Draft Interim Action Work Plan

Former DeBock's Texaco

100 West Wine Country Road
Grandview, Washington

Ecology Facility ID #94369212 and Cleanup Site ID #6910
Agreed Order No. DE 22952

Prepared For

Christensen, Inc.
1060 Jadwin Ave
Richland, Washington

Prepared By

EES Environmental Consulting, Inc.

EES Project #2093-02

July 10, 2025

TABLE OF CONTENTS

FIGURES

APPENDICES

1 INTRODUCTION

This Interim Action Work Plan (IAWP) documents the planned interim remedial action measure (IRAM) at the former DeBock's Texaco subject property located at 100 West Wine Country Road in Grandview, Washington (the "100 West Property," Figure 1). The IRAM will address persistent petroleum light non-aqueous phase liquid (LNAPL) observed in groundwater monitoring well MW-2, pending development of a comprehensive cleanup action plan. Site features are shown on Figure 2.

This work is being conducted under Agreed Order No. DE 22952 (AO), issued by the Washington Department of Ecology (Ecology) on May 15, 2025, for the Site[1] (Ecology, 2025), and in accordance with the Model Toxics Control Act (MTCA) and the Washington Administrative Code (WAC) Chapter 173-340.

2 BACKGROUND

The 100 West Property was operated as a gasoline fueling and service station from the 1920s until 1995. The historic fueling system used during the 1920s-30s included a 550-gallon underground storage tank (UST) located near the northeast corner of the 100 West Property (see Figure 2). It is unclear when this tank was removed from service. The most recent -fueling infrastructure consisted of three single-walled steel USTs with capacities of 8,000, 5,000, and 1,000 gallons. These tanks and associated dispensers were decommissioned and removed in 1995, when a gasoline-release source area located on the 100 West Property was identified. Since 1995, the 100 West Property has been used primarily for automotive service and maintenance.

The former owner of the 100 West Property, Christensen, Inc., enrolled the site in Ecology's Voluntary Cleanup Program (VCP) in 2017. Remedial investigation (RI) activities conducted between 2017 and 2025 have confirmed residual gasoline contamination in smear-zone soils and shallow groundwater, including localized free-phase LNAPL in monitoring well MW-2 near the downgradient (western) 100 West Property boundary (EES, 2020). The AO issued by Ecology in May 2025 requires Powell Distributing LLC (dba Christensen, Inc.), the Potentially Liable Person (PLP) of the 100 West Property contamination, to continue IRAM efforts at the 100 West Property.

IRAM efforts to date have included active total fluids recovery (TFR; starting in 2018) and passive LNAPL recovery using absorbent collection devices in MW-2 since 2019, resulting in approximately 5.2 gallons of product removed as of December 2024 (EES, 2025). Although accumulation rates have declined, free-phase gasoline persists. Ongoing interim actions will continue to address LNAPL while Ecology oversees development of a comprehensive cleanup action plan. These IRAM activities will be conducted under AO Task 4 (Interim Actions, 100 West).

[1] The "Site" is defined as the properties located at 100 West (former DeBock's Texaco), 101 East, and 101 West Wine Country Road, including adjoining right-of-way and neighboring properties affected by contamination originating from any of these three properties.

3 BASIS AND OBJECTIVES FOR INTERIM ACTION

LNAPL has been documented in monitoring well MW-2 at the downgradient (western) portion of the 100 West Property since 2017. Free-phase gasoline has persisted despite prior active (TFR) and passive (absorbent collection devices) recovery efforts. While the LNAPL has remained localized to MW-2, it represents a continuing source of contamination to groundwater if not actively managed.

Continued interim actions are required under the AO (Task 4) and will support progress toward achieving compliance with applicable cleanup standards established under MTCA and WAC 173-340. The ongoing removal of free-phase gasoline through passive absorbent recovery (IAWP Section 4) is a protective interim measure that is consistent with WAC 173-340-430, which allows for interim actions to prevent worsening of Site conditions and support cleanup progress before selecting a final cleanup action.

The objectives of this IRAM are to reduce the mass and volume of free-phase gasoline present on the water table, minimize the potential for further contaminant migration, limit further impacts to groundwater, and support the overall cleanup strategy for the Site while additional investigation, feasibility study, and cleanup planning activities are completed.

