5.6	6.68	--	30	1.1	1,200	9
LP-1	06/30/98	4.2	<1	<0.5	<2	6.72	--	32	1	1,200	15
LP-1	10/22/99	1.7	1.3	<1	170	6.63	--	31	0.7	850	54
LP-1	08/01/00	1.8	1.6	ND	4	6.66	--	--	1.0	1,100	59
LP-1	02/02/02	ND	4.01	ND	14.9	7.00	--	--	0.9	974	42
LP-1	07/07/07	<1	<2	<1	<10	6.79	1,640	--	0.8	995	2.9
LP-1 (Duplicate)	07/07/07	<1	<2	<1	<10	6.79	1,630	--	0.8	1,020	2
LP-1	05/08/08	ND	ND	ND	ND	6.58	1,000	--	0.5	720	13
LP-1 (Duplicate)	05/08/08	ND	ND	ND	ND	6.58	--	--	--	--	--
LP-1	9/16/10	<0.5	<0.5	<0.5	2.7	6.63	1,690	27	0.985	1,200	--
LP-1	3/5/12	<0.5	13	--	--	--	--	--	--	--	--
LP-1	9/6/14	<1	<1	--	--	--	--	--	--	--	--
LP-1 (Duplicate)	9/6/14	<1	<1	--	--	--	--	--	--	--	--
LP-2	03/22/95	<10	<2	<3	<20	6.82	--	46	1.6	1,600	190
LP-2	06/21/95	4.6	1.3	<1	5.8	7.12	--	42	1.3	1,400	320
LP-2	09/25/95	<5	43	<5.8	<20	6.74	--	44	1.5	1,800	500
LP-2	12/28/95	<5	<10	<3	<20	6.65	--	47	1.5	1,500	710
LP-2	03/28/96	<10	<2	<8	<20	6.76	--	45	<2	1,400	190
LP-2	06/27/96	<10	<2	<8	<10	6.75	--	41	--	1,700	230
LP-2	11/25/96	<5	<2	<2	<5	6.87	--	49	1.2	1,400	520
LP-2	12/17/96	<200	<20	<50	<20	6.82	--	45	1.2	1,400	310
LP-2	07/09/97	<1	<1	0.74	18	6.69	--	48	1.4	1,400	280
LP-2	09/26/97	3.7	<1	<0.5	3	6.77	--	49	1.3	1,500	390
LP-2	12/18/97	1.5	2	<0.5	2.8	6.72	--	51	1.3	1,400	410
LP-2	06/30/98	4.2	1.3	<0.5	<2	6.77	--	42	1	1,200	600
LP-2	10/22/99	2.5	<1	<1	86	6.76	--	110	1.1	1,300	2,100
LP-2	08/01/00	1	1	0.5	4	6.73	--	--	1.1	1,100	1,200
LP-2	02/02/02	2.58	35.5	3.87	78.5	6.95	--	--	0.9	1,050	789
LP-2	07/07/07	<1	<2	<1	<10	6.87	1,650	--	0.8	1,040	4.9
LP-2	05/08/08	ND	ND	ND	ND	6.58	1,600	--	0.7	960	160
LP-2	9/16/10	<0.5	<0.5	<0.5	4.0	6.77	1,580	25	0.916	1,100	--
LP-2	2/16/12	<0.5	1.8	--	--	--	--	--	--	--	--
LP-2	9/6/14	<1	<1	--	--	--	--	--	--	--	--

