TIME-CRITICAL REMOVAL ACTION REPORT

Onalaska Wood Pyrolysis
Onalaska, Lewis County, Washington
SSID: 10TH
Contract No.: 68HE0720D0005
Task Order No.: 68HE0721F0069

Prepared for:

U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, WA 98101

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December 2021
Rev 1

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LIST OF ATTACHMENTS*

***Attachments listed are provided in this portable document format (PDF) report.**

LIST OF TABLES

LIST OF FIGURES*

***Figures listed are provided in this PDF report.**

LIST OF ACRONYMS

AST	aboveground storage tank
CFR	Code of Federal Regulations
CJC	CJC West, LLC
COC	contaminant of concern
CY	cubic yard
DMP	Data Management Plan
DOT	U.S Department of Transportation
EPA	U. S. Environmental Protection Agency
Ecology	Washington State Department of Ecology
EMB	Emergency Management Branch
EQM	Environmental Quality Management
ERRS	Emergency and Rapid Response Services
HASP	Health and Safety Plan
HAZCAT	Hazard Categorization
ID	Identification
mg/m^3	milligrams per cubic meter
NaOH	Sodium hydroxide
NCP	National Contingency Plan
o-cresol	2-methyphenol
OSC	On-Scene Coordinator
OWE	Onalaska Wood Energy, LLC
PAH	polycyclic aromatic hydrocarbons
p-cresol	4-methyphenol
PDF	portable document format
PM	particulate matter
PPE	personal protective equipment
RCRA	Resource Conservation and Recovery Act
RDMP	Regional Data Management Plan

LIST OF ACRONYMS (CONTINUED)

RML	Removal Management Level
RSE	Removal Site Evaluation
SAP	Sampling and Analysis Plan
Site	Onalaska Wood Pyrolysis Site
SEMS	Superfund Enterprise Management System
SSID	Site Spill Identification
START	Superfund Technical Assessment and Response Team
SVOC	semi volatile organic compound
TCLP	Toxicity Characteristic Leaching Procedure
TCRA	Time-Critical Removal Action
TWA	time-weighted average
VOC	volatile organic compound
Water District	Lewis County Water District #2
WESTON®	Weston Solutions, Inc.

EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency (EPA) tasked Weston Solutions, Inc. (WESTON®) the Superfund Technical Assessment and Response Team (START) to provide technical support and documentation of on-site activities conducted by EPA and Emergency Response and Rapid Services (ERRS) contractor, Environmental Quality Management (EQM), during the Time-Critical Removal Action (TCRA) at the Onalaska Wood Pyrolysis Site (Site) located in Onalaska, Lewis County, Washington. This work was completed under START Contract No. 68HE0720D0005 and Task Order No. 68HE0721F0069. The Superfund Enterprise Management System (SEMS) Identification (ID) number for the Site is WAN001020623. The TCRA was initiated following the EPA Removal Site Evaluation (RSE) conducted during two site visits in March and April 2021 where waste sample analytical results indicated the presence of site-specific contaminants of concern (COCs). The COCs included benzene, 2-methyphenol (o-cresol) and 4-methyphenol (p-cresol), along with other polycyclic aromatic hydrocarbons (PAHs) that exceeded EPA Resource Conservation Recovery Act (RCRA) Hazardous Waste criteria, EPA Removal Management Levels (RMLs), and/or Washington State Dangerous Waste regulations.

TCRA activities were completed between 14 June 2021 and 29 July 2021. START conducted perimeter and on-site air monitoring, collected samples for waste characterization, compiled logbook and photographic documentation of Site conditions and ERRS removal activities. START conducted air monitoring throughout the removal action for particulate matter (PM) and toxic vapors using TSI DustTrak™ II 8530 particulate monitors and AreaRAE® monitors, respectively. No PM or toxic vapors exceeded the Site-specific action levels during the removal action activities.

The following waste was consolidated, processed, and disposed of by EPA during the TCRA:

- A total of 68,972 gallons of liquid RCRA Hazardous Waste
- A total of 22,800 gallons of liquid Washington State Dangerous Waste
- A total of 450 cubic yards (CY) of solid RCRA Hazardous Waste (260 CY of solid waste and 190 CY of contaminated debris)

- Based on First Step hazardous categorization results of 193 unknown containers located on-site, 15 different Department of Transportation (DOT) waste streams were generated and bulked into 24 containers.
- An estimated 140 CY of scrap metal was recycled.

START prepared this report to describe the technical scope of work completed under the TCRA conducted at the Onalaska Wood Pyrolysis Plant site. The EPA On-Scene Coordinator (OSC) was Brooks Stanfield.

1 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) tasked Weston Solutions, Inc. (WESTON®), under Superfund Technical Assessment and Response Team (START) Contract No. 68HE0720D0005 and Task Order No. 68HE0721F0069, to provide technical support and documentation during Time-Critical Removal Action (TCRA) activities conducted at the Onalaska Wood Pyrolysis Site (Site) located at 1674 State Highway 508 in Onalaska, Lewis County, Washington. A Site Location Map and Site Area Map are presented as Figures 1-1 and 1-2, respectively. The Superfund Enterprise Management System (SEMS) Identification (ID) for the Site is WAN001020623. EPA was supported by START and the Emergency Rapid Response Service (ERRS) contractor, Environmental Quality Management (EQM), during the TCRA activities that began in June 2021 and ended in July 2021. This report has been prepared to describe the technical scope of work completed during the Onalaska Wood Pyrolysis TCRA carried out by EPA.

1.1 PROJECT OBJECTIVES

The primary objectives of this TCRA were to eliminate the threat to public health and the environment, as related to criteria set forth in *40 Code of Federal Regulation (CFR) 300.415(b)*, posed by a release of liquid hazardous and solid waste associated with the Site.

The TCRA was initiated based on previous investigations conducted by the Washington Department of Ecology (Ecology), and the 2021 Removal Site Evaluation (RSE) (WESTON, 2021a). The previous investigations identified concentrations of volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs), including wood tar and wood vinegar, which are designated as Washington State Dangerous Waste and/or RCRA hazardous waste. Based on these findings and on a formal request from Ecology, EPA completed an Action Memorandum dated May 18, 2021, authorizing the removal of hazardous waste from the Site. The action memorandum met several factors under Section 300.415(b)(2) of the *National Contingency Plan* (NCP) including the following:

- Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants, or contaminants.
- Actual or potential contamination of drinking water supplies or sensitive ecosystems.
- Hazardous substances, pollutants, or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.
- Weather conditions that may cause hazardous substances, pollutants, or contaminants to migrate or be released.
- Threat of fire or explosion.
- The availability of other appropriate federal or state response mechanisms to respond to the release.

1.2 SCOPE OF WORK

The START scope of work for the Onalaska Wood Pyrolysis Plant TCRA included providing technical assistance to EPA and the ERRS contractor, conducting perimeter and on-site air monitoring, collecting waste material samples, subcontracting laboratory analysis, conducting data validation, and managing data. START also provided written and digital documentation of Site activities.

Additional START TCRA activities included:

- Developing a site-specific Sampling and Analysis Plan (SAP) WESTON, 2021b, Site Specific Data Management Plan (SSDMP) WESTON, 2021c, and Health and Safety Plan (HASP).
- Assisting with the consolidation, bulking, and ultimate disposal of liquid waste at an EPA-approved facility.
- Conducting First Step Hazard Categorization on numerous, miscellaneous containers for eventual bulking and ultimate waste disposal at an EPA-approved facility.
- Serving as Site Safety Officer and using particulate and toxic vapor air monitoring instruments, while adhering to standard cleanup safety practices, to ensure the safety of workers and the nearby community during the removal operations.

The ERRS contractors were responsible for the removal of identified hazardous substances on-site, profiling, transportation, and disposal to EPA-approved disposal facilities, while maintaining engineering controls to minimize off-site migration of Site-related COCs. ERRS removal and

disposal activities included the bulking of liquid waste, pH buffering of liquid to expedite the disposal of liquid waste, consolidation of solid waste, arranging of transportation and disposal services for solid and hazardous waste, and decontamination of secondary containment areas. ERRS was responsible for decontamination of equipment, and dust control throughout the removal operations.

1.3 REPORT FORMAT

This report has been organized as follows:

- Section 1 – Introduction
- Section 2 – Site Description and Background
- Section 3 – Actions Taken
- Section 4 – Analytical Data
- Section 5 – Final Site Conditions and Summary
- Section 6 – References

Figures, tables, and appendices referred to in this report are presented in this portable document format (PDF) report.

2 SITE DESCRIPTION AND BACKGROUND

Information regarding the Site location and description, operational history, and previous investigations is included in this section.

2.1 SITE LOCATION AND DESCRIPTION

Site Name:	Onalaska Wood Pyrolysis Plant
Location:	1674 State Highway 508, Onalaska, WA 98532
SEMS ID:	WAN001020623
SSID:	10TH
Latitude, Longitude:	46.572695° North, 122.729594° West

The Onalaska Wood Pyrolysis Plant is located at 1674 State Highway 508, Onalaska, Lewis County, Washington. The Site includes an 8-acre former sawmill that was converted into an industrial facility for the pyrolysis of wood waste in 2015. Residential and agricultural land surround the Site. The Site is bordered to the north by State Highway 508, to the east by an inactive lumber yard and residence, to the south by a Lewis County Water District #2 (Water District) wastewater treatment plant, and to the west by a residential area. A Site Plan is provided as Figure 2-1

The Site consisted of:

- open-air warehouse/former sawmill building on the northern area of the Site
- open-air warehouse/former sawmill building on the southern area of the Site
- dry kiln building
- lean to/outdoor overhang area
- secondary containment with five Aboveground Storage Tanks (ASTs)
- two standalone 500-gallon poly tanks
- pyrolysis building
- wood chip storage tents
- stormwater ponds

- biochar pile
- fire station pump house
- AST for process water storage
- a vacant residence

Most of the Site property was paved or covered by facility buildings and/or debris; the west and south sides of the Site were heavily vegetated. The topography at the Site slopes to the northwest, and west. Overland flow pathway is to the north/northwest into an off-site drainage ditch that flows west along the northern boundary of the Site along State Highway 508. The drainage ditch discharges into Gheer Creek, the closest surface water body, which is located approximately 150 feet (ft) from the northwest corner of the Site. Gheer Creek originates from Carlisle Lake, which is less than half a mile from the Site and is a tributary of the South Fork Newaukum River, Carlisle Lake subsequently flows into the South Fork Newaukum River and eventually into the Chehalis River. Gheer Creek supports native runs of Chinook salmon, along with stocks of hatchery-produced coho salmon and steelhead. Gheer Creek specifically serves as a rearing habitat for juvenile coho and steelhead as part of an aquaculture technical program at Onalaska High School.

2.2 SITE OPERATIONAL HISTORY

The Site originally operated as a former open-air sawmill facility that was converted into a pyrolysis plant in 2015 by Onalaska Wood Energy, LLC (OWE). OWE began pyrolysis activities at the Site and operated from 2015 to 2018 under a lease agreement. The pyrolysis process generated a wood Biochar product that could be sold primarily as a soil amendment for agricultural applications. Wood tar and wood vinegar were two additional principal byproducts that were generated in the pyrolysis process. OWE reported to Ecology that concentrations of toxics in the wood tar and wood vinegar did not exceed state and federal hazardous waste thresholds and that there was a market for their resale. OWE was unsuccessful in providing verifiable analytical data to support these claims and never successfully identified a resale market for the waste. In March 2020, OWE ceased operations leaving an estimated 100,000 gallons of accumulated wood tar and wood vinegar waste on the Site.

On June 30, 2020, Ecology's Southwest Regional Office received a letter from the Water District expressing concerns that a new company had restarted pyrolysis operations at the Site. The Water District operates the community's only wastewater treatment plant, which is located adjacent to the Site. The letter explained how past practices of "dumping toxic industrial waste" into the county sewer system had disrupted the plant's treatment processes. The letter also recounted that after the Water District requested OWE to provide information on the contents of the waste OWE had released into the sewer, OWE reportedly began dumping the material directly onto the ground, which migrated into the treatment plant via a drainage ditch.

Following up on the Water District's complaint, Ecology learned that a new entity, CJC West, LLC (CJC), had taken over the pyrolysis operations and equipment at the Site. Ecology issued CJC a Notice to Comply on September 16, 2020. The notice cited violations of the conditions for exemption for large quantity waste generators and directed CJC to take specific actions to safely manage and dispose of the waste that had accumulated on-site. Ecology never received a formal response from CJC following the issuance of the notice. In December 2020, Ecology contacted EPA to discuss the potential human health and environmental risks at the Site as well as waste removal options. CJC ceased operations at the Site in February 2021 and did not respond to subsequent inquiries made by Ecology.

2.3 SUMMARY OF PREVIOUS INVESTIGATIONS AND SITE VISITS

The Site has been the focus of several environmental inspections and compliance concerns over the past 5 years.

2016 Washington Department of Ecology Site Visit

In 2016, while the facility was in operation, Ecology conducted a Site visit and collected samples from the wood tar/wood vinegar mixture and sent them for laboratory analysis. The analytical results reported concentrations of phenol, 2-butanone, benzene, and xylene, among other VOCs, and several PAHs. The concentrations of 2-butanone and benzene exceeded the Resource Conservation and Recovery Act (RCRA) characteristics for Hazardous Waste. The wood tar/wood vinegar mixture was designated as a characteristic Hazardous Waste with RCRA waste codes

D035 (2-butanone) and D018 (benzene). OWE left the wood tar/wood vinegar mixture in several hundred containers located on-site.

2020/2021 Lewis County Fire Marshal Site Visit

Two fires reportedly occurred at the Site between December 2020 and January 2021 resulting in site visits and a subsequent Lewis County Building Official/Fire Marshal report. The fire marshal reported a fire hazard concern from a large volume of dried woodchips throughout the Site. They were also concerned about the approximately 40,000 gallons of liquid hazardous waste stored in 275-gallon totes inside a structurally unsound building that was at risk of collapsing in a snow or high wind event.

2021 EPA Removal Site Evaluation

Concerns among state and county officials increased over the continued presence of hazardous waste following the two separate fire incidents reported above. Based on the Site's history and concerns over the impact on local estuaries, EPA conducted a RSE in March 2021 and April 2021 to assess the presence, concentrations, and migration pathways of hazardous substances at the Site to determine risks of exposure. During the RSE, EPA observed an estimated 100,000 gallons of wood tar/wood vinegar mixture being stored in five ASTs (three 8,000-gallon poly ASTs, one 3,000-gallon poly AST, an 800-gallon steel AST, two 500-gallon poly containers, and two-hundred-and-eighty-eight 275-gallon poly totes) at the Site. The majority of hazardous waste was outside or within buildings that were not secure and provided no secondary containment. The five ASTs were located within a concrete secondary containment that had an estimated 15,000 gallons of a rainwater and wood vinegar/tar mixture. An unknown amount of wood tar was observed in the bottom of the secondary containment. Cracks in the secondary containment and visual evidence of the secondary containment historically overflowing had led to staining of the surrounding soil.

Wood vinegar samples showed pH consistently between 1.8 and 3. Two contaminants, 2-methylphenol (o-cresol) and 4-methylphenol (p-cresol), were detected in wood vinegar at concentrations high enough to be designated as a D023 and D024 characteristic RCRA Hazardous Wastes for toxicity. Both are acutely toxic to humans through dermal contact.

Concentrations of naphthalene and 2,4-dimethylphenol in wood tar exceeded EPA Removal Management Levels (RMLs). Due to elevated benzene, the wood tar waste was designated as a D018 RCRA Hazardous Waste.

3 ACTIONS TAKEN

The TCRA project team consisted of EPA, ERRS, and START. Removal actions took place between June 14, 2021, and July 29, 2021, under the direction of the EPA OSC, Brooks Stanfield.

START provided written and photographic documentation, air monitoring, sampling to assist ERRS with bulking of solid waste operations, and technical assistance during the removal activities. START initiated container sampling, First Step Hazard Categorization, and research to aid in the disposal of approximately 193 unknown containers. This information was provided to EPA and ERRS to determine appropriate Department of Transportation (DOT) hazard categories for bulking and disposal purposes.

ERRS was responsible for the removal and disposal of waste containers and their contents. The ERRS TCRA included preparing the poly totes and ASTs for wood vinegar decanting removal; pH balancing/preparing wood vinegar as needed prior to transportation to disposal facilities; wood tar removal from totes and ASTs for solidification with woodchips; and deconstructing of poly totes and ASTs for transportation to EPA-approved disposal facilities.

Digital photographs are provided as Attachment A and Site logbook notes are provided as Attachment B.

3.1 HEALTH AND SAFEETY

HASPs were developed by START and ERRS prior to mobilization to the Site. START assisted EPA with developing an “Umbrella” HASP that incorporated the ERRS and START HASPs and included the following elements:

- Safety and health risk or hazard analysis
- Employee training requirements
- Personal protective equipment (PPE)
- Medical surveillance requirements
- Air monitoring
- Site control measures

- Decontamination procedures
- Emergency response plan
- Spill containment program
- Project-specific COVID-19 prevention requirements

Before the TCRA began, the project team reviewed the HASP and conducted a walk to familiarize themselves with the Site and hazardous conditions; including the locations of stored waste and physical hazards located throughout the Site.

The Umbrella HASP included special provisions to prevent the transmission and spread of COVID-19. These provisions included Interim EPA COVID-19 Health and Safety Guidelines and protocols for daily worker health and temperature screenings. Daily all-hands safety meetings were conducted outdoors with attendees spaced 6 feet apart or more. Handwashing/sanitizing facilities were provided at locations convenient to the command post and work locations. Site personnel were reminded of the required protocols and prevention measures defined in the HASP, such as wearing face coverings, wiping down equipment and work areas daily with sanitizer, avoiding handshakes, and social distancing.

3.2 AIR MONITORING

START utilized DustTrak™ monitors for particulate matter (PM) and AreaRAE® monitors for chemicals of concern in the vicinity of the removal activities. Four monitoring locations were established to provide air quality data for worker health and safety and to ensure on-site operations were not impacting the nearby community. The DustTrak™ and AreaRAE® monitors were zero calibrated daily and data was transmitted real-time and monitored remotely. Real-time data, supported by a Viper® data communication system, aided in decision-making regarding dust and chemical hazards migrating from active waste-removal areas. Water trucks were used to suppress dust during removal activities. The particulate time-weighted average (TWA) never exceeded the site-specific action level of 1.0 milligrams per cubic meter (mg/m^3) for particulates in air during removal activities.

3.3 REMOVAL ACTIONS

Based on information obtained during the EPA 2021 RSE, the proposed removal actions included:

- Consolidation and disposal of liquid hazardous and non-hazardous waste
- Consolidation and disposal of solid hazardous waste
- Assessment, characterization, and bulking of unknown containers located on-site

3.3.1 Liquid Hazardous Waste Consolidation/Disposal

Approximately 100,000 gallons of wood vinegar contained in totes, ASTs, and within secondary containment was identified during the EPA RSE. Consolidation and disposal of wood vinegar was prioritized due to the volume and potential threat of release. Totes and ASTs with wood vinegar were pumped/decanted of free liquid waste into 5,000-gallon vacuum trucks for off-site transportation and disposal. The management of the wood vinegar for off-site disposal included the following processes:

- Establishing a temporary containment area for liquid waste transfer
- Treating waste by filtration and/or pH adjustments for transfer
- Decanting/pumping liquid waste for transfer into tanker trucks

ERRS established two temporary staging areas with a secondary containment to facilitate the liquid waste transfer from the 275-gallon totes of wood vinegar into vacuum trucks for off-site transportation and disposal. Each containment area had the capacity to hold approximately 20 to 22 totes. Wood vinegar stored in ASTs was managed in place and free liquids were transferred into vacuum trucks. The wood tar vinegar/rainwater mixture within the secondary containment was managed in place and transferred to vacuum trucks.

Due to off-loading issues at the disposal facility and limited availability of disposal facilities accepting wood vinegar waste, modifications to the on-site waste preparation for disposal was required. During the off-loading process, the vacuum trucks were encountering problems due to suspended solids (wood tar) coating the inside of the tanker and associated valves. The suspended solids also created challenges for the disposal facility to process the liquid waste. ERRS began

filtering the wood vinegar using a 200-micron “sock filters” to remove the suspended wood tar before loading the free liquid into the vacuum trucks. This method proved to be effective in preventing accumulation of suspended solids in vacuum trucks that were transporting wood vinegar.

Due to limited disposal facilities and storage capacity accepting wood vinegar waste, on-site pre-treatment became a requirement during the course of the project to facilitate a timely removal of the waste. Disposal facilities with remaining capacity to receive wood vinegar required the wood vinegar solution be shipped with a pH between 6.0 and 7.0. Wood vinegar stored on-site typically had a pH of approximately 3.0, requiring adjustments to meet the new disposal facility requirements. ERRS utilized sodium hydroxide (NaOH) to raise the pH up to meet the disposal facility requirements.

A total of 91,777 gallons of wood vinegar was transported off-site for disposal (68,977 gallons of RCRA Hazardous Waste-designated wood vinegar and the 22,800 gallons of Washington State Dangerous Waste-designated wood vinegar) at EPA-approved disposal facilities.

3.3.2 Solid Hazardous Waste Consolidation/Disposal

Solid hazardous waste (wood tar) identified on-site required consolidation and solidification to facilitate off-site disposal. After free liquids were removed from the totes, ASTs, and secondary containment, as described in 3.3.1, the remaining on-site viscous tar material required solidification to facilitate off-site disposal. Prior to solidification, debris was removed from the secondary containment and placed in 20-Cubic Yards (CY) roll-off boxes for off-site transportation.

After removing the free liquids from the totes and ASTs, estimated volumes of wood tar were documented. Totes containing wood tar were placed within the AST secondary containment for consolidation and solidification. The tops and sides of the totes and ASTs were cut open to facilitate the removal of the wood tar. Wood tar located in the ASTs was removed and consolidated with wood tar removed from the totes for solidification and off-site transportation and disposal.

Prior to solidification of the wood tar, START collected samples of the saw dust/woodchips stored on-Site for waste characterization prior to using the material for a binding agent in the solidification process. Samples were analyzed for benzene by SW8260D/Toxicity Characteristic Leaching Procedure (TCLP) Zero Headspace Extraction (ZHE) and SVOCs by SW8270 TCLP Extraction analysis. Analytical results reported no SVOCs or benzene, indicating the material could be used for solidification purposes. ERRS utilized the concreate secondary containment area to mix the wood tar and the saw dust/woodchips for solidification. After the waste was solidified it was loaded into 20-CY roll-off boxes for off-site transportation and disposal.

Following waste solidification operations, the secondary containment was decontaminated of wood tar residue and breached to minimize the accumulation of future rainwater. ERRS removed and segregated non-wood tar-contaminated metal from the totes for off-site recycling. An estimated 450 CY (260 CY of wood tar and 190 CY of wood tar-contaminated debris) of solid hazardous waste was transported off-site for disposal at an EPA-approved disposal facility. An estimated 140 CY of scrap metal was shipped off-site for recycling.

3.3.3 Assessment and Characterization of Unknown Wastes

An estimated 193 miscellaneous containers and drums of unknown origin were observed behind totes in areas of the Site that were previously not accessible due to safety considerations. First Step Hazard Characterization (HAZCAT) operations were conducted on the contents of the unknown containers to determine DOT hazard classifications. Based on the HAZCAT results, 15 different DOT waste streams were generated. The containers were overpacked based on the DOT classification and subsequently shipped for off-site disposal.

3.3.4 Post Removal Remaining Waste Materials and Other Environmental Concerns

Upon completion of the removal action, the pyrolysis, dry kiln, lean to area, and north and south warehouse/sawmill buildings remained on-site. The pyrolysis machinery and associated parts remain inside the secured pyrolysis building. It is assumed that some residual wood tar or wood vinegar waste remains contained inside the workings of the pyrolysis unit itself, however any such material does not currently pose a threat of release. Visually stained soil was observed on-site and was not addressed as part of this TCRA. The Biochar pile, initially located outdoors and exposed

to the elements in the southwestern corner of the property, was relocated into the open spaces beneath the north and south warehouse/sawmill buildings at the request of the Lewis County Fire Department. Super sacks of Biochar were relocated to the lean-to area to prevent weathering.

3.4 WASTE DISPOSAL SUMMARY

As part of the TCRA, EPA removed and disposed of wood vinegar hazardous waste liquid, State-regulated wood vinegar liquid waste, wood tar hazardous solid waste and debris, scrap metal for recycling, and miscellaneous chemical containers. Details of waste stream disposal are provided in Table 3-1.

Table 3-1 Waste Disposal Summary

Waste Stream	Description	Medium	Quantity Disposed
RCRA Hazardous Waste Wood Vinegar	RCRA wood vinegar from totes, ASTs, and pH-balanced wood vinegar volume	Liquid	68,977 gallons
Washington State Dangerous Waste Wood Vinegar (secondary containment)	Standing wood vinegar in secondary containment	Liquid	22,800 gallons
RCRA Hazardous Waste Tar Solids	Wood tar/woodchip mixture	Solid	260 CY
RCRA Hazardous Waste Tar coated debris	Wood tar-coated debris, including poly tote and poly AST body/casings, debris found inside secondary containment, any wood tar covered pallets	Solid	190 CY
Scrap Metal (recycling)	Cleaned scrap metal from totes and ASTs	Solid	140 CY
Miscellaneous chemical containers	Site container chemical solid and liquid contents	Mixed	24 bulk containers

Notes:
AST aboveground storage tank
CY cubic yard
pH Potential Hydrogen
RCRA Resource Conservation and Recovery Act

4 ANALYTICAL DATA

4.1 ANALYTICAL TESTING

During the TCRA, START collected two samples of the saw dust/woodchips stored on-site for waste characterization for benzene following SW8260D/TCLP ZHE and SVOCs by SW8270 TCLP Extraction analysis. Laboratory analysis was conducted by Fremont Analytical Laboratory located at 3600 Avenue North in Seattle, Washington. Sampling conducted during the TCRA was in accordance with the site-specific TCRA SAP (WESTON, 2021b). Samples were properly packed for shipment and dispatched to the laboratory for analysis along with signed chain-of-custody documentation.

Analytical results and Laboratory Data Packages are available in Appendices C and D, respectively.

4.2 DATA USABILITY

The data was determined to be of acceptable quality for their intended use. The reported results for aniline and 3-3'- dichlorobenzene from sample WTWS-01-1 were rejected due to low matrix spike and/or matrix spike duplicate recoveries. This finding has no material impact on the intended use of the data as these analytes do not have RCRA disposal criteria. A Data Quality Assurance Review Memoranda is available in Attachment E.

4.3 DATA REPORTING

In accordance with the EPA Region 10 Regional Data Management Plan (RDMP), field data was managed in accordance with the SSDMP, which was updated as conditions required. Following collection, field data was processed to generate a Scribe-compatible file, which was imported into a Scribe database. The Scribe datasets were published to Scribe.net (project ID 4236).

5 FINAL SITE CONDITIONS AND SUMMARY

Final Site conditions and demobilization activities included EPA notifying the property owner and Ecology that residual wood tar or wood vinegar waste could remain contained inside the pyrolysis unit itself. EPA advised the property owners that any efforts to disassemble the unit should involve a plan to properly contain and dispose of any hazardous waste found inside. The property owner also agreed to take responsibility for the 350 gallons of red-dye diesel and acetylene tanks in the south warehouse/sawmill. The Biochar pile, initially located outdoors and exposed to the elements in the southwestern corner of the property, was moved into the open spaces beneath the north and south warehouse/sawmill buildings at the request of the Lewis County Fire Department. Super sacks on-site containing Biochar were moved beneath the lean-to area to prevent weathering. Prior to demobilization, ERRS and START applied caution tape to dangerous areas on-site, such as the pyrolysis machinery, stairway, and the condemned building footprint.

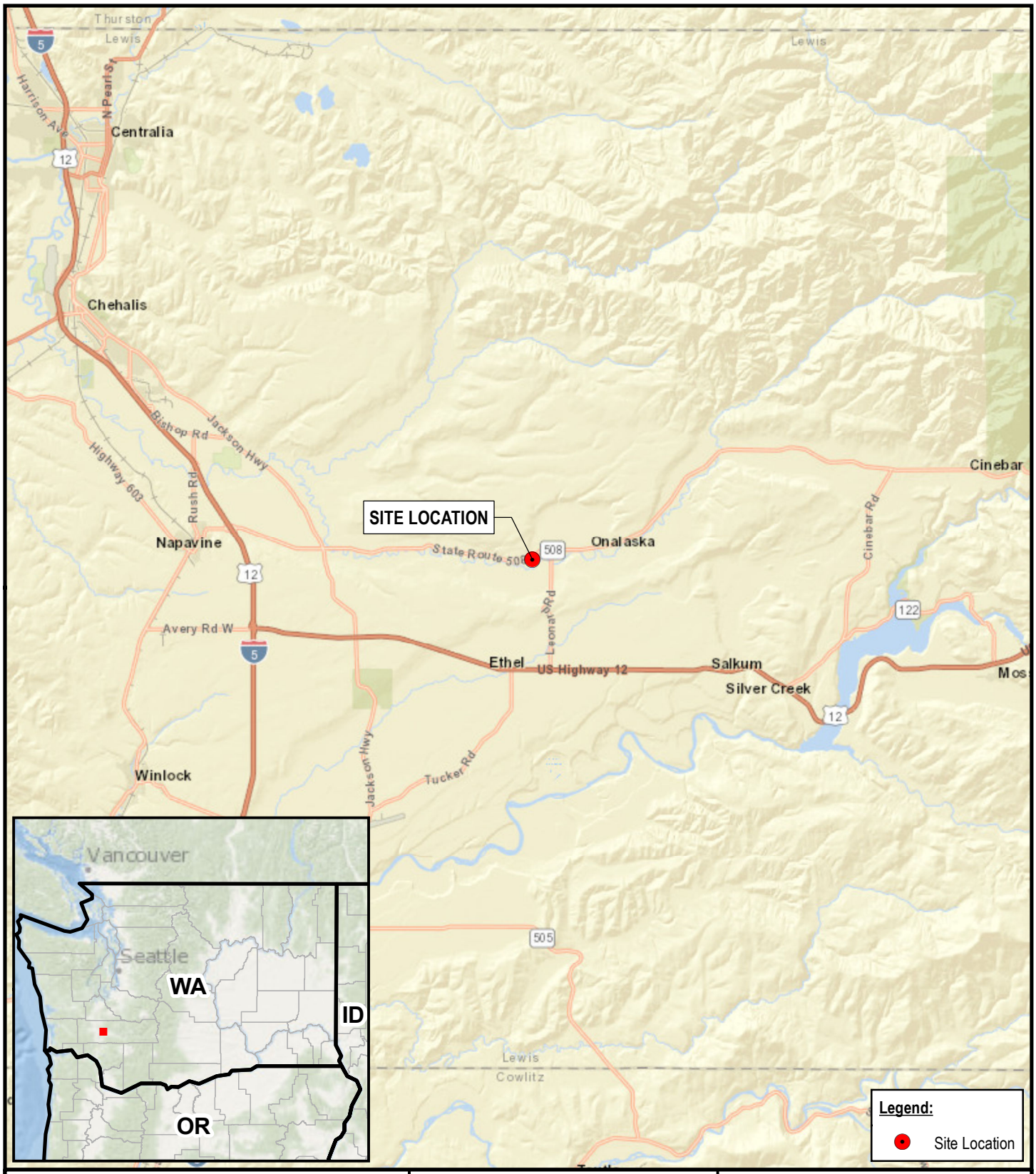
Upon completion of TCRA operations, EPA, Ecology, ERRS, and START conducted a final Site walk, confirming that wood vinegar and wood tar wastes in targeted totes, ASTs, and the secondary containment had been removed from the Site. Demolition/deconstruction and removal of the cleaned out secondary containment walls, poly totes, steel and poly ASTs, and tote metal casings were also confirmed.

6 REFERENCES

Weston Solutions, Inc. a (WESTON, 2021a), Superfund Technical Assistance and Response Team (START-V) Removal Site Evaluation Report, June 2021.

WESTON, 2021b, START-V Site-Specific Sampling and Analysis Plan. June 2021.

WESTON, 2021c, START-V Site-Specific Data Management Plan. June 2021.