4 INTERIM ACTION DESCRIPTION

The IRAM will consist of continued passive recovery of LNAPL from monitoring well MW-2 using hydrocarbon-absorbent collection devices ("absorbent socks"). This method has been implemented at the Site since 2019 and has resulted in measurable reduction of LNAPL accumulation over time (EES, 2025). Implementation procedures will be conducted in accordance with the *Absorbent Sock Installation and Evaluation Standard Operating Procedure* (SOP) provided in Appendix A, as summarized below:

- Absorbent socks will be deployed in MW-2 and inspected on a quarterly schedule to maintain continuous recovery of LNAPL.
- During each quarterly monitoring and maintenance event, the condition of the deployed absorbent material will be evaluated (IAWP Section 5), and the device will be replaced if saturated.
- If observations indicate that the volume of free product exceeds the absorptive capacity of the sock (i.e., measurable floating free product present on the water column), surplus LNAPL will be removed manually using low-flow pumping (skimming) prior to installing the replacement sock.

5 PERFORMANCE MONITORING

Performance monitoring will be conducted on a quarterly basis to document the IRAM. Monitoring activities are described in the attached SOP (Appendix A) and summarized below:

- Measure product thickness and groundwater elevation at MW-2.
- Visually inspect the absorbent sock condition.
- Record all measurements, observations, and maintenance activities, including the volume and calculated estimated mass of LNAPL recovered during each event.

6 HEALTH AND SAFETY

All field activities will be conducted in accordance with the Site-Specific Health and Safety Plan (HASP) included in Appendix B. The HASP establishes procedures and practices for employees of EES Environmental Consulting, Inc. (EES), and its subcontractors (if applicable). The HASP includes measures to minimize potential exposure, accidents, and physical injuries that may occur during onsite activities. Contingency arrangements are also provided for emergency situations.

7 WASTE MANAGEMENT

Spent absorbent materials and any manually recovered LNAPL will be containerized, labeled, temporarily staged in a secure area on the 100 West Property, and transported off-Site by a licensed contractor for proper disposal at a permitted disposal or treatment facility. Waste transport and disposal documentation will be provided in regular status reports (IAWP Section 8).

8 SCHEDULE AND REPORTING

Tasks described in this IAWP will be implemented according to the schedule and reporting requirements below, in accordance with AO:

- The IRAM efforts described in this IAWP have been underway since 2019. Absorbent sock maintenance and performance monitoring will continue on the established quarterly schedule (March, June, September, December) unless otherwise directed by Ecology.
- Quarterly progress reports will be submitted to Ecology by the 10th day of the month specified by Ecology. A brief summary of LNAPL recovery efforts will be provided in each progress report summarizing the conditions observed in the previous quarter, including:
  - Monitoring data (mass of LNAPL removed with the absorbent; LNAPL thickness; groundwater elevation; volume of LNAPL skimmed from well, if any),
  - Calculated LNAPL recovery volumes, and
  - Waste management documentation.
- A Draft Interim Action Report will be submitted to Ecology upon completion of IRAM activities or as directed by Ecology.

The IRAM will remain in effect until Ecology determines that objectives have been achieved, or until the final cleanup action plan has been implemented under the AO.

9 SEPA COMPLIANCE AND PUBLIC PARTICIPATION

This IRAM is subject to the requirements of the State Environmental Policy Act (SEPA). A draft SEPA environmental checklist has been prepared as part of this IAWP, which is provided in Appendix C. Upon Ecology's acceptance of this IAWP, the SEPA checklist will be finalized and submitted to Ecology.

In coordination with Ecology, EES will assist with the preparation of draft public notices, fact sheets, or other informational materials as requested by Ecology to support public review of the IAWP and SEPA documentation. SEPA determinations and public notices will be issued by Ecology.

10 CLOSING

The proposed work is recommended in accordance with the AO and Washington's published environmental cleanup rules, and as directed by Ecology and recent discussions and correspondence with Christensen, Inc. and Ecology. Additional investigation or remedial actions will be required to fully address areas of concern. We appreciate the opportunity to be of assistance on this project. Please call if you have any questions or if we may be of further assistance.

Sincerely,

EES | Environmental Consulting, Inc.