Well ID	Date	Concentration in µg/L				General Parameters					
		Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Zinc	pH in SU	Conductivity in µmhos/cm	Total Organic Carbon in mg/L	Salinity in ppt	TDS in mg/L	TSS in mg/L
Groundwater Cleanup Levels[a]:		36	2.9	8.5	86	--	--	--	--	--	--
LP-4	03/22/95	<10	5	<3	<20	6.65	--	14	1.9	1,200	66
LP-4	06/21/95	6.9	5.9	<1	18	7.15	--	23	2.0	1,800	81
LP-4	09/25/95	7.1	22	4.6	<20	6.54	--	13	1.0	1,500	60
LP-4	12/28/95	<2	5	<1	<20	6.67	--	14	1.1	1,100	20
LP-4	03/28/96	<10	<2	<8	<20	6.71	--	13	<2	890	35
LP-4	06/27/96	<10	4	<8	<10	6.65	--	14	--	940	20
LP-4	11/25/96	<5	4	4	7	6.80	--	25	0.3	500	120
LP-4	12/17/96	<200	<20	<50	<20	6.80	--	25	0.3	500	120
LP-4	03/28/97	<10	4	<8	<80	6.82	--	6.6	0.4	490	160
LP-4	07/09/97	2.9	1.7	0.55	27	6.62	--	13	0.5	670	45
LP-4	09/26/97	7.6	2	<0.5	<6.6	6.57	--	11	2.5	3,900	50
LP-4	12/18/97	7.3	6.2	<0.5	10	6.32	--	9.5	4.9	4,200	96
LP-4	06/30/98	3.3	2.5	<0.5	<2	6.74	--	10	0.7	940	49
LP-4	10/22/99	1.8	<1	<1	75	6.63	--	9.3	0.9	1,100	54
LP-4	08/01/00	1	1	0.5	4	6.56	--	--	1.1	1,200	48
LP-4	02/02/02	5.54	6.05	1.04	10.4	6.75	--	--	0.7	786	42
LP-4	07/07/07	4	2	<1	<10	6.61	2,000	--	1	1,140	3.4
LP-4	05/08/08	ND	ND	ND	ND	6.44	1,500	--	0.5	840	8.4
LP-4	9/16/10	<0.5	0.8	<0.5	5.5	6.61	1,330	5	0.762	1,000	--
LP-4	3/5/12	0.5	<0.5	--	--	--	--	--	--	--	--
LP-4	9/6/14	1.7	2	--	--	--	--	--	--	--	--
LP-5	03/22/95	<100	2	<3	<20	6.73	--	18	1.0	9,400	320
LP-5	06/21/95	3.1	3.4	<1	3.3	6.93	--	18	1.1	1,400	84
LP-5	09/25/95	5.6	20	4.4	<20	6.31	--	22	2.6	2,300	94
LP-5	12/28/95	<5	<2	<1	<20	6.21	--	25	2.6	2,600	100
LP-5	03/28/96	<10	<2	<8	<20	6.41	--	30	2	2,200	140
LP-5	06/27/96	<10	<2	<8	<10	6.65	--	23	--	1,800	120
LP-5	11/25/96	<5	<2	<2	16	6.65	--	16	2.0	2,300	63
LP-5	12/17/96	<200	<20	<50	<20	6.65	--	16	2.0	2,300	63
LP-5	03/28/97	<10	<2	<8	<80	6.58	--	20	1.5	1,700	320
LP-5	07/09/97	<1	<1	1	37	6.54	--	20	1.8	1,700	290
LP-5	09/26/97	7.7	<1	<0.5	10	6.53	--	25	2.3	2,200	290
LP-5	12/18/97	4	1.7	<0.5	6.1	6.39	--	22	2.7	2,500	49
LP-5	06/30/98	11	<1	<0.5	3.1	6.49	--	20	2.5	2,800	140
LP-5	10/22/99	7.9	1.2	<1	140	6.53	--	23	4.2	4,900	460
LP-5	Aug-00	1	1	0.5	4	8.57	--	--	4	3,800	850
LP-5	Feb-02	9.05	6.15	1.02	69.6	6.60	--	--	5	5,260	48
LP-5	Jul-07	3	<2	<1	<10	6.69	4,600	--	2.4	2,760	52.9
LP-5	May-08	ND	ND	ND	ND	6.44	5,500	--	2.5	3,100	100
LP-5	9/16/10	0.6	<0.5	<0.5	1.0	6.71	2,250	7	1.33	1,600	--
LP-5 (Duplicate)	9/16/10	0.7	<0.5	<0.5	1.0	6.68	2,270	8	1.34	1,600	--
LP-5	3/5/12	<0.5	<0.5	--	--	--	--	--	--	--	--
LP-5 (Duplicate)	3/5/12	<0.5	<0.5	--	--	--	--	--	--	--	--
LP-5	9/6/14	<1	<1	--	--	--	--	--	--	--	--

Notes:
Lead, zinc, and general parameter analyses were discontinued in 2011 with Ecology approval dated June 21, 2011 (Ecology 2011a).
Groundwater samples were analyzed for dissolved metals by EPA Method 200.8.
Value in bold indicates concentration greater than groundwater cleanup level.
(a) Groundwater cleanup levels established in Enforcement Order 92TC-S312.
-- Not analyzed
µg/L - Micrograms per liter
mg/L - Milligrams per liter
SU - Standard unit
µmhos/cm - Micromhos per centimeter
ppt - Parts per thousand
TDS - Total dissolved solids
TSS - Total suspended solids
<0.5 - Laboratory analytical result does not exceed laboratory quantitation limit.
ND - Not detected. No quantitation limit indicated.

2.6 Restrictive Covenant

Following remediation, a Restrictive Covenant was recorded for the Site in 1992. The Restrictive Covenant imposes the following limitations:

Section 1: The Site may be used only for Industrial uses as defined in and allowed under the City of Tacoma's Zoning Regulations codified in the Tacoma City code as of the date of the Restrictive Covenant. Except as provided in Section 4 of this Covenant.

Section 2: Any activity on the Site that may interfere with or reduce the effectiveness of the Cleanup Action or any operation, maintenance, monitoring, or other activity required by the Order (or any Ecology-approved modification or amendment to the Order) is prohibited. Any activity on the Site that may result in the release of a hazardous substance that was contained as a part of the Cleanup Action is prohibited. The Ecology project coordinator must be informed in writing two weeks prior to any Site activity which might be inconsistent with this section.