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Inset Background: ESRI Ocean Basemap (2021)

SSID: 10TH
TO No./Subtask No.: 68HE0721F0069

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US EPA REGION 10

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START V

FIGURE 1-1
SITE LOCATION MAP
ONALASKA WOOD PYROLYSIS
1674 STATE HIGHWAY 508
ONALASKA, LEWIS COUNTY, WA

DECEMBER 2021

FILE: G:\EPA\Region 10 START\Superfund\Onalaska Wood Pyrolysis\mxd\Figure 1-1 Site Location Map.mxd 10:24:16 AM 11/18/2021 deguentm

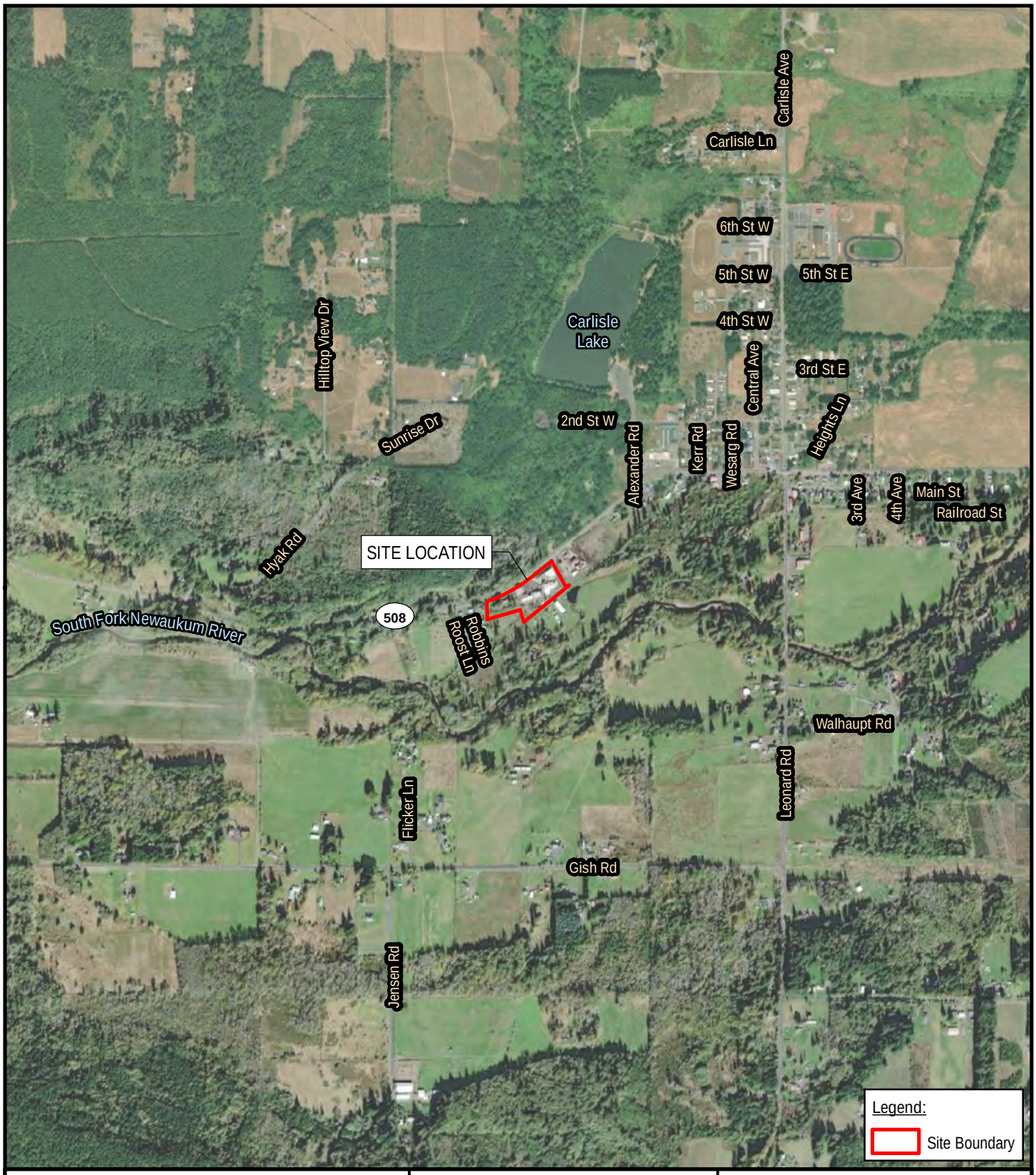

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FIGURE 1-2
SITE AREA MAP
ONALASKA WOOD PYROLYSIS
1674 STATE HIGHWAY 508
ONALASKA, LEWIS COUNTY, WA

DECEMBER 2021

FILE: G:\EPA\Region 10 START\Superfund\Onalaska Wood Pyrolysis\mxd\Figure 1-2 Site Area Map.mxd 11:20:33 AM 11/19/2021 deguentm

LEGEND

- Lewis County Water District #2 Wastewater Treatment Facility
- Site Boundary
- Gheer Creek

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0 150 300

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Source:
Background: Google Earth (2021)

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FIGURE 2-1

SITE PLAN
ONALASKA WOOD PYROLYSIS
1674 STATE HIGHWAY 508
ONALASKA, LEWIS COUNTY, WA
DECEMBER 2021

FILE: \\nasatxgis1\ATX_GIS_Data\EPA\Region 10 START\Superfund\Onalaska Wood Pyrolysis\mxd\Figure 2-1 Site Plan.mxd 12:17:29 PM 11/19/2021 deguentm

ATTACHMENT A

DIGITAL PHOTOGRAPH REPORT

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 1	Date: 06/14/2021
Photo Coordinates	
Lat	46.572531
Long	-122.72936
Direction Photo Taken:	**SE**
Description: Site viewed from the entrance gate.	

Photo No. 2	Date: 06/14/2021
Photo Coordinates	
Lat	46.572526
Long	-122.729495
Direction Photo Taken:	**NE**
Description: Wood Chip Storage Area.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 3	Date: 06/14/2021
Photo Coordinates	
Lat	46.572356
Long	-122.729788
Direction Photo Taken:	W
Description: TG01 Tote Area in the North Warehouse.	

Photo No. 4	Date: 06/14/2021
Photo Coordinates	
Lat	46.572356
Long	-122.729788
Direction Photo Taken:	W
Description: Label on a tote located in the TG01 Tote Area.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
5	06/14/2021

Photo Coordinates	
Lat	46.572356
Long	-122.729788

Direction Photo Taken: SW

Description:

Totes, large containers, and debris stored in the North Warehouse area.

Photo No.	Date:
6	06/14/2021

Photo Coordinates	
Lat	46.572356
Long	-122.729788

Direction Photo Taken: W

Description:

Totes, large container, and debris stored in the North Warehouse area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 7	Date: 06/14/2021
Photo Coordinates	
Lat	46.572347
Long	-122.730354
Direction Photo Taken:	**SW**

Description:

Tote and debris stored in the North Warehouse area.

Photo No. 8	Date: 06/14/2021
Photo Coordinates	
Lat	46.572347
Long	-122.730354
Direction Photo Taken:	**SW**

Description:

Totes and debris stored in the North Warehouse area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 9	Date: 06/14/2021
Photo Coordinates	
Lat	46.572347
Long	-122.730354
Direction Photo Taken:	**W**

Description:

Totes, containers, and debris stored in the North Warehouse area.

Photo No. 10	Date: 06/14/2021
Photo Coordinates	
Lat	46.572347
Long	-122.730354
Direction Photo Taken:	**W**

Description:

North Warehouse in the background. Equipment and covered waste in the foreground.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 11	Date: 06/14/2021
Photo Coordinates	
Lat	46.57233
Long	-122.729753
Direction Photo Taken:	**SW**

Description:

Equipment and wood chips stored in the condemned warehouse area.

Photo No. 12	Date: 06/14/2021
Photo Coordinates	
Lat	46.57233
Long	-122.729753
Direction Photo Taken:	**S**

Description:

Condemned warehouse area in the foreground. South Warehouse TG02 Tote Area with totes, drums, and a diesel tank in the background.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 13	Date: 06/14/2021
Photo Coordinates	
Lat	46.572245
Long	-122.729601
Direction Photo Taken:	**SW**

Description:

South Warehouse on the left and condemned warehouse area on the right.

Photo No. 14	Date: 06/14/2021
Photo Coordinates	
Lat	46.572039
Long	-122.729863
Direction Photo Taken:	**NE**

Description:

North Warehouse and condemned warehouse area viewed from the southwest. Abandoned pallets on the left.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 15	Date: 06/14/2021
Photo Coordinates	
Lat	46.572039
Long	-122.729863
Direction Photo Taken:	**N**

Description:

Debris in the condemned warehouse area. Concrete retaining wall holding back wood chips on the right. Totes in the North Warehouse to the background left.

Photo No. 16	Date: 06/14/2021
Photo Coordinates	
Lat	46.571939
Long	-122.729985
Direction Photo Taken:	**E**

Description:

Back area of the Site. South Warehouse area to the left.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska Lewis County, Washington	68HE0721F0069

Photo No. 17	Date: 06/14/2021
Photo Coordinates	
Lat	46.571939
Long	-122.729985
Direction Photo Taken:	**N**

Description:

Debris in the back southwest end of the South Warehouse.

Photo No. 18	Date: 06/14/2021
Photo Coordinates	
Lat	46.571939
Long	-122.729985
Direction Photo Taken:	**SE**

Description:

Biochar pile, abandoned equipment and pallets, and EPA equipment trailer.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 19	Date: 06/14/2021
Photo Coordinates	
Lat	46.571939
Long	-122.729985
Direction Photo Taken: NW	
Description: Exposed section of the South Warehouse at the southwest end.	

Photo No. 20	Date: 06/14/2021
Photo Coordinates	
Lat	46.57193
Long	-122.729974
Direction Photo Taken: NE	
Description: South Warehouse TG02 Tote Area exposed at center. Dry Kiln Building in the background.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 21	Date: 06/14/2021
Photo Coordinates	
Lat	46.572013
Long	-122.729805
Direction Photo Taken:	**N**

Description:

Totes, drums, diesel tank, and debris stored in TG02 Tote Area of the South Warehouse area.

Photo No. 22	Date: 06/14/2021
Photo Coordinates	
Lat	46.572177
Long	-122.729635
Direction Photo Taken:	**W**

Description:

TG02 Tote Area in the South Warehouse

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 23	Date: 06/14/2021
Photo Coordinates	
Lat	46.572179
Long	-122.729649
Direction Photo Taken:	**N**
Description: Diesel tank in TG02 Tote Area.	

Photo No. 24	Date: 06/14/2021
Photo Coordinates	
Lat	46.572179
Long	-122.729649
Direction Photo Taken:	**SE**
Description: Drums and small containers of waste in the TG02 Tote Area	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 25	Date: 06/14/2021
Photo Coordinates	
Lat	46.572161
Long	-122.729597
Direction Photo Taken:	**SW**

Description:

Biochar pile and heavy equipment located south of the South Warehouse.

Photo No. 26	Date: 06/14/2021
Photo Coordinates	
Lat	46.572161
Long	-122.729597
Direction Photo Taken:	**E**

Description:

Covered pallets of biochar, abandoned equipment, and storage container in the foreground. Lean-to TG04 Tote Area in the middle ground at left, behind the telehandler

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 27	Date: 06/14/2021
Photo Coordinates	
Lat	46.572161
Long	-122.729597
Direction Photo Taken:	**S**

Description:

Covered pallets of biochar, abandoned equipment, and storage container south of the Dry Kiln Building.

Photo No. 28	Date: 06/14/2021
Photo Coordinates	
Lat	46.572161
Long	-122.729597
Direction Photo Taken:	**NE**

Description:

Dry Kiln Building TG03 Tote Area on the left. Lean-to TG04 Tote Area on the right.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska Lewis County, Washington	68HE0721F0069

Photo No.	Date:
29	06/14/2021

Photo Coordinates	
Lat	46.572165
Long	-122.729296

Direction Photo Taken: N

Description:

Bin of biochar among totes, tanks, and buckets of wood tar and wood vinegar in the Dry Kiln Building.

Photo No.	Date:
30	06/14/2021

Photo Coordinates	
Lat	46.572165
Long	-122.729296

Direction Photo Taken: SW

Description:

Bin of biochar among totes, tanks, and buckets of wood tar and wood vinegar in the Dry Kiln Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 31	Date: 06/14/2021
Photo Coordinates	
Lat	46.572165
Long	-122.729296
Direction Photo Taken:	**E**

Description:

Covered pallets of biochar and equipment located at the east corner of the Dry Kiln Building.

Photo No. 32	Date: 06/14/2021
Photo Coordinates	
Lat	46.572165
Long	-122.729296
Direction Photo Taken:	**E**

Description:

Covered biochar on pallets and equipment located at the east wall of the Dry Kiln Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 33	Date: 06/14/2021
Photo Coordinates	
Lat	46.572189
Long	-122.729027
Direction Photo Taken: NE	
Description: TG04 Tote Area at the Lean-to Area.	

Photo No. 34	Date: 06/14/2021
Photo Coordinates	
Lat	46.572189
Long	-122.729027
Direction Photo Taken: E	
Description: TG04 Tote Area at the Lean-to Area.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 35	Date: 06/14/2021
Photo Coordinates	
Lat	46.572189
Long	-122.729027
Direction Photo Taken: S	
Description: Debris and equipment in the north section of the Dry Kiln Building. Abandoned truck parked north of the Dry Kiln Building.	

Photo No. 36	Date: 06/14/2021
Photo Coordinates	
Lat	46.572418
Long	-122.729449
Direction Photo Taken: S	
Description: Debris and equipment in the north section of the Dry Kiln Building.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
37	06/14/2021

Photo Coordinates	
Lat	46.572418
Long	-122.729449

Direction Photo Taken: SW

Description:

North Warehouse and condemned warehouse area in the background. Dry Kiln Building in the left foreground. Abandoned equipment in the center foreground. Abandoned truck in the right foreground.

Photo No.	Date:
38	06/14/2021

Photo Coordinates	
Lat	46.572418
Long	-122.729449

Direction Photo Taken: E

Description:

Pyrolysis Building with Lean-to Area extending to the right. Abandoned equipment at the right foreground.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
39	06/14/2021

Photo Coordinates	
Lat	46.572092
Long	-122.728898

Direction Photo Taken: N

Description:

South face of the Lean-to Area. Empty foreground area is the where the tote staging area was eventually established.

Photo No.	Date:
40	06/14/2021

Photo Coordinates	
Lat	46.572092
Long	-122.728898

Direction Photo Taken: SE

Description:

Fire Station Pump House located south of the Pyrolysis Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 41	Date: 06/14/2021
Photo Coordinates	
Lat	46.572092
Long	-122.728898
Direction Photo Taken:	**NW**

Description:

South face of the Pyrolysis Building. Lean-to TG04 Tote Area located on the left.

Photo No. 42	Date: 06/14/2021
Photo Coordinates	
Lat	46.572092
Long	-122.728898
Direction Photo Taken:	**N**

Description:

Exposed interior seen through the south door of the Pyrolysis Building. Two totes located at center. Tank Farm located in the Secondary Containment Area at right.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 43	Date: 06/14/2021
Photo Coordinates	
Lat	46.572196
Long	-122.728806
Direction Photo Taken:	**NE**

Description:

Interior of the Pyrolysis building viewed from the south entrance.

Photo No. 44	Date: 06/14/2021
Photo Coordinates	
Lat	46.572322
Long	-122.728593
Direction Photo Taken:	**NW**

Description:

Pyrolysis Building, Lean-to Area, and Tank Farm viewed from the southeast.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 45	Date: 06/14/2021
Photo Coordinates	
Lat	46.572322
Long	-122.728593
Direction Photo Taken:	**W**

Description:

Tank Farm in the foreground and Pyrolysis Building in the back left.

Photo No. 46	Date: 06/14/2021
Photo Coordinates	
Lat	46.572322
Long	-122.728593
Direction Photo Taken:	**SW**

Description:

Tank Farm in Secondary Containment Area. Three 8,000-gallon aboveground storage tanks (ASTs) in the middle ground. Two propane tanks are in the foreground.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 47	Date: 06/14/2021
Photo Coordinates	
Lat	46.572322
Long	-122.728593
Direction Photo Taken:	**SW**

Description:

Secondary Containment Area. Two propane tanks, three 8,000-gallon aboveground storage tanks (ASTs), and a 3,000-gallon AST can be seen.

Photo No. 48	Date: 06/14/2021
Photo Coordinates	
Lat	46.572631
Long	-122.728607
Direction Photo Taken:	**S**

Description:

Pyrolysis Building at center and the Secondary Containment Area on the left.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
49	06/14/2021

Photo Coordinates	
Lat	46.572631
Long	-122.728607

Direction Photo Taken: SW

Description:

Wood Chip Storage Area viewed from the north end of the Site.

Photo No.	Date:
50	06/14/2021

Photo Coordinates	
Lat	46.572631
Long	-122.728607

Direction Photo Taken: S

Description:

Wood Chip Storage Area viewed from the north end of the Site.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 51	Date: 06/14/2021
Photo Coordinates	
Lat	46.572631
Long	-122.728607
Direction Photo Taken: SW	

Description:

Stormwater pond at the north end of the Site. Pond runs parallel to Main Avenue and the northmost Wood Chip Storage Area.

Photo No. 52	Date: 06/14/2021
Photo Coordinates	
Lat	46.572619
Long	-122.728987
Direction Photo Taken: SE	

Description:

Secondary Containment Area viewed from the north.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 53	Date: 06/14/2021
Photo Coordinates	
Lat	46.572619
Long	-122.728987
Direction Photo Taken: SW	
Description: Abandoned processing equipment at the north face of the Pyrolysis Building.	

Photo No. 54	Date: 06/14/2021
Photo Coordinates	
Lat	46.572619
Long	-122.728987
Direction Photo Taken: S	
Description: Abandoned processing equipment at the north face of the Pyrolysis Building.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 55	Date: 06/14/2021
Photo Coordinates	
Lat	46.572634
Long	-122.729214
Direction Photo Taken: SE	
Description: Abandoned processing equipment at the north face of the Pyrolysis Building.	

Photo No. 56	Date: 06/14/2021
Photo Coordinates	
Lat	46.572504
Long	-122.729253
Direction Photo Taken: NE	
Description: Interior of Pyrolysis Building viewed from the west entrance.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 57	Date: 06/14/2021
Photo Coordinates	
Lat	46.572504
Long	-122.729253
Direction Photo Taken: SE	
Description: Totes of wood vinegar, super sacks of biochar, and abandoned equipment in the interior of the Pyrolysis Building.	

Photo No. 58	Date: 06/14/2021
Photo Coordinates	
Lat	46.572504
Long	-122.729253
Direction Photo Taken: E	
Description: Interior of Pyrolysis Building.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 59	Date: 06/14/2021
Photo Coordinates	
Lat	46.572504
Long	-122.729253
Direction Photo Taken:	**E**

Description:

Totes of wood vinegar, super sacks of biochar, and abandoned equipment in the interior of the Pyrolysis Building.

Photo No. 60	Date: 06/14/2021
Photo Coordinates	
Lat	46.572175
Long	-122.729247
Direction Photo Taken:	**NE**

Description:

ERRS contractors setting up the tote staging area just south of the Lean-to Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
61	06/14/2021

Photo Coordinates	
Lat	46.572444
Long	-122.729286

Direction Photo Taken: NE

Description:

Office trailers being delivered to the Site. Trailers were located west of the Wood Chip Storage Area.

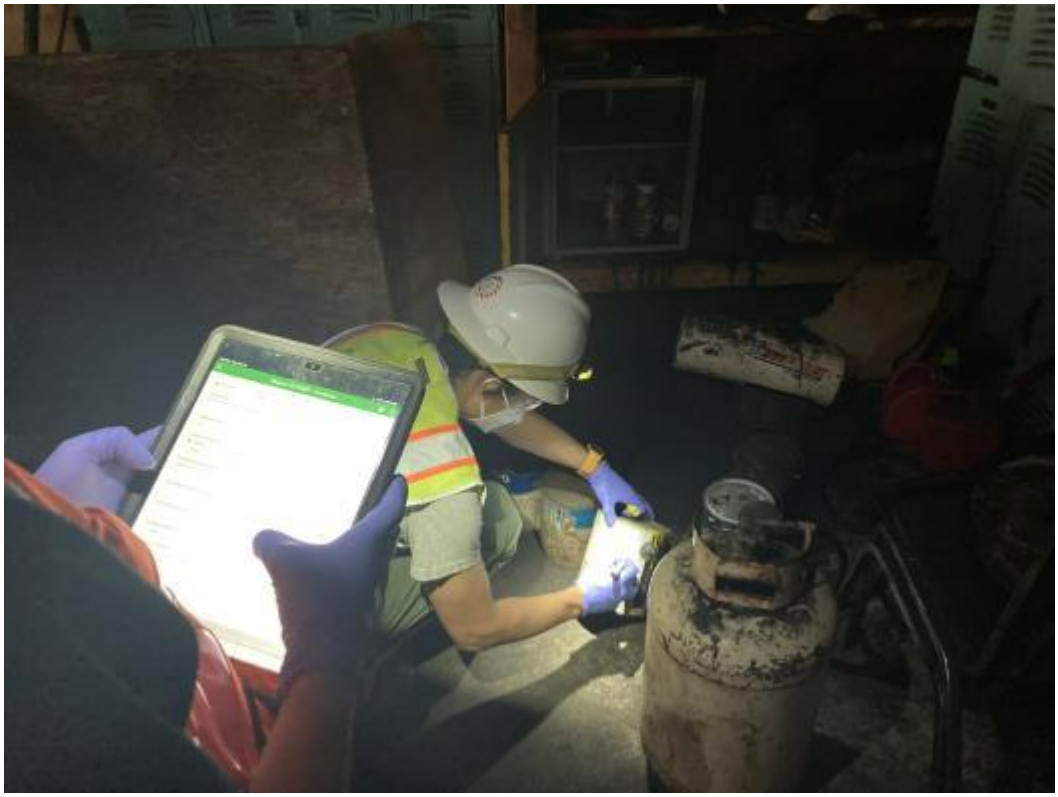
Photo No.	Date:
62	06/14/2021

Photo Coordinates	
Lat	46.572444
Long	-122.728819

Direction Photo Taken: W

Description:

START contractors conducting inventory of hazardous waste in the workshop located southeast of the Dry Kiln Building.



PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 63	Date: 06/14/2021
Photo Coordinates	
Lat	46.5919
Long	-122.75145
Direction Photo Taken:	**NE**

Description:

Inventoried waste staged in the Pyrolysis Building.

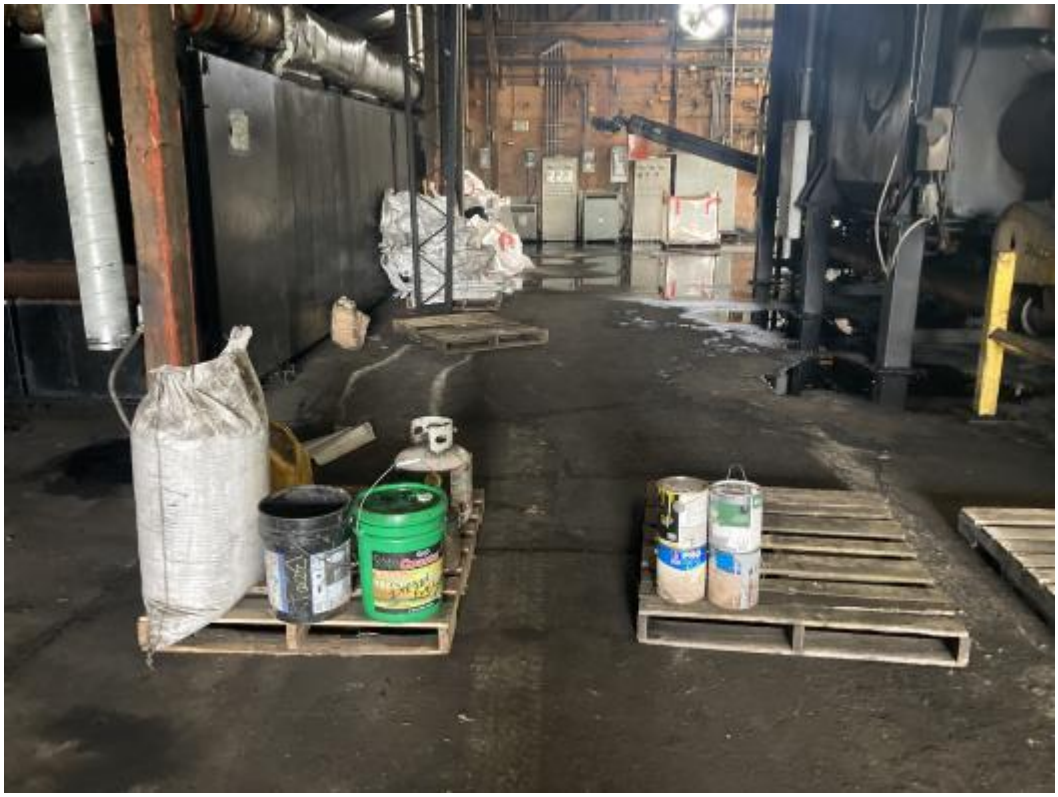


Photo No. 64	Date: 06/14/2021
Photo Coordinates	
Lat	46.572078
Long	-122.729211
Direction Photo Taken:	**NE**

Description:

Lean-to TG04 Tote Area at left and tote staging area at right. Fire Station Pump Houses are in the background at right.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
65	06/14/2021

Photo Coordinates	
Lat	46.598594
Long	-122.759231

Direction Photo Taken: NE

Description:

START contractor screening totes with pH probe meter.

Photo No.	Date:
66	06/14/2021

Photo Coordinates	
Lat	46.574436
Long	-122.71431

Direction Photo Taken: SW

Description:

Abandoned equipment located in the north section of the Dry Kiln Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
67	06/14/2021

Photo Coordinates	
Lat	46.574436
Long	-122.71431

Direction Photo Taken: S

Description:

Abandoned equipment located in the north section of the Dry Kiln Building.

Photo No.	Date:
68	06/14/2021

Photo Coordinates	
Lat	46.574436
Long	-122.71431

Direction Photo Taken: E

Description:

Abandoned equipment located in the north section of the Dry Kiln Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
69	06/14/2021

Photo Coordinates	
Lat	46.572364
Long	-122.729541

Direction Photo Taken: S

Description:

Workshop located to the right of the Dry Kiln Building. South Warehouse TG02 Tote Area can be seen to the right.

Photo No.	Date:
70	06/14/2021

Photo Coordinates	
Lat	46.572364
Long	-122.729541

Direction Photo Taken: S

Description:

Interior of the workshop.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 71	Date: 06/14/2021
Photo Coordinates	
Lat	46.572364
Long	-122.729541
Direction Photo Taken: S	
Description: Interior of the workshop.	

Photo No. 72	Date: 06/14/2021
Photo Coordinates	
Lat	46.572364
Long	-122.729541
Direction Photo Taken: S	
Description: Interior of the workshop.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
73	06/14/2021

Photo Coordinates	
Lat	46.572364
Long	-122.729541

Direction Photo Taken: SE

Description:

Lockers and bathrooms at the back of the workshop.

Photo No.	Date:
74	06/14/2021

Photo Coordinates	
Lat	46.572364
Long	-122.729541

Direction Photo Taken: S

Description:

Abandoned equipment and parts bins located in the back of the workshop.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 75	Date: 06/15/2021
Photo Coordinates	
Lat	N/A
Long	N/A
Direction Photo Taken: S	

Description:

Vacuum truck pumping out wastewater from the Secondary Containment Area.

Photo No. 76	Date: 06/15/2021
Photo Coordinates	
Lat	46.574528
Long	-122.709031
Direction Photo Taken: SE	

Description:

START contractor collecting hazardous waste sample for field chemical identification.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 77	Date: 06/15/2021
Photo Coordinates	
Lat	46.572339
Long	-122.729203
Direction Photo Taken:	**SW**

Description:

START contractor conducting hazardous waste inventory using Survey123 electronic data forms.

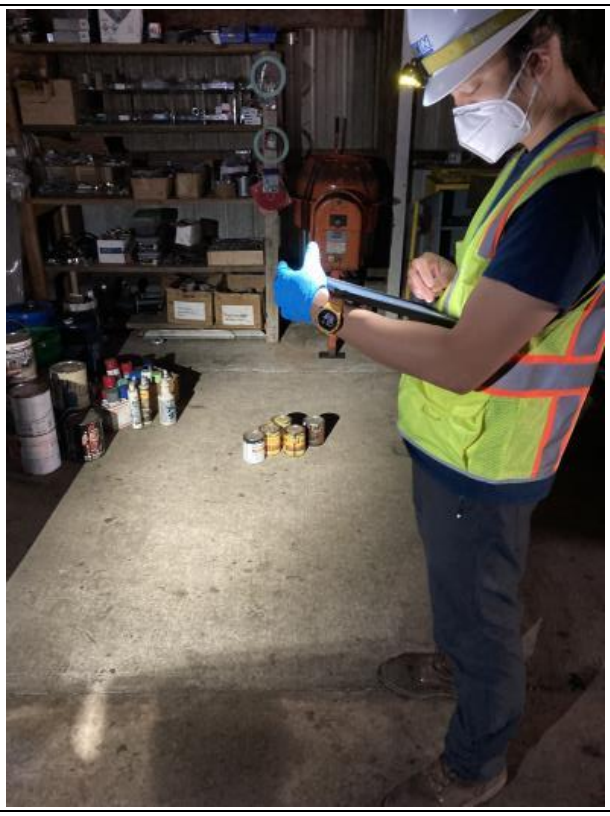


Photo No. 78	Date: 06/15/2021
Photo Coordinates	
Lat	46.572225
Long	-122.7287
Direction Photo Taken:	**N**

Description:

Staged totes in secondary containment in the tote staging area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 79	Date: 06/15/2021
Photo Coordinates	
Lat	46.572175
Long	-122.729828
Direction Photo Taken: E	

Description:

START contractor conducting field chemical identification on samples collected from inventoried hazardous waste.

Photo No. 80	Date: 06/16/2021
Photo Coordinates	
Lat	46.57215
Long	-122.729011
Direction Photo Taken: NE	

Description:

START contractors setting up air monitoring equipment at the tote staging area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
81	06/16/2021

Photo Coordinates	
Lat	46.572321
Long	-122.728635

Direction Photo Taken: SW

Description:

Marked totes indicating pH level category in the Lean-to Area.

Photo No.	Date:
82	06/16/2021

Photo Coordinates	
Lat	46.572225
Long	-122.728736

Direction Photo Taken: W

Description:

Tote staging area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 83	Date: 06/16/2021
Photo Coordinates	
Lat	46.5726
Long	-122.729233
Direction Photo Taken:	**NW**

Description:

Vacuum truck arriving on-site to pump contents from totes staged in the staging area.

Photo No. 84	Date: 06/16/2021
Photo Coordinates	
Lat	46.572147
Long	-122.728675
Direction Photo Taken:	**W**

Description:

Vacuum truck operator and ERRS contractors preparing to transfer tote contents into vacuum truck.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
85	06/16/2021

Photo Coordinates	
Lat	46.572358
Long	-122.728761

Direction Photo Taken: SW

Description:

Vacuum truck operator and ERRS contractors conducting waste transfer activities.

Photo No.	Date:
86	06/16/2021

Photo Coordinates	
Lat	46.572375
Long	-122.728972

Direction Photo Taken: W

Description:

Vacuum truck operator and ERRS contractors conducting waste transfer activities at the Lean-to Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 87	Date: 06/16/2021
Photo Coordinates	
Lat	
Long	
Direction Photo Taken: SW	

Description:

START contractor remotely monitoring air quality.

Photo No. 88	Date: 06/16/2021
Photo Coordinates	
Lat	46.572117
Long	-122.729181
Direction Photo Taken: NE	

Description:

ERRS contractors conducting waste transfer activities at the tote staging area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 89	Date: 06/16/2021
Photo Coordinates	
Lat	46.572117
Long	-122.728844
Direction Photo Taken:	**NE**

Description:

ERRS contractors conducting waste transfer activities at the tote staging area.

Photo No. 90	Date: 06/16/2021
Photo Coordinates	
Lat	46.57225
Long	-122.729072
Direction Photo Taken:	**E**

Description:

Roll-off dumpsters being delivered to Site.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 91	Date: 06/16/2021
Photo Coordinates	
Lat	46.572167
Long	-122.728614
Direction Photo Taken:	**SW**

Description:

ERRS contractors conducting waste transfer activities at the tote staging area.

Photo No. 92	Date: 06/16/2021
Photo Coordinates	
Lat	46.572381
Long	-122.728819
Direction Photo Taken:	**NW**

Description:

Emptied totes that have been deconstructed at the Lean-to Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 93	Date: 06/16/2021
Photo Coordinates	
Lat	46.572425
Long	-122.729011
Direction Photo Taken:	**NE**

Description:

ERRS contractors conducting waste transfer activities at the Lean-to Area.

Photo No. 94	Date: 06/16/2021
Photo Coordinates	
Lat	46.572381
Long	-122.728911
Direction Photo Taken:	**SE**

Description:

ERRS contractors cutting up empty totes and scraping settled material from the bottom panels.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 95	Date: 06/16/2021
Photo Coordinates	
Lat	46.572394
Long	-122.728889
Direction Photo Taken:	**E**

Description:

ERRS contractors cutting up empty totes and scraping settled material from the bottom panels.

Photo No. 96	Date: 06/16/2021
Photo Coordinates	
Lat	N/A
Long	N/A
Direction Photo Taken:	**N**

Description:

ERRS removing totes from the Dry Kiln Building to be transferred to the staging area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 97	Date: 06/16/2021
Photo Coordinates	
Lat	46.572331
Long	-122.728797
Direction Photo Taken:	**W**

Description:

Deconstructed totes at the tote staging area.

Photo No. 98	Date: 06/16/2021
Photo Coordinates	
Lat	N/A
Long	N/A
Direction Photo Taken:	**N/A**

Description:

Drum of biochar pulled from the Dry Kiln Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
99	06/17/2021

Photo Coordinates	
Lat	46.572147
Long	-122.728972

Direction Photo Taken: SE

Description:

START contractors maintaining air monitoring equipment at the tote staging area.