Daniele Peters, PE
Project Engineer

Paul Ecker, LHG
Principal

DRAFT – Preliminary for Review Only

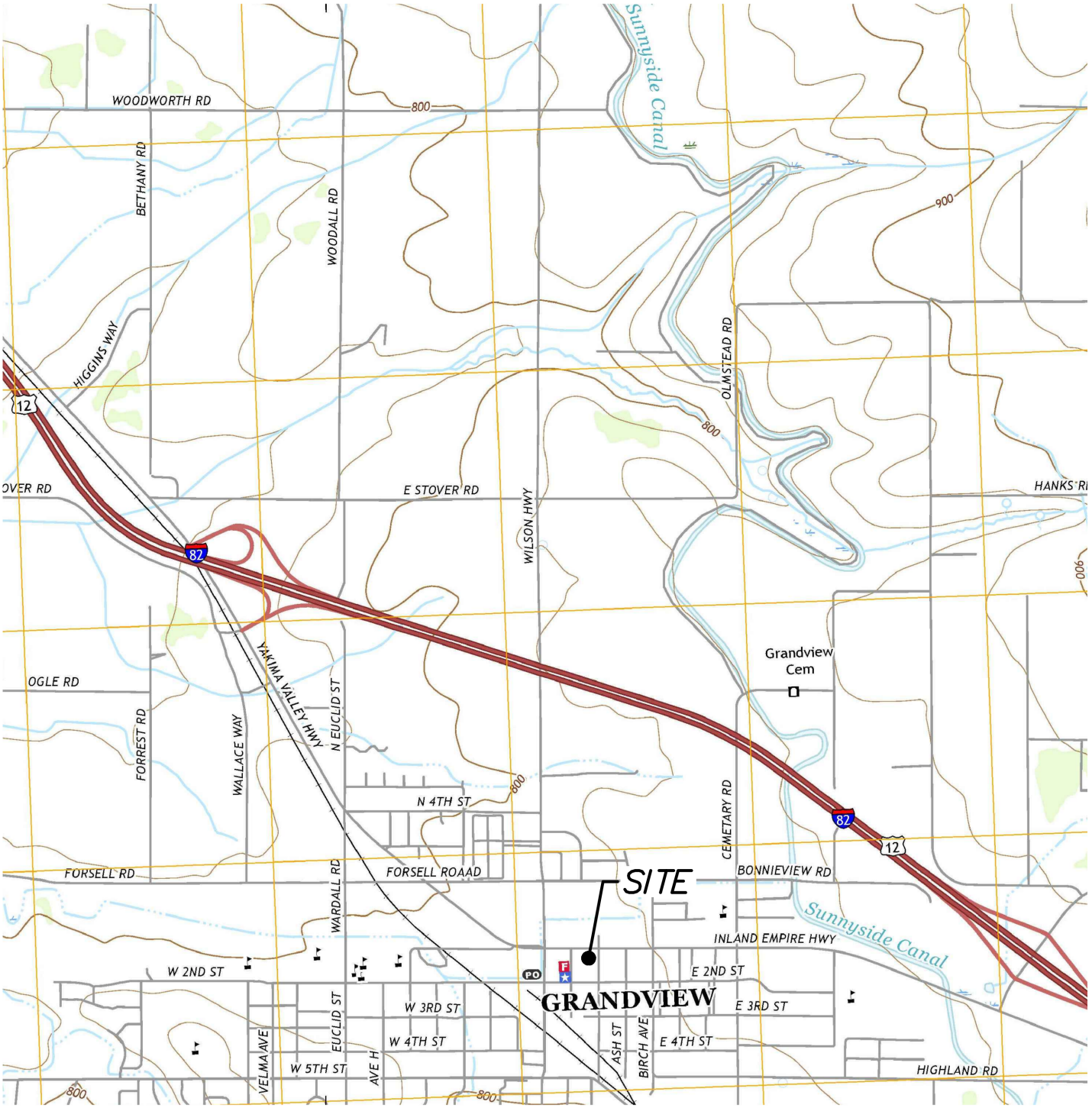
REFERENCES

Ecology, 2025. *Agreed Order No. DE 22952, DeBock's Main Street Texaco Site*. Washington State Department of Ecology. May 15, 2025.

EES, 2020. *Remedial Investigation Report, Former DeBock's Texaco*. EES Environmental Consulting, Inc. November 23, 2020.

EES, 2025. *Interim Action Status Update for 2024, Former DeBock's Texaco*. EES Environmental Consulting, Inc. February 13, 2025.

Figures



SOURCE:
USGS, GRANDVIEW QUADRANGLE
WASHINGTON–YAKIMA CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

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APPROXIMATE SCALE IN FEET

0 1000 2000 4000

EES Environmental Consulting, Inc.
514 NW 11th Ave, Suite 209 Portland, Oregon 97209
(503) 847-2740 ees-environmental.com

SITE VICINITY MAP

DEBOCK'S TEXACO
100 WEST MAIN ST.
GRANDVIEW, WA.