Section 3: The owner of the Site must give written notice to the Department of Ecology, or to a successor agency, of the owner's intent to lease, or other interest in the Site shall be consummated by the owner without adequate and complete provision for the continued operation, maintenance, and monitoring of the Cleanup Action.

Section 4: The owner must notify and obtain approval form the Department of Ecology, or form a successor agency, prior to any use of the Site that may be inconsistent with the terms of this Restrictive Covenant. The Department of Ecology, or its successor agency, may approve such a use only after public notice and comments.

Section 5: The owner shall allow authorized representatives of the Department of Ecology, or of a successor agency, the right to enter the Site at reasonable times for the purpose of evaluating compliance with the Cleanup Action Plan and the Order, to take sample, to inspect Cleanup Actions conducted at the Site, and to inspect records that are related to the Cleanup Action.

Section 6: The owner of the Site and owner's assigns and successors in interest reserve the right under WAC 173-340-730 and WAC 173-340-440to record an instrument which provides that this Restrictive Covenant shall no longer limit the use of the Site or be of any further force or effect. However, such an instrument any be recorded only with the consent of the Department of Ecology or of a successor agency. The Department of Ecology or a successor agency may consent to the rerecording of such an instrument only after public notice and comment.

The Restrictive Covenant is available as Appendix 6.4.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

Based upon the site visit conducted on September 8, 2016, the asphalt cover at the Site is intact and the overall integrity of the cap seems to be in satisfactory condition. The northern portion of the Site is being used for new vehicles/cars storage/parking and southern portion is used for storage/parking of Track Hoes. The asphalt cap at the Site continues to eliminate direct exposure pathways (ingestion, contact) to contaminated soils. It also appears to be effective in eliminating storm water percolation into contaminated soils below the cap. A photo log is available as Appendix 6.5.

The Restrictive Covenant for the Site was recorded and is in place. This Restrictive Covenant prohibits activities that will result in the release of contaminants contained as part of the cleanup without Ecology's approval, and prohibits any use of the property that is inconsistent with the Covenant. This Restrictive Covenant serves to ensure the long term integrity of the Site surface by requiring compliance with the Enforcement Order issued in 1992.

As per the requirements of the 2011 MOU, future groundwater sampling Groundwater sampling and cap inspection continues to be conducted at the Site every 30-months frequency. The results of latest sampling event (October 2014) indicated that concentrations of metals did not exceed cleanup standards for any of the contaminants of concern for the Site. The next groundwater sampling event is due in April 2017.

In the most recent Cap Inspection and Groundwater Monitoring Report submitted by Hart Crowser (dated December 15, 2014) several maintenance recommendations were made. All recommendations (WA1) have since been addressed. Routine stormwater maintenance is managed under the Port's MS4 permit and an Industrial Stormwater General Permit held by WWL.

3.2 New scientific information for individual hazardous substances for mixtures present at the Site

Cleanup levels at the site were based on regulatory standards rather than calculated risk for chemicals and/or media. These standards continue to be protective of site-specific conditions.

3.3 New applicable state and federal laws for hazardous substances present at the Site

The cleanup at the site was governed by Chapter 173-340 WAC (1996 ed.). WAC 173-340-702(12) (c) [2001 ed.] provides that,

"A release cleaned up under the cleanup levels determined in (a) or (b) of this subsection shall not be subject to further cleanup action due solely to subsequent amendments to the provision in this chapter on cleanup levels, unless the department determines, on a case-by-case basis, that the previous cleanup action is no longer sufficiently protective of human health and the environment."

The current MTCA Method A Industrial soil cleanup standard for arsenic has been reduced from 200 mg/kg to 20 mg/kg since the final Enforcement Order was issued. Because contaminated soils at the Site have been capped, the modification to the MTCA cleanup standard does not represent an increase in risk to human health or the environment. Several of the state marine chronic surface water quality criteria have also `changed since the Enforcement Order was issued. Values for lead and zinc have been reduced to 8.1 and 81 µg/L, respectively. A review of groundwater data from 1994 to 2014 indicates that these values have not been exceeded. Overall, the changes to the original standards have not resulted in the need for additional remedial actions at the site.

3.4 Current and projected site use

The Site is currently used for industrial purposes. The Site is no longer used as a log sort yard, and has been purchased by the Port of Tacoma. Future use of the Site will likely involve new vehicle storage, or other activities related to shipping and receiving from the Port of Tacoma. These uses are not likely to have a negative impact on the integrity of the Site cap.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection below MTCA Method A cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the site.

4.0 CONCLUSIONS

- The cleanup actions completed at the Site appear to be protective of human health and the environment.

- Soil cleanup levels have not been met at the Site; however, under WAC 173-340-740(6)(f), the cleanup action is determined to comply with cleanup standards since the long-term integrity of the containment system is ensured, and the requirements for containment technologies have been met.

- The Restrictive Covenant for the property is in place and will be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

- Groundwater monitoring is still required at the Site on a 30-month frequency. Monitoring was conducted in 2014. Concentrations of contaminants of concern did not exceed cleanup standards in 2014.