Photo No.	Date:
100	06/17/2021

Photo Coordinates	
Lat	46.572281
Long	-122.728942

Direction Photo Taken: NE

Description:

START contractors maintaining air monitoring equipment at the tote staging area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 101	Date: 06/17/2021
Photo Coordinates	
Lat	46.572311
Long	-122.729142
Direction Photo Taken:	**E**

Description:

Tank of unidentified waste that had been moved from the Dry Kiln Building to the Lean-to Area.

Photo No. 102	Date: 06/17/2021
Photo Coordinates	
Lat	46.572628
Long	-122.729172
Direction Photo Taken:	**SW**

Description:

ERRS contractors moving totes from the North Warehouse TG01 Tote Area to the tote staging area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 103	Date: 06/18/2021
Photo Coordinates	
Lat	46.572515
Long	-122.728486
Direction Photo Taken:	**W**

Description:

Vacuum truck pumping out wastewater from the Secondary Containment Area.

Photo No. 104	Date: 06/18/2021
Photo Coordinates	
Lat	46.574648
Long	-122.720992
Direction Photo Taken:	**SW**

Description:

ERRS contractors preparing to pump out wastewater from the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 105	Date: 06/18/2021
Photo Coordinates	
Lat	46.572232
Long	-122.72877
Direction Photo Taken:	**E**

Description:

Vacuum truck preparing to pump out wastewater from Secondary Containment Area.

Photo No. 106	Date: 06/18/2021
Photo Coordinates	
Lat	46.572506
Long	-122.728743
Direction Photo Taken:	**NW**

Description:

Drum of waste abandoned to the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
107	06/18/2021

Photo Coordinates	
Lat	N/A
Long	N/A

Direction Photo Taken: S

Description:

Tank being sampled at the Lean-to Area.

Photo No.	Date:
108	06/18/2021

Photo Coordinates	
Lat	N/A
Long	N/A

Direction Photo Taken: S

Description:

Waste contents inside tank being sampled.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 109	Date: 06/19/2021
Photo Coordinates	
Lat	46.572301
Long	-122.728571
Direction Photo Taken:	**SE**

Description:

Tote staging area.

Photo No. 110	Date: 06/19/2021
Photo Coordinates	
Lat	46.572301
Long	-122.728571
Direction Photo Taken:	**SE**

Description:

Deconstructed totes staged in the Lean-to Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 111	Date: 06/19/2021
Photo Coordinates	
Lat	46.572211
Long	-122.729126
Direction Photo Taken:	**NE**

Description:

ERRS determining appropriate waste solidification ratios in a bucket.

Photo No. 112	Date: 06/19/2021
Photo Coordinates	
Lat	N/A
Long	N/A
Direction Photo Taken:	**SE**

Description:

Site entrance secured at the end of a workday.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 113	Date: 06/21/2021
Photo Coordinates	
Lat	46.572804
Long	-122.729086
Direction Photo Taken:	**SE**

Description:

OSC overseeing ERRS contractors removing makeshift roof covering the Secondary Containment Area.

Photo No. 114	Date: 06/21/2021
Photo Coordinates	
Lat	46.572556
Long	-122.728544
Direction Photo Taken:	**NW**

Description:

ERRS contractors removing makeshift roof over Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 115	Date: 06/21/2021
Photo Coordinates	
Lat	46.572556
Long	-122.728544
Direction Photo Taken:	**NW**
Description: ERRS contractors removing makeshift roof over Secondary Containment Area.	

Photo No. 116	Date: 06/21/2021
Photo Coordinates	
Lat	46.572425
Long	-122.728653
Direction Photo Taken:	**N**
Description: START contractor maintaining air monitoring instrument while ERRS contractors are removing makeshift roof over Secondary Containment Area in the background.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 117	Date: 06/21/2021
Photo Coordinates	
Lat	46.572586
Long	-122.728561
Direction Photo Taken:	**SW**

Description:

ERRS contractors removing makeshift roof over Secondary Containment Area.

Photo No. 118	Date: 06/21/2021
Photo Coordinates	
Lat	46.572505
Long	-122.728657
Direction Photo Taken:	**N**

Description:

Uncovered Secondary Containment Area reveals debris.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 119	Date: 06/21/2021
Photo Coordinates	
Lat	46.572505
Long	-122.728657
Direction Photo Taken: N	
Description: Debris, drum, and wastewater in the Secondary Containment Area.	

Photo No. 120	Date: 06/21/2021
Photo Coordinates	
Lat	46.572505
Long	-122.728657
Direction Photo Taken: SE	
Description: Removed roofing material staged at the east-southeast end of the Site.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 121	Date: 06/21/2021
Photo Coordinates	
Lat	46.572505
Long	-122.728657
Direction Photo Taken:	**W**
Description: Removed roofing material and tote cages staged at the east-southeast end of the Site.	

Photo No. 122	Date: 06/21/2021
Photo Coordinates	
Lat	46.572505
Long	-122.728657
Direction Photo Taken:	**N**
Description: Removed roofing material and tote cages staged at the east-southeast end of the Site.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 123	Date: 06/21/2021
Photo Coordinates	
Lat	46.572491
Long	-122.72864
Direction Photo Taken:	**SW**

Description:

ERRS contractors pumping out water from the Fire Station Pump House into a water buffalo.

Photo No. 124	Date: 06/21/2021
Photo Coordinates	
Lat	46.572714
Long	-122.728928
Direction Photo Taken:	**SE**

Description:

Debris removed from the Secondary Containment Area staged on the concrete area just south of the sawdust storage area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 125	Date: 06/21/2021
Photo Coordinates	
Lat	46.572678
Long	-122.728644
Direction Photo Taken:	**SW**

Description:

Debris removed from the Secondary Containment Area staged on the concrete area just south of the Wood Chip Storage Area.

Photo No. 126	Date: 06/21/2021
Photo Coordinates	
Lat	46.572569
Long	-122.7287
Direction Photo Taken:	**S**

Description:

Debris in the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 127	Date: 06/21/2021
Photo Coordinates	
Lat	46.572492
Long	-122.728631
Direction Photo Taken:	**S**

Description:

Debris being removed from the Secondary Containment Area.

Photo No. 128	Date: 06/21/2021
Photo Coordinates	
Lat	46.572464
Long	-122.728522
Direction Photo Taken:	**N**

Description:

Debris being removed from the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
129	06/22/2021

Photo Coordinates	
Lat	46.572636
Long	-122.728722

Direction Photo Taken: S

Description:

ERRS contractors preparing to determine volume of AST2.

Photo No.	Date:
130	06/22/2021

Photo Coordinates	
Lat	46.572589
Long	-122.728836

Direction Photo Taken: SE

Description:

ERRS contractors determining volume of AST2.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 131	Date: 06/22/2021
Photo Coordinates	
Lat	46.572619
Long	-122.728736
Direction Photo Taken:	**SE**

Description:

Temporary staging area for equipment used to determine volume of an AST.

Photo No. 132	Date: 06/22/2021
Photo Coordinates	
Lat	46.572586
Long	-122.728722
Direction Photo Taken:	**SE**

Description:

ERRS contractors determining volume of AST2.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
133	06/23/2021

Photo Coordinates	
Lat	46.572436
Long	-122.728669

Direction Photo Taken: N

Description:

ERRS contractors preparing to transfer wood vinegar from AST1.

Photo No.	Date:
134	06/23/2021

Photo Coordinates	
Lat	46.572411
Long	-122.728692

Direction Photo Taken: N

Description:

ERRS contractors transferring wood vinegar from AST1.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 135	Date: 06/23/2021
Photo Coordinates	
Lat	46.57235
Long	-122.728714
Direction Photo Taken:	**SW**

Description:

ERRS contractors conducting waste transfer activities at the tote staging area.

Photo No. 136	Date: 06/23/2021
Photo Coordinates	
Lat	46.572617
Long	-122.728792
Direction Photo Taken:	**S**

Description:

ERRS contractors determining volume of AST5.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 137	Date: 06/23/2021
Photo Coordinates	
Lat	46.572533
Long	-122.728844
Direction Photo Taken:	**S**

Description:

ERRS contractors determining volume of AST5.

Photo No. 138	Date: 06/23/2021
Photo Coordinates	
Lat	46.572261
Long	-122.729072
Direction Photo Taken:	**E**

Description:

ERRS contractors cutting up empty totes and deconstructing tote cages.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 139	Date: 06/23/2021
Photo Coordinates	
Lat	46.572261
Long	-122.728622
Direction Photo Taken:	**NW**

Description:

ERRS contractors deconstructing tote cages.

Photo No. 140	Date: 06/23/2021
Photo Coordinates	
Lat	46.572361
Long	-122.728661
Direction Photo Taken:	**NW**

Description:

ERRS contractors scraping the bottom panel of a cut up tote.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 141	Date: 06/23/2021
Photo Coordinates	
Lat	46.571894
Long	-122.728989
Direction Photo Taken:	**NW**

Description:

ERRS contractor wetting a high traffic corridor to suppress dust.

Photo No. 142	Date: 06/23/2021
Photo Coordinates	
Lat	46.561347
Long	-122.692131
Direction Photo Taken:	**E**

Description:

Entrance to processing equipment in the Pyrolysis Building taped off to block access.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 143	Date: 06/23/2021
Photo Coordinates	
Lat	46.572783
Long	-122.728508
Direction Photo Taken: SW	

Description:

ASTs in the Secondary Containment that have been marked for inventory.

Photo No. 144	Date: 06/23/2021
Photo Coordinates	
Lat	46.572467
Long	-122.729514
Direction Photo Taken: SW	

Description:

ERRS contractor moving a tote from the South Warehouse TG02 Tote Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 145	Date: 06/24/2021
Photo Coordinates	
Lat	46.598594
Long	-122.759231
Direction Photo Taken: W	
Description: START contractor calibrating air monitoring instrument.	

Photo No. 146	Date: 06/24/2021
Photo Coordinates	
Lat	46.572436
Long	-122.728608
Direction Photo Taken: N	
Description: Middle section of AST1 being cut off from the top section.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 147	Date: 06/24/2021
Photo Coordinates	
Lat	46.572414
Long	-122.728736
Direction Photo Taken: NE	
Description: Middle section of AST1 is being cut up by an ERRS contractor. The top section is being raised back over the remaining AST1 to cover.	

Photo No. 148	Date: 06/24/2021
Photo Coordinates	
Lat	46.572503
Long	-122.728447
Direction Photo Taken: W	
Description: Top of AST1 being removed to have another middle section cut off.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
149	06/24/2021

Photo Coordinates	
Lat	46.572308
Long	-122.728522

Direction Photo Taken: NE

Description:

The top section is being raised back over the remaining AST1 to cover.

Photo No.	Date:
150	06/24/2021

Photo Coordinates	
Lat	46.572406
Long	-122.728706

Direction Photo Taken: N

Description:

Middle section of AST1 is being cut up by ERRS contractors.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
151	06/24/2021

Photo Coordinates	
Lat	46.572636
Long	-122.728561

Direction Photo Taken: SW

Description:

ERRS contractors preparing to cut up AST2.

Photo No.	Date:
152	06/24/2021

Photo Coordinates	
Lat	46.572675
Long	-122.728317

Direction Photo Taken: W

Description:

Top of AST2 being removed to have middle section cut off.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 153	Date: 06/24/2021
Photo Coordinates	
Lat	46.572583
Long	-122.728806
Direction Photo Taken: SE	
Description: AST1 and AST2 remain covered with middle sections removed. AST3 and AST5 have not undergone demolition.	

Photo No. 154	Date: 06/24/2021
Photo Coordinates	
Lat	46.572783
Long	-122.729347
Direction Photo Taken: SW	
Description: ERRS contractors receiving shipment of supplies.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 155	Date: 06/24/2021
Photo Coordinates	
Lat	46.572628
Long	-122.729242
Direction Photo Taken: SW	
Description: ERRS contractors moving totes from South Warehouse TG02 Tote Area.	

Photo No. 156	Date: 06/25/2021
Photo Coordinates	
Lat	46.572511
Long	-122.728622
Direction Photo Taken: SW	
Description: ERRS contractor applying diesel to excavator bucket within the Secondary Containment Area to assist with moving/grabbing of wood tar.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 157	Date: 06/25/2021
Photo Coordinates	
Lat	46.572578
Long	-122.728775
Direction Photo Taken:	**SE**

Description:

ERRS contractors removing debris from under AST platforms.

Photo No. 158	Date: 06/25/2021
Photo Coordinates	
Lat	46.572494
Long	-122.729033
Direction Photo Taken:	**SE**

Description:

ERRS contractors removing debris from under AST platforms.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 159	Date: 06/25/2021
Photo Coordinates	
Lat	46.572444
Long	-122.728775
Direction Photo Taken:	**N**

Description:

ERRS contractors removing debris from under AST platforms.

Photo No. 160	Date: 06/25/2021
Photo Coordinates	
Lat	46.572569
Long	-122.728911
Direction Photo Taken:	**E**

Description:

ERRS contractors removing debris from under AST platforms.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 161	Date: 06/25/2021
Photo Coordinates	
Lat	46.572578
Long	-122.728942
Direction Photo Taken: SE	

Description:

ERRS contractors mixing solidification material in with sludge left in the Secondary Containment Area.

Photo No. 162	Date: 06/25/2021
Photo Coordinates	
Lat	46.572631
Long	-122.728806
Direction Photo Taken: SE	

Description:

ERRS contractor using excavator to solidify, scrape, and remove sludge from the Secondary Containment Area. Drum left inside containment has been emptied.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 163	Date: 06/25/2021
Photo Coordinates	
Lat	46.572608
Long	-122.728767
Direction Photo Taken:	**SE**

Description:

ERRS contractor using excavator to solidify, scrape, and remove sludge from the Secondary Containment Area.

Photo No. 164	Date: 06/25/2021
Photo Coordinates	
Lat	46.572564
Long	-122.728714
Direction Photo Taken:	**E**

Description:

ERRS contractor using excavator to remove solidified material and debris.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 165	Date: 06/25/2021
Photo Coordinates	
Lat	46.572681
Long	-122.728783
Direction Photo Taken:	**NW**

Description:

Roll-off container filled with debris.

Photo No. 166	Date: 06/26/2021
Photo Coordinates	
Lat	46.572586
Long	-122.728775
Direction Photo Taken:	**SE**

Description:

ERRS contractors mixing solidification material in with sludge left in the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 167	Date: 06/26/2021
Photo Coordinates	
Lat	46.572542
Long	-122.728456
Direction Photo Taken: W	

Description:

Bucket and solidification material staged outside of the Secondary Containment Area. Excavator is building a berm around AST1 to catch sludge that will be released once demolished.

Photo No. 168	Date: 06/26/2021
Photo Coordinates	
Lat	46.572556
Long	-122.728608
Direction Photo Taken: SW	

Description:

Staged solidification material outside of the Secondary Containment Area. Excavator is building a berm around AST1 to catch sludge that will be released once demolished.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
169	06/26/2021

Photo Coordinates	
Lat	46.572639
Long	-122.7287

Direction Photo Taken: SE

Description:

The remainder of AST1 being demolished within the berm area.

Photo No.	Date:
170	06/26/2021

Photo Coordinates	
Lat	46.598553
Long	-122.759186

Direction Photo Taken: E

Description:

ERRS contractor determining pH of balanced liquid NaOH and wood vinegar for disposal purposes.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 171	Date: 06/28/2021
Photo Coordinates	
Lat	46.572533
Long	-122.728989
Direction Photo Taken:	**N**

Description:

Secondary Containment Area. Darker material on the right is solidified AST1 sludge material. Lighter material on the left has not been mixed with sludge.

Photo No. 172	Date: 06/28/2021
Photo Coordinates	
Lat	46.598586
Long	-122.759225
Direction Photo Taken:	**W**

Description:

Platform of AST1 removed from the Secondary Containment Area and covered with plastic.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 173	Date: 06/28/2021
Photo Coordinates	
Lat	46.572494
Long	-122.7286
Direction Photo Taken: NW	
Description: AST1 sludge material being further solidified.	

Photo No. 174	Date: 06/28/2021
Photo Coordinates	
Lat	46.572289
Long	-122.729233
Direction Photo Taken: SE	
Description: ERRS contractor wetting a high traffic corridor to suppress dust.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 175	Date: 06/28/2021
Photo Coordinates	
Lat	46.572608
Long	-122.728644
Direction Photo Taken:	**SE**

Description:

ERRS contractors cutting up the top of AST2.

Photo No. 176	Date: 06/28/2021
Photo Coordinates	
Lat	46.572617
Long	-122.728692
Direction Photo Taken:	**S**

Description:

ERRS contractors cutting up the base of AST2.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 177	Date: 06/28/2021
Photo Coordinates	
Lat	46.572589
Long	-122.728631
Direction Photo Taken:	**S**

Description:

AST2 sludge material being solidified and consolidated.

Photo No. 178	Date: 06/28/2021
Photo Coordinates	
Lat	46.572442
Long	-122.7286
Direction Photo Taken:	**NW**

Description:

AST2 platform stacked on top of AST1 platform. AST2 sludge material being solidified and consolidated inside Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 179	Date: 06/29/2021
Photo Coordinates	
Lat	46.572533
Long	-122.729181
Direction Photo Taken:	**S**

Description:

ERRS contractor transferring tote to the Secondary Containment Area.

Photo No. 180	Date: 06/29/2021
Photo Coordinates	
Lat	46.5724
Long	-122.728592
Direction Photo Taken:	**N**

Description:

AST2 sludge material being solidified and consolidated.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 181	Date: 06/29/2021
Photo Coordinates	
Lat	46.572361
Long	-122.728531
Direction Photo Taken:	**N**

Description:

Totes being emptied into the Secondary Containment Area to be solidified.

Photo No. 182	Date: 06/29/2021
Photo Coordinates	
Lat	46.572433
Long	-122.728469
Direction Photo Taken:	**NW**

Description:

Totes being emptied into the Secondary Containment Area to be solidified.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 183	Date: 06/29/2021
Photo Coordinates	
Lat	46.572464
Long	-122.728569
Direction Photo Taken:	**NW**

Description:

Sorbent being spread onto contaminant coated tote cages.

Photo No. 184	Date: 06/29/2021
Photo Coordinates	
Lat	46.572475
Long	-122.7285
Direction Photo Taken:	**W**

Description:

Totes being emptied into the Secondary Containment Area to solidify contents.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 185	Date: 06/29/2021
Photo Coordinates	
Lat	46.572625
Long	-122.728783
Direction Photo Taken:	**SE**

Description:

Totes being emptied into the Secondary Containment Area to solidify contents.

Photo No. 186	Date: 06/29/2021
Photo Coordinates	
Lat	46.572453
Long	-122.728622
Direction Photo Taken:	**N**

Description:

Totes being emptied into the Secondary Containment Area to solidify contents.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 187	Date: 06/29/2021
Photo Coordinates	
Lat	46.572433
Long	-122.7286
Direction Photo Taken:	**S**

Description:

ERRS contractors testing pH balancing on wood vinegar waste with liquid NaOH solution.

Photo No. 188	Date: 06/29/2021
Photo Coordinates	
Lat	46.572636
Long	-122.728753
Direction Photo Taken:	**SE**

Description:

Emptied totes in the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 189	Date: 06/30/2021
Photo Coordinates	
Lat	46.572403
Long	-122.728644
Direction Photo Taken: N	
Description: Tote sludge material being solidified and consolidated.	

Photo No. 190	Date: 06/30/2021
Photo Coordinates	
Lat	46.572731
Long	-122.728661
Direction Photo Taken: S	
Description: ERRS contractors pumping out material from AST3.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 191	Date: 06/30/2021
Photo Coordinates	
Lat	46.572617
Long	-122.728547
Direction Photo Taken:	**NW**

Description:

Cut up totes staged in the foreground. Tote sludge material being solidified and consolidated in the middle ground. ERRS contractors pumping out material from AST3 in the background.

Photo No. 192	Date: 06/30/2021
Photo Coordinates	
Lat	46.572133
Long	-122.728761
Direction Photo Taken:	**N**

Description:

ERRS contractors conducting waste transfer activities.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 193	Date: 06/30/2021
Photo Coordinates	
Lat	46.572353
Long	-122.728583
Direction Photo Taken:	**NE**

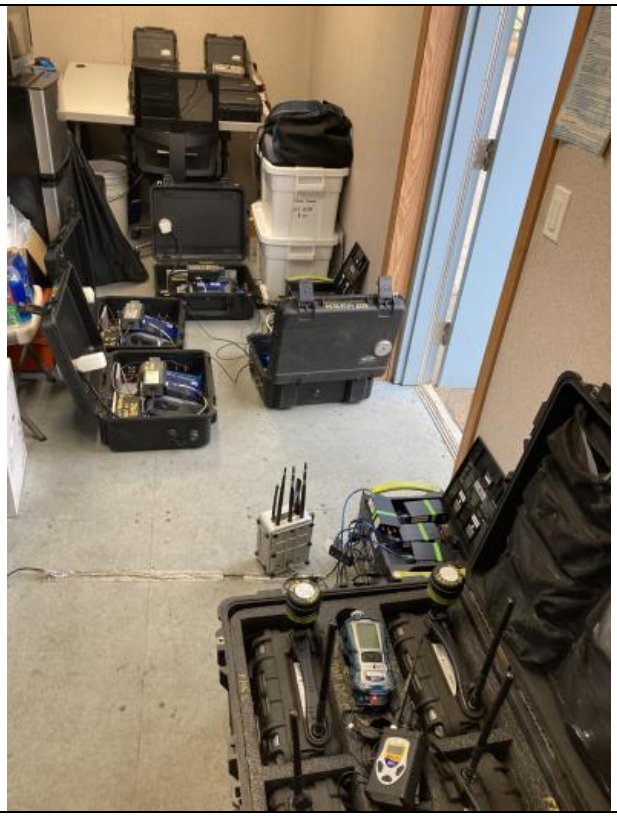
Description:

Excavator is moving cut up totes from Secondary Containment Area to a staging area just outside of containment.

Photo No. 194	Date: 06/30/2021
Photo Coordinates	
Lat	46.572783
Long	-122.729431
Direction Photo Taken:	**E**

Description:

Monitoring equipment being set up to charge overnight in the START trailer.



PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 195	Date: 07/01/2021
Photo Coordinates	
Lat	46.572581
Long	-122.729228
Direction Photo Taken:	**E**

Description:

Hazardous waste that has been consolidated into appropriate Department of Transportation (DOT) containers.

Photo No. 196	Date: 07/01/2021
Photo Coordinates	
Lat	46.57245
Long	-122.7285
Direction Photo Taken:	**N**

Description:

Solidification material being dumped into the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 197	Date: 07/01/2021
Photo Coordinates	
Lat	46.572592
Long	-122.729214
Direction Photo Taken:	**N**

Description:

Sludge material being solidified and consolidated.

Photo No. 198	Date: 07/01/2021
Photo Coordinates	
Lat	46.572256
Long	-122.729186
Direction Photo Taken:	**NE**

Description:

Totes staged at the Lean-to Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
199	07/02/2021

Photo Coordinates	
Lat	46.572406
Long	-122.728764

Direction Photo Taken: N

Description:

ERRS contractors removing cut-up totes and debris from Secondary Containment Area.

Photo No.	Date:
200	07/02/2021

Photo Coordinates	
Lat	46.572589
Long	-122.729222

Direction Photo Taken: NE

Description:

Excavator transferring cut up totes and debris from Secondary Containment Area into roll-off containers.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 201	Date: 07/02/2021
Photo Coordinates	
Lat	46.572119
Long	-122.729589
Direction Photo Taken:	**N**

Description:

ERRS contactor preparing a drum to be lifted into an overpack drum at the North Warehouse.

Photo No. 202	Date: 07/02/2021
Photo Coordinates	
Lat	46.572181
Long	-122.729933
Direction Photo Taken:	**N**

Description:

ERRS contractors lowering a drum into an overpack drum at the North Warehouse.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 203	Date: 07/02/2021
Photo Coordinates	
Lat	46.572181
Long	-122.729933
Direction Photo Taken:	**N**

Description:

ERRS contractors lowering a drum into an overpack drum at the North Warehouse.

Photo No. 204	Date: 07/02/2021
Photo Coordinates	
Lat	46.572592
Long	-122.729222
Direction Photo Taken:	**N**

Description:

ERRS contractors lifting a drum to be placed into an overpack drum at the Dry Kiln Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
205	07/02/2021

Photo Coordinates	
Lat	46.572589
Long	-122.729222

Direction Photo Taken: N

Description:

ERRS contractors preparing to seal an overpack drum.

Photo No.	Date:
206	07/02/2021

Photo Coordinates	
Lat	46.572514
Long	-122.728908

Direction Photo Taken: SE

Description:

ERRS contractors preparing to demolish AST4 at the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 207	Date: 07/02/2021
Photo Coordinates	
Lat	46.572603
Long	-122.728686
Direction Photo Taken:	SE

Description:

Roll-off container with cut up tote panels staged outside of Secondary Containment Area.

Photo No. 208	Date: 07/02/2021
Photo Coordinates	
Lat	46.572217
Long	-122.7295
Direction Photo Taken:	E

Description:

ERRS contractors preparing a drum to be moved to an overpack drum.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 209	Date: 07/06/2021
Photo Coordinates	
Lat	46.572589
Long	-122.729211
Direction Photo Taken:	**NW**

Description:

ERRS contractors sealing an overpack drum at the Dry Kiln Building.

Photo No. 210	Date: 07/06/2021
Photo Coordinates	
Lat	46.572586
Long	-122.729225
Direction Photo Taken:	**NW**

Description:

Interior of the Dry Kiln Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 211	Date: 07/06/2021
Photo Coordinates	
Lat	46.572111
Long	-122.729603
Direction Photo Taken:	**W**

Description:

Overpack drums staged in the North Warehouse.

Photo No. 212	Date: 07/06/2021
Photo Coordinates	
Lat	46.572164
Long	-122.729275
Direction Photo Taken:	**N**

Description:

ERRS contractors taking inventory of waste remaining in the Dry Kiln Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 213	Date: 07/06/2021
Photo Coordinates	
Lat	46.572564
Long	-122.729392
Direction Photo Taken:	**SE**

Description:

DOT containerized waste staged outside of the Pyrolysis Building for pick-up.

Photo No. 214	Date: 07/06/2021
Photo Coordinates	
Lat	46.572608
Long	-122.729214
Direction Photo Taken:	**NW**

Description:

ERRS contractors loading DOT containerized waste onto a truck to be delivered to the appropriate waste disposal facility.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 215	Date: 07/06/2021
Photo Coordinates	
Lat	46.572608
Long	-122.729214
Direction Photo Taken:	**N**

Description:

ERRS contractors loading DOT containerized waste onto a truck to be delivered to the appropriate waste disposal facility.

Photo No. 216	Date: 07/06/2021
Photo Coordinates	
Lat	46.572589
Long	-122.729222
Direction Photo Taken:	**NW**

Description:

ERRS contractors loading an overpack drum onto a truck to be delivered to the appropriate waste disposal facility.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 217	Date: 07/06/2021
Photo Coordinates	
Lat	46.572472
Long	-122.729114
Direction Photo Taken:	**W**

Description:

ERRS contractors loading an overpack drum onto a truck to be delivered to the appropriate waste disposal facility.

Photo No. 218	Date: 07/06/2021
Photo Coordinates	
Lat	46.572636
Long	-122.728878
Direction Photo Taken:	**SE**

Description:

ERRS contractors demolishing AST3 at the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 219	Date: 07/06/2021
Photo Coordinates	
Lat	46.572686
Long	-122.728742
Direction Photo Taken: SE	

Description:

Sludge material being solidified and consolidated.

Photo No. 220	Date: 07/06/2021
Photo Coordinates	
Lat	46.572586
Long	-122.729233
Direction Photo Taken: SE	

Description:

ERRS contractors emptying containers to be solidified at the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 221	Date: 07/06/2021
Photo Coordinates	
Lat	46.572586
Long	-122.729214
Direction Photo Taken:	**N**

Description:

Sludge material being solidified and consolidated.

Photo No. 222	Date: 07/06/2021
Photo Coordinates	
Lat	46.572589
Long	-122.729222
Direction Photo Taken:	**S**

Description:

ERRS contractors collecting a sample from a tote stage at the Lean-to Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 223	Date: 07/06/2021
Photo Coordinates	
Lat	46.572603
Long	-122.729197
Direction Photo Taken: S	
Description: ERRS contractors collecting a sample from a tote staged at the Lean-to Area. Sample was to be used to check pH level.	

Photo No. 224	Date: 07/08/2021
Photo Coordinates	
Lat	46.572292
Long	-122.72885
Direction Photo Taken: NW	
Description: ERRS contractors at the tote staging area pumping NaOH into a tote of wood vinegar raise the pH to 6.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 225	Date: 07/08/2021
Photo Coordinates	
Lat	46.57225
Long	-122.728936
Direction Photo Taken: N	
Description: ERRS contractors at the tote staging area pumping NaOH into a tote of wood vinegar to raise the pH to 6.	

Photo No. 226	Date: 07/08/2021
Photo Coordinates	
Lat	46.572333
Long	-122.729181
Direction Photo Taken: SE	
Description: ERRS contractors assembling a sock filtration system to prevent wood tar solids from being pumped into vacuum trucks.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 227	Date: 07/09/2021
Photo Coordinates	
Lat	46.57235
Long	-122.729194
Direction Photo Taken:	**W**

Description:

ERRS contractors pumping pH balanced wood vinegar from totes, through the sock filtration system, and into a vacuum truck.

Photo No. 228	Date: 07/09/2021
Photo Coordinates	
Lat	46.572292
Long	-122.728753
Direction Photo Taken:	**SW**

Description:

ERRS contractors pumping pH balanced wood vinegar from totes, through the sock filtration system, and into a vacuum truck.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 229	Date: 07/09/2021
Photo Coordinates	
Lat	46.572258
Long	-122.728906
Direction Photo Taken:	**SW**

Description:

ERRS contractors pumping pH balanced wood vinegar from totes, through the sock filtration system, and into a vacuum truck. Secondary containment has been constructed around the sock filtration system.

Photo No. 230	Date: 07/09/2021
Photo Coordinates	
Lat	46.572239
Long	-122.728911
Direction Photo Taken:	**S**

Description:

ERRS contractors pumping pH balanced wood vinegar from totes, through the sock filtration system, and into a vacuum truck. Filtered solids staged at the edge of secondary containment in the immediate foreground.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 231	Date: 07/09/2021
Photo Coordinates	
Lat	46.572239
Long	-122.728889
Direction Photo Taken:	**SE**

Description:

ERRS contractors conducting waste transfer activities.

Photo No. 232	Date: 07/09/2021
Photo Coordinates	
Lat	46.57235
Long	-122.728797
Direction Photo Taken:	**SE**

Description:

ERRS contractors conducting waste transfer activities.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 233	Date: 07/09/2021
Photo Coordinates	
Lat	46.572281
Long	-122.728889
Direction Photo Taken:	**S**

Description:

ERRS contractors pumping pH balanced wood vinegar from totes, through the sock filtration system, and into a vacuum truck.

Photo No. 234	Date: 07/09/2021
Photo Coordinates	
Lat	46.572369
Long	-122.728631
Direction Photo Taken:	**N**

Description:

Solidified waste inside the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 235	Date: 07/09/2021
Photo Coordinates	
Lat	46.572339
Long	-122.728906
Direction Photo Taken:	**SW**

Description:

ERRS contractors emptying the sock filtration system into a cut bottom of a tote at the tote staging area.

Photo No. 236	Date: 07/10/2021
Photo Coordinates	
Lat	46.572567
Long	-122.728775
Direction Photo Taken:	**S**

Description:

ERRS contractors determining the volume and pH of AST5 at the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 237	Date: 07/10/2021
Photo Coordinates	
Lat	46.572411
Long	-122.728631
Direction Photo Taken: N	
Description: ERRS contractor preparing to mix wood vinegar with liquid NaOH in order to balance to pH of 6.	

Photo No. 238	Date: 07/10/2021
Photo Coordinates	
Lat	46.572425
Long	-122.728714
Direction Photo Taken: N	
Description: ERRS contractor preparing to mix wood vinegar with liquid NaOH in order to balance to pH of 6.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 239	Date: 07/10/2021
Photo Coordinates	
Lat	46.572481
Long	-122.728631
Direction Photo Taken:	**NW**
Description: Excavator demolishing the remainder of AST3.	

Photo No. 240	Date: 07/12/2021
Photo Coordinates	
Lat	46.572486
Long	-122.728508
Direction Photo Taken:	**SW**
Description: Emptied totes staged south of the Secondary Containment Area.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
241	07/12/2021

Photo Coordinates	
Lat	46.572403
Long	-122.728522

Direction Photo Taken: SW

Description:

Tote staging area.

Photo No.	Date:
242	07/12/2021

Photo Coordinates	
Lat	46.572175
Long	-122.728875

Direction Photo Taken: N

Description:

ERRS contractors mixing tote wood vinegar with liquid NaOH in order to balance to pH of 6.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 243	Date: 07/12/2021
Photo Coordinates	
Lat	46.572189
Long	-122.728875
Direction Photo Taken:	**NE**

Description:

ERRS contractors mixing tote wood vinegar with liquid NaOH in order to balance to pH of 6.

Photo No. 244	Date: 07/13/2021
Photo Coordinates	
Lat	46.572644
Long	-122.728819
Direction Photo Taken:	**S**

Description:

ERRS contractors pumping waste from AST5, through the sock filtration system, and into a vacuum truck.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 245	Date: 07/13/2021
Photo Coordinates	
Lat	46.572608
Long	-122.728683
Direction Photo Taken:	**W**

Description:

ERRS contractors pumping waste from AST5, through the sock filtration system, and into a vacuum truck.