DATE:	11–24–20	PROJECT NO.	
FILE:	2093–01	2093–01	
DRAWN:	JJT	FIGURE NO.	
APPROVED:	CR	1	

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LEGEND

- PROPERTY LINE
- BUILDING
- RO-DW-Y/SIDEW-LK
- MW-1 — DEBOCK'S TEX-CO MONITORING WELL (OLYMPUS 1998, EES 2018/2019)
- MW-14 — RELLC MONITORING WELL (-ECOM 2022/2023)
- TOMW-6 — TIME OIL MONITORING WELL (DECOMMISIONED BY OTHERS, 2019)
- DRY WELL
- UST FILL PORT
- FORMER UST LOC-TIONS
- -B-NDONED FUEL TR-NSMISSION PIPING
- STORMW-TER INFILTR-TION TRENCH (INST-LLED M-Y 2010)
- SITE FE-TURES -RE -PPROXIM-TE.

MW-22
MW-14
MW-15
MW-16
IW-1
GRANDVIEW MUSEUM
MW-23
101 WEST COMMERCIAL BUSINESS
MW-19
101 EAST
RETAIL/COMMERCIAL BUSINESSES
APPROXIMATE GROUNDWATER FLOW DIRECTION
MW-20
MW-24
MW-17
SIDEWALK
MW-18
MW-21
SIDEWALK
MW-25
WEST MAIN STREET/WINE COUNTRY ROAD
FORMER GASOLINE UST LOCATION (1,000 GAL.)
MW-28
MW-27
MW-26
SIDEWALK
MW-10
MW-11
CANOPY
MW-3
SIDEWALK
RETAIL FUELING
MW-13
FORMER GASOLINE UST LOCATION (550 GAL.)
MW-5
MW-12
RESTAURANT (JAVI'S CHICKEN & CHURROS)
DEBOCK'S TEXACO 100 WEST
FORMER FUEL DISPENSER ISLAND
TIME OIL
RESTAURANT (BOTANAS LOCAS EL SOLESITO)
MW-4
MW-2
MW-9
COMMERCIAL BUSINESS
RESTAURANT (EL CAMPESTRE)
DIVISION STREET
SIDEWALK
RETAIL/ COMMERCIAL BUSINESS
MORA PROPERTY
MW-8
MW-7
MW-1
TOMW-6
FORMER GASOLINE UST LOCATIONS (5,000 & 8,000 GAL.)
MW-6
ALLEY
TOMW-7

N

-PPROXIM-TE SCALE IN FEET

0 40 80

PROJECT NO.	2093-01
DATE: 5-9-24	FIGURE NO. 2
FILE: 2093-01	
DRAWN: JJT	
APPROVED: DBP	

SITE FEATURES

DEBOCK'S TEXACO
100 WEST MAIN ST.
GRANDVIEW, WA.

EES Environmental Consulting, Inc.
514 NW 11th Ave, Suite 209 Portland, Oregon 97209
(503) 847-2740 ees-environmental.com

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Appendix A

Standard Operating Procedure
Absorbent Sock Installation and Evaluation

This Standard Operating Procedure (SOP) describes the method for installation and evaluation of down-well absorbent socks. Because each site is unique, these procedures should be viewed as guidelines and may require modification based on site and subsurface conditions present.

Personnel installing the absorbent socks will follow site safety procedures as specified in the site-specific Health and Safety Plan.

EQUIPMENT/MATERIALS

The following equipment is needed to install and evaluate down-well absorbent socks:

- Interface probe.
- Stainless-steel sleeve assembly.
- Absorbent socks.
- Stainless-steel cable or disposable high-tensile twine of sufficient length to install absorbent sock assembly at the target depth for each well.
- Scale with precision of at least one (1) ounce.
- Peristaltic pump and tubing or disposable bailer.
- Field measurement documentation forms.
- Plastic sheeting (a plastic contractor trash bag will suffice).
- Sealable plastic bags large enough to hold absorbent socks for disposal.
- Drums to hold absorbent sock and skimmed product waste with appropriate labels (absorbent socks and skimmed product to be stored separately).
- Sufficient cleaning and decontamination supplies.