- Continued cap inspection and maintenance are required every 30-months. Cap inspection is being conducted on 30-months basis and the cap maintenance appears to be adequate at this time.

Based on this periodic review, Ecology has determined that the remedial actions conducted at the Site continue to be protective of human health and the environment. The requirements of the Restrictive Covenant are being satisfactorily met. The cap is currently in satisfactory condition and no additional remedial actions are required at this time. It is the property owner's responsibility to continue to inspect the Site to ensure that the integrity of the cap is maintained and to continue groundwater monitoring.

4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

5.0 REFERENCES

CH2M-Hill. 1987. Site Investigation

Ecology. 1992. Enforcement Order No. DE 92TC-S312

Ecology. 2000. Restrictive Covenant

Ecology. 1992. Final Cleanup action Plan – Louisiana-Pacific Tacoma Log Sort Yard.

CH2M-Hill. 1993. Engineering Report – Tacoma Log Sort Yard RCC Cap.

Roy Jensen and Associates. 1998. December 1997 Groundwater Sampling and Analysis.

Roy Jensen and Associates. 1998. June 1998 Groundwater Sampling and Analysis.

Roy Jensen and Associates. 1999. October 1999 Groundwater Sampling and Analysis.

Louisiana-Pacific Corporation. 2001. Revised Operation, Maintenance Manual, and Monitoring Plan for Concrete Log Yard.

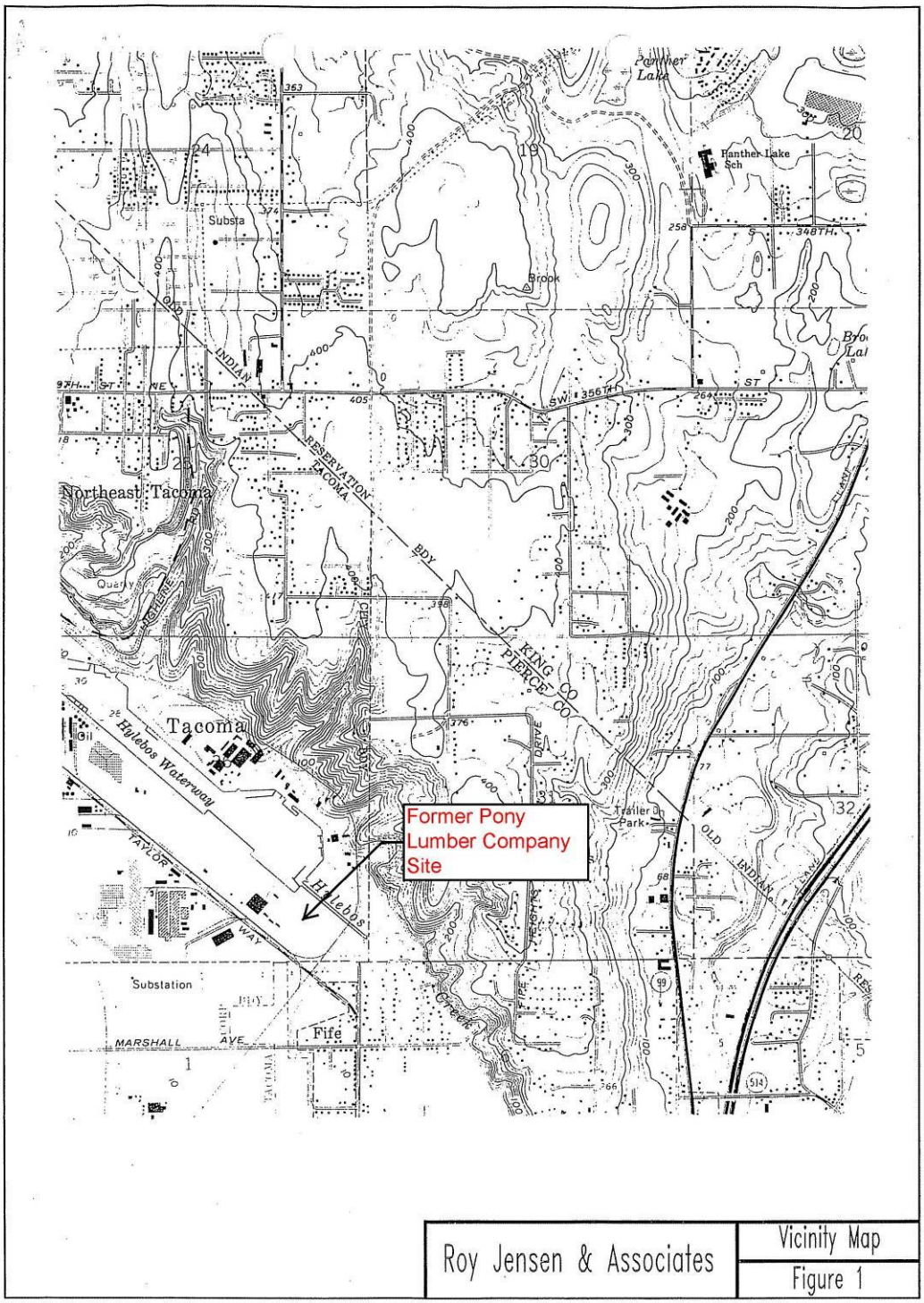
Louisiana-Pacific Corporation. 2002. Ground Water Monitoring, 2002 Wet Season.