Photo No. 246	Date: 07/13/2021
Photo Coordinates	
Lat	46.592225
Long	-122.753608
Direction Photo Taken:	**N**

Description:

ERRS contractor removing cut up tote panels from Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 247	Date: 07/13/2021
Photo Coordinates	
Lat	46.572314
Long	-122.728792
Direction Photo Taken:	**SW**

Description:

ERRS contractors pumping pH balanced wood vinegar from totes, through the sock filtration system, and into a vacuum truck.

Photo No. 248	Date: 07/13/2021
Photo Coordinates	
Lat	46.572511
Long	-122.728492
Direction Photo Taken:	**NW**

Description:

Excavator demolishing AST5.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 249	Date: 07/13/2021
Photo Coordinates	
Lat	46.572547
Long	-122.728517
Direction Photo Taken:	**SE**

Description:

Excavator removing the AST5 platform from the Secondary Containment Area.

Photo No. 250	Date: 07/13/2021
Photo Coordinates	
Lat	46.572578
Long	-122.728806
Direction Photo Taken:	**SE**

Description:

Excavator demolishing AST5.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 251	Date: 07/13/2021
Photo Coordinates	
Lat	46.572139
Long	-122.728942
Direction Photo Taken: N	
Description: ERRS contractor measuring the pH of waste in a tote after NaOH application.	

Photo No. 252	Date: 07/13/2021
Photo Coordinates	
Lat	46.572492
Long	-122.728522
Direction Photo Taken: W	
Description: Excavator demolishing AST5.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
253	07/13/2021

Photo Coordinates	
Lat	46.5726
Long	-122.728797

Direction Photo Taken: SE

Description:

ERRS contractor cutting up AST5.

Photo No.	Date:
254	07/13/2021

Photo Coordinates	
Lat	46.572486
Long	-122.728622

Direction Photo Taken: NE

Description:

Solidified material, debris, and an AST platform in the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
255	07/13/2021

Photo Coordinates	
Lat	46.572169
Long	-122.730233

Direction Photo Taken: NE

Description:

ERRS contractor investigating debris found in a clearing.

Photo No.	Date:
256	07/13/2021

Photo Coordinates	
Lat	46.572617
Long	-122.728608

Direction Photo Taken: NW

Description:

ERRS contractor cutting up an AST platform inside the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 257	Date: 07/13/2021
Photo Coordinates	
Lat	46.572514
Long	-122.728531
Direction Photo Taken:	**NW**

Description:

ERRS contractors at the Lean-to Area pumping NaOH into a tank to raise the pH of the waste.

Photo No. 258	Date: 07/13/2021
Photo Coordinates	
Lat	46.572778
Long	-122.729339
Direction Photo Taken:	**NE**

Description:

Tank with its outer wall marked with new adjusted pH value.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 259	Date: 07/14/2021
Photo Coordinates	
Lat	46.572303
Long	-122.728875
Direction Photo Taken: SW	
Description: ERRS contractors pumping pH balanced wood vinegar from totes, through the sock filtration system, and into a vacuum truck.	

Photo No. 260	Date: 07/14/2021
Photo Coordinates	
Lat	46.572742
Long	-122.728706
Direction Photo Taken: S	
Description: Excavator removing debris from the Secondary Containment Area.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 261	Date: 07/14/2021
Photo Coordinates	
Lat	46.572208
Long	-122.729286
Direction Photo Taken:	**NW**

Description:

EPA and ERRS contractors inspecting the interior of the Dry Kiln Building.

Photo No. 262	Date: 07/14/2021
Photo Coordinates	
Lat	46.569303
Long	-122.714431
Direction Photo Taken:	**NW**

Description:

EPA and ERRS contractors inspecting the interior of the North Warehouse.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 263	Date: 07/14/2021
Photo Coordinates	
Lat	46.572578
Long	-122.728767
Direction Photo Taken: E	
Description: Totes being emptied into the Secondary Containment Area to be solidified.	

Photo No. 264	Date: 07/14/2021
Photo Coordinates	
Lat	46.572567
Long	-122.728675
Direction Photo Taken: E	
Description: Totes being emptied into the Secondary Containment Area to be solidified.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 265	Date: 07/14/2021
Photo Coordinates	
Lat	46.572675
Long	-122.728783
Direction Photo Taken:	**E**

Description:

Totes being emptied into the Secondary Containment Area to be solidified.

Photo No. 266	Date: 07/14/2021
Photo Coordinates	
Lat	46.572569
Long	-122.728806
Direction Photo Taken:	**E**

Description:

Excavator solidifying tote sludge in the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 267	Date: 07/15/2021
Photo Coordinates	
Lat	46.572556
Long	-122.728714
Direction Photo Taken:	**E**

Description:

ERRS contractor power washing sludge off deconstructed tote cages.

Photo No. 268	Date: 07/15/2021
Photo Coordinates	
Lat	46.572517
Long	-122.728583
Direction Photo Taken:	**N**

Description:

Totes being emptied into the Secondary Containment Area to be solidified.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 269	Date: 07/16/2021
Photo Coordinates	
Lat	46.572625
Long	-122.728753
Direction Photo Taken:	**N**

Description:

Totes being emptied into the Secondary Containment Area to be solidified.

Photo No. 270	Date: 07/16/2021
Photo Coordinates	
Lat	46.572497
Long	-122.728325
Direction Photo Taken:	**SE**

Description:

Totes being emptied into the Secondary Containment Area to be solidified.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 271	Date: 07/16/2021
Photo Coordinates	
Lat	46.572419
Long	-122.728653
Direction Photo Taken:	**N**

Description:

Excavator solidifying tote sludge in Secondary Containment Area.

Photo No. 272	Date: 07/16/2021
Photo Coordinates	
Lat	46.572614
Long	-122.729225
Direction Photo Taken:	**NE**

Description:

Excavator moving wood chips from the Wood Chip Storage Area to the Secondary Containment Area to be used for solidification activities.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 273	Date: 07/16/2021
Photo Coordinates	
Lat	46.572692
Long	-122.728608
Direction Photo Taken: S	
Description: Excavator solidifying tote sludge in Secondary Containment Area.	

Photo No. 274	Date: 07/16/2021
Photo Coordinates	
Lat	46.572506
Long	-122.728653
Direction Photo Taken: N	
Description: Excavator solidifying tote sludge in Secondary Containment Area.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 275	Date: 07/19/2021
Photo Coordinates	
Lat	46.572322
Long	-122.729125
Direction Photo Taken:	**E**

Description:

Biochar being staged at the Lean-to Area for later disposal by Washington Department of Ecology (Ecology).

Photo No. 276	Date: 07/19/2021
Photo Coordinates	
Lat	46.572167
Long	-122.729133
Direction Photo Taken:	**E**

Description:

Tank moved from Lean-to Area to tote staging area to be pumped into a vacuum truck.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 277	Date: 07/19/2021
Photo Coordinates	
Lat	46.572281
Long	-122.729033
Direction Photo Taken:	**SW**

Description:

ERRS contractors pumping pH balanced wood vinegar from a tank, through the sock filtration system, and into a vacuum truck.

Photo No. 278	Date: 07/19/2021
Photo Coordinates	
Lat	46.572403
Long	-122.728683
Direction Photo Taken:	**N**

Description:

Excavator solidifying tote sludge in Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 279	Date: 07/19/2021
Photo Coordinates	
Lat	46.572175
Long	-122.729111
Direction Photo Taken: E	
Description: Tote staging area cleared of staged totes.	

Photo No. 280	Date: 07/19/2021
Photo Coordinates	
Lat	46.572444
Long	-122.728653
Direction Photo Taken: N	
Description: Excavator solidifying tote sludge in Secondary Containment Area.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
281	07/19/2021

Photo Coordinates	
Lat	46.572186
Long	-122.729003

Direction Photo Taken: NE

Description:

Tote staging area cleared of totes and secondary containment.

Photo No.	Date:
282	07/19/2021

Photo Coordinates	
Lat	46.572589
Long	-122.72885

Direction Photo Taken: SE

Description:

ERRS contractors demolishing totes in Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 283	Date: 07/19/2021
Photo Coordinates	
Lat	46.598983
Long	-122.761125
Direction Photo Taken:	**SE**

Description:

ERRS contractors demolishing totes in Secondary Containment Area.

Photo No. 284	Date: 07/19/2021
Photo Coordinates	
Lat	46.572517
Long	-122.729172
Direction Photo Taken:	**S**

Description:

Loaded roll-off containers being towed off Site to the appropriate waste disposal facility.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 285	Date: 07/19/2021
Photo Coordinates	
Lat	46.572656
Long	-122.728225
Direction Photo Taken:	**E**

Description:

ERRS contractor pressure washing the sock filtration system inside the Secondary Containment Area.

Photo No. 286	Date: 07/19/2021
Photo Coordinates	
Lat	46.572681
Long	-122.728547
Direction Photo Taken:	**W**

Description:

ERRS contractor pressure washing the sock filtration system inside the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 287	Date: 07/20/2021
Photo Coordinates	
Lat	46.572578
Long	-122.728836
Direction Photo Taken:	**SE**

Description:

ERRS cutting up AST4 in the Secondary Containment Area.

Photo No. 288	Date: 07/20/2021
Photo Coordinates	
Lat	46.572128
Long	-122.728967
Direction Photo Taken:	**N**

Description:

ERRS contractors grading the tote staging area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 289	Date: 07/20/2021
Photo Coordinates	
Lat	46.572647
Long	-122.728972
Direction Photo Taken: E	
Description: ERRS contractors power washing the excavator.	

Photo No. 290	Date: 07/21/2021
Photo Coordinates	
Lat	46.572436
Long	-122.729028
Direction Photo Taken: S	
Description: Vacuum truck that arrived back on Site due to wood tar blocking the valve of the tank.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 291	Date: 07/21/2021
Photo Coordinates	
Lat	46.572281
Long	-122.728761
Direction Photo Taken:	**S**

Description:

ERRS contractors prepare to conduct confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.

Photo No. 292	Date: 07/21/2021
Photo Coordinates	
Lat	46.572283
Long	-122.72885
Direction Photo Taken:	**SW**

Description:

ERRS contractors prepare to conduct confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 293	Date: 07/21/2021
Photo Coordinates	
Lat	46.572267
Long	-122.729103
Direction Photo Taken:	**SE**

Description:

Vacuum truck stationed at the former tote staging area for cleaning.

Photo No. 294	Date: 07/21/2021
Photo Coordinates	
Lat	46.572803
Long	-122.728133
Direction Photo Taken:	**SE**

Description:

Vacuum truck stationed at the former tote staging area for cleaning.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 295	Date: 07/21/2021
Photo Coordinates	
Lat	46.572497
Long	-122.728631
Direction Photo Taken:	**N**
Description: Secondary Containment Area cleared of all ASTs.	

Photo No. 296	Date: 07/21/2021
Photo Coordinates	
Lat	46.572619
Long	-122.728792
Direction Photo Taken:	**SE**
Description: ERRS contractors building a berm to prepare for excavator bucket decontamination.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 297	Date: 07/21/2021
Photo Coordinates	
Lat	46.5726
Long	-122.728753
Direction Photo Taken:	**SE**

Description:

ERRS contractor decontaminating the excavator bucket inside the Secondary Containment Area.

Photo No. 298	Date: 07/21/2021
Photo Coordinates	
Lat	46.572578
Long	-122.728806
Direction Photo Taken:	**E**

Description:

ERRS contractor power washing the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 299	Date: 07/21/2021
Photo Coordinates	
Lat	46.572433
Long	-122.728639
Direction Photo Taken:	**N**

Description:

ERRS contractor power washing the Secondary Containment Area.

Photo No. 300	Date: 07/21/2021
Photo Coordinates	
Lat	46.572567
Long	-122.728653
Direction Photo Taken:	**SW**

Description:

ERRS contractor power washing the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 301	Date: 07/21/2021
Photo Coordinates	
Lat	46.5726
Long	-122.728792
Direction Photo Taken:	**NE**

Description:

ERRS contractor decontaminating the skidsteer.

Photo No. 302	Date: 07/22/2021
Photo Coordinates	
Lat	46.572547
Long	-122.728775
Direction Photo Taken:	**S**

Description:

ERRS contractor solidifying power washing water.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 303	Date: 07/22/2021
Photo Coordinates	
Lat	46.572403
Long	-122.72885
Direction Photo Taken:	**SE**

Description:

ERRS contractor power washing the Secondary Containment Area.

Photo No. 304	Date: 07/22/2021
Photo Coordinates	
Lat	46.572425
Long	-122.728792
Direction Photo Taken:	**S**

Description:

Clean Harbors contractors preparing to clean out the tank of the vacuum truck with EPA oversight.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 305	Date: 07/22/2021
Photo Coordinates	
Lat	46.5722
Long	-122.728881
Direction Photo Taken:	**SW**

Description:

Clean Harbors contractors prepare to conduct confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.

Photo No. 306	Date: 07/22/2021
Photo Coordinates	
Lat	46.572269
Long	-122.728775
Direction Photo Taken:	**SW**

Description:

Clean Harbors contractors prepare to conduct confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 307	Date: 07/22/2021
Photo Coordinates	
Lat	46.572444
Long	-122.729089
Direction Photo Taken: S	
Description: Clean Harbors contractors prepare to conduct confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.	

Photo No. 308	Date: 07/22/2021
Photo Coordinates	
Lat	46.572339
Long	-122.728661
Direction Photo Taken: N	
Description: Excavator demolishing the Secondary Containment Area.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 309	Date: 07/22/2021
Photo Coordinates	
Lat	46.572228
Long	-122.72905
Direction Photo Taken: S	

Description:

Clean Harbors contractors prepare to conduct confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.

Photo No. 310	Date: 07/22/2021
Photo Coordinates	
Lat	46.572419
Long	-122.728639
Direction Photo Taken: N	

Description:

Excavator demolishing the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 311	Date: 07/22/2021
Photo Coordinates	
Lat	46.572411
Long	-122.728461
Direction Photo Taken:	**N**

Description:

Demolished Secondary Containment Area.

Photo No. 312	Date: 07/22/2021
Photo Coordinates	
Lat	46.572117
Long	-122.729011
Direction Photo Taken:	**E**

Description:

Clean Harbors contractors conducting confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 313	Date: 07/22/2021
Photo Coordinates	
Lat	46.572644
Long	-122.728753
Direction Photo Taken:	**SE**

Description:

Demolished Secondary Containment Area.

Photo No. 314	Date: 07/22/2021
Photo Coordinates	
Lat	46.572464
Long	-122.728469
Direction Photo Taken:	**NW**

Description:

Demolished Secondary Containment Area. ERRS contractor is power washing the concrete pad area north of the Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 315	Date: 07/23/2021
Photo Coordinates	
Lat	46.572636
Long	-122.729203
Direction Photo Taken:	**SW**

Description:

Roll-off containers being picked up to be delivered to the appropriate disposal facilities.

Photo No. 316	Date: 07/23/2021
Photo Coordinates	
Lat	46.572206
Long	-122.728792
Direction Photo Taken:	**SE**

Description:

Clean Harbors contractors conducting confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 317	Date: 07/23/2021
Photo Coordinates	
Lat	46.572225
Long	-122.729217
Direction Photo Taken: N/A	
Description: Multigas detector used for confined space entry activities.	

Photo No. 318	Date: 07/23/2021
Photo Coordinates	
Lat	46.572711
Long	-122.728653
Direction Photo Taken: SE	
Description: Decontaminated and demolished Secondary Containment Area.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 319	Date: 07/23/2021
Photo Coordinates	
Lat	46.572206
Long	-122.728997
Direction Photo Taken: SE	
Description: Confined space entry tripod with winch deployed over the tank manhole.	

Photo No. 320	Date: 07/23/2021
Photo Coordinates	
Lat	46.572372
Long	-122.7287
Direction Photo Taken: S	
Description: Clean Harbors contractors conducting confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 321	Date: 07/23/2021
Photo Coordinates	
Lat	46.572431
Long	-122.728753
Direction Photo Taken: S	

Description:

Clean Harbors contractors conducting confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.

Photo No. 322	Date: 07/23/2021
Photo Coordinates	
Lat	46.572083
Long	-122.728997
Direction Photo Taken: S	

Description:

Clean Harbors contractors conducting confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 323	Date: 07/23/2021
Photo Coordinates	
Lat	46.572528
Long	-122.728919
Direction Photo Taken: S	
Description: Clean Harbors contractors conducting confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.	

Photo No. 324	Date: 07/23/2021
Photo Coordinates	
Lat	46.599086
Long	-122.761244
Direction Photo Taken: SE	
Description: Clean Harbors contractors conducting confined space entry into the tank of the vacuum truck to clean out the wood tar blocking the tank valve.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
325	07/29/2021

Photo Coordinates	
Lat	46.572808
Long	-122.729569

Direction Photo Taken: S

Description:

Final site walk. North and South Warehouse, workshop, and Dry Kiln Building as viewed from the Site entrance.

Photo No.	Date:
326	07/29/2021

Photo Coordinates	
Lat	46.572739
Long	-122.729667

Direction Photo Taken: SE

Description:

Final site walk. Dry Kiln Building and Pyrolysis Building as viewed from the Site entrance.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
327	07/29/2021

Photo Coordinates	
Lat	46.5727
Long	-122.729692

Direction Photo Taken: E

Description:

Final site walk. Pyrolysis Building and Wood Chip Storage Area as viewed from the Site entrance.

Photo No.	Date:
328	07/29/2021

Photo Coordinates	
Lat	46.572644
Long	-122.7294

Direction Photo Taken: E

Description:

Final site walk. Wood Chip Storage Area as viewed from the Site entrance.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
329	07/29/2021

Photo Coordinates	
Lat	46.572644
Long	-122.7294

Direction Photo Taken: SE

Description:

Final site walk. Pyrolysis Building with heavy equipment.

Photo No.	Date:
330	07/29/2021

Photo Coordinates	
Lat	46.572658
Long	-122.729181

Direction Photo Taken: E

Description:

Final site walk. Wood Chip Storage Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 331	Date: 07/29/2021
Photo Coordinates	
Lat	46.572719
Long	-122.729203
Direction Photo Taken: SE	
Description: Final site walk. Heavy equipment north of the Pyrolysis Building.	

Photo No. 332	Date: 07/29/2021
Photo Coordinates	
Lat	46.572614
Long	-122.729019
Direction Photo Taken: E	
Description: Final site walk. Residence east of the Site as viewed from just north of the Pyrolysis Building.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 333	Date: 07/29/2021
Photo Coordinates	
Lat	46.572656
Long	-122.728881
Direction Photo Taken:	**SE**

Description:

Final site walk. Pyrolysis Building and former Secondary Containment Area.

Photo No. 334	Date: 07/29/2021
Photo Coordinates	
Lat	46.572706
Long	-122.7287
Direction Photo Taken:	**E**

Description:

Final site walk. Gate leading to the residence located east of the Site.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 335	Date: 07/29/2021
Photo Coordinates	
Lat	46.572697
Long	-122.728675
Direction Photo Taken: SE	
Description: Final site walk. Road that runs to the east of the former Secondary Containment Area.	

Photo No. 336	Date: 07/29/2021
Photo Coordinates	
Lat	46.572697
Long	-122.728683
Direction Photo Taken: S	
Description: Final site walk. Former Secondary Containment Area. Remaining AST is a water tank.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 337	Date: 07/29/2021
Photo Coordinates	
Lat	46.572631
Long	-122.728653
Direction Photo Taken: SW	
Description: Final site walk. Former Secondary Containment Area. Remaining AST is a water tank.	

Photo No. 338	Date: 07/29/2021
Photo Coordinates	
Lat	46.572583
Long	-122.7287
Direction Photo Taken: SW	
Description: Final site walk. Former Secondary Containment Area. Remaining AST is a water tank. Debris generated from the demolition of the concrete wall left against the side of the Pyrolysis Building.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 339	Date: 07/29/2021
Photo Coordinates	
Lat	46.572528
Long	-122.728706
Direction Photo Taken:	**SE**

Description:

Final site walk. Remaining infrastructure and abandoned boom lift at left as viewed from the Secondary Containment Area.

Photo No. 340	Date: 07/29/2021
Photo Coordinates	
Lat	46.572481
Long	-122.728644
Direction Photo Taken:	**NW**

Description:

Final site walk. Water AST and infrastructure left at the former Secondary Containment Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 341	Date: 07/29/2021
Photo Coordinates	
Lat	46.572339
Long	-122.728478
Direction Photo Taken: NE	
Description: Final site walk. Abandoned boom lift.	

Photo No. 342	Date: 07/29/2021
Photo Coordinates	
Lat	46.572353
Long	-122.728447
Direction Photo Taken: W	
Description: Final site walk. Former tote staging area, Lean-to Area, and Pyrolysis Building as viewed from the southeast corner of the Site.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 343	Date: 07/29/2021
Photo Coordinates	
Lat	46.572361
Long	-122.728569
Direction Photo Taken:	**SE**

Description:

Final site walk. Fire Station Pump House.

Photo No. 344	Date: 07/29/2021
Photo Coordinates	
Lat	46.572272
Long	-122.728675
Direction Photo Taken:	**SE**

Description:

Final site walk. Former tote staging area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
345	07/29/2021

Photo Coordinates	
Lat	46.572328
Long	-122.728797

Direction Photo Taken: W

Description:

Final site walk. Biochar staged at the Lean-to Area.

Photo No.	Date:
346	07/29/2021

Photo Coordinates	
Lat	46.572256
Long	-122.729033

Direction Photo Taken: SW

Description:

Final site walk. Area behind the Dry Kiln Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
347	07/29/2021

Photo Coordinates	
Lat	46.572239
Long	-122.729064

Direction Photo Taken: W

Description:

Final site walk. Dry Kiln Building as viewed from the Lean-to Area.

Photo No.	Date:
348	07/29/2021

Photo Coordinates	
Lat	46.572308
Long	-122.72915

Direction Photo Taken: E

Description:

Final site walk. Biochar staged at the Lean-to Area.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
349	07/29/2021

Photo Coordinates	
Lat	46.572344
Long	-122.729181

Direction Photo Taken: SW

Description:

Final site walk. Abandoned truck, Dry Kiln Building, and North Warehouse as viewed from the Pyrolysis Building.

Photo No.	Date:
350	07/29/2021

Photo Coordinates	
Lat	46.572533
Long	-122.728989

Direction Photo Taken: E

Description:

Final site walk. Interior of the Pyrolysis Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 351	Date: 07/29/2021
Photo Coordinates	
Lat	46.572394
Long	-122.729186
Direction Photo Taken: N	
Description: Final site walk. Interior of the Pyrolysis Building.	

Photo No. 352	Date: 07/29/2021
Photo Coordinates	
Lat	46.572381
Long	-122.729194
Direction Photo Taken: SE	
Description: Final site walk. Interior of the Pyrolysis Building.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 353	Date: 07/29/2021
Photo Coordinates	
Lat	46.572381
Long	-122.729233
Direction Photo Taken:	**NE**

Description:

Final site walk. Interior of the Pyrolysis Building.

Photo No. 354	Date: 07/29/2021
Photo Coordinates	
Lat	46.572575
Long	-122.72915
Direction Photo Taken:	**S**

Description:

Final site walk. Interior of the Pyrolysis Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 355	Date: 07/29/2021
Photo Coordinates	
Lat	46.572453
Long	-122.729233
Direction Photo Taken: S	
Description: Final site walk. Interior of the Pyrolysis Building.	

Photo No. 356	Date: 07/29/2021
Photo Coordinates	
Lat	46.572436
Long	-122.729194
Direction Photo Taken: E	
Description: Final site walk. Interior of the Pyrolysis Building.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 357	Date: 07/29/2021
Photo Coordinates	
Lat	46.572392
Long	-122.729081
Direction Photo Taken: NE	
Description: Final site walk. Interior of the Pyrolysis Building. Yellow caution tape indicates no activity took place beyond that point.	

Photo No. 358	Date: 07/29/2021
Photo Coordinates	
Lat	46.572353
Long	-122.728906
Direction Photo Taken: E	
Description: Final site walk. Interior of the Pyrolysis Building.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 359	Date: 07/29/2021
Photo Coordinates	
Lat	46.572467
Long	-122.728736
Direction Photo Taken:	**E**

Description:

Final site walk. Interior of the Pyrolysis Building.

Photo No. 360	Date: 07/29/2021
Photo Coordinates	
Lat	46.572481
Long	-122.7287
Direction Photo Taken:	**SE**

Description:

Final site walk. Interior of the Pyrolysis Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
361	07/29/2021

Photo Coordinates	
Lat	46.572375
Long	-122.728517

Direction Photo Taken: NE

Description:

Final site walk. Interior of the Pyrolysis Building.

Photo No.	Date:
362	07/29/2021

Photo Coordinates	
Lat	46.57235
Long	-122.728194

Direction Photo Taken: N

Description:

Final site walk. Interior of the Pyrolysis Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 363	Date: 07/29/2021
Photo Coordinates	
Lat	46.572308
Long	-122.728447
Direction Photo Taken:	**N**

Description:

Final site walk. Interior of the Pyrolysis Building.

Photo No. 364	Date: 07/29/2021
Photo Coordinates	
Lat	46.572631
Long	-122.728731
Direction Photo Taken:	**NW**

Description:

Final site walk. Interior of the Pyrolysis Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 365	Date: 07/29/2021
Photo Coordinates	
Lat	46.572344
Long	-122.729119
Direction Photo Taken:	**SW**

Description:

Final site walk. Interior of the Pyrolysis Building.

Photo No. 366	Date: 07/29/2021
Photo Coordinates	
Lat	46.572422
Long	-122.729172
Direction Photo Taken:	**W**

Description:

Final site walk. Interior of the Pyrolysis Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 367	Date: 07/29/2021
Photo Coordinates	
Lat	46.572569
Long	-122.729186
Direction Photo Taken:	**W**

Description:

Final site walk. Interior of the Pyrolysis Building.

Photo No. 368	Date: 07/29/2021
Photo Coordinates	
Lat	46.572619
Long	-122.729203
Direction Photo Taken:	**SW**

Description:

Final site walk. Interior of the Pyrolysis Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 369	Date: 07/29/2021
Photo Coordinates	
Lat	46.572619
Long	-122.729203
Direction Photo Taken: NW	
Description: Final site walk. Interior of the Pyrolysis Building.	

Photo No. 370	Date: 07/29/2021
Photo Coordinates	
Lat	46.5727
Long	-122.728797
Direction Photo Taken: W	
Description: Final site walk. Interior of the Pyrolysis Building.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 371	Date: 07/29/2021
Photo Coordinates	
Lat	46.572472
Long	-122.727767
Direction Photo Taken:	**SE**

Description:

Final site walk. Interior of the Pyrolysis Building.

Photo No. 372	Date: 07/29/2021
Photo Coordinates	
Lat	46.572197
Long	-122.729172
Direction Photo Taken:	**NW**

Description:

Final site walk. Dry Kiln Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 373	Date: 07/29/2021
Photo Coordinates	
Lat	46.572136
Long	-122.72915
Direction Photo Taken:	**NW**
Description: Final site walk. Interior of Dry Kiln Building.	

Photo No. 374	Date: 07/29/2021
Photo Coordinates	
Lat	46.572139
Long	-122.729194
Direction Photo Taken:	W
Description: Final site walk. Interior of Dry Kiln Building.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 375	Date: 07/29/2021
Photo Coordinates	
Lat	46.572136
Long	-122.729211
Direction Photo Taken:	**N**
Description: Final site walk. Interior of Dry Kiln Building.	

Photo No. 376	Date: 07/29/2021
Photo Coordinates	
Lat	46.572164
Long	-122.729181
Direction Photo Taken:	**NE**
Description: Final site walk. Interior of Dry Kiln Building.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 377	Date: 07/29/2021
Photo Coordinates	
Lat	46.572139
Long	-122.729333
Direction Photo Taken:	**SE**

Description:

Final site walk. Area south of the Dry Kiln Building.

Photo No. 378	Date: 07/29/2021
Photo Coordinates	
Lat	46.572106
Long	-122.729447
Direction Photo Taken:	**SW**

Description:

Final site walk. Area south of the South Warehouse.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
379	07/29/2021

Photo Coordinates	
Lat	46.572103
Long	-122.729439

Direction Photo Taken: W

Description:

Final site walk. South face of the South Warehouse.

Photo No.	Date:
380	07/29/2021

Photo Coordinates	
Lat	46.572078
Long	-122.729461

Direction Photo Taken: NW

Description:

Final site walk. Space between the South Warehouse and the workshop/Dry Kiln Building.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
381	07/29/2021

Photo Coordinates	
Lat	46.572097
Long	-122.729706

Direction Photo Taken: S

Description:

Final site walk. Southwest area of the Site.

Photo No.	Date:
382	07/29/2021

Photo Coordinates	
Lat	46.572106
Long	-122.729714

Direction Photo Taken: W

Description:

Final site walk. Southwest area of the Site. Exposed back area of the South Warehouse in the foreground. Abandoned residential house in the background.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 383	Date: 07/29/2021
Photo Coordinates	
Lat	46.572083
Long	-122.729867
Direction Photo Taken:	**N**
Description: Final site walk. Southwest area of the Site. Exposed back area of the South Warehouse.	

Photo No. 384	Date: 07/29/2021
Photo Coordinates	
Lat	46.572072
Long	-122.729881
Direction Photo Taken:	**NE**
Description: Final site walk. Southwest area of the Site. Exposed back area of the South Warehouse.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
385	07/29/2021

Photo Coordinates	
Lat	46.572075
Long	-122.729881

Direction Photo Taken: N

Description:

Final site walk. Exposed back area of the South Warehouse. Yellow caution tape indicates no activity took place beyond that point.

Photo No.	Date:
386	07/29/2021

Photo Coordinates	
Lat	46.572047
Long	-122.730064

Direction Photo Taken: N

Description:

Final site walk. Exposed back area of the condemned warehouse area. Abandoned pallets are at left.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 387	Date: 07/29/2021
Photo Coordinates	
Lat	46.572094
Long	-122.730086
Direction Photo Taken: NE	
Description: Final site walk. Exposed back area of the condemned warehouse.	

Photo No. 388	Date: 07/29/2021
Photo Coordinates	
Lat	46.572003
Long	-122.729933
Direction Photo Taken: E	
Description: Final site walk. Back road area of the Site.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No.	Date:
389	07/29/2021

Photo Coordinates	
Lat	46.572025
Long	-122.729828

Direction Photo Taken: W

Description:

Final site walk. Condemned warehouse area. Yellow caution tape indicates no activity took place beyond that point.

Photo No.	Date:
390	07/29/2021

Photo Coordinates	
Lat	46.5722
Long	-122.729697

Direction Photo Taken: SW

Description:

Final site walk. Wood chip and solidified waste stored in the South Warehouse.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 391	Date: 07/29/2021
Photo Coordinates	
Lat	46.572303
Long	-122.729722
Direction Photo Taken: W	
Description: Final site walk. North and condemned warehouse.	

Photo No. 392	Date: 07/29/2021
Photo Coordinates	
Lat	46.572328
Long	-122.729836
Direction Photo Taken: SE	
Description: Final site walk. Condemned warehouse area. Yellow caution tape indicates no activity took place beyond that point.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 393	Date: 07/29/2021
Photo Coordinates	
Lat	46.572361
Long	-122.729881
Direction Photo Taken:	**NW**

Description:

Final site walk. Biochar stored in the North Warehouse.

Photo No. 394	Date: 07/29/2021
Photo Coordinates	
Lat	46.572344
Long	-122.729875
Direction Photo Taken:	**N**

Description:

Final site walk. Interior of the North Warehouse.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 395	Date: 07/29/2021
Photo Coordinates	
Lat	46.572311
Long	-122.729819
Direction Photo Taken: W	
Description: Final site walk. Biochar stored in the North Warehouse.	

Photo No. 396	Date: 07/29/2021
Photo Coordinates	
Lat	46.572333
Long	-122.72985
Direction Photo Taken: N	
Description: Final site walk. Interior of the North Warehouse.	

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 397	Date: 07/29/2021
Photo Coordinates	
Lat	46.572344
Long	-122.729889
Direction Photo Taken:	**SE**

Description:

Final site walk. Interior of condemned warehouse as viewed from the North Warehouse.

Photo No. 398	Date: 07/29/2021
Photo Coordinates	
Lat	46.572344
Long	-122.729911
Direction Photo Taken:	**E**

Description:

Final site walk. Dirt road leading away from the North Warehouse as viewed from the North Warehouse

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 399	Date: 07/29/2021
Photo Coordinates	
Lat	46.572372
Long	-122.72985
Direction Photo Taken:	**NE**

Description:

Final site walk. Area south of the fence line and southwest of the Site entrance.

Photo No. 400	Date: 07/29/2021
Photo Coordinates	
Lat	46.572303
Long	-122.729575
Direction Photo Taken:	**NE**

Description:

Final site walk. Area just south of the Site entrance.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
Onalaska Wood Pyrolysis TCRA	Onalaska, Lewis County, Washington	68HE0721F0069

Photo No. 401	Date: 07/29/2021
Photo Coordinates	
Lat	46.572394
Long	-122.729539
Direction Photo Taken:	**NW**

Description:

Final site walk. Area just southwest of the Site entrance.

Photo No. 402	Date: 07/29/2021
Photo Coordinates	
Lat	46.572511
Long	-122.729392
Direction Photo Taken:	**NW**

Description:

Final site walk. Site entrance as viewed from the Site.

ATTACHMENT B

SITE LOGBOOKS

Onalaska

TCRA

Logbook 1 of 3

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T.L.

Project Onalaska Wood Pyrolysis
TCRA.

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CONTENTS T.L.

PAGE	REFERENCE	DATE
	Taylor Law - T.L. -	
	Chris Landrum - CL -	

T.L.

T.L.

6/14/21 Onalaska TCRA —— T.L.

0925 START Law, Criss; Nguyen onsite T.L. HAZCAT, air monitoring location set.

1015 Safety Briefing T.L. with EPA and ERRS. Scope discussion, ERRS to continue site setup and begin T.L. Staging of TG04 totes T.L. for START Non-Haz checks and preparation for Non-Haz pump out.

1236 START Team stops for lunch

1252 START return from lunch. T.L. START setting up Misc. container staging area in Pyrolysis. T.L. Building, deemed BD04. START to assess and record all Misc. T.L. containers to be HAZCAT, into pre-est. Survey 123 form on ipad. T.L.

1539 START team completed BD04 building container assessment. START to begin final pH and Non-Haz/Haz assessment of TG04 totes due for pump and disposal tomorrow —— T.L.

1745 START completes assessment of (12) TG04 totes, all pH values below 3.3, all totes should be considered Hazardous within RCRA

T.L. Onalaska TCRA —— T.L. 6/14/21

criteria. START to discuss with EPA. —— T.L.

1815 START demobilizes for hotel

1830 START arrives at hotel. ERRS to pump out liquid from Secondary containment first thing in morning. —— T.L.

End log day

6-14-21

6/15/21 Onalaska TCRA — T.L.

0645 START meeting with ERRS safety brief ~~with EPA~~. — T.L.

Weather: Partially Cloudy 54°F 2 mph wind out of North — T.L.

0700 Discussion with OSC on course of action of Hazardous and potential of more Hazardous waste totes in TG04. OSC directs START to screen every tote prior to ERRS pump actions on all TG04 totes. — T.L.

0950 START Law and Criss assess ~~45~~ 53 totes in TG04, bringing total to 45 assessed TG04 totes. pH, air monitoring readings, and appearance observations indicate 7 of the 45 totes assessed so far in TG04 can be deemed on Non-Haz with consolidation of Secondary containment fluid (for purpose of dilution). ERRS to stage remaining totes in TG04 for START assessment. — T.L.

1001 START to inventory remaining Misc. containers on site for HAZCAT sampling. — T.L.

1141 START Nguyen begins assessing Misc. containers for HAZCAT inventory in

T.L. Onalaska TCRA 6/15/21

BD03 Dry Kiln Building. — T.L.

1203 START breaks for lunch — T.L.

1210 START team returns from lunch and begins assessing more TG04 totes START Nguyen to continue inventory of Misc. containers for HAZCAT. — T.L.

1402 START Law and Criss determine that 28 totes, based on appearance/~~items to other Haz totes on site~~, pH, and air monitoring results, in TG04 can be sent as non-Haz disposal. The remaining 140 totes in TG04 should be considered Hazardous for offsite disposal. — T.L.

1418 START team to begins HAZCAT of BD04 samples — T.L.

1542 WA Ecology onsite — T.L.

1608 START Law begins inventory of BD02. — T.L.

1627 START team completes inventory of BD02, moves on to inventory Misc. containers and drums in BD01

1752 START team completes Inventory of all Misc containers for HAZCAT from buildings BD01 (N. Sawmill) BD02 (S. Sawmill) and BD04 (Pyrolysis/Lean-To Area). — T.L.

1806 START demobilizes from site — T.L.

6/16/21 - Onalaska TCRA —— T.L

0645 START team onsite, Safety meeting with ERRS and EPA held. Weather: Clear, 64°F, winds 1-2 mph out east. Plan for day: Non-Haz. trucks (2) will arrive in 700-930am window for pump out of Secondary Containment and Non-Haz determined totes in Lean-To Area. (2) Hazardous waste stream ~~totes~~ trucks will arrive in late morning to begin pumping Hazardous deemed totes in Lean-To Area. START to set-up air monitoring around Lean-To pump area for worker Health & Safety and complete Misc. container inventory and HAZCAT

815 START stations (3) Area Rae units around staged totes South of Lean-To area. Area Raes are units 5, 7, and 8. (1) Area Rae Unit 6 ~~will be~~ is stationed below Lean-To. START to utilize Pro Rae Guardian software to monitor units accordingly./remotely T.L.

0835 First truck (NRC Environmental WA 01643AB plate) onsite to begin pumping of Non-Haz totes —— T.L

0840 Second truck (NRC Environmental WA 42425RP plate) onsite to begin pumping of Non-Haz totes under Lean-To T.L

T.L. Onalaska TCRA T.L. 6/16/21

0950 START to begin HAZCAT T.L

1013 Third truck onsite Truck plate 49375RP to pump Hazardous totes south of Lean-to area. —— T.L

Late Entry 940 First 2 Non-Haz trucks offsite, All site Non-Haz totes pumped and portion of Sec. Cont. 4,600 gallons of Non-Haz in each truck. Sec. Cont still containing over 50%. —— T.L.

1043 ~~T.L.~~ truck Clean Harbors P93380S onsite to ~~pump Haz waste totes south of lean-to Area.~~ —— T.L drop roll off boxes. —— T.L

1131 Fourth Clean Harbors Truck plate P1048713 onsite to pump Hazardous tote waste —— T.L

1145 START team stops for lunch. T.L

1217 START team returns from lunch. START to continue HAZCAT and DOT labeling of containers —— T.L.

1301 Third truck demobilizes from site with ~4,800 gallons of Haz. START continuing HAZCAT —— T.L

1325 ERRS begins cutting up Lean-To Haz and Non-Haz totes T.L

6/16/21 ~~T.L.~~ Onalaska TCRA ~~T.L.~~

1421 START to recalibrate all AreaRaes due to sensor CO saturation from loading trucks — T.L.

Late Entry 1325 Fourth Truck leaves site with ~5,200 gallons Haz waste T.L.

~~1325~~ T.L. — T.L.

Non-Haz Truck from yesterday took ~4,000 gal of Secondary containment fluid. T.L.

1500 START attends daily 3pm meeting with EPA OSC and ERRS to discuss progress and daily goals — T.L.

1542 START team begins inventory of Dry Kiln Building BD03 drums. T.L.

1638 START team finds bulging drum in Dry Kiln Building. START to contact safety manager Tom Vroman for guidance will stand down until further direction received on Bulging drum. — T.L.

1720 START completes inventory of BD03 drums and containers, START begins packing up site operations T.L.

1735 START team demobilizes from site — T.L.

End log day

Douglas Lee
6-16-21

T.L. Onalaska TCRA ~~T.L.~~ 6/17/21

0650 START team onsite, Weather; Clear skies, 48°F, 0 mph winds.

0700 Site Team meeting with ERRS, EPA, START. Plan for day: ERRS to continue pumping Hazardous waste totes into trucks. START to complete HAZCAT of all Misc. containers collected and continue air monitoring support with AreaRaes and Dosttraks near ERRS operations — T.L.

0715 START begins setting up air monitoring stations AS01 to AS04 and setting up ProRae Guardian and Viper Remote monitoring data viewers. All air monitoring data to be captured in ERT database — T.L.

0830 First truck onsite to begin setting up for pumping. — T.L.

0852 Area Rae Unit 6: SN/W00A0001824
— Area Rae Unit 7: SN/W00A0001825
— Area Rae Unit 8: SN/W00A0001826
— Area Rae Unit 5: SN/W00A0001823

0855 WA Ecology onsite — T.L.

0934 2nd truck onsite to pump Hazardous Dry Kiln totes — T.L.

1041 Lewis County public works onsite

6/17/21 Onalaska TCRA — T.L.

[1115] START team completes HAZCAT of all containers except bulging drum in BD03. START breaks for lunch. —T.L.

[1145] START returns from lunch. Begins all small Misc. containers for DOT and waste stream. — T.L.

[1315] START completes organization and labeling of all small Misc. containers on site — T.L.

[1324] START begins QC of HAZCAT data forms — T.L.

[1529] START Law ~~begins~~ T.L. attends OSC/ERRS afternoon meeting. Notes: —T.L.

Two trucks offsite with RCRA wood vinegar for ~9,932 gallons, (4,800 and 5,132) ERRS to continue breaking down totes. Tar totes not able to be received by Vac trucks, ERRS moved most concentrated tar totes to Wood Kiln. ERRS to assess all totes in BD01 and BD02 ASAP in order to account for volume cost. — T.L.

Two trucks onsite tomorrow to pump Non-Haz. waste from Secondary Containment.

[1647] START Criss to demobilize. START Law and Nguyen still onsite.

T.L. Onalaska TCRA — T.L. 6/17/21

[1725] START team begins breaking down equipment. — T.L.

[1800] START demobilizes for hotel. End log day

6-17-21

06/18/21 Onalaska TCRA

0640 START Nguyen on-site.

0700 Site team meeting begins.

Plan for the day: Continue to stage filled totes in staging area, and continue to crush cages and cut totes. START will continue to air-monitor. Two (2) trucks will arrive around noon to pump out non-haz waste out of secondary containment.

0715 Set-up AreaRAEs & DustTracks.

	AreaRAE	DustTrak	LINC
AS01	Unit 7	SB7535	~~137~~ 234
AS02	Unit 5	SB7532	143
AS03	Unit 8	SB7531	133
AS04	Unit 6	SB7534	141

0800 Viper & ProRAE Guardian is up and running. LINC 137 @ AS01 is down. Similar to yesterday.

0850 Swapped LINC 137 for 234 @ AS01.

~~0905~~ DustTrak SB7535 pump not working.

0920 Two NRC pump trucks arrive on-site.

0928 START repositions AreaRAE unit 8 at North side of containment and Unit 7 at South side of secondary containment. Both are downwind.

Onalaska TCRA 06/18/21

0930 Truck 1: NRC Trailer 3344 USDOT 502728 at north end of secondary containment. Truck 2: NRC Trailer 37109 USDOT 2021084 at south end of secondary containment.

1002 Truck 1 pumping complete. Estimated 4,800 gallons pumped. Unit 8 moved back to AS03.

1025 Truck 2 pumping complete. Estimated 4,800 gallons pumped. Unit 7 moved back to AS01. Leaves ~600 gallons (yesterday's estimate of vol. remaining ~10,200 gals. Pumping revealed a lot of debris, mostly pallets, in secondary containment. Might pump remaining w/ the RCRA - per EARS RM. Not final. EARS will move totes from north warehouse to south warehouse to take advantage of dry ground conditions.

1120 DustTrak SB7535 is operational. Returned to AS01.

1200 Collected hazcat sample from K001. It was removed from ND01.

 06/18/21 Onalaska TCRA

1240 OSC Fawler on-site. OSC Stanfield conducts site walk w/ OSC Fawler and START.

1400 LINC 143 @ A002 was not communicating for ~ an hour. Restarted and repositioned 1 foot for line-of-sight to gateway. LINC 143 is working

1430 Hazcat result of K001 is POT9. The most notable is a pH of 3.

1500 Planning meeting

- Two trucks pumped out 9,600 of secondary containment. Majority of volume removed. Cutting of totes occurred.
- Scrap metal bin to dropped on Tues.
- 20-yd ~~dropped~~ to be dropped off Tues.
- Excavator / Water buffalo Monday.
- Tote staging area / lean-to are filled with totes. Some space is carved into the lean-to for the tote-tops-bottoms that can't fit in the 20 yd.
- Estimates 195 totes remaining.
- Dave went home for weekend. No replacement for Robert. ENRS staffing will be 7 on Monday.
- Estimates ~ 10 more tanker trucks to pump remaining totes.

1511 Planning meeting cont'd

- Volume of ASTs are still relatively unknown. Especially content.
- Solidification might utilize incineration approved absorbent, it will then be scoped into 20yd roll-offs.
- Tw bottom totes will continue to be cut and scraped.
- Full-top totes will have to be cut, emptied, and scrapped. The 16 totes are in the dry kiln. building.
- May clear RCRA debris & roof on Monday.
- Five haz-trucks will come out ~~next~~ next week. 1 - Tues, 2 - Wed, 2 - Thurs. ENRS might be able to get more. TBD.
- Focus early next week is to pump the totes and maybe the top volume of the ASTs by mid to late week.
- START needs to bring
  - Safety goggles for another plating project.
  - Cyanide sensor, Sulfuric acid,

1400 Viper survey controller recording function stopped some time before

Rite in the Rain

06/18/21 Onalaska TCRA —— D

1400 cont'd) ... the meeting. 3 of 4 LINC windows are grey (rather than green) These windows flash "Reading Post FAILED" ~~ProRAE Viper cascade~~ D. 3 of 4 DustTrak pumps shut-off and will not turn back-on. May be a power issue. —— D

1750 OSCs leave Site —— D

1620 START leaves Site —— D

06/18/21

0615 START arrives on-site. Begins equipment stand-up. —— D

0650 OSCs & ERRS arrive on-site. D

0700 Morning safety meeting. —— D

0820 ProRAE up and running. DustTraks still on charge. —— D

0923 Two (2) dusttraks up and running with Viper. Two (2) are still on charge.

0924 Tofes are being torn down today. Minimal vehicle traffic on-site (No trucks, minimal fork-lift operation.) - D

0926 The currently deployed DustTraks are ones associated with AS02 & AS04.

1040 AS03 - DustTrak is online. Only station w/o a DustTrak is AS01. —— D

AreaRAE units 5 & 8 @ AS02 & AS03 keep going in and out. Unit 8 restarted.

1059 Unit 8 back on and running w/ ProRAE. —— D

1205 OSC Stanfield departs site for the weekend —— D

1422 Planning Meeting —— D

- ERRS quitting time. —— D
- Around 15-20 tofes processed —— D
- Removed buckets coated in tar from dry

 06/19/21 Onalaska TCRA — S

1422 cont'd kiln building Placed in RCRA waste pump. — S

- Bucket tests conducted to see how well tote tar binds with material. So far 1 of 2 Diatomaceous earth is lighter than other. Want to get at a sample by Tuesday. Hope to pass paint filter test. — S

- Hose keeping done to Buttoned up site before leaving. — S

- Monday will receive excavator & water buffalo. Figure out how to fill water buffalo ~~cargo~~ with water tank. Will start to dismantle the secondary containment roof. Might not pump at tanks yet in order to prioritize the totes. D

- Will look to order man-lift. — S

- START will resupply and resume monitoring and documentation on Monday. — D

[750] OSC Fawber leaves site S

[1600] ERRS leaves site — S

[1605] START Nguyen leaves site S

[846] START arrives at ERCC. Assembles equipment. — D

[~~1415~~ 2015] START departs ERCC — D

T.L. Onalaska - TCRA — 06/21/21

[0600] START departs ERCC for site. — S

[0715] START arrives onsite. OSC and ERRS are already on-site S

[0800] START ~~NP~~ Law arrives on-site.

[0808] START Nguyen hands-off logbooks to START Law — S

[0928] START Law and Nguyen set up Areas Raes and Dusttraks locations are as follows. — T.L.

Location	AreaRae	Dusttrak	LTNC
AS01	Unit 7	SB7533	234
AS02	Unit 5	SB7532	143
AS03	Unit 8	SB7531	133
AS04	Unit 6	SB7534	141

Note: AS01 location moved to eastern fence line and AS01 moved between rolloff boxes near South boundary of Secondary Containment in order to monitor worker safety during Secondary Containment waste removal — T.L.

Plan for day. ERRS to deconstruct — T.L. roofing over Secondary Containment T.L.

Weather 57-96°F, winds from NW @ 4-6 mph Clear Skies. — T.L.

Rite in the Rain T.L.

6/21/21 ~~T.L.~~ Onalaska TCRA. —— T.L.

1038 ProRae Guardian connectivity issues START to restart program and establish new connection. —— T.L.

1058 ProRae Guardian Data Cascade to ~~T.L.~~ Viper Connection re-established. —— T.L.

1102 START Law and Nguyen go over daily/morning operation set up. —— T.L.

1219 START Law/Nguyen break for lunch

1239 START returns from lunch. —— T.L.

1334 START ~~Law~~ Nguyen demobilizes from site. ERRS continues removing debris from ~~T.L.~~ secondary containment. —— T.L.

1431 ~~Cyan~~ ~~T.L.~~ Cyanide sensor possibly drifting on unit 8 Area Rae START to re-calibrate Unit. —— T.L.

1435 START conducting Viper network maintenance. —— T.L.

1500 Daily afternoon meeting. Actions completed: Water buffalo onsite, cages crushed, Secondary Containment cleanup continued, debris removed for drying, metal roof to be disposed of as non-Haz Debris from inside containment to be disposed of as RCRA Haz. —— T.L.

Anticipated: Address bulging drum, suck out remaining 2nd Containment, waste

T.L. Onalaska TCRA 6/21/21

Truck onsite for Haz waste removal. ERRS to stage totes and cont. debris removal from containment and ASTs —— T.L.

START to continue perimeter air monitoring and photo/written documentation ~~Bulging~~ —— T.L.

1608 ERRS demobilizes from site. START troubleshooting Viper and AreaRae issues. —— T.L.

1832 START completes re-calibration of all site AreaRae HCN sensors, packing/storing of all site equipment. Demobilizes for hotel —— T.L.

End log day.

T.L.

6-21-21

T.L.

6/22/21 Onalaska TCRA — T.L.

0700 START, ERRS, EPA on site for safety meeting and Plan for day brsefing

0718 START Law begins setting up air monitoring stations — T.L.

0908 EPA and State Vistors onsite and first truck to pump Haz waste. Visitors include: EPA Wally Moon State Ecology WA: Dee Williams — T.L. Michelle Underwood, Darren Rice. — T.L. Group takes tour of site after safety briefing — T.L.

0915 Air monitoring locations as follows

Location T.L	Area Rae T.L	DustTrak T.L	LINC
AS01	Unit 7	SB7533 T.L	234
AS02	Unit 5	SB7532	143
AS03	Unit 8	SB7531	133
AS04 T.L	Unit 6	SB7534 T.L	141

1102 Truck pumps ~~1,200 - 1,300~~ 5,030 gals, Haz waste for offsite disposal. — T.L.

1220 Safety Audit Conducted by Wally Moon, START to rectify site items and submit to EPA Moon ASAP. — T.L.

1303 ERRS assessing middle east tank (AST), Tar inside tank, possibly not thick tar. — T.L.

1310 ERRS assesses two other tanks.

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Late Entry T.L. 0900 DustTrak/AS01 Location down due to connection issues — T.L. START to attempt repair throughout day — T.L.

1500 Afternoon meeting with Site team ERRS ops. 5,030 gallons pumped from Haz. 1,275 came from 5,030 — T.L. 40 cb yd scrap bin arrived onsite as well as 20 cubic yd roll off — T.L. 40 cb yd metal scrap and ~~20 yd~~ rolloff T.L sent offsite. — T.L.

BD02 tote processing continued, Boom lift received; (3) 8,000 gallon assessed NW tank 2/3s full, ~~Middle Empty~~ T.L, SW tank 1/4. Middle has 2ft tar in bottom. ERRS tomorrow. (2) Haz pump trucks onsite. Pump one tank down, liquid only, no tar if possible — T.L. Continue tote Processing. — T.L.

1542 START Law assessing down air monitoring location AS01 — T.L.

1632 START calibrates MultiRae unit SB7022, with HCN sensor. Calibration passed on all sensors — T.L.

1808 START stores equipment demobilizes for the day End log day — Taylor Law

6/23/21 T.L Onalaska TCRA — T.L T.L

0648 START Law onsite — T.L

0700 Safety meeting held with EPA, ERRS, START field team. Plan for day: Pump-standing Hazardous liquid from South-Eastern 8,000 gallon tank and BD02/BD01 Hazardous totes, ERRS will continue to consolidate totes and tote casing. Weather: 52-77°F Winds from West 2-6 mph. Partly Cloudy, 8% chance of precipitation. — T.L

0711 START begins setting up of air-monitoring stations AS01-AS04. AS01 located south staging area near Southern gate, AS02 located near South western Corner of Secondary Containment and site roll-off boxes. AS03 located outside Southern wall of Lean-To/BD04. ~~AT.~~ AS04 located under Lean-To against Pyrolysis Building wall. — T.L

Equipment SNs are as follows — T.L

~~AS~~ Location	Area Rae	Dust Trak	LINC
AS01 — T.L	Unit 7 T.L	SB 7533 T.L	234
AS02 —	Unit 5 —	SB 7532 —	143
AS03 —	Unit 8 —	SB 7531 —	133
AS04 — T.L	Unit 6 T.L (completes)	SB 7531 T.L	141 T.L

0812 START deploys of Airmonitoring stations

Onalaska TCRA 6/23/21 T.L

0815 First pump truck onsite — T.L

0821 START troubleshooting issues at AS01 and AS03 locations. — T.L

0909 Second pump truck onsite — T.L

0919 START has all Air monitoring locations T.L 100% communicating remote data — T.L

0831 Late Entry ERRS begins Pumping the Haz. liquid from Southeastern 8,000 gallon tank. — T.L

0930 ERRS begins pumping Haz. totes liquid into Second truck T.L

1006 START Discusses site safety needs as recommended by EPA Moon with OSC Fowlow. START to address needs. — T.L

1017 First truck pumping complete 4,800 gal., 1,300 from tank (i) SE tank. — T.L

1130 Second truck 5,303 all from totes, offsite — T.L

1200 Crew breaks for lunch — T.L

1231 Crew returns from lunch. — T.L

1302 ERRS begins dismantling of totes. — T.L

1204 Late Entry START trouble shooting connection issues with Viper Linc (AS02) 143 T.L

6/23/21 Ft. Onalaska TCRA —— T.L

1421 START Law talks with START Tom Vromon on safety rectifications —T.L requested by EPA Wally Moon T.L

1507 Afternoon meeting: ERRS ops: pumped liquids from 34 totes, 11 of which had tar. ERRS also processed totes, deconstructed totes, totes cages and solidified bottom tote staining material. Tank 5 five assessed, no- to minimal tar on bottom of tank. ERRS anticipated sludge volume for site tripled due to Secondary containment and ASTs. ERRS tomorrow: 1 truck onsite to pump Haz Waste, process totes at staging area and move tar/sludge totes to BDO2. Begin cutting tank 1 (SE) down. —— T.L

*Tank 5 contains 3,000 gallons wood vinegar

1651 START Law checking site first aid kits —— T.L

1716 START Begins breakdown of equipment

1802 START demobilizes for the day —T.L

End log day

6-23-21

T.L

T.L —— Onalaska TCRA 6/24/21 T.L

0634 START Law onsite —— T.L

0700 Safety meeting held with EPA, ERRS, START field team. Plan for day: Pump Hazardous waste totes staged at Lean-To/BDO4 area into 1 truck for offsite disposal. ERRS will also begin cutting/consolidating ASTs/tanks 1 and 2 for disposal. —— T.L

0710 START Law begins setting up air monitoring stations —— T.L

0806 Dusttraks deployed but START needs to conduct calibrations on all AreaRaes —— T.L

0829 Complete Calibration of all Areas done. All passed cal. requirements

0833 ERRS begins cutting of tank 1. Pre-screen of inside of tank with MultiRae Pro showed no concerning readings. —— T.L

0839 START Deploys fully operating air monitoring stations. Data is communicating and logging remotely into ERT database

0841 First truck onsite to pump Hazardous waste from staged totes —T.L

0951 ERRS completes deconstruction of Tank 1, ERRS to address Tank 2

6/24/21 T.L. Onalaska TCRA — T.L.

1111 START Law leaving site for lunch and to make key copies. OSC notified

1214 START returns to site. ERRS still deconstructing tank 2. and consolidating totes — T.L.

1228 WA Ecology Dee Williams and Hiro onsite — T.L.

1307 WA Ecology offsite — T.L.

1312 ERRS continuing to deconstruct totes — T.L.

1500 Afternoon meeting. ERRS progress for the day: (1) tank truck in to pump 5,300 gallons, mix of Wood Vinegar and less ~~viscous~~ T.L. viscous tar. First Non-Contam. scrap metal bin, 40-cy., 40 cy onsite. ERRS continued tote deconstruction and cut AST tank (1) and tank (2). — T.L.
ERRS to receive DE pallet and apply to 2nd containment. — T.L.
ERRS tomorrow to receive 20 cy bin T.L. for tar contaminated ~~liquid~~ T.L. — T.L.
ERRS to move more totes and pump totes — T.L.

1602 ERRS continues deconstructing totes and moving un-addressed totes from BD01/BD02 — T.L.

T.L. Onalaska TCRA. T.L. 6/24/21

1705 START Law and ERRS begin breaking down air monitoring stations — T.L.

1734 Equipment stored and safe on site team demobilizes from site. End log day.

6-24-21

30 6/25/21 Onalaska TCRA — T.L

0700 START Law onsite, Safety Meeting held with ERRS, EPA team — T.L

Plan for day. remove sludge/tar and debris from Secondary containment. Apply sorbent/solidification product to secondary containment and powerwash. Pump and stage totes from BD01/BF02 if possible (truck arrival pending). — T.L

START to continue air monitoring — T.L

0707 START begins setting up air monitoring

0758 START completes air monitor setup.

0805 ERRS prepares to enter 2nd Containment in Level C, to remove 2nd Containment debris. — T.L.

0851 ERRS begins debris removal of 2nd containment. — T.L.

0901 WA Ecology onsite with Kyle? T.L

0934 20 cy roll-off bin onsite. ERRS begins placing removed Secondary Containment debris in roll off with Excavator T.L

~~Unit Locations~~ / Air monitoring stations:

Location	AreaRae	Dusttrak	LINC
AS01	Unit 5	SB7533	234
AS02	Unit 7	SB7532	143
AS03	Unit 8	SB7531	133
AS04	Unit 6	SB7534	141

T.L

T.L Onalaska TCRA T.L. 6/25/21

1210 ERRS crew/team breaks for lunch. — T.L.

1241 Team returns from lunch — T.L

1302 ERRS continues to apply sorbent/DE to inside of secondary containment T.L

1341 To assist with solidification ERRS obtains wood chips from Warehouse area of site — T.L

1500 Afternoon meeting: ERRS progress Dismantled and removed debris from secondary Containment. Segregated metal tar covered for seperate disposal. Received (1) 20cy roll-off for 2nd cont. RCRA Haz debris. ERRS began to solidfy tar in 2nd containment with DE and wood chips/sawdust. T.L

Tomorrow: Move tanks 1 and 2 and continue cleaning 2nd containment No totes T.L pumping — T.L

ERRS T/D issues, initial vendor to receive waste cannot, ERRS to find new disposal option. — T.L

* Heat stress symptons and thermometer for safety meeting tomorrow — T.L.

1604 ERRS continues solidification of Secondary containment waste/debris

6/25/21 T.L. Onalaska TCRA T.L.

1700 START Law and ERRS begin taking down Air monitoring locations T.L.

1738 Team demobilizes for the day. End log day, equipment stored. T.L.

6-25-21

T.L. Onalaska TCRA T.L. 6/26/21

0630 START Law onsite. Weather: Forecasted 61-99°F, Winds from North 2-6mph. T.L.

0700 Safety meeting held. Plan for day: ERRS to continue solidification of waste in Secondary Containment, Empty tanks 1 and tanks 2 into Containment. Solidify tar from tanks in 2nd Containment. START to continue site Air Monitoring T.L. Due to heat sensitivity of Dust Tab START will not deploy ASO1 location as ERRS not be working in that area. T.L.

0804 Air Monitoring stations deployed and functioning T.L.

0814 ERRS begins solidification of Secondary Containment Waste T.L.

1015 START Law takes grab sample of Tank 5 (steel tank), per color observations and pH reading. the sample is diluted wood vinegar. ERRS to address steel tank waste as Hazardous T.L.

1015 ERRS Holz and START Law to attempt to raise pH on wood vinegar

6/26/21 T.L. Onalaska TCRA — T.L.

sample with Baking soda/Sodium Hydroxide to 6, for purposes of new disposal plan/change of T/D facility ERRS crew continues to solidify ~~T.L.~~ secondary containment waste — T.L.

[1142] START Law switches out area Rae 7 for Area Rae Unit 5 due to potential drifting readings — T.L.

[1202] Team breaks for lunch. — T.L.

[1221] Team breaks returns from lunch.

[1230] ERRS

[1438] Afternoon meeting. ERRS removal progress; ERRS removed tank 1 tar and liquids, solidified tar with DE and wood chips. ERRS conducted pH tests with wood vinegar and baking soda. ERRS obtained pH 7.2 Monday; ERRS to address second tank and receive 20 cy rolloff — T.L.

START air monitoring showed no exceedances ~~ERRS to ship off 20cy rolloff and continue bench testing~~ — T.L.

14 Operations complete for the weekend team demobilizes — T.L.

End log day

6-26-21

T.L.

Onalaska TCRA — 6/25/21 T.L.

[0700] START Law onsite with ERRS crew, EPA, and RM Holz (OSC Starfield)

Weather: 71°F - 113°F winds from North 2-6mph. Safety meeting held due to high heat ERRS will consider stopping early today. Plan: address contents of tank 2 and solidify in secondary containment. Deconstruct totes in shade if it gets too hot. — T.L.

Due to charging complications over off day yesterday Dust Traks not ready for deployment, START to deploy when possible. — T.L.

[0809] Areas deployed ERRS begins solidification of secondary containment START Law re-calibrates Area Rae Unit 8. Equipment deployment details below: — T.L.

Location	Area Rae	LINC
AS01	Unit 5	None
AS02	Unit 7	None
AS03	Unit 8	None
AS04	Unit 6	None

Note: Unit 8 Area Rae sensor potentially drifting, Sensor turned off START to attempt re-calibration end of day

Late Entry 0730 ERRS moving dry wood chips from condemned building to secondary containment to assist with solidification of tar. T.L.

1000 START does check in and brief of site air monitoring levels on site since 6/14 project start. T.L.

1015 ERRS completes removal of tank 2 holding / support, begins cutting / consolidating rest of tank 2 pieces. T.L.

1102 ERRS continuing to ~~tan~~ T.L. Deconstruct and take apart tank 2 and apply Dust suppression to site. T.L.

1123 HCN alarm sounding on Unit 7 near Secondary Containment, START screens area with Multi Rae pro T.L. and additional Area Rae. No site action levels exceeded. START to re-calibrate Area Rae Unit 7 T.L.

1158 Area Unit 7 redeployed and functioning. ERRS continuing to consolidate tar in Secondary containment

1200 Team breaks for lunch T.L.

1205 Team returns from lunch T.L.

T.L.

1223 START Law notices no units communicating Rae data through Rae link / remote data monitoring laptop. START Law trouble shooting units and Rae link. T.L.

1334 START Law reports ~~down remote~~ T.L. non-functioning remote data support to crew and OSC. Troubleshooting and repair in field not successful. Units believed to be overheating with outside temp @ 113°F T.L.

OSC Stanfield tasks START to take down Area Raes to prevent heat damage. START pauses Viper data collection run and brings in Area Raes. ERRS will not open new containers or totes until Area Raes deployed again. T.L.

1402 ERRS continues to solidify secondary containment tar with on site wood chips / sawdust. T.L.

1500 Afternoon meeting: ERRS progress - ERRS drained and deconstructed ~~AST 2~~ tank 2 and then sawed and cut up tank 2. (1) RCRA waste rolloff was removed (1) 20 cy was dropped onsite

 6/28/21 T.L Onalaska TCRA — T.L.

[1500 cont.] ERRS also filled a 20cy rolloff with solidified tar. ERRS continues dust suppression. Another 20 cy roll-off is onsite and filled with RCRA debris — T.L

Tomorrow: Receive (2) 20 cy rolloff, (1) is solidified tar, (1) 20 cy is for RCRA debris. — T.L

ERRS to start processing tar totes and deconstructing totes. ERRS will continue moving sawdust/wood chips. ERRS possibly to receive equipment from "Bothell" site. — T.L

[1534] Team standing down for day. T.L START demobilizes and work on office tasks per OSC, remainder of day. End field day — T.L

Taylor

T.L — Onalaska TCRA — T.L 6/29/21

[0645] START Law onsite. Weather: 64-88°F, 2-7 mph, clear skies forecast. Plan for day: ERRS to continue consolidating tar from BD01/BD02 totes inside secondary containment. Excavator to continue bringing wood chips/saw dust to secondary containment for mixing/consolidating. Two ERRS crew will enter level C and do mixing in secondary containment. Totes will continue to be moved from BD01 to tote staging area and water suppression will continue every hour. — T.L

[0700] Safety meeting held. — T.L

[0709] START begins setup of Rae, DustTraks, Viper and ProRae Guardian remote data monitoring stations. T.L

[0801] START completes deployment of all air monitoring stations, but trouble shooting connection issues at AS01 and AS03 locations. site setup as follows. — T.L

				LTNG
AS01	T.L Area Rae Unit 5	(DT) SB7533		234
AS02	" Unit 7	T.L " SB7532		143
AS03	" Unit 8	T.L " SB7531		133
AS04	T.L " Unit 6	T.L " SB7534		141

0830 ERRS begins dumping tar totes and consolidating waste in secondary containment. T.L.

0942 Clean harbors onsite dropping (2) 20 cy roll offs. Took (1) 20 cy RCRA debris and SC tanks debris and took (1) bulk wood tar solids/consolidated SC wood waste/wood chips.