Western States Environmental, Inc. 2008. 2008 Groundwater Sampling Results.

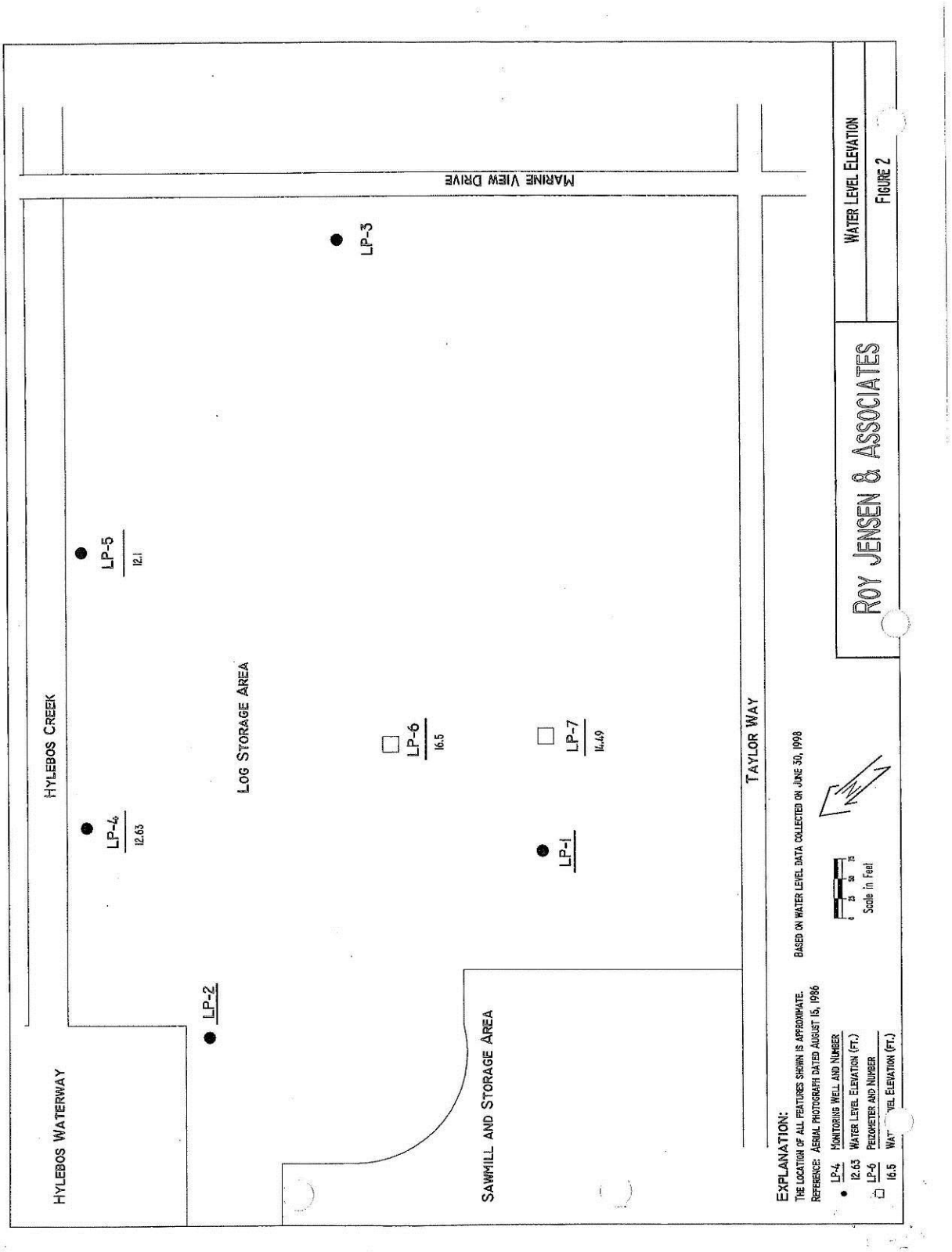
Ecology. September 8, 2016. Site Visit.