1016 ERRS continuing to consolidate and mix wood chips/sawdust with tote and Secondary Containment tar. T.L.

1158 Crew breaks for lunch. T.L.

1230 ERRS/field team returns from lunch T.L.

1235 ERRS continues consolidating wood tar and wood chips/sawdust in secondary containment with excavator and preparing/drying wood chips/wood sawdust from condemned building for solidification/consolidation use. T.L.

1350 EQM RM Ron. M. onsite T.L.
ERRS continue SC. tar consolidation.

Late Entry 1220 START switches Areas Raes at locations AS03 and AS02 Unit 8 now at AS02 and Unit 7 now at AS03. due to heat T.L.

1505 ERRS RMs Ron and Holz conducting pH test for assisting determination of TPD facility options after raising wood waste pH to 6 through onsite bench tests with NaOH and Baking soda. T.L. T.L. T.L.

1545 ERRS continues solidification of tar in secondary containment. T.L.

1648 START begins breakdown

1735 Team demobilizes for the day
End log day

6-29-21

6/30/21 T.L. Onalaska TCRA — T.L.

0645 START Law onsite. Weather forecast. 64-84°F, Clear Skies, winds from west at 2-6mph. — T.L.

0700 Safety meeting held. Plan for the day: ERRS to receive (1) 6,000 gal. tanker truck to pump Hazardous fluid from tank 3 in secondary containment and Hazardous waste totes from BD01/BD02

0707 START Law begins air monitoring station setup; locations as follows.

Location	Area Rae	Dust Trak	LINC
AS01	Unit 5	SB7533	234
AS02	Unit 8	SB7532	143
AS03	Unit 7	SB7531	133
AS04	Unit 6	SB7534	141

0803 Locations deployed, START trouble-shooting connection issues at AS01 and AS03 Dust Traks. — T.L.

0838 Tanker truck onsite to receive tank and tote waste. — T.L.

0845 ERRS begins pumping waste from tank (wood vinegar waste only) — T.L.

0949 ERRS continuing to pump waste from tank 3. — T.L.

1037 tanker truck moves from secondary containment to tote staging area to

T.L. Onalaska TCRA 6/30/21 T.L.

1037 Cont. to pump Haz. totes. START continuing to experience connection issues with AS01 and AS03 Air monitoring locations/Dust Traks. All Area Raes still functioning and relaying data. — T.L.

1146 Pumping of Haz totes completed. Truck filled and leaving site. T.L.

1151 ERRS crew stopping for lunch.

1246 ERRS crew returns from lunch and ~~begins~~ preparing for tote deconstruction and secondary containment waste solidification. — T.L.

1422 ERRS continues deconstruction of totes and totes cages — T.L.

1500 Afternoon meeting: ERRS progress Pump of Tank 3 and totes for total of ~5,303 gal. 3,000 gals from tank 3 and 10 gals from sump. All drained tar totes from yesterday were deconstructed. Scrap metal 40 cy rolloff left site. ERRS received 40 cy rolloff and began filling empty roll off. T.L. Tomorrow. ERRS to receive (2) 20 cy roll offs for RCRA debris and RCRA wood waste. ERRS to continue tote processing

1500 70 totes un-assessed, 22 are tar. 23,300 still onsite Wood Vinegar — T.L.
T.L. ERRS staging 20 cy rolloffs with RCRA Haz debris and RCRA wood waste for removal tomorrow — T.L.

1602 ERRS continuing to deconstruct totes — T.L.

1641 START and ERRS crew collect waste samples OWP-WTAR1-07 and OWP-WTAR2-07 for purposes of lab analysis. Ideally sample data ~~of~~ T.L. will help determine different waste stream possibility so ERRS can continue to remove solidified wood tar waste from totes, tanks, and secondary containment due to limit capacity/intake ability originally designated Clean harbors waste facility (for wood tar solidified waste). — T.L.

1658 START Law and ERRS begin breakdown of air monitoring locations

1732 Team demobilizes from site. End log day — T.L.

6-30-21

0645 START Law onsite. Weather: Forecasted 61-71°F, Party Cloudy, Winds from west 2-5mph — T.L.

0700 Safety meeting held. — T.L.
Plan for the day: START Landrum mobilizing to site to relieve START Law until 7/7. ERRS to continue solidifying tar from Secondary — T.L. containment tanks, BD01/BD02 — T.L. totes, inside secondary containment. ERRS will also continue to deconstruct totes and tote metal cages. — T.L.

0706 START begins setting up air monitoring locations AS01-AS04 — T.L.

0801 All air monitoring stations deployed

Location	Area Rae	DustTrak	LINC
AS01	Unit 5	SB7533	234
AS02	Unit 8	SB7532	143
AS03	Unit 7	SB7531	133
AS04	Unit 6	SB7534	141

Note: Connection issues with AS03 LINC to Viper Network, problem believed to be faulty cables from LINC to antennae.

0804 ERRS begins tar solidification and tote deconstruction, Roll-offs onsite, include 40cy for non-contaminated scrap metal

7/1/21 T.L. — Onalaska TCRA — T.L.

0804 Continued .. 40 cy for clean tote poly, 20 cy for solidified Wood tar waste, and 20 cy solidified Wood tar waste — T.L.

0815 OSC Fowlow onsite. OSC Stanfield to accompany him in nearby site investigation in Centralia, WA. OSCs to return in early afternoon. — T.L.

0924 Clean Harbors truck onsite to ~~take~~ drop (2) 20 cy roll-offs for wood waste tar — T.L.

0940 START Landrum onsite — T.L.

1000 START Law and Landrum conduct site walk and placement of safety signs around safety concerns areas. — T.L.

1115 OSC Stanfield and Fowlow return from site investigation. — T.L.

1201 ERRS crew breaks for lunch. — T.L.

START successfully troubleshoots AS03 ~~T.L.~~ location and has all locations operating

1215 START Law transfers START Landrum Site Logbook. — T.L.

1230 Brief rain shower so AS01 and AS02 ~~Air~~ Area RAEs were moved under lean 2 ~~to~~ until rain stopped. — CL

1235 Rain stopped and AS01 and AS02 were returned to their original locations. CL

7/1/21 — CL — Onalaska TCRA — CL

1300 START LAW demobilized from site. — CL

1330 ERRS marking totes ~~where~~ South of Lean-to the levels where the wood vinegar mixes with tar. — CL

1335 Clean Harbors crew lab packed drums of Hazcat waste in BD04. Four 55-gallon drums were not regulated. Two 25-gallon drums were DOT 8. One drum was acidic and the other was basic. One 25 gallon drum contain DOT 2. A 55-gallon drum contained DOT 3 liquids and another 55-gallon drum was Flammable Paint Related Materials. A Nova-bag was packed w/ DOT 9 non-regulated materials. — CL

1400 ERRS continuing to solidify sludge w/ sawdust in secondary containment area. Disposal will be in the 20ft roll offs. — CL

1500 Afternoon Meeting: ERRS received two 20ft rolloff and loaded rolloffs. Delivered two samples of solidified tar. ERRS continued to solidify tar

7/1/21

Rite in the Rain

7/6/21 — Onalaska TCRA —

1500 in secondary containment. No additional totes were cut. ERRS — prepped for neutralization by marking levels on totes mixed w/ tar and wood vinegar. Clean Harbors lab — packed and used a cubic yard box. ERRS could not start — neutralizing today due to NaOH — ~~iss~~ supply issues. ERRS will recieve 3 totes of NaOH tommorrow to — start neutralizing on Tuesday. Scheduled ~~disposal~~ — T?D is Friday 7/9 and Tuesday 7/12. Clean Harbors will deliver two 20ft rolloff boxes tommorrow. These — rolloffs are reserved for solidafied tar. ERRS plans on processing cut totes. The goal is to remove all secondary containment for weeked. ERRS will overpack the 12-13 drums. START to perform inventory tommorrow of liquid to tar — waste. —

1600 ERRS continue to deconstruct totes.

1700 START Landrum and ERRS begin breakdown of air monitoring locations. —

1740 Team demobilizes from site. End of log day. — 07-01-21

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Logbook 2 of 3

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CONTENTS

PAGE	REFERENCE	DATE
START	Site personnel	

Chris Landrum – C.L.
Taylor Law – T.L. –

7/2/21 CL Onalaska TCRA 7/2/21 CL

0640 START Landrum arrive on site. weather forecast 57°F - 80°F, Cloudy w/ parts of Sunshine. Winds from north at 0-3mph —CL

0700 Safety meeting held. Plan for day: START to deploy air stations and to perform inventory of liquid vs tar in totes w/ ERA. ERRS will troubleshoot generator that is not starting. All totes of just tar only have been processed and are in secondary containment. More tar around site will be processed into secondary ~~equipment~~ containment. ERRS will overpack drums and make sure secondary containment is buttoned up for break. Safety topics include: driving safety, working in heat, and complacency. —CL

0710 START begins set up of air monitoring stations. AS01 - AS04 —CL

0755 All air monitoring stations deployed —CL

Location	Airshed	Dustrak	LINC
AS01	Unit 5	SB7533	234
AS02	Unit 8	SB7532	143
AS03	Unit 7	SB7531	133
AS04	Unit 6	SB7534	141

—CL 07-02-21

7/2/21 CL Onalaska TCRA CL

0800 ERRS begin tar solidification, tote deconstruction in secondary containment. —CL

0825 Connection issues w/ AS03. will troubleshoot this morning. —CL

0835 ERRS continuing deconstruction of totes. Power from generator has been fixed. —CL

0920 START to inventory ~~drum~~ totes stayed outside BD04 to determine volume —CL

0950 Clean Harbors arrive with two 20 cy Rolloffs. START finished w/ inventory of totes sludge vs liquid —CL

1020 ERRS filling 20 cy rolloff w/ solidified tar. —CL

1100 ER continuing to fill 20 cy rolloff w/ solidified tar. Contaminated material. —CL

1110 AS03 Viper is up and running. LINC had to be reset and unplugged several times. —CL

1200 ERRS and crew break for lunch. —CL

1230 ERRS resume work. Continue to deconstruct totes and to start overpacks. —CL

07-02-21

07/02/21 CL Onalaska TCRA cc

[1245] ERRS recieved delivery of NaOH solution. —cc

[1330] Site walk w/ ERRS about which drums to overpack. ~~8~~ 7 drums overpack in BD01. Biochar in BD03 to be disposed using solidification in ~~pr~~ Secondary ~~sec~~ containment. 1 drum to be overpack in BD03. —CL

[1340] ERRS begin overpacking drums in BD01. ~~Se~~ Seven drums were —cc overpacked in BD01. —cc

[1415] ERRS overpack one drum in BD03.

[1480] ERRS overpack one drum in BD02. Looking to consolidate D001A, B, C into one drum —cc

[1530] ERRS spreading woodchips —cc in Secondary containment area. START to take down air stations AS01, AS03, and AS04 for Brooks. —cc

[1600] START disemble AS04. —cc

[1610] Afternoon meeting. ERRS had a load rejected shipped out on Wednesday. It will come back to ~~site and be pumped into totes~~ cc Clean Harbors facility and pump into totes and —cc tanker will need extensive cleaning. —cc

07.02.21

7/02/21 CL Onalaska TCRA cc

[1610] (Continued) After cleaning it will be re-transported. ERRS recieved NaOH totes. ERRS recieved 2-20cy rolloffs and loaded one with solidified tar and one w/ RCRA debris. Overpacked drums. Crushed metal and cleaned up Secondary containment for weekend. Tuesday Clean Harbors will pick up ~~rolloffs~~ and overpacked drums. ERRS will begin neutralizing totes —cc

[1710] START and EPA demobilize from site. End of log day. —cc

07.02.21

07/06/21 Onalaska TCRA CL

0635 START Landrum arrive on site Weather Forecast 54°F - 85°F, cloudy in morning, Sunny in afternoon, Winds 0-6mph from Southeast. —CL

0700 Safety meeting w/ ERRS, START, and EPA. Start to deploy air stations after meeting. Clean Harbors coming to load ~~oo~~ small containers and lab pack drums. Overpack drums will be removed from site. Neutralization today to be determined. Tar-coated metal to be cut down. Small containers containing tar can be gathered and put into secondary containment. Biochar can be gathered and dumped in piles on site. —CL

0710 START begins set up of air monitoring stations. —CL

0720 Late entry: Safety topics from meeting include hydration, sunscreen, and vehicle awareness. —CL

0745 All air monitoring stations deployed —CL

Location	Area/RAE	Dusttrak	LINC
AS01	Unit 5	SB7533	234
AS02	Unit 8	SB7532	143
AS03	Unit 7	SB7531	133
AS04	Unit 6	SB7534	141

07/06/21 Onalaska TCRA CL

0750 ERRS moving containers with tar material into Secondary Containment. —CL

0800 Connection issues w/ AS01 dusttrak to VIPER. —CL

0830 Connection issues subsided after resetting link and replacing antennae. —CL

ERRS continuing to move tar material from BD03 to secondary containment. —CL

0900 ERRS continuing to empty drums with tar material in Secondary containment

0915 Clean Harbors arrive on site.

0930 ERRS cutting open tanks on top containing tar. ~~ERRS~~ Tank 3 located in eastern portion of Secondary containment area. ERRS continuing to unload sludge/tar material from small containers and drums in secondary containment area. —CL

1015 ERRS continuing to scoop out tar from small containers. —CL

1030 ERRS working w/ Clean Harbors to create labels for overpack drums.

1050 ERRS moving lab-packed drums and cubic yard box from BD03 to be loaded onto Clean Harbors truck for transport.

CL

Rite in the Rain 07-06-21

07/06/21 — Unalaska TCRA — CL

1100 ERRS to cut the top of tank containing sludge ~~area~~ in secondary containment area. — CL

1105 ERRS loading lab packed, overpacked drums and cubic yard box into Clean Harbors truck for T&D. — CL

1130 ERRS removed the top of tank 3 w/ ~2500 gallons of tar in secondary containment area. — CL

1140 Clean Harbor truck loaded w/ overpacks, lab-packed drums, and cubic yard box. — CL

1200 ERRS break for lunch. — CL

1230 ERRS to continue cutting up tank 3 to retrieve more tar in secondary containment. Clean Harbors demobilized from site. — CL

1330 ERRS continuing to cut down tank w/ sludge. — CL

1340 ERRS retrieved tar from ~~cut tank~~ pieces of cut tank and solidifying it using sawdust. RCRA debris ~~temporarily~~ temporarily removed from secondary containment area. — CL

1420 ERRS cutting drums open that contained tar.

[signature] 07/06/21

07/06/21 — Unalaska TCRA — CL

1435 ASO1 dusttrak VIPER connection went down. Will troubleshoot. — CL

1450 ASO2 Altair sustaining H2S readings around 0.9 ppm. When moved to fresh air, reading still sustained. Performed a fresh air calibration in a clean air environment. — CL

1500 Afternoon Meeting: ERRS completed overpacking drums. Clean Harbors took 13 55 gallon overpack. They took lab packs and cubic yard box. Started to dissassemble tank of sludge in secondary containment. ERRS took small ~~gather~~ containers from around site that contained tar-related material. ERRS to start neutralizing totes today. ERRS called Clean Harbors to request additional ~~drop~~ rolloff boxes for RCRA debris and solidified tar. ERRS requested rolloffs to be removed off site. A sock filter will be delivered from US Department of Ecology. Tomorrow: Start draining the tar from the tank 3, continue the neutralization process of totes. — CL

[signature] 07/06/21.

7/6/21 — cc — Onalaska TCRA — CL

1500 Cont. ERRS hoping to recieve additional rolloffs if Clean Harbors can deliver. — CL

1500 START mentioned the safety checks of site fire extinguishers and conducted checks to ensure ERRS were being safe around moving excavators and making eye contact with operator.

1515 Calibrating pH probe for ERRS before neutralization. — cc

1525 ASO3 moved to be out of the way of ERRS during neutralization. — cc

1545 ERRS start neutralizing totes. — cc

1559 The first tote is slowly being neutralized. NaOH is being added in 0.5 gallon increments. Temperature and pH being recorded in intervals. ASO3 Area has been moved close to tote. — cc

1600 US Ecology on site to deliver sock filter. — CL

1645 ERRS was able to neutralize 270 gallons of wood vinegar at a starting pH of 3.1 w/ 8.75 gallons of NaOH. This is about 1 gallon NaOH for every 31 gallons of wood vinegar. — cc

07-06-21

~~7/6~~ cc 7/6/21 — cc — Onalaska TCRA CL

1655 START to begin taking air stations down. — CL

1700 EPA Fowlow demobilized from site. — CL

1800 START Landrum demobilized — cc from site. End of log days. Taylor Law - START will continue entries on 07-07-21. — CL

07-06-21

07/7/21 T.L Onalaska TCRA — T.L.

0645 START Lead onsite. Weather: Light rain/misty, 56-71°F forecasted, winds from SE @ 2-5mph — T.L

0700 Safety meeting held. Plan for the day: address totes staged south of Lean-To area with NaOH, raise pH to atleast above 6.03 and prepare addressed totes for disposal pump by Friday. — T.L.

0710 Due to Light rain and mist START will only deploy AreaRaes as DustTraks are sensitive to water intake

0734 ERRS dresses into Level C PPE and begins treating first 7/7/21 tote with NAOH in tote staging area — T.L.

0832 United Rentals onsite to address site trailer generator issues. — T.L

0838 ERRS tote pH treatment process continuing, ERRS is pumping limited NaOH into totes, then letting reaction occur, and checking pH final time before considering tote completed. — T.L.

NaOH adding occurring in atleast 0.5 gallon increments. — T.L.

1452 First tote of 7/7 completed, starting pH and Volume were 3.69 and 272 gal

T.L. Onalaska TCRA — 07/07/21 T.L

1452 ending pH and Volume are 7.8 and 280 gallons — T.L.

1500 Afternoon meeting: ERRS continuing to neutralize totes, 22 currently being addressed, ERRS received ~~a sock~~ two filter setups to filter neutralized liquid before it goes into offsite disposal pump trucks. — T.L.

(1) truck for neutralized liquid to arrive Friday. — T.L.

(2) more trucks to arrive next week: ERRS to receive (10) 20 cy roll offs this week by COB Friday for solidified sludge/tar — T.L.

1605 ERRS continuing to add NaOH to totes. START capturing result pH and end volume of all totes addressed. — T.L

1649 Most totes reacting and seem to be stabilizing around 6-7/8 pH ERRS to let mixtures sit over night and check in the morning. — T.L

1732 Team demobilizes for the day. End log day. Taylor Lee

7-7-21

Rite in the Rain

7-8-21 T.L. — Onalaska TCRA — T.L.

[0645] START Law onsite Weather: Party Cloudy, 52-71°F forecasted winds from SE at 2-6mph. — T.L.

[0700] Safety meeting held START discusses safety topics. Plan for day: ERRS to cont. mixing/neutralizing totes. and preparation of stabilized 7-8 pH totes after NaOH addition, for disposal/pumping — T.L.

[0710] Due to minimal site activity area START Law discusses with OSC deploying only one DustTrak near work area as need for all 4 DustTraks not necessary.

[0751] All areaRaes deployed and (1) Dust Trak @ AS01 near work area. — T.L.

~~AS01~~ — T.L.

Location T.L.	AreaRae T.L.	DustTrak T.L.	LINC
AS01	Unit 5	SB7533	234
AS02	Unit 8	Not deployed	Nd.
AS03	Unit 7	Not deployed	Nd.
AS04	Unit 6	Not deployed	Nd.

[0801] ERRS begins checking pH of all 22 totes Neutralized/added NaOH from yesterday. Most totes within ideal disposal range of 7-8 pH. Few at 10 pH, ERRS to ~~address~~ adjust by pumping out 10 pH tote into spare tote and then adding vinegar. T.L. T.L. T.L.

T.L. — Onalaska TCRA — 7-8-21 T.L.

[0904] ERRS begins addressing next group of totes. Previous (22) all stabilized and showing pH of 5.7 - 7.9, average range of 22 group is 6.8 pH. — T.L. ERRS will address next group of totes by adding NaOH slowly, no more than 3 gal. initial, then observe reaction result and ~~more~~ NaOH as needed. (22) Wood Vinegar volume of totes equal to 5,470 gal. — T.L. T.L.

[0927] START Law calibrates pH meter with on site pH solution. — T.L.

[1105] ERRS continuing to address new group totes all south side of Lean-To Wall. 21 totes staged in 2 rows T.L.

[Late Entry 0922] Lewis County Public Utility District/National Metering and Technical Services employee onsite to check electricity meter on pump house. T.L.

[1202] ERRS breaks from lunch. — T.L.

[1238] Team returns from lunch. — T.L.

[1252] Clean Harbors onsite dropping (2) 20 cy roll off boxes. — T.L.

ERRS Dane moves contaminated debris/metal into rolloff 20 cy box. — T.L.

ERRS continues to address W.V. (vinegar) totes

7-8-21 T.L. Onalaska TCRA T.L.

1500 Afternoon meeting: ERRS completed Neutralization of 22 totes at staging area ERRS began addressing 10 more totes. T.L.
(3) 20 cy. rolloffs were delivered, T.L.
ERRS filled 2 with mixed metal and plastic contaminated. Currently onsite (5) Wood tar/solidified, (3) mixed T.L. debris, and (1) empty rolloff. T.L.
ERRS plans to put together the two sock filter casings. T.L.
Tomorrow: (1) truck onsite to pump T.L. Neutralized wood vinegar. Tote Neutralization to continue, (7) 20 cy. rolloffs to arrive onsite for debris and wood tar/solidified tar. T.L.

1607 ERRS begins assembling sock filter casings in Pyrolysis building.
1609 START Given permission to begin breaking air monitoring stations down. Team demobilizes End log day.

7-8-21

T.L. Ondaska TCRA 7-9-21

0645 START Law onsite Weather: 57-81°F forecasted winds from SE 1-6 mph. partly cloudy. T.L.
0700 Safety meeting held. Plan for day: (1) Pumping truck to arrive onsite and receive 5,000 gallons of neutralized Wood Vinegar pH 6-7. ERRS to stage/setup filter system between pumping truck and tote so as to prevent extraction of any tar from bottom of pumped totes. At conclusion of pumping ERRS will continue to Neutralize more totes, breakdown empty totes, load 20 cy roll-offs with physical waste and stage roll offs for pickup. T.L.
0710 START begins air monitoring stations setup. T.L.
0820 All air monitoring stations setup.
0828 Pump truck onsite to receive wood vinegar. ERRS begins setting up T.L. pumping line, with filter, to totes.
0840 Pumping starting of 22 neutralized totes from Wednesday earlier this week
Late Entry 0727 START Law bumps Area Rae Unit 7 due to O_2 sensor readings, sensor corrected. T.L.

1028 Clean Harbors onsite dropping (2) 20 cy roll offs — T.L.

ERRS continuing to pump neutralized wood vinegar into pump truck — T.L.

Note DustTrak @ location AS01 not communicating to Viper software due to pump truck signal interference T.L.

1103 Two ERRS crewmen demobilizing, One Crewmen onsite, Chase with EQM.

Late Entry 0820 Air monitoring locations:

Location T.L.	AreaRae T.L.	DustTrak T.L.	LINC
AS01	Unit 5	SB7533	234
AS02	Unit 8	SB7532	143
AS03	Unit 7	SB7531	133
AS04 T.L.	Unit 6 T.L.	SB7534 T.L.	141

1336 ERRS having pump issues despite sock filter. Viscosity of sludge tar/wood vinegar potentially hindering pump flow rate. — T.L.

1412 Pumping complete of initial — 5,470 gallons from 22 totes (neutralized) ERRS was able to pump ~4,300 gallons into truck. pH reading in truck is pH 6.33 — T.L.

1435 Truck leaves site for disposal T.L. — T.L.

1500 Afternoon meeting: ERRS received (3) more 20 cubic yards roll off boxes. ERRS vac. system set up and ERRS was able to vac ~4,300 gallons into Pump truck onsite. ERRS used — sock filters and pH in truck 4,300 gallons was 6.33. ERRS to remove tar from pumped totes and process tote cages and poly casings with wood chips. ERRS having issues with rejected wood vinegar truck attempting to dispose at Araganite Clean Harbors facility. Tomorrow: ERRS to Neutralize more totes and process tote cages and solidify tar wood waste. — T.L.

and Neutralization of 3,000 gallon tank.

1605 ERRS deconstructing totes that were pumped today empty today. T.S.

1715 ERRS stops operations, START — begins taking down air monitoring stations

1732 Team demobilizes from site T.L.

End log day. — T.L.

7-9-21.

0640 START Low onsite. Forecasted Weather 54-75°F, Partly Cloudy, winds from SE at 2-7 mph. T.L.

0700 Safety meeting held, plan for day ERRS to take tar out of totes pumped yesterday, then solidify tar in secondary containment and deconstruct empty totes. ERRS will also pH check/fine tune the 21 totes had started neutralization on ~~last~~ Wednesday (7-7). ERRS will also begin Neutralization on the Tank 4 and 5, 800 and 3,000 gallons respectively. T.L.

0715 Due to refined ERRS work area START only deploying (1) DustTrak at AS02 location and All Area Raes.

0845 Air monitoring equipment deployed ERRS solidifying tar and breaking down totes in secondary containment. T.L.

START Low checking pH of 21 totes addressed starting 7/7 T.L.

0850 ERRS checks pH of tank 5, 3,000 gallon, pH = 3.34. START checks pH of 500 gallon poly tank in BD01, pH = 3.2. T.L.

0915 ERRS begins adding NaOH to Tank 5 for neutralization. T.L.

1100 ERRS continuing to solidify tar and deconstruct totes. Contaminated and non-contaminated tote waste being placed in respective 20 cy rolloffs

1201 ERRS/Team stops for lunch T.L.

1232 Team returns from lunch T.L.

1300 ERRS begins fine tuning/topoff Neutralization of 21 totes started on Wednesday.

1524 ERRS release contents/tar of remnants of tank 3 into secondary containment for solidification T.L.

1602 With no concerning air particulate or chemical hazards, OSC Fowlow allows START Low to break down air stations early T.L.

1640 START demobilizes from site ERRS crew to stop work at 1700

End log day

7-10-21

[0635] START Law onsite, forecasted weather: Partly Cloudy, 53°F - 80°F, SE winds 1-7 mph

[0700] Safety meeting held. Plan for day: ERRS to continue neutralization of remaining ~28 totes and Tank 5 and tank 4 of secondary containment

[0710] Due to light rains/mist START will wait to deploy DustTraks. All Area Raes to still be deployed. — T.L.

[0715] START briefs OSC Stanfield on waste volume numbers and expected waste disposal schedule — T.L.

[0758] All Area Raes deployed, however Unit 7 O_2 sensor showing calibration needs. START to calibrate O_2 Unit 7 sensor. ERRS, having completed Neutralization of 21 totes from 7/8, begins moving non-addressed totes to staging area south of Lean-To. Air monitoring locations as follows:

ASO1 T.L. ARUnit5 T.L. ~~SB~~ not deployed - not deployed
ASO2 — ARUnit8 — " — "
ASO3 — ARUnit 7 — " — "
ASO4 — ARUnit 6 — " — "
T.L. (Area Rae) T.L. (DustTrak) T.L. (LTAC)

T.L.

K [0840] START Law not successful in calibrating Unit 7 O_2 sensor T.L. START Law to turn off sensor as need/concern for monitoring O_2 conditions not high priority due to past/previous site work days supporting O_2 data. — T.L.

[0915] ERRS prepares to address 500 gallon tank from BD01. ERRS foreman Dane begins moving more wood chips/sawdust into secondary containment for tar solidification. — T.L.

[1010] ERRS begins preparation of 22 totes at staging area for neutralization.

[1110] Clean Harbors drops (2) 20 ~~25~~ T.L. c.y. and pickup (2) solidified wood waste tar. — T.L.

[1202] ERRS crew breaks for lunch.

[1239] ERRS crew returns from lunch.

[1358] Clean Harbors truck returns due to overweight limit, switching out rolloff boxes. — T.L.

[15:15] Afternoon meeting. ERRS ops - ERRS potentially completing neutralization on all totes, ~~12~~ T.L. today. — T.L.

ERRS continuing tar from tank 3 solidification

1515 cont. ERRS to recieve (4) rolloffs and (1) tanker truck tomorrow — T.L.

1609 ERRS continuing to neutralize totes at staging area, and solidify tar in secondary containment. — T.L.

1702 ERRS begins to stop operations START to retriere air monitoring locations — T.L.

End log day.

7-12-21

0645 START Law onsite, forecasted weather Partly cloudy - clear, 54°F - 80°F winds from SE 1-8 mph

0700 Safety meeting held. Plan for day: Fine tune complete neutralization on all totes and pump completely treated W.V. into pump/tanker truck. — T.L.

~~0705~~ T.L. 0705 Pump truck onsite. — T.L.

0710 START Law begins calibrating all Area Rae units as part of monthly calibration check. — T.L.

0735 Area Rae Units SB7544, SB7543, SB7541, and SB7542 — T.L.

0740 Air monitoring stations deployed: — T.L.

location T.L.	Area Rae T.L.	Dost Trak	LINC
AS01	Unit 5	SB7533	234
AS02	Unit 8	SB7532	143
AS03	Unit 7	SB7531	133
AS04 T.L.	Unit 6 T.L.	SB7534 T.L.	141 T.L.

0745 Pump truck begins pumping of 3,000 gal. tank 5 AST. neutralized wood vinegar through sock filter manifold system. T.L.

0735 Late Entry ~~AS02~~ Area Rae 8 T.L. moved to northside of secondary containment ~~T.L.~~ near pumping operations. All Area Rae passed calibration for Mixed gas O_2, CO, H_2S, LEL%, HCN, and VOCs. — Rite in the Rain T.L.

0754 ERRS Foreman begins solidification of tar in secondary containment — T.L.

0802 Clean Harbors truck onsite dropping two 20 cubic yard rolloff boxes — T.L.

0828 START, due to minimal Dust conditions pulls other DustTraks from Field and only deploys ASO2 SB7532 DustTrak near excavator work — T.L.

Note. Connectivity issues with Viper network occurring — T.L.

Area Unit 7 also moved to ASO2 on southside of secondary containment with DustTrak SB7532. — T.L.

0855 Pumping truck completes extraction of all fluid in AST tank 5, 3000 gal. Pumping truck moves to tote staging area to add tote volume to remaining truck tank volume. — T.L.

0900 START Law moves area Rae unit 7 back to ASO2 and Area Rae unit 8 back to ASO3 on southside of Lean-To — T.L.

1020 WA Ecology Dee Williams and co-worker on site. — T.L.

1051 WA Ecology and EPA/START talk with Lewis County treatment facility

1051 Cont. employees about ~~of~~ observations of previous site activities, and facility water sampling thoughts — T.L.

Late Entry 1035 Tanker/pumping truck leaves site having successfully pumped ~4,500 gallons of neutralized wood vinegar, 3,000 gals from Tank 5 AST and ~1,500 from remaining NaOH treated totes — T.L.

1202 ERRS completes breakdown and solidification of AST tank 5 and tar T.L. ERRS continuing neutralization/fine-tuning of remaining totes needing NaOH. — T.L.

1210 ERRS breaks for lunch ERRS T.L.

1215 Site turns from lunch — T.L.

1258 ERRS continuing to AST 5 and deconstructing tank. Other half of crew neutralizing few non-addressed totes T.L.

1421 START and EPA take site walk to determine if any remaining totes reside on site. ~~S1~~ — T.L.

1440 START and EPA discover drainage ditch in NW property corner that was mentioned by Lewis County water treatment employees — T.L.

7-13-21 T.L. Onalaska TCRA T.L.

Afternoon meeting: [1500] ERRS received (1) Pump/Vac truck, truck pumped all of AST tank 5, 3,000 gallons, and 5 totes worth 1,500 gallons for total 4,500 gallons. ERRS received (4) 20-25 c.y. rolloff boxes. All wood vinegar needing neutralization was addressed today ~~in~~ including 500-gallon poly tank — T.L.

AST steel tank 4 was emptied into 2nd. containment for solidification. START/OSC conducted site walk and found one (1) ~~T.L.~~ drum/poly tote in pyrolysis building T.L.

Tomorrow: ERRS to receive (1) truck for wood vinegar pump. — T.L.

42 totes remain onsite, 7 of 42 are onsite contain tar/sludge, remaining 35 contain neutralized wood vinegar. (includes 500-gallon poly, worth ~2 totes). ~~T.L.~~ 18 roll offs onsite; 12 contain wood tar solidified/debris, 1 is scrap metal, 1 is Non-RCRA, 4 empty (blue) rolloffs

[1732] Team demobilizes for the day

End log day.

Taylor Law
7-14-2021

7-14-21 — Onalaska TCRA — T.L.

[0645] START Law onsite, forecasted Weather: Light rains, ~~Par~~ T.L. Cloudy. — 57-73°F, winds from SE 1-8mph.

[0700] Safety meeting held. Plan for day: receive one Pump/Vac. truck to pump neutralized wood vinegar totes. Continue solidifying wood tar from totes and breaking down tote poly and metal. — T.L.

[0710] Vac truck onsite. START Law deploying air monitoring stations. Due to light rains and limited vehicular movement onsite today, only (1) DustTrak will be deployed at AS02 location near excavator work — T.L.

[0745] Air monitoring stations deployed:

AS01	AreaRae	5	~~DustTrak SB753~~ T.L.	234
AS02	"	8	DTSB7532	143
AS03	"	7	not deployed	133
AS04	"	6	not deployed	141

[0810] START Law assessing remaining 6 ~~neutralized~~ T.L. neutralizing totes, reports pH levels to ERRS, 2 totes may need refining. — T.L.

[0815] Vac truck begins pumping wood vinegar through Sock Filter system T.L.

7-14-21 T.L. Onalaska TCRA T.L.

1005 ERRS continuing to pump Wood Vinegar (Neutralized) into Vac/Pump truck. ERRS foreman Dare continuing to break down AST tanks physical debris and solidify residual tar. T.L.

1040 Vac truck completes pump ~ 4,500 gal of Wood Vinegar (Neutralized) 6 totes emptied with exception of residual tar

1130 ERRS picking up remaining tar containers in pyrolysis building and bringing to sec. containment for solidification. T.L.

1236 ERRS RM Holz, OSC Stanfield, START Law begin site "check" walk. All buildings being checked. Note: Pyrolysis Machinery footprint, equipment, items, and Pyrolysis machine itself will be left on site. EPA, ERRS to only remove waste in totes and outdoor ASTs as well as secondary containment cleanout.

1302 ~~START~~ ERRS continuing to pH balance remaining wood vinegar treated totes. T.L.

1402 ERRRS completes pH balance of all remaining totes of wood vinegar on site, all totes ranging from 5.7 – 7.4 ideal range being around 6 pH. 18

7-14-21 T.L. Onalaska TCRA T.L.

1402 Cont. 18 neutralized totes and the 500 gallon poly tank remain to be pumped. T.L.

1500 Afternoon meeting: ERRS pumped out 17-20 totes for total of ~5,000 gal. 17-18 totes remaining on site. 40 cy. T.L. rolloff shipped for disposa, 20 cy. rolloff dropped. Neutralization and pH balance of all totes ~~continued~~ was completed T.L. Man lift was demobilized from site. T.L. (2) empty 20 cy. rolloffs onsite. T.L.

Tomorrow: (1) wood tar and (1) RCRA debris to leave. Solidify remaining tar and process tote casings. ~~Mot~~ Rolloffs to begin leaving site tomorrow. T.L.

1601 ERRS asks START Law if running additional analysis on samples submitted July 1st 2021 for 1311 TCLP SVOC analysis under START TO funding is possible if hold time on sample has not been passed. Request comes due to Waste Management facility that would potentially receive Solidified Wood Tar waste, reported that data from RSE samples did not show case, low enough reporting limits. ERRS wanting to run TCLP SVOC on sample ASAP.

7-14-21 T.L Onalaska TCRA T.L

1650 TCLP SVOC analysis run for July 1st waste samples confirmed with OSC Stanfield Fremont will begin analysis today T.L

1710 START Law begins breakdown of air monitoring locations. T.L

1730 Team demobilzes from site. End log day.

7-14-21

7-15-21 T.L. Onalaska TCRA. T.L

0645 START Law onsite. Forecasted Weather: 53-69°F, Party cloudy/clear skies, Winds from North 1-3 mph

0700 Safety meeting held. Plan for day: Receive Clean Harbors truck for removal of Contaminated debris and Solidified wood tar rolloff removal. Continue solidifying tar from neutralized totes in secondary containment with wood chips/sawdust. ERRS will also continue breakdown of emptied totes.

0710 START begins deploying air monitoring stations, due to limited site vehicular activity, only one DustTrak will be deployed at AS02 near secondary containment and excavator work. T.L

Location T.L.	Area Rae T.L.	DustTrak T.L	LTNC
AS01	Unit 5	not deployed	n.d.
AS02	Unit 8	SB7532	143
AS03	Unit 7	N.d.	n.d.
AS04	Unit 4	n.d.	n.d.

0745 START Law does O2 bump on Area Rae Unit 7 at AS03, spike readings recording are from Calibration gas at this time. T.L

0750 All air monitoring stations deployed

0755 Clean Harbors truck onsite to pick up (2) 20 c.y. rolloff boxes T.L.

0830 Truck demobilizes from site, ERRS continuing to empty tar and deconstruct totes.

1105 ERRS continuing to empty tar from neutralized totes, solidify tar in secondary containment, and deconstruct totes. T.L.

1200 Team breaks for lunch — T.L.

1235 Team returns from lunch — T.L.

1300 ERRS continuing to solidify tar and break down totes. — T.L.

1500 Afternoon meeting: ERRS continued to solidify tar and process tote casings T.L. (2) rolloffs left site, one debris, one tar T.L. Tomorrow, Vac/pump truck cancelled ERRS to receive truck on Monday. Rolloffs should all remaining to go to Aragonite (tar) or Grassy Mtn (debris) in Utah. 6 ~~bins~~ rolloffs to be picked up Mon., 2-4 on Thurs 22nd, and 2 on Fri. 7/23. ERRS tomorrow: Continue Emptying tar and breaking down totes. — T.L.

1730 Team demobilize for the day. — T.L.

End log day.

7-15-21

0645 START Law onsite. Forecasted Weather: 55-65°F, partly cloudy/clear skies 0 mph wind T.L.

0700 Safety meeting held. Plan for day: ERRS to continue solidifying tar and breaking down totes. — T.L.

0710 START Law begins setting air monitoring locations! — T.L.

Location T.L.	Area Rae T.L.	Dust Trak T.L.	LINC
AS01 T.L.	Unit 5 T.L.	Not deployed	243
AS02 T.L.	Unit 8 T.L.	SB7532 T.L.	143 T.L.
AS03 T.L.	Unit 7 T.L.	SB7531	133
AS04 T.L.	Unit 6 T.L.	Not deployed	141

0750 Air monitoring locations deployed. ERRS continuing to solidify tar and break down totes in secondary containment.

0815 Fremont Analytical calls START Law reporting that even if rushed weekend lab work requested, Fremont will not be able to report 1311 TCLP SVOC waste sample analysis until Tuesday 7/20/21. — T.L.

1002 ERRS continuing to solidify tar from neutralized totes and break down tote poly and metal casings. Woodchips still being used to solidify tar. Wood from two white tents on North end of site near trailers — T.L.

Rite in the Rain

[1158] Crew completes solidification of emptied neutralized wood vinegar totes - 18 full neutralized totes and neutralized 500 gallon poly remain onsite for Vac truck pump onsite. ERRS to begin cleaning site of all poly, PPE, containment structures and moving of Biochar super sacks to BDO1 so sacks not exposed to weather elements. — T.L.

[1205] Crew breaks for lunch — T.L.

[1240] Crew returns from lunch — T.L.

[1302] Crew continuing site cleanup activities.

[1448] ERRS Crew to begin moving palettes of Biochar super sacks under Lean-To. — T.L.

START Lou takes down air monitor station AS04 to provide room, with no wood vinegar or tar under the Lean-To any more AS04 will be moved to different location tomorrow.

[1500] Afternoon Meeting: Remaining emptied tote (neutralized) tar solidified and tote casings being processed. Loaded tar debris into 40 c.y. rolloff. Started Biochar re-location to South warehouse BDO1. Started moving super sacks from outdoors to Lean-To — T.L.

ERRS also scraping remnant tar out of secondary containment. — T.L.

Rolloff schedule: 6 RoB picked up — T.L. on Monday, 2 ROBs dropped on Tues, 2 RoBs picked up on Wednesday, 2 RoBs picked up on Thurs., 4 RoBs picked up Friday 7/23. — T.L.

(1) tank truck to receive last of Wood Vinegar (neutralized) for disposal — T.L.

ERRS to report on tanker truck rejected issue and potential onsite truck cleanout on Wednesday 7/21. — T.L.

ERRS approved initial rejected truck amendment plan from Clean Harbors on July 9th. ERRS to accept new plan amendment today, with Clean Harbor assurance personnel, equipment, and will all be provided by Clean Harbors. — T.L.

[1402] ERRS continuing to move Biochar pile into BDO2 and stage Biochar Super sacks under Lean-To — T.L.

[1432] Due to limited exposure risk from wood vinegar and work ops ceasing inside secondary containment for the day, OSC tasks START to break down air monitoring. START will also demobe until Monday 7/19 when waste pumping ops resume. End Log day — T.L. 7-16-21

0645 START Law onsite. forecasted weather 53-78°F, clear, winds from SE 2-8 mph T.L.

0700 Safety meeting held. Plan for today, fill pump/vac truck arriving with remaining wood vinegar (neutralized). ERRS to then solidify remaining tote tar. 3-rolloffs ~~remaining~~ arriving onsite, 6 rolloffs to leave site today 4 to Grassy mtn. disposal, T.L. and 2 to Aragonite disposal facility with both in Utah. T.L.

0710 START begins deployment of air monitoring stations, due to limited site activities, START deploying stations as follows: T.L.

Location T.L.	Area Rae T.L.	DustTrak T.L.	LIM
AS01	Unit 5	n.d.	n.d.
AS02	Unit 8	SB7532	143
AS03	Unit 6	SB7531	133
AS04	not deployed T.L.	n.d.	n.d.

0730 START Law documents activities missed on Saturday 7/17. ERRS completed move of Biochar pile under BD02 and BD01 (North and South warehouses). ERRS also moved all site super sacks under Lean-To area. T.L.

0732 (2) trucks onsite to receive RoB's.

0750 Viper Network connection for DustTraks interupted due to RoB' trucks onsite interferring with signal to site gateway. As in previous instances onsite with waste receiving trucks. T.L.

0815 Pump/Vac. truck onsite to receive neutralized wood vinegar. T.L.

0830 Pump/Vac truck begins receiving neutralized wood vinegar through sock filter. T.L.

0840 Truck attempting to load first 2 RoB's is not able too, 2nd truck lends truck component to broken truck loading system. T.L.

0852 Truck initially with issues is able load two RoB's, second truck now can't load, Drivers troubleshooting T.L.

0949 ERRS begins break down of emptied neutralized totes, in secondary containment

1038 Truck pumps ~4,300 gal from few remaining onsite totes and 500 ga. poly tank and demobilizes for disposal facility in Arkansas. T.L.

1230 Truck initially broken down to receive roll off boxes is fixed and leaves site with other truck, (4) RoB's demobilized

1300 ERRS continues wood tar solidification from neutralized totes and is cleaning site equipment. T.L.

1421 Clean harbors truck onsite dropping 2-roll off boxes. T.L.

1433 Clean harbors truck loading two RoB's for ~~demo~~ disposal. T.L.

ERRS continuing to solidify tar and clean equipment. T.L.

1515 Team breaks down equipment and demobilizes, End log day. T.L.

7-19-21

0645 START Law onsite forecasted weather: Partly cloudy to clear skies, light rains, 56-73°F T.L.

0700 Safety meeting held. Plan for day. ERRS to continue solidifying tar, and breaking down totes metal and poly. T.L. ERRS to also demobilize equipment to Seattle. Two more RoB's being dropped. Trailers getting demobilized Monday, Friday Power and bathrooms to demobilize.

0730 START Law deploys stations T.L.

Location T.L.	Area Rae T.L.	Dest Trak T.L.	LINC
AS01	~~Unit 5~~ n.d.	n.d.	n.d.
AS02	Unit 8	SB7532	143
AS03	Unit 6	SB7531	133
AS04	not deployed	n.d.	n.d.

T.L.

0900 ERRS Crew Dom and Shane demobilize for Seattle with equipment to be returned to U.S. Ecology ERRS subcontractor T.L. START Law brings in Area Rae Unit 6 T.L. with OSC approval due to operations no longer happening near air monitoring station START begins onsite cleaning and storing of equipment not in use. T.L.

1028 ERRS begin breakdown of steel AST tank 4 inside secondary containment T.L.

Rite in the Rain

1200 Team breaks for lunch. — T.L.
1241 Team returns from lunch. — T.L.
START continuing to clean and pack equipment.
1500 ERRS continuing to clean and conduct site maintenance such as smoothing out site gravel roads. — T.L.
1600 Afternoon meeting. tanker onsite @ 7am ~~in Tacoma, WA~~ in Onalaska, to open and check for tar. If tar present, truck to go to Tacoma, WA, for offload, then return to site for cleaning. (2) RoB's filled with solidified tar. All equipment cleaned and returned to U.S. Ecology. Profile for NaOH settled, U.S. Ecology will take remaining NaOH onsite. Tomorrow: (2) RoB's to arrive onsite Potential truck cleaning operations. — T.L.
(11) RoB's onsite filled, (2) RoB's to be taken.
1645 ERRS packing up site. — T.L.
START breaks down air monitoring — T.L.
17 Team demobilizes from site. — T.L.
End log day.

7-20-21

0645 START Law onsite. Forecasted weather: 49-72°F, partly cloudy, winds from SE 2-8mph.
0700 Safety meeting held. Plan for day: Receive two roll off boxes, and load two filled Roll off boxes for disposal. Receive tanker with tar solids that could not be pumped out at clean harbors facility. Check tar volume in tanker and determine if tanker can go back to Tacoma facility for offload and clean out or if tanker truck needs to have confined space entry clean out onsite. — T.L.
0715 START Law deploys only AS02 air monitoring location near secondary containment, Area Rae Unit 8; DustTrak unit SB7532 and LINC 143. — T.L.
0730 Clean Harbors truck onsite to receive two RoB's and drop two RoB's. ERRS packing field equipment for demobilization to Seattle. — T.L.
0855 Tanker truck (Pump/Vac.) onsite to have tar level checked. — T.L.
0930 RM Holz and ERRS Eduardo check tar level at center and back top entry /access points, tar level on bottom appears to be ~~4~~ 3½ inches at center and 6 inches at back

0930 cont. Truck isn't completely level and would explain 6 inch tar depth at back tail end of tank as back end is lowest point of above ground of tanker. — T.L.

0943 Tank truck mobilizing for Tacoma Clean Harbors facility. — T.L.

1110 ERRS continuing to clean and demobilize equipment to U.S. Ecology. ERRS also decontaminating Excavator and staging filled roll-off-boxes. — T.L.

1200 ERRS breaks for lunch. — T.L.

1231 ERRS returns from lunch. — T.L.

1322 WA Ecology, Dee Williams onsite to conduct site walk with EPA and START. — T.L.

1402 WA Ecology and OSC Stanfield demobe.

1417 OSC Fowlow onsite. — T.L.

1500 ~~Afternoon meeting~~: ERRS reports that Clean harbors will be onsite tomorrow to conduct confined space entry and cleanout of tanker with residual tar. START to mobilize site safety officer Tom Vroman to site to assist in safety oversight of confined space entry. (2) 20 cy. RoB's demobilized from site and (2) empty RoB's delivered. Aragonite received full ones. (2) crewmen demobilized equipment to Bothel. 2nd containment

1500 Cont. Cleanout was completed. All equipment to removed by end of day Tuesday. — T.L.

1 and 2/3 totes full of water/tar from tanker offload, 1-1.5 inches tar remain in bottom of tanker to be cleaned out. Remaining solidified tar (11) bins and tar debris are approved for arlington OR facility for disposal. 6 RoB's will go of tomorrow (Friday), 5 other RoB's TBD. Tomorrow. (2) 20 c.y. will be picked up tomorrow. (4) on Friday, ERRS to continue equipment clean/demobe and 3 ERRS to demobilize, Clean Harbors onsite to conduct confined space cleaning. — T.L.

1444 Crew begins to breakdown and prepare for demobilization — T.L.

1730 Team demobilizes from site see emails received/related to Clean Harbors tanker truck clean out/confined space entry for more specific details — T.L.

7-22-21

0645 START Law onsite, forecasted Weather: 58-72°F, Partly cloudy. winds 0-8mphSE

0700 Safety meeting held. Plan for day. Receive tanker from clean harbors and provide oversight of confined space entry cleaning. ERRS to breakdown remaining secondary containment walls and stage RoB's (filled) for pickup. T.L

0710 START sets up air monitoring at ASOZ T.L

0745 START Vroman onsite to assist with CPE clean harbors operation T.L

ERRS assessing secondary containment for further cleaning and staging roll off boxes T.L

900 Clean Harbors onsite, begin setting T.L

CPE entry START providing oversight T.L

1015 START calibrates SB7022 MultiRae gas bottles are listed in site equipment.

1211 Safety meeting held with Clean Harbors after receiving revised safety plan. ERRS approves of safety plan after review. CH plans to attempt cleaning/power wash of inside of tank/truck 9. 1-1.5 inch of tar on bottom, will be power washed with "Alpha Soap" and steam. CH will atempt not to not conduct CSE. Reference Clean Harbors HASP for details T.L

1242 ERRS begins breaking down secondary containment wall. T.L

1255 Clean Harbors decides confined space entry is needed. CSE to commence. T.L

1340 Clean Harbors truck onsite to receive (2) RoB's T.L

1425 Clean Harbors truck demobilizes with (2) RoB's, from site T.L

Clean Harbors crew still attempting to clean tar out of the tanker/pump truck 9. T.L

1430 OSC Stanfield Onsite. T.L

1539 Smoldering noticed at/near roll off box near front gate. ERRS Edwardo and START Law extinguish fire believed to have been caused by dry wood chips sun exposore. T.L

1600 Later Confirmed Clean Harbor cig. butt caused smolder. T.L

1628 START Law and Vroman meet with OSCs. Vroman points out items/activities to watch tomorrow during confined space entry (CSE) and gives list of items to consider during oversight. Clean Harbor team demobilizes

Team demobilizes for the day. T.L

48 7-23-21 —— Onalaska TCRA —— T.L.

0700 Safety meeting held Plan for day: Oversee Clean Harbors Clean-tanker truck. (4) RoB's, Scrap metal bin and NaOH to be picked. (5) RoB's still onsite. —— T.L.

0715 START, ERRS EPA Packing up site —— T.L.

0830 Clean Harbors team onsite. —— T.L.

0946 Clean harbors attempts power wash rinse of tank, then conducts air monitoring in tank with and without ventilation and confirms no danger or concerning air monitoring readings. CH team to apply Level C PPE, enter and tank for tar cleaning. All operations being conducted in accordance with OSHA "Alternative" methods entry. WAC 296-809-600. —— T.L.

0950 Clean Harbor personnel begin (1 man) entry to clean inside of tanker —— T.L.

1045 Personnel exits tanker —— T.L.

1055 OSC Fowlow states oversight of remaining tanker cleanout operations and demobilization of Waste Roll of Boxes, will be conducted by EPA through Saturday (7/24) and ERRS Davon until Thursday 7/29 (anticipated). START to demobilize and then re-mobilize 7/29 to take final site photos and conduct final walk. —— T.L.

End of day

1215 START Law demobilizes to Portland OR

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Project Onalaska Wood Pyrolysis TCRA. T.L.

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CONTENTS

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T.L Onalaska TCRA. T.L 7/29/21

0720 START Law mobilizes for Portland L.C.
0759 START Law mobilizes for Onalaska, WI
0930 START Law arrives onsite, meets with ERRS Daron, Oversees last of site equipment demobilization. On ~~Sunda~~ T.L Monday 7/26, ERRS reported leaking water from roll off bin containing wood tar solidified wood waste and secondary containment cleanout water. ERRS mobilized small excavator to site to solidify water and place in last roll off bin (solidified with site wood chips). START observed area where leak occurred and confirmed no remaining waste from spill onsite. T.L
0945 START commences with Final site walk and photo documentation T.L
1015 Final Site walk complete. Photos taken and no unaddressed waste found site. T.L
1030 START Law notifies OSCs of site walk completion and receives confirmation to demobilize. See photos of site taken by START Law on 7/29 for more details. T.L
START demobilizes from site, all TCRA activities complete. T.L
End log day, ~~End lo~~ T.L

T.L Onalaska TCRA T.L 7-29-21

Infastructure/items/Equipment, left on site that existed prior to EPA removal action activities T.L

- All Pyrolysis equipment, tools and empty containers as well as everything in office and tool shelves/lockers of Pyrolysis building will be left on site with Pyrolysis machinery. T.L
- Wood chips under North/South warehouse as well as the (2) white rectangle tents on Northside of site will be left onsite. T.L
- Biochar piles under North/South warehouse and in all Super Sacks found on site, are left on site. T.L
- Steel Vat in Dry Kiln building T.L
- Empty Super sacks T.L
- Confirmed Non Hazardous tote of Vermi-grow T.L
- All Outdoor Pyrolysis Machinery T.L

See pictures for more detail (on 7/29)
All notes recorded in ~~this~~ site T.L ~~log book~~ logbooks, T.L ~~log~~ align with START OSC approved TCRA SAP and Site H&S plans. All activities were conducted in accordance with Weston SOPs.

Consider remaining pages of this logbook complete

[signature]

7-29-2021

pgs 4-48

7-29-2021
End log book

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ATTACHMENT C
2021 TCRA Waste Sample Data

Analyte	CAS NO.	Units	RCRA Hazardous Criteria[1]	OWP-WTAR1-07 6/30/2021	OWP-WTAR2-07 6/30/2021
Volatile Organic Compound (EPA Method SW8260D)					
Benzene	71-43-2	mg/L	0.5	0.202 U	0.148 U
Semivolatile Organic Compound (EPA Method SW8270E)					
1,4-Dichlorobenzene	106-46-7	mg/L	7.5	0.00554 U	0.00512 U
2,4,5-Trichlorophenol	95-95-4	mg/L	400	0.0831 U	0.0768 U
2,4,6-Trichlorophenol	88-06-2	mg/L	2	0.0831 U	0.0768 U
2,4-Dinitrotoluene	121-14-2	mg/L	0.13	0.0554 U	0.0512 U
3-Methylphenol and 4-Methylphenol coelution	34-Cresol	mg/L	200	71 U	53.9 U
Hexachlorobenzene	118-74-1	mg/L	0.13	0.00831 U	0.00768 U
Hexachlorobutadiene	87-68-3	mg/L	0.5	0.0415 U	0.0384 U
Hexachloroethane	67-72-1	mg/L	3	0.00415 U	0.00384 U
Nitrobenzene	98-95-3	mg/L	2	0.0138 U	0.0128 U
o-Cresol	95-48-7	mg/L	200	30.7 U	23.4 U
Pentachlorophenol	87-86-5	mg/L	100	0.0277 U	0.0256 U
Pyridine	110-86-1	mg/L	5	0.0554 U	0.0512U

Notes:

[1] RCRA Regulations for the Identification and Listing of Hazardous Waste, 40 Code of Federal Regulations 261

Abbreviations:
CAS = Chemical Abstracts Service
mg/L = milligrams per liter
RCRA = Resource Conservation and Recovery Act
TCRA = Time-Critical Removal Action
U = Analyte included in the analysis, but not detected

ATTACHMENT D

LABORATORY DATA PACKAGES

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Weston Solutions
Jeff Wright
1011 SW Klickitat Way #212
Seattle, WA 98134

RE: Onalaska Wood Pyrolysis
Work Order Number: 2107001

July 07, 2021

Attention Jeff Wright:

Fremont Analytical, Inc. received 2 sample(s) on 7/1/2021 for the analyses presented in the following report.

Volatile Organic Compounds by SW8260D/TCLP ZHE

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *07/07/2021*

CLIENT: Weston Solutions
Project: Onalaska Wood Pyrolysis
Work Order: 2107001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2107001-001	OWP-WTAR1-07	06/30/2021 4:41 PM	07/01/2021 8:43 AM
2107001-002	OWP-WTAR2-07	06/30/2021 4:41 PM	07/01/2021 8:43 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2107001**

Date: **7/7/2021**

CLIENT: Weston Solutions

Project: Onalaska Wood Pyrolysis

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2107001**
Date Reported: **7/7/2021**

Client: Weston Solutions
Project: Onalaska Wood Pyrolysis
Lab ID: 2107001-001
Client Sample ID: OWP-WTAR1-07

Collection Date: 6/30/2021 4:41:00 PM
Matrix: Solid

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by SW8260D/TCLP ZHE				Batch ID: 32881		Analyst: KT
Benzene	202	4.40	D	µg/L	10	7/7/2021 11:06:53 AM
Surr: Dibromofluoromethane	110	80 - 120	D	%Rec	10	7/7/2021 11:06:53 AM
Surr: Toluene-d8	99.6	80 - 120	D	%Rec	10	7/7/2021 11:06:53 AM
Surr: 1-Bromo-4-fluorobenzene	120	80 - 120	D	%Rec	10	7/7/2021 11:06:53 AM

Analytical Report

Work Order: **2107001**
Date Reported: **7/7/2021**

Client: Weston Solutions
Collection Date: 6/30/2021 4:41:00 PM
Project: Onalaska Wood Pyrolysis
Lab ID: 2107001-002
Matrix: Solid
Client Sample ID: OWP-WTAR2-07

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by SW8260D/TCLP ZHE				Batch ID: 32881		Analyst: KT
Benzene	148	4.40	D	µg/L	10	7/7/2021 11:37:02 AM
Surr: Dibromofluoromethane	110	80 - 120	D	%Rec	10	7/7/2021 11:37:02 AM
Surr: Toluene-d8	101	80 - 120	D	%Rec	10	7/7/2021 11:37:02 AM
Surr: 1-Bromo-4-fluorobenzene	122	80 - 120	DS	%Rec	10	7/7/2021 11:37:02 AM

NOTES:
S - Outlying surrogate recovery(ies) observed due to suspected matrix interference.

Date: *7/7/2021*

Work Order: 2107001
CLIENT: Weston Solutions
Project: Onalaska Wood Pyrolysis

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **LCS-32881** SampType: **LCS** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **LCSW** Batch ID: **32881** Analysis Date: **7/6/2021** SeqNo: **1381927**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.0	0.440	20.00	0	95.2	80	120				
Surr: Dibromofluoromethane	24.0		25.00		96.0	81.1	118				
Surr: Toluene-d8	24.4		25.00		97.8	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	27.0		25.00		108	84.2	111				

Sample ID: **MB-32881** SampType: **MBLK** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **MBLKW** Batch ID: **32881** Analysis Date: **7/6/2021** SeqNo: **1381925**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440									
Surr: Dibromofluoromethane	23.3		25.00		93.3	80	120				
Surr: Toluene-d8	23.7		25.00		95.0	80	120				
Surr: 1-Bromo-4-fluorobenzene	24.3		25.00		97.2	80	120				

Sample ID: **2107020-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **BATCH** Batch ID: **32881** Analysis Date: **7/6/2021** SeqNo: **1381922**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440						0		30	
Surr: Dibromofluoromethane	23.9		25.00		95.7	80	120		0		
Surr: Toluene-d8	24.2		25.00		96.7	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	23.7		25.00		94.6	80	120		0		

Sample ID: **2106516-004ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **BATCH** Batch ID: **32881** Analysis Date: **7/6/2021** SeqNo: **1381916**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440						0		30	
Surr: Dibromofluoromethane	24.6		25.00		98.5	80	120		0		

Date: *7/7/2021*

Work Order: 2107001
CLIENT: Weston Solutions
Project: Onalaska Wood Pyrolysis

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **2106516-004ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **BATCH** Batch ID: **32881** Analysis Date: **7/6/2021** SeqNo: **1381916**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	24.5		25.00		97.9	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	23.6		25.00		94.3	80	120		0		

Sample ID: **2106516-009AMS** SampType: **MS** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **BATCH** Batch ID: **32881** Analysis Date: **7/7/2021** SeqNo: **1381918**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.3	0.440	20.00	0	106	79	131				
Surr: Dibromofluoromethane	24.7		25.00		98.7	80	121				
Surr: Toluene-d8	25.4		25.00		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	27.0		25.00		108	80	120				

Sample ID: **MB-32897** SampType: **MBLK** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **MBLKW** Batch ID: **32881** Analysis Date: **7/7/2021** SeqNo: **1381926**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	4.40									D
Surr: Dibromofluoromethane	252		250.0		101	80	120				D
Surr: Toluene-d8	255		250.0		102	80	120				D
Surr: 1-Bromo-4-fluorobenzene	239		250.0		95.8	80	120				D

Sample Log-In Check List

Client Name:	**WESTO**	Work Order Number:	**2107001**
Logged by:	**Gabrielle Coeuille**	Date Received:	**7/1/2021 8:43:00 AM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
5. Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☑
6. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
7. Were all items received at a temperature of >2°C to 6°C * Yes ☐ No ☑ NA ☐
   Approved by client.
8. Sample(s) in proper container(s)? Yes ☑ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
10. Are samples properly preserved? Yes ☑ No ☐
11. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☑
13. Did all samples containers arrive in good condition(unbroken)? Yes ☑ No ☐
14. Does paperwork match bottle labels? Yes ☑ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
16. Is it clear what analyses were requested? Yes ☑ No ☐
17. Were all holding times able to be met? Yes ☑ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☑ No ☐ NA ☐

Person Notified:	Jeff Wright	Date:	7/1/2021
By Whom:	Gabrielle Coeuille	Via:	☑ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Ok to proceed out of temp?		
Client Instructions:	Proceed.		

19. Additional remarks:

Item Information

Item #	Temp ºC
Sample 1	13.1

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: [redacted] Page: of:

Laboratory Project No (internal): 2107001

Project Name: Onalaska Wood Pyrolysis

Special Remarks:

Client: Weston Solutions

Project No:

Address: 1011 SW Klickitat Way #212

Collected by: Taylor Law

City, State, Zip: Seattle, WA 98134

Location:

Telephone: 281-755-4563

Report To (PM):

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	131 Benzene TCLP	TCLP	Comments
1	[redacted]																			
2	[redacted]																			
3	OWP-WTAR1-07	6/30/21	16:41	SL																3-day TAT, TCLP
4	OWP-WTAR2-07	6/30/21	16:41	SL																3-day TAT, TCLP
5																				
6																				
7																				
8																				
9																				
10																				

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Poliutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time: ☐ Standard ☐ Next Day ☒ 3 Day ☐ Same Day ☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x Taylor Law	Taylor Law	6/30/21 16:41	x [signature]	EDUARDO GONZALEZ	6-30-21 16:48
Relinquished (Signature) x	Print Name	Date/Time	Received (Signature) x [signature]	Print Name	Date/Time 0943 7/1/21

COC 1.3 11.06.20

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Page 1 of 2

Fremont Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: [redacted] Page: of:

Laboratory Project No (internal): 2107001

Project Name: Onalaska Wood Pyrolysis

Special Remarks:
Update per TL 7/1/21- gac

Client: Weston Solutions

Project No:

Address: 1011 SW Klickitat Way #212

Collected by: Taylor Law

City, State, Zip: Seattle, WA 98134

Location:

Telephone: 281-755-4563

Report To (PM): Jeff Wright

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email: jeff.wright@westonsolutions.com

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	1311 Benzene TCLP	TCLP	Comments
1	[redacted]																			
2	[redacted]																			
3	OWP-WTAR1-07	6/30/21	16:41	SL																3-day TAT, TCLP
4	OWP-WTAR2-07	6/30/21	16:41	SL																3-day TAT, TCLP
5																				
6																				
7																				
8																				
9																				
10																				

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Poliutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time: ☐ Standard ☐ Next Day ☒ 3 Day ☐ Same Day ☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x Taylor Law	Taylor Law	6/30/21 16:41	x [signature]	EDUARDO GONZALEZ	6-30-21 16:48
Relinquished (Signature) x	Print Name	Date/Time	Received (Signature) x [signature]	Print Name	Date/Time 7/1/21 0943

COC 1.3 11.06.20

www.fremontanalytical.com

Page 1 of 2

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Weston Solutions
Jeff Wright
1011 SW Klickitat Way #212
Seattle, WA 98134

RE: Onalaska Wood Pyrolysis
Work Order Number: 2107001

July 20, 2021

Attention Jeff Wright:

Fremont Analytical, Inc. received 2 sample(s) on 7/1/2021 for the analyses presented in the following report.