6.0 APPENDICES

6.1 Vicinity Map



6.2 Site Plan


HYLEBOS WATERWAY
HYLEBOS CREEK
LOG STORAGE AREA
SAWMILL AND STORAGE AREA
TAYLOR WAY
MARINE VIEW DRIVE
LP-1
LP-2
LP-3
LP-4
12.63
LP-5
12.1
LP-6
16.5
LP-7
14.49
EXPLANATION:
THE LOCATION OF ALL FEATURES SHOWN IS APPROXIMATE.
REFERENCE: AERIAL PHOTOGRAPH DATED AUGUST 16, 1986
BASED ON WATER LEVEL DATA COLLECTED ON JUNE 30, 1998
LP-4 MONITORING WELL AND NUMBER
12.63 WATER LEVEL ELEVATION (FT.)
LP-6 PIEZOMETER AND NUMBER
16.5 WATER LEVEL ELEVATION (FT.)
0 25 50 75
Scale in Feet
ROY JENSEN & ASSOCIATES
WATER LEVEL ELEVATION
FIGURE 2

6.3 Environmental Covenant

COPY

Louisiana-Pacific Corporation

Legal Department P.O. Box 4000-98 N. 13455 Government Way Hayden Lake, Idaho 83835
(208) 772-6811 FAX (208) 772-1712

RECEIVED

Anton C. Kirchhof / General Counsel
Christopher M. (Kit) Keyes / Assistant General Counsel
Bert P. Krages II
Christopher J. Biencourt
Douglas P. Anderson

'93 FEB 22 A9:46

DEPARTMENT OF ECOLOGY
S.W. REGIONAL OFFICE

VIA FEDERAL EXPRESS

February 17, 1993

Kathy Persall-Stipek
Pierce County Auditor
2401 S. 35th
Tacoma, WA 98409

Re: Recording of Covenants

Dear Ms. Stipek:

Enclosed are:

a) Declaration of Restrictive Covenant and
b) An L-P check for $10.00 as payment for the recording fee.

We need the Declaration recorded on or before February 19, 1993.

Please return the original Declaration to me after it has been recorded.

Sincerely,

Douglas P. Anderson

DPA:pm
Enclosure

cc w/enc: Jim Eisses - Hayden Lake
Bert Krages - Portland
Garin Schrieve - Department of Ecology ✓
Liz Smith - Samoa

SYRACUSE, NEW YORK 213

Louisiana-Pacific Corporation
NORTHERN DIVISION
P.O. BOX 4000-98
HAYDEN LAKE, IDAHO 83835

No.935915

DATE	CHECK NUMBER
2-17-93	935915

72741

PAY EXACTLY **********10 DOLLARS AND 00 CENTS

PAY EXACTLY **********10.00

Louisiana-Pacific Corporation
NORTHERN DIVISION • DISBURSING ACCOUNT

TO THE ORDER OF
PIERCE COUNTY AUDITOR
2401 SO 35TH #200
TACOMA WA 98409

⑈935915⑈ ⑆021309379⑆ 60 1⑈ 2⑈90554⑈

IM 5883

Louisiana-Pacific Corporation
NORTHERN DIVISION

No.935915

INVOICE DATE	INVOICE NUMBER	VENDOR NUMBER	INVOICE AMOUNT	DISCOUNT	AMOUNT PAID
		72741	10.00	.00	10.00

DETACH BEFORE DEPOSITING

COPY

ATTACHMENT A

DECLARATION OF RESTRICTIVE COVENANT

The property that is the subject of this Restrictive Covenant is the subject of remedial action under Chapter 70.105D RCW. The work done to clean up the property (hereafter the "Cleanup Action") is described in Washington State Department of Ecology Order No. DE 92TC-S312, and in attachments to the Order. This Restrictive Covenant is required by WAC 173-340-440 because the Cleanup Action at the Site will result in residual concentrations of arsenic and lead which exceed Ecology's Method A, and C cleanup levels for Industrial soil established under WAC 173-340-745.

Louisiana-Pacific is the fee owner of real property known as the Louisiana-Pacific Tacoma log sort yard in the county of Pierce, state of Washington (legal description attached hereto), hereafter referred to as the "Site."

As a result of the Cleanup Action, the Site will include a woodwaste, soil, and slag mixture which will be covered by an asphaltic concrete or concrete cap. The Site will also include monitoring wells, a storm water drainage system, and a surface water treatment system consisting of a sedimentation basin or comparable treatment unit and an oil/water separator or comparable treatment unit.

Louisiana-Pacific Corporation makes the following declaration as to limitations, restrictions, and uses to which the Site may be put, and specifies that such declarations shall constitute covenants to run with the land, as provided by law, and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Site.

Section 1 The Site may be used only for Industrial uses as defined in and allowed under the City of Tacoma's Zoning Regulations codified in the Tacoma City Code as of the date of this Restrictive Covenant. Except as provided in Section 4 of this Covenant.

Section 2 Any activity on the Site that may interfere with or reduce the effectiveness of the Cleanup Action or any operation, maintenance, monitoring, or other activity required by the Order (or any Ecology-approved modification or amendment to the Order) is prohibited. Any activity on the Site that may result in the release of a hazardous substance that was contained as a part of the Cleanup Action is prohibited. The Ecology project coordinator must be informed in writing two weeks prior to any site activity which might be inconsistent with this section.