SVOC (SW8270) with TCLP Extraction (EPA 1311)
Volatile Organic Compounds by SW8260D/TCLP ZHE

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CC:
Taylor Law

Date: *07/20/2021*

CLIENT: Weston Solutions
Project: Onalaska Wood Pyrolysis
Work Order: 2107001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2107001-001	OWP-WTAR1-07	06/30/2021 4:41 PM	07/01/2021 8:43 AM
2107001-002	OWP-WTAR2-07	06/30/2021 4:41 PM	07/01/2021 8:43 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2107001**

Date: **7/20/2021**

CLIENT: Weston Solutions

Project: Onalaska Wood Pyrolysis

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Rev 1 includes the analysis of TCLP SVOCs.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2107001**
Date Reported: **7/20/2021**

Client: Weston Solutions
Project: Onalaska Wood Pyrolysis
Lab ID: 2107001-001
Client Sample ID: OWP-WTAR1-07

Collection Date: 6/30/2021 4:41:00 PM
Matrix: Solid

SVOC (SW8270) with TCLP Extraction (EPA 1311)

Batch ID: 33031 Analyst: IH

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Pyridine	ND	55.4	D	µg/L	10	7/19/2021 7:59:24 PM
1,4-Dichlorobenzene	ND	5.54	D	µg/L	10	7/19/2021 7:59:24 PM
2-Methylphenol (o-cresol)	30,700	554	DE	µg/L	1000	7/20/2021 3:04:44 PM
Hexachloroethane	ND	4.15	D	µg/L	10	7/19/2021 7:59:24 PM
3&4-Methylphenol (m, p-cresol)	71,000	1,110	DE	µg/L	1000	7/20/2021 3:04:44 PM
Nitrobenzene	ND	13.8	DQ	µg/L	10	7/19/2021 7:59:24 PM
Hexachlorobutadiene	ND	41.5	D	µg/L	100	7/20/2021 11:05:02 AM
2,4,6-Trichlorophenol	ND	83.1	D	µg/L	100	7/20/2021 11:05:02 AM
2,4,5-Trichlorophenol	ND	83.1	D	µg/L	100	7/20/2021 11:05:02 AM
2,4-Dinitrotoluene	ND	55.4	DQ	µg/L	100	7/20/2021 11:05:02 AM
Hexachlorobenzene	ND	8.31	D	µg/L	10	7/19/2021 7:59:24 PM
Pentachlorophenol	ND	27.7	D	µg/L	10	7/19/2021 7:59:24 PM
Surr: 2,4,6-Tribromophenol	30.3	35.1 - 157	DS	%Rec	10	7/19/2021 7:59:24 PM
Surr: 2-Fluorobiphenyl	1.62	43.3 - 135	DS	%Rec	100	7/20/2021 11:05:02 AM
Surr: Nitrobenzene-d5	55.7	39.7 - 138	D	%Rec	1000	7/20/2021 3:04:44 PM
Surr: Phenol-d6	33.0	5 - 61.6	D	%Rec	100	7/20/2021 11:05:02 AM
Surr: p-Terphenyl	24.7	35.5 - 158	DS	%Rec	10	7/19/2021 7:59:24 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
S - Outlying surrogate recovery(ies) observed due to suspected matrix interference.

Volatile Organic Compounds by SW8260D/TCLP ZHE

Batch ID: 32881 Analyst: KT

Benzene	202	4.40	D	µg/L	10	7/7/2021 11:06:53 AM
Surr: Dibromofluoromethane	110	80 - 120	D	%Rec	10	7/7/2021 11:06:53 AM
Surr: Toluene-d8	99.6	80 - 120	D	%Rec	10	7/7/2021 11:06:53 AM
Surr: 1-Bromo-4-fluorobenzene	120	80 - 120	D	%Rec	10	7/7/2021 11:06:53 AM

Analytical Report

Work Order: **2107001**
Date Reported: **7/20/2021**

Client: Weston Solutions
Project: Onalaska Wood Pyrolysis
Lab ID: 2107001-002
Client Sample ID: OWP-WTAR2-07

Collection Date: 6/30/2021 4:41:00 PM
Matrix: Solid

SVOC (SW8270) with TCLP Extraction (EPA 1311)

Batch ID: 33031 Analyst: IH

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Pyridine	ND	51.2	D	µg/L	10	7/19/2021 8:21:25 PM
1,4-Dichlorobenzene	ND	5.12	D	µg/L	10	7/19/2021 8:21:25 PM
2-Methylphenol (o-cresol)	23,400	512	DE	µg/L	1000	7/20/2021 3:26:37 PM
Hexachloroethane	ND	3.84	D	µg/L	10	7/19/2021 8:21:25 PM
3&4-Methylphenol (m, p-cresol)	53,900	1,020	DE	µg/L	1000	7/20/2021 3:26:37 PM
Nitrobenzene	ND	12.8	D	µg/L	10	7/19/2021 8:21:25 PM
Hexachlorobutadiene	ND	38.4	D	µg/L	100	7/20/2021 11:26:55 AM
2,4,6-Trichlorophenol	ND	76.8	D	µg/L	100	7/20/2021 11:26:55 AM
2,4,5-Trichlorophenol	ND	76.8	D	µg/L	100	7/20/2021 11:26:55 AM
2,4-Dinitrotoluene	ND	51.2	DQ	µg/L	100	7/20/2021 11:26:55 AM
Hexachlorobenzene	ND	7.68	D	µg/L	10	7/19/2021 8:21:25 PM
Pentachlorophenol	ND	25.6	D	µg/L	10	7/19/2021 8:21:25 PM
Surr: 2,4,6-Tribromophenol	25.5	35.1 - 157	DS	%Rec	10	7/19/2021 8:21:25 PM
Surr: 2-Fluorobiphenyl	1.24	43.3 - 135	DS	%Rec	100	7/20/2021 11:26:55 AM
Surr: Nitrobenzene-d5	44.4	39.7 - 138	D	%Rec	1000	7/20/2021 3:26:37 PM
Surr: Phenol-d6	37.1	5 - 61.6	D	%Rec	100	7/20/2021 11:26:55 AM
Surr: p-Terphenyl	22.2	35.5 - 158	DS	%Rec	10	7/19/2021 8:21:25 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
S - Outlying surrogate recovery(ies) observed due to suspected matrix interference.

Volatile Organic Compounds by SW8260D/TCLP ZHE

Batch ID: 32881 Analyst: KT

Benzene	148	4.40	D	µg/L	10	7/7/2021 11:37:02 AM
Surr: Dibromofluoromethane	110	80 - 120	D	%Rec	10	7/7/2021 11:37:02 AM
Surr: Toluene-d8	101	80 - 120	D	%Rec	10	7/7/2021 11:37:02 AM
Surr: 1-Bromo-4-fluorobenzene	122	80 - 120	DS	%Rec	10	7/7/2021 11:37:02 AM

NOTES:
S - Outlying surrogate recovery(ies) observed due to suspected matrix interference.

Work Order: 2107001
CLIENT: Weston Solutions
Project: Onalaska Wood Pyrolysis

QC SUMMARY REPORT

SVOC (SW8270) with TCLP Extraction (EPA 1311)

Sample ID: **MB-33031** SampType: **MBLK** Units: Prep Date: **7/16/2021** RunNo: **68686**
Client ID: **MBLKS** Batch ID: **33031** Analysis Date: **7/19/2021** SeqNo: **1388727**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Pyridine	ND	1.97									
1,4-Dichlorobenzene	ND	0.197									
2-Methylphenol (o-cresol)	ND	0.197									
Hexachloroethane	ND	0.148									
3&4-Methylphenol (m, p-cresol)	ND	0.393									
Nitrobenzene	ND	0.492									Q
Hexachlorobutadiene	ND	0.148									
2,4,6-Trichlorophenol	ND	0.295									
2,4,5-Trichlorophenol	ND	0.295									
2,4-Dinitrotoluene	ND	0.197									
Hexachlorobenzene	ND	0.295									
Pentachlorophenol	ND	0.984									
Surr: 2,4,6-Tribromophenol	3.24		3.934		82.3	35.1	157				
Surr: 2-Fluorobiphenyl	2.02		1.967		103	43.3	135				
Surr: Nitrobenzene-d5	1.47		1.967		75.0	39.7	138				
Surr: Phenol-d6	0.910		3.934		23.1	5	61.6				
Surr: p-Terphenyl	1.70		1.967		86.4	35.5	158				

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID: **LCS-33031** SampType: **LCS** Units: **µg/L** Prep Date: **7/16/2021** RunNo: **68686**
Client ID: **LCSS** Batch ID: **33031** Analysis Date: **7/19/2021** SeqNo: **1388728**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Pyridine	0.970	0	3.962	0	24.5	8.47	47.3				
1,4-Dichlorobenzene	2.84	0.198	3.962	0	71.8	28	106				
2-Methylphenol (o-cresol)	2.79	0.198	3.962	0	70.4	11.3	106				
Hexachloroethane	2.04	0.149	3.962	0	51.6	27.3	104				
3&4-Methylphenol (m, p-cresol)	1.92	0.396	3.962	0	48.5	7.95	98.3				
Nitrobenzene	2.29	0.495	3.962	0	57.9	35.6	125				
Hexachlorobutadiene	3.17	0.149	3.962	0	79.9	21.4	110				

Date: *7/20/2021*

Work Order: 2107001
CLIENT: Weston Solutions
Project: Onalaska Wood Pyrolysis

QC SUMMARY REPORT

SVOC (SW8270) with TCLP Extraction (EPA 1311)

Sample ID: **LCS-33031** SampType: **LCS** Units: **µg/L** Prep Date: **7/16/2021** RunNo: **68686**
Client ID: **LCSS** Batch ID: **33031** Analysis Date: **7/19/2021** SeqNo: **1388728**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4,6-Trichlorophenol	4.21	0.297	3.962	0	106	14.2	125				
2,4,5-Trichlorophenol	4.54	0.297	3.962	0	115	13.8	132				
2,4-Dinitrotoluene	3.69	0.198	3.962	0	93.1	52.9	130				
Hexachlorobenzene	3.66	0.297	3.962	0	92.3	28.9	135				
Pentachlorophenol	3.77	0.990	3.962	0	95.2	-5	140				
Surr: 2,4,6-Tribromophenol	3.36		3.962		84.9	35.1	157				
Surr: 2-Fluorobiphenyl	1.94		1.981		98.1	43.3	135				
Surr: Nitrobenzene-d5	1.18		1.981		59.4	39.7	138				
Surr: Phenol-d6	1.06		3.962		26.8	5	61.6				
Surr: p-Terphenyl	1.67		1.981		84.2	35.5	158				

Sample ID: **LCSD-33031** SampType: **LCSD** Units: **µg/L** Prep Date: **7/16/2021** RunNo: **68686**
Client ID: **LCSS02** Batch ID: **33031** Analysis Date: **7/19/2021** SeqNo: **1388729**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Pyridine	0.883	1.99	3.975	0	22.2	8.47	47.3	0		0	
1,4-Dichlorobenzene	3.17	0.199	3.975	0	79.6	28	106	2.843	10.7	30	
2-Methylphenol (o-cresol)	3.31	0.199	3.975	0	83.3	11.3	106	2.789	17.2	30	
Hexachloroethane	3.72	0.149	3.975	0	93.5	27.3	104	2.044	58.0	30	R
3&4-Methylphenol (m, p-cresol)	3.18	0.397	3.975	0	80.0	7.95	98.3	1.922	49.3	30	R
Nitrobenzene	3.59	0.497	3.975	0	90.4	35.6	125	2.293	44.2	30	R
Hexachlorobutadiene	3.12	0.149	3.975	0	78.6	21.4	110	3.166	1.32	30	
2,4,6-Trichlorophenol	3.40	0.298	3.975	0	85.5	14.2	125	4.214	21.5	30	
2,4,5-Trichlorophenol	3.62	0.298	3.975	0	91.0	13.8	132	4.537	22.6	30	
2,4-Dinitrotoluene	3.60	0.199	3.975	0	90.5	52.9	130	3.690	2.54	30	
Hexachlorobenzene	3.44	0.298	3.975	0	86.5	28.9	135	3.657	6.19	30	
Pentachlorophenol	3.67	0.994	3.975	0	92.4	-5	140	3.773	2.74	30	
Surr: 2,4,6-Tribromophenol	3.27		3.975		82.3	35.1	157		0		
Surr: 2-Fluorobiphenyl	1.82		1.987		91.8	43.3	135		0		
Surr: Nitrobenzene-d5	1.84		1.987		92.7	39.7	138		0		

Work Order: 2107001
CLIENT: Weston Solutions
Project: Onalaska Wood Pyrolysis

QC SUMMARY REPORT

SVOC (SW8270) with TCLP Extraction (EPA 1311)

Sample ID: **LCSD-33031** SampType: **LCSD** Units: **µg/L** Prep Date: **7/16/2021** RunNo: **68686**
Client ID: **LCSS02** Batch ID: **33031** Analysis Date: **7/19/2021** SeqNo: **1388729**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Phenol-d6	1.48		3.975		37.3	5	61.6		0		
Surr: p-Terphenyl	1.66		1.987		83.6	35.5	158		0		

NOTES:
R - High RPD observed, spike recovery is within range.

Sample ID: **MB-33001** SampType: **MBLK** Units: Prep Date: **7/16/2021** RunNo: **68686**
Client ID: **MBLKS** Batch ID: **33031** Analysis Date: **7/19/2021** SeqNo: **1388730**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Pyridine	ND	5.21									
1,4-Dichlorobenzene	ND	0.521									
2-Methylphenol (o-cresol)	0.761	0.521									
Hexachloroethane	ND	0.391									
3&4-Methylphenol (m, p-cresol)	1.17	1.04									
Nitrobenzene	ND	1.30									Q
Hexachlorobutadiene	ND	0.391									
2,4,6-Trichlorophenol	ND	0.782									
2,4,5-Trichlorophenol	ND	0.782									
2,4-Dinitrotoluene	ND	0.521									
Hexachlorobenzene	ND	0.782									
Pentachlorophenol	ND	2.61									
Surr: 2,4,6-Tribromophenol	9.88		10.43		94.7	35.1	157				
Surr: 2-Fluorobiphenyl	3.84		5.213		73.7	43.3	135				
Surr: Nitrobenzene-d5	3.31		5.213		63.5	39.7	138				
Surr: Phenol-d6	5.28		10.43		50.7	5	61.6				
Surr: p-Terphenyl	4.48		5.213		86.0	35.5	158				

Date: *7/20/2021*

Work Order: 2107001
CLIENT: Weston Solutions
Project: Onalaska Wood Pyrolysis

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **LCS-32881** SampType: **LCS** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **LCSW** Batch ID: **32881** Analysis Date: **7/6/2021** SeqNo: **1381927**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.0	0.440	20.00	0	95.2	80	120				
Surr: Dibromofluoromethane	24.0		25.00		96.0	81.1	118				
Surr: Toluene-d8	24.4		25.00		97.8	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	27.0		25.00		108	84.2	111				

Sample ID: **MB-32881** SampType: **MBLK** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **MBLKW** Batch ID: **32881** Analysis Date: **7/6/2021** SeqNo: **1381925**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440									
Surr: Dibromofluoromethane	23.3		25.00		93.3	80	120				
Surr: Toluene-d8	23.7		25.00		95.0	80	120				
Surr: 1-Bromo-4-fluorobenzene	24.3		25.00		97.2	80	120				

Sample ID: **2107020-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **BATCH** Batch ID: **32881** Analysis Date: **7/6/2021** SeqNo: **1381922**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440						0		30	
Surr: Dibromofluoromethane	23.9		25.00		95.7	80	120		0		
Surr: Toluene-d8	24.2		25.00		96.7	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	23.7		25.00		94.6	80	120		0		

Sample ID: **2106516-004ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **BATCH** Batch ID: **32881** Analysis Date: **7/6/2021** SeqNo: **1381916**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440						0		30	
Surr: Dibromofluoromethane	24.6		25.00		98.5	80	120		0		

Work Order: 2107001
CLIENT: Weston Solutions
Project: Onalaska Wood Pyrolysis

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **2106516-004ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **BATCH** Batch ID: **32881** Analysis Date: **7/6/2021** SeqNo: **1381916**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	24.5		25.00		97.9	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	23.6		25.00		94.3	80	120		0		

Sample ID: **2106516-009AMS** SampType: **MS** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **BATCH** Batch ID: **32881** Analysis Date: **7/7/2021** SeqNo: **1381918**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.3	0.440	20.00	0	106	79	131				
Surr: Dibromofluoromethane	24.7		25.00		98.7	80	121				
Surr: Toluene-d8	25.4		25.00		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	27.0		25.00		108	80	120				

Sample ID: **MB-32897** SampType: **MBLK** Units: **µg/L** Prep Date: **7/6/2021** RunNo: **68395**
Client ID: **MBLKW** Batch ID: **32881** Analysis Date: **7/7/2021** SeqNo: **1381926**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	4.40									D
Surr: Dibromofluoromethane	252		250.0		101	80	120				D
Surr: Toluene-d8	255		250.0		102	80	120				D
Surr: 1-Bromo-4-fluorobenzene	239		250.0		95.8	80	120				D

Sample Log-In Check List

Client Name:	**WESTO**	Work Order Number:	**2107001**
Logged by:	**Gabrielle Coeuille**	Date Received:	**7/1/2021 8:43:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☐	No ☑	NA ☐
		Approved by client.		
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☑	No ☐	NA ☐

Person Notified:	Jeff Wright	Date:	7/1/2021
By Whom:	Gabrielle Coeuille	Via:	☑ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Ok to proceed out of temp?		
Client Instructions:	Proceed.		

19. Additional remarks:

Item Information

Item #	Temp ºC
Sample 1	13.1

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: [redacted] Page: of:

Laboratory Project No (internal): 2107001

Project Name: Onalaska Wood Pyrolysis

Special Remarks:

Client: Weston Solutions

Project No:

Address: 1011 SW Klickitat Way #212

Collected by: Taylor Law

City, State, Zip: Seattle, WA 98134

Location:

Telephone: 281-755-4563

Report To (PM):

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	1311 Benzene TCLP	TCLP	Comments
1	[redacted]	[redacted]		[redacted]																
2	[redacted]	[redacted]		[redacted]																
3	OWP-WTAR1-07	6/30/21	16:41	SL																3-day TAT, TCLP
4	OWP-WTAR2-07	6/30/21	16:41	SL																3-day TAT, TCLP
5																				
6																				
7																				
8																				
9																				
10																				

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Poliutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time: ☐ Standard ☐ Next Day ☒ 3 Day ☐ Same Day ☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x Taylor Law	Taylor Law	6/30/21 16:41	x [signature]	EDUARDO GONZALEZ	6-30-21 16:48
Relinquished (Signature) x	Print Name	Date/Time	Received (Signature) x [signature]	Print Name	Date/Time 0943 7/1/21

COC 1.3 11.06.20

www.fremontanalytical.com

Page 1 of 2

Fremont Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: [redacted] Page: of:

Laboratory Project No (internal): 2107001

Project Name: Onalaska Wood Pyrolysis

Special Remarks:
Update per TL 7/1/21- gac

Client: Weston Solutions

Project No:

Address: 1011 SW Klickitat Way #212

Collected by: Taylor Law

City, State, Zip: Seattle, WA 98134

Location:

Telephone: 281-755-4563

Report To (PM): Jeff Wright

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email: jeff.wright@westonsolutions.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	1311 Benzene TCLP	TCLP	Comments
1 [redacted]	[redacted]		[redacted]																
2 [redacted]	[redacted]		[redacted]																
3 OWP-WTAR1-07	6/30/21	16:41	SL																3-day TAT, TCLP
4 OWP-WTAR2-07	6/30/21	16:41	SL																3-day TAT, TCLP
5																			
6																			
7																			
8																			
9																			
10																			

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Poliutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time: ☐ Standard ☐ Next Day ☒ 3 Day ☐ Same Day ☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x Taylor Law	Taylor Law	6/30/21 16:41	x [signature]	EDUARDO GONZALEZ	6-30-21 16:48
Relinquished (Signature) x	Print Name	Date/Time	Received (Signature) x [signature]	Print Name	Date/Time 0943 7/1/21

COC 1.3 11.06.20

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Fremont Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: [redacted] Page: of:

Laboratory Project No (internal): 2107001

Project Name: Onalaska Wood Pyrolysis

Special Remarks:

Update per TL 7/1/21- gac

X = run for ASAP TCLP SVOCs 7/14/21 -CG

Client: Weston Solutions

Project No:

Address: 1011 SW Klickitat Way #212

Collected by: Taylor Law

City, State, Zip: Seattle, WA 98134

Location:

Telephone: 281-755-4563

Report To (PM): Jeff Wright

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email: jeff.wright@westonsolutions.com

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	1311 Benzene TCLP			TCLP Comments
1	[redacted]	[redacted]		[redacted]																	
2	[redacted]	[redacted]		[redacted]																	
3	OWP-WTAR1-07	6/30/21	16:41	SL															X		3-day TAT, TCLP
4	OWP-WTAR2-07	6/30/21	16:41	SL															X		3-day TAT, TCLP
5																					
6																					
7																					
8																					
9																					
10																					

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Poliutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time: ☐ Standard ☐ Next Day ☒ 3 Day ☐ Same Day ☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x Taylor Law	Taylor Law	6/30/21 16:41	x [signature]	EDUARDO GONZALEZ	6-30-21 16:48
Relinquished (Signature) x	Print Name	Date/Time	Received (Signature) x [signature]	Print Name [signature]	Date/Time 7/1/21 0943

COC 1.3 11.06.20

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ATTACHMENT E

DATA QUALITY ASSURANCE REVIEW MEMORANDA

TCLP SVOC FRACTION EVALUATION

1. Analytical Method:

Samples were prepared and analyzed for SVOCs using the procedures specified in **SW-846 Method 8270.** TCLP samples were extracted prior to analysis using the procedures specified in **SW-846 Method 1311.**

2. Holding Time:

All samples were extracted within the required holding time of less than 7 days for waters and less than 14 days for solids/wastes after collection. Analysis of the samples was conducted within 40 days of extraction. Samples were received above the 4°C±2°C QC limit at 13.1°C. The detected and non-detected SVOC results in both samples were estimated, JL/UJL due to sample receipt temperature non-compliance. The 3&4-methylphenol (m,p-cresol) result was ultimately qualified "JK" due to high LCS/LCSD RPD as noted below.

3. Tuning/Performance:

Level 4 data validation is not being performed on this data set at this time. In the event that level 4 validation is performed, this validation report will be revised to include the level 4 findings. However, no outages were noted in the case narrative. No qualifications are placed on the data.

4. Initial Calibration:

Level 4 data validation is not being performed on this data set at this time. In the event that level 4 validation is performed, this validation report will be revised to include the level 4 findings. However, no outages were noted in the case narrative. No qualifications are placed on the data.

5. Continuing Calibration:

Level 4 data validation is not being performed on this data set at this time. In the event that level 4 validation is performed, this validation report will be revised to include the level 4 findings. However, no outages were noted in the case narrative. No qualifications are placed on the data.

6. Blanks:

A. Laboratory Blanks:

A method blank was prepared at the required frequency of every time samples were extracted for each matrix and concentration or every 20 samples whichever is greater. Target compounds were not detected in the blanks analyzed at concentrations that warrant blank action. No qualifications are placed on the data.

B. Field Blanks:

No field blank samples were submitted with this analytical package. No qualifications are placed on the data.

7. System Monitoring Compounds (SMC):

All recoveries of the system monitoring compounds (surrogates) were within the control limits provided or were diluted out. No qualifications are placed on the data.

8. Matrix Spike/Matrix Spike Duplicate (MS/MSD):

No sample from this analytical package underwent MS/MSD analysis for the TCLP matrix. No qualifications are placed on the data.

9. Duplicates:

A. Laboratory Duplicate Analysis:

No sample from this analytical package underwent laboratory duplicate analysis for the TCLP matrix. No qualifications are placed on the data.

B. Field Duplicate Analysis:

The following sample pair was submitted as field duplicates for the TCLP matrix: OWP-WTAR1-07/OWP-WTAR2-07. QC criteria are that the RPD values for the field duplicate sample analysis be less than 30% for aqueous samples and less than 50% for solid samples for concentrations greater than five times the reporting limit (RL). For sample concentrations less than five times the RL, the QC criteria are that the absolute difference between the samples is less than two times the RL for aqueous samples or less than 3.5 times the RL for the solid matrix. All QC criteria were met. No qualifications are placed on the data.

10. Internal Standards:

Level 4 data validation is not being performed on this data set at this time. In the event that level 4 validation is performed, this validation report will be revised to include the level 4 findings. However, no outages were noted in the case narrative. No qualifications are placed on the data.

11. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD):

The laboratory analyzed LCS/LCSD and percent recoveries and RPDs for these analyses were within the control limits provided with the following exceptions:

ANALYTE	RPD	CONTROL LIMIT	ASSOCIATED SAMPLES	QUALIFIER FLAG
Hexachloroethane	58.0	≤30	All	None, samples ND
3&4-Methylphenol (m,p-cresol)	49.3			JK
Nitrobenzene	44.4			None, samples ND

12. Target Compound Identification:

Level 4 data validation is not being performed on this data set at this time. In the event that level 4 validation is performed, this validation report will be revised to include the level 4 findings. However, no outages were noted in the case narrative. No qualifications are placed on the data.

13. Target Compound Quantitation and Reporting Limits:

Level 4 data validation is not being performed on this data set at this time. In the event that level 4 validation is performed, this validation report will be revised to include the level 4 findings. However, no outages were noted in the case narrative. No qualifications are placed on the data.

All analytes in both samples was analyzed at a 10, 100, or 1000-fold dilution. RLs in these samples are elevated as a result of the dilutions performed.

14. Laboratory Contact:

The case narrative was reviewed for analytical or quality control outages that would necessitate a request for additional data. No laboratory contact was required.

15. Overall Assessment:

Detected and non-detected results in both samples were estimated due to sample receipt temperature non-compliance.

The 3&4-methyphenol (m,p-cresol) result was estimated in both samples due to high LCS/LCSD RPD,

The analytical data is acceptable for use with the qualifications listed above.

Analytical Report

Work Order: **2107001**
Date Reported: **7/20/2021**

Client: Weston Solutions
Collection Date: 6/30/2021 4:41:00 PM
Project: Onalaska Wood Pyrolysis
Lab ID: 2107001-001
Matrix: Solid
Client Sample ID: OWP-WTAR1-07

SVOC (SW8270) with TCLP Extraction (EPA 1311)

Batch ID: 33031 Analyst: IH

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Pyridine	~~ND~~ UJL	55.4	D	µg/L	10	7/19/2021 7:59:24 PM
1,4-Dichlorobenzene	~~ND~~	5.54	D	µg/L	10	7/19/2021 7:59:24 PM
2-Methylphenol (o-cresol)	30,700 JL	554	DE	µg/L	1000	7/20/2021 3:04:44 PM
Hexachloroethane	~~ND~~ UJL	4.15	D	µg/L	10	7/19/2021 7:59:24 PM
3&4-Methylphenol (m, p-cresol)	71,000 JK	1,110	DE	µg/L	1000	7/20/2021 3:04:44 PM
Nitrobenzene	~~ND~~ UJL	13.8	DQ	µg/L	10	7/19/2021 7:59:24 PM
Hexachlorobutadiene	~~ND~~	41.5	D	µg/L	100	7/20/2021 11:05:02 AM
2,4,6-Trichlorophenol	~~ND~~	83.1	D	µg/L	100	7/20/2021 11:05:02 AM
2,4,5-Trichlorophenol	~~ND~~	83.1	D	µg/L	100	7/20/2021 11:05:02 AM
2,4-Dinitrotoluene	~~ND~~	55.4	DQ	µg/L	100	7/20/2021 11:05:02 AM
Hexachlorobenzene	~~ND~~	8.31	D	µg/L	10	7/19/2021 7:59:24 PM
Pentachlorophenol	~~ND~~	27.7	D	µg/L	10	7/19/2021 7:59:24 PM
Surr: 2,4,6-Tribromophenol	30.3	35.1 - 157	DS	%Rec	10	7/19/2021 7:59:24 PM
Surr: 2-Fluorobiphenyl	1.62	43.3 - 135	DS	%Rec	100	7/20/2021 11:05:02 AM
Surr: Nitrobenzene-d5	55.7	39.7 - 138	D	%Rec	1000	7/20/2021 3:04:44 PM
Surr: Phenol-d6	33.0	5 - 61.6	D	%Rec	100	7/20/2021 11:05:02 AM
Surr: p-Terphenyl	24.7	35.5 - 158	DS	%Rec	10	7/19/2021 7:59:24 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
S - Outlying surrogate recovery(ies) observed due to suspected matrix interference.

Volatile Organic Compounds by SW8260D/TCLP ZHE

Batch ID: 32881 Analyst: KT

Benzene	202 JK	4.40	D	µg/L	10	7/7/2021 11:06:53 AM
Surr: Dibromofluoromethane	110	80 - 120	D	%Rec	10	7/7/2021 11:06:53 AM
Surr: Toluene-d8	99.6	80 - 120	D	%Rec	10	7/7/2021 11:06:53 AM
Surr: 1-Bromo-4-fluorobenzene	120	80 - 120	D	%Rec	10	7/7/2021 11:06:53 AM

7/28/21

Analytical Report

Work Order: **2107001**
Date Reported: **7/20/2021**

Client: Weston Solutions
Project: Onalaska Wood Pyrolysis
Lab ID: 2107001-002
Client Sample ID: **OWP-WTAR2-07**

Collection Date: 6/30/2021 4:41:00 PM
Matrix: Solid

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SVOC (SW8270) with TCLP Extraction (EPA 1311)				Batch ID: 33031		Analyst: IH
Pyridine	~~ND~~ UJL	51.2	D	µg/L	10	7/19/2021 8:21:25 PM
1,4-Dichlorobenzene	~~ND~~ ↓	5.12	D	µg/L	10	7/19/2021 8:21:25 PM
2-Methylphenol (o-cresol)	23,400 JL	512	DE	µg/L	1000	7/20/2021 3:26:37 PM
Hexachloroethane	~~ND~~ UJL	3.84	D	µg/L	10	7/19/2021 8:21:25 PM
3&4-Methylphenol (m, p-cresol)	53,900 JK	1,020	DE	µg/L	1000	7/20/2021 3:26:37 PM
Nitrobenzene	~~ND~~ UJL	12.8	D	µg/L	10	7/19/2021 8:21:25 PM
Hexachlorobutadiene	~~ND~~	38.4	D	µg/L	100	7/20/2021 11:26:55 AM
2,4,6-Trichlorophenol	~~ND~~	76.8	D	µg/L	100	7/20/2021 11:26:55 AM
2,4,5-Trichlorophenol	~~ND~~	76.8	D	µg/L	100	7/20/2021 11:26:55 AM
2,4-Dinitrotoluene	~~ND~~	51.2	DQ	µg/L	100	7/20/2021 11:26:55 AM
Hexachlorobenzene	~~ND~~	7.68	D	µg/L	10	7/19/2021 8:21:25 PM
Pentachlorophenol	~~ND~~ ↓	25.6	D	µg/L	10	7/19/2021 8:21:25 PM
Surr: 2,4,6-Tribromophenol	25.5	35.1 - 157	DS	%Rec	10	7/19/2021 8:21:25 PM
Surr: 2-Fluorobiphenyl	1.24	43.3 - 135	DS	%Rec	100	7/20/2021 11:26:55 AM
Surr: Nitrobenzene-d5	44.4	39.7 - 138	D	%Rec	1000	7/20/2021 3:26:37 PM
Surr: Phenol-d6	37.1	5 - 61.6	D	%Rec	100	7/20/2021 11:26:55 AM
Surr: p-Terphenyl	22.2	35.5 - 158	DS	%Rec	10	7/19/2021 8:21:25 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
S - Outlying surrogate recovery(ies) observed due to suspected matrix interference.

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by SW8260D/TCLP ZHE				Batch ID: 32881		Analyst: KT
Benzene	148 JK	4.40	D	µg/L	10	7/7/2021 11:37:02 AM
Surr: Dibromofluoromethane	110	80 - 120	D	%Rec	10	7/7/2021 11:37:02 AM
Surr: Toluene-d8	101	80 - 120	D	%Rec	10	7/7/2021 11:37:02 AM
Surr: 1-Bromo-4-fluorobenzene	122	80 - 120	DS	%Rec	10	7/7/2021 11:37:02 AM

NOTES:
S - Outlying surrogate recovery(ies) observed due to suspected matrix interference.

8 7/20/21

DATA QUALITY ASSURANCE REVIEW

SITE NAME Onalaska Wood Pyrolysis

WORK ORDER NUMBER 20510.012.015.0033.03 TDD NUMBER

TASK ORGER NUMBER 68HE0721F0041 SDG NUMBER 2107001

Weston Solutions, Inc. (WESTON®) has completed a QA review for Work Order Number 20510.012.015.0033.03; SDG No. 2107001; Onalaska Wood Pyrolysis. Two samples were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) Semivolatile Organic Compounds (SVOCs) by Fremont, Analytical. Sample numbers are listed below.

SAMPLE NUMBERS

OWP-WTAR1-07	OWP-WTAR2-07	

This data package was validated to determine if Quality Control (QC) specifications were achieved, following *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (January, 2017), *USEPA National Functional Guidelines for Inorganic Superfund Data Review* (January, 2017), *USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review* (April, 2016), *Quality Assurance/Quality Control Guidance for Removal Activities* (September, 2011), and/or the Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989). Specific data qualifications are listed in the following discussion.

REVIEWER Gloria J. Switalski DATE July 23, 2021

Data Qualifiers

Data Qualifier Definitions were supplied by the Office of Solid Waste and Emergency Response (September 1989) and are included in the Functional Guidelines. Data qualifiers may be combined (UJ, QJ) with the corresponding combination of meanings. Additional qualifiers may be added to provide additional, more specific information (JL, UB, QJK), modifying the meaning of the primary qualifier. Additional qualifiers utilized by WESTON are H, L, K, B, and Q.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation or detection limit, which has been adjusted for sample weight/sample volume, extraction volume, percent solids, sample dilution or other analysis specific parameters.

An additional qualifier, "B", may be appended to indicate that while the analyte was detected in the sample, the presence of the analyte may be attributable to blank contamination and the analyte is therefore considered undetected with the sample detection or quantitation limit for the analyte being elevated.

J - The analyte was analyzed for, but the associated numerical value may not be consistent with the amount actually present in the environmental sample or may not be consistent with the sample detection or quantitation limit. The value is an estimated quantity. The data should be seriously considered for decision-making and are usable for many purposes.

An additional qualifier will be appended to the "J" qualifier that indicates the bias in the reported results:

L Low bias

H High bias

K Unknown bias

Q The reported concentration is less than the sample quantitation limit for the specific analyte in the sample.

The L and H qualifier will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result and a conflict results in assigning a bias, the result will be flagged JK.

R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."