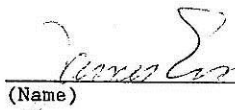
Section 3 The owner of the Site must give written notice to the Department of Ecology, or to a successor agency, of the owner's intent to convey any interest in the Site. No conveyance of title, easement, lease, or other interest in the Site shall be consummated by the owner without adequate and complete provision for the continued operation, maintenance, and monitoring of the Cleanup Action.

Section 4 The owner must notify and obtain approval from the Department of Ecology, or from a successor agency, prior to any use of the Site that may be inconsistent with the terms of this Restrictive Covenant. The Department of Ecology, or its successor agency, may approve such a use only after public notice and comments.

Section 5 The owner shall allow authorized representatives of the Department of Ecology, or of a successor agency, the right to enter the Site at reasonable times for the purpose of evaluating compliance with the Cleanup Action Plan and the Order, to take samples, to inspect Cleanup Actions conducted at the Site, and to inspect records that are related to the Cleanup Action.

Section 6 The owner of the Site and owner's assigns and successors in interest reserve the right under WAC 173-340-730 and WAC 173-340-440 to record an instrument which provides that this Restrictive Covenant shall no longer limit the use of the Site or be of any further force or effect. However, such an instrument may be recorded only with the consent of the Department of Ecology or of a successor agency. The Department of Ecology or a successor agency may consent to the recording of such an instrument only after public notice and comment.

Louisiana-Pacific Corporation agrees to file this Restrictive Covenant in the Site property deed with the Pierce County Auditor and provide the Department of Ecology with a signed copy.



(Name)

Vice President

(Title)

Louisiana-Pacific Corporation

State of Idaho)
)ss.
County of Kootenai)

I certify that I know or have satisfactory evidence that James Eisses is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Vice-President of Louisiana-Pacific Corporation to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: Dec. 12 1994

(SEAL)

_____
(Signature)

_____
Title
My appointment
expires_____

LEGAL DESCRIPTION

PARCEL "A"
Commencing at the Southeast corner of Section 36, Township 21 North, Range 3 East of the Willamette Meridian; thence Westerly along the South line of said Section 36 a distance of 865.49 feet to the Northwesterly right of way line of Hylebos Access Road; thence on an angle to the right of 128°32'54", Northeasterly along the said right of way line a distance of 225.38 feet to the true point of beginning of this description; thence continuing Northeasterly along said right of way a distance of 457.06 feet to the P.C. of a curve to the left having a radius of 904.93 feet; thence along said curve to the left through a central angle of 5°00'36" a distance of 79.13 feet; thence Northwesterly on a line parallel with and 100.00 feet measured at a right angle from the Southerly pierhead line of Hylebos Waterway extended Southeasterly, and also more or less along the center line of Hylebos Creek Channel as now located, to a point on the Easterly pierhead line of the Hylebos Waterway turning basin; thence on an angle to the left of 90° a distance of 100.00 feet along the said Easterly pierhead line to intersect the said Southerly pierhead line of said waterway; thence on an angle to the right of 90° along the said Southerly pierhead line a distance of 163.01 feet to a point on the South line of the Northwest quarter of the Southeast quarter of said Section 36; thence continuing Northwesterly along the Hylebos Waterway pierhead line a distance of 250.0 feet; thence on an angle to the left of 90° a distance of 815.94 feet to a point on the Northerly right of way line of Taylor Way; thence on an angle to the left of 91°04'32" along the said right of way line a distance of 1,226.11 feet to intersect a curve to the left having a radius of 348.27 feet, said radius point being on an angle to the left of 99°57'44" from the said point of intersection; thence along said arc to the left through a central angle of 81°48' a distance of 497.21 feet to the true point of beginning.

Situate in the City of Tacoma, County of Pierce, and State of Washington.

6.4 Groundwater Monitoring Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING

Former Log Yard Groundwater Monitoring and
Cap Inspection

This Memorandum of Understanding (MOU) is entered into this 12 day of September 2011 between the Washington State Department of Ecology ("Ecology") and the Port of Tacoma ("Port") (collectively the "Parties") to memorialize the Parties' agreement to modify the requirements for future groundwater monitoring and cap inspection frequencies for five Port sites, as set forth below.

These sites affected by this agreement are Cascade Timber No. 3, Murray Pacific No. 2, Wasser Winters, Portac, and Louisiana-Pacific (aka Pony Lumber) ("Monitored Sites").

Each Monitored Site was cleaned up under an administrative agreement between Ecology and the Port, either as an original party or successor interest, as follows: Cascade Timber No. 3, Murray Pacific No. 2, and Wasser Winters were cleaned up under Consent Decrees, Louisiana-Pacific under an Enforcement Order, and Portac under a pre-Model Toxics Control Act (MTCA) Order On Consent (cumulatively referred to as: "Ecology Orders"). Portac, Inc. was also a respondent to the Portac Order on Consent along with the Port.

Each Monitored Site addressed similar contaminants of concern (COCs), which included arsenic, copper, lead, and zinc. However, each Ecology Order had site-specific requirements with respect to cleanup levels, and cap and groundwater monitoring frequencies.

In Spring 2010, the Port initiated a request to Ecology to standardize the monitoring requirements for the Monitored Sites in an effort to align the timing of the periodic monitoring/ inspections at the sites so that the Port may better align a contractor to do the work all at once, as required.

In August 2010, to supplement the information already provided to Ecology, the Port provided Ecology with a tour of the Monitored Sites. As part of the tour, Ecology inspected the type and condition of the caps; the current site uses, specifically on the capped areas, and the locations and conditions of existing monitoring wells and stormwater basins.

Ecology has reviewed the information provided by the Port, as well as observations made during the site tour, and has chosen to provide a response in the form of this MOU.

This MOU was created for the Parties to understand and agree upon the requirements associated with Ecology's response, and to memorialize the decisions made with respect to each of the Port's requests.

In preparing this MOU, Ecology took into account, for each site, the type and condition of the cap and stormwater collection system, the adequacy of the groundwater monitoring system, and the recent groundwater compliance history.

Based on the above, Ecology and the Port agree as follows:

A. CAP MONITORING FREQUENCY

1. The Port may standardize the cap monitoring (inspection and reporting) frequency for the Monitored Sites to 30 months as requested. However, the following shall also occur:

   - During the site tours, Ecology noted that some of the stormwater basins were in better condition than others. Stormwater basins at each of the Monitored Sites should be inspected quarterly and cleaned out as needed, such that they are continuously operational.

   - Any unanticipated breaches of the cap for any of the Monitored Sites shall be reported to Ecology and repaired as soon as practicable. As per the respective Ecology Orders, the Port shall provide Ecology with a plan for each of the sites that summarizes intended action and reporting by the Port for unanticipated cap breaches.

   - Advance notice shall be provided and prior approval shall be obtained from Ecology for any planned cap breaches and repairs that are not otherwise permitted under the respective Ecology Order for each Monitored Site.

   - Minor cracking and normal wear and tear shall be repaired and reported as anticipated by and according to each Monitored Site's Ecology Order.

   - The appropriate Ecology Site Manager shall be informed, in writing, of any changes in site use on capped areas.

2. The next cap monitoring for the Monitored Sites based on this new 30-month frequency shall be February 2012, which corresponds to the next 30-month groundwater monitoring event for Wasser Winters described below. Unless changed by Ecology, all future cap monitoring for the Monitored Sites shall occur every 30 months beginning February 2012 to coincide with the groundwater monitoring that is intended to target alternating wet and dry seasons.

B. GROUNDWATER MONITORING FREQUENCY

1. The Port may standardize the groundwater monitoring frequency for each of the Monitored Sites as requested, which included the following:

   - Cascade Timber No. 3 – 18 months (formerly 12 months).
   - Murray Pacific No. 2 – 18 months (formerly 6 months).
   - Wasser Winters – No change (currently 30 months).
   - Portac – No change (currently discontinued).
   - Louisiana-Pacific – 30 months (formerly 24 months wet/dry).

Pony Lumber Co. →

2. The next groundwater monitoring for the Monitored Sites shall be conducted in February 2012. Unless changed by Ecology, all future groundwater monitoring for the Monitored Sites shall occur according to the frequency identified above beginning February 2012.

C. EFFECT OF MODIFICATION

1. Except as modified herein, all provisions of the Original Ecology Orders for each Monitored Site as existing and as may have been amended, including addressing any potential data compliance issues, remain in full force and effect.

2. A copy of this MOU shall be filed with the Ecology Project Manager for each of the Monitored Sites.

John Wolfe
Chief Executive Officer
Port of Tacoma

9.1.11
Date

Rebecca S. Lawson, P.E., LHG
Section Manager, Toxics Cleanup Program
Southwest Regional Office
Washington State Department of Ecology

9/12/2011
Date

cc:
Jason Jordan – Port of Tacoma
Mark Rettmann – Port of Tacoma
William Evans – Port of Tacoma
Leslee Connor – Port of Tacoma
Scott Hooton – Port of Tacoma
Dom Reale – Ecology
Mary Coleman – Ecology
Guy Barrett – Ecology
James DeMay – Ecology
Scott Rose – Ecology
Rebecca Lawson – Ecology

6.5: Photo Log

Photo 1: Cap Area - from the south

Photo 2: New Track Hoes Storage Area and the Asphalt Cap – from the southeast

Photo 3: New Track Hoes Storage Area and the Asphalt Cap – from the west

Photo 4: New Vehicle Storage Area and the Asphalt Cap– from the west


09/08/2016

Photo 5: New Vehicle Storage Area and the Asphalt Cap- from the east

Photo 6: New Vehicle and Track Hoes Storage Area and the Asphalt Cap– from the north

Photo 7: Stormwater Collection Basin – from the north

Photo 8: Stormwater Collection Basin Sediment Deposit – from the west


09/08/2016