ABSORBENT SOCK INSTALLATION PROTOCOL

1. Record weight of the new sock.
2. Insert sock into the screened stainless-steel sleeve.
3. Record the weight of the sock and stainless-steel sleeve.
4. Measure depth to light non-aqueous phase liquid (LNAPL) and depth to water in well.
5. If more than one inch of LNAPL is present on the water column, use a peristaltic pump or disposable bailer to skim the LNAPL off the top of the water column as possible. Place any skimmed product in a labeled waste drum.
6. Determine the water table elevation change that is expected between monitoring events based on historical data and place the bottom of the sock half a foot below the deepest expected water/LNAPL interface.
   Example: It is currently February and the next monitoring event is scheduled for March. Between February and March last year, the water level decreased by six inches. Currently the

depth to water is 13.16 feet below the top of casing, so by March the water table is expected to be 13.66 feet below the top of casing. The bottom of the absorbent sock should be placed half a foot below this depth, at about 14.2 feet.

7. Secure the twine through the loop on the base monitoring well cap.

ABSORBENT EVALUATION AND REPLACEMENT PROTOCOL

1. Place plastic sheeting around the well.
2. Pull sock and screen assembly to the top of the well casing, without removing it from the well, and allow any water that may have become trapped in the stainless-steel assembly to drain until appreciable water is no longer draining from the assembly.
3. Remove the sock and screen assembly from the well and place it on the plastic sheeting.
4. Measure the length of the sock that shows saturation (staining) and the length of the sock that is dry. Note the color of the product stain.
5. Record the weight as follows:
    a. If less than half the length of the sock is saturated, record the weight of the sock and screen assembly (i.e., you do not need to remove the sock from the sleeve). The same sock can be reused in the well until the sock is more than half saturated.
    b. If more than half of the sock is saturated, remove the sock from the stainless-steel sleeve, record the weight of the sock, and place the sock into a plastic bag. Dispose of the saturated sock in a labeled waste drum.
6. If a new sock is needed, follow steps 1-7 of the installation procedure. If the same sock is being installed, follow steps 4-7 of the installation procedure. Wait at least 15 minutes following the removal of the absorbent sock assembly to gauge depth to product and depth to water in the well.

Absorbent Sock Evaluation Form

EES Environmental Consulting, Inc.	Project Name:	Prepared by:
	Project #:	Date:
	Location:	Page: of

Well Information

Well ID:	Total Well Depth (ft):	Well Diameter (in):	Headspace Reading (ppmv):
	Top of Screen (ft bgs):	Elevation Mark: Yes☐ No☐	Odor at Wellhead:

Sock Conditions

a. Length of sock that is saturated (in):	
b. Length of sock that is dry (in):	
c. Color of product absorbed to sock:	
d. Weight of removed sock and screen assembly (lbs):	
e. Weight of removed sock (lbs):	
f. Weight of original dry sock and assembly (lbs):	
g. Weight of original dry sock (lbs):	
h. Difference in weight (lbs; d-f OR e-g):	
i. Sock removed and placed in waste drum?:	☐ Yes, sock replaced. ☐ No, sock reused (skip to **Well Evaluation** section).

New Sock Details

a. Weight of new sock (lbs):
b. Weight of new sock and screen assembly (lbs):
c. Type of sock:

Well Evaluation

Wait at least 15 minutes following the removal of the absorbent sock assembly to gauge depth to product and depth to water in the well:

a. Depth to product (ft bTOC):	
b. Depth to water (ft bTOC):	
c. Product thickness (ft; a-b):	
d. Next scheduled monitoring event:	
e. Expected change in depth to water between monitoring events (ft):	
f. Expected depth to water at next monitoring event (ft; b+e):	
g. Deepest expected water level:	☐ Current Event ☐ Next Event
h. Depth to install bottom of sock (ft; g+0.5 feet):	

Notes

Appendix B

Site Health and Safety Plan

Former DeBock's Texaco

100 West Wine Country Road

Grandview, Washington

Prepared For

Christensen, Inc.
1060 Jadwin Avenue
Richland, WA 99352

Prepared By

EES Environmental Consulting, Inc.

240 N. Broadway, Suite 203 • Portland, Oregon 97227
(503) 847-2740 • ees-environmental.com

EES Project No. 2093

July 3, 2025

TABLE OF CONTENTS

ATTACHMENTS

1 INTRODUCTION

This site-specific Health and Safety Plan (HASP) establishes procedures and practices for employees of EES Environmental Consulting, Inc. (EES), and its subcontractors (if applicable), which are aimed at minimizing hazards posed by field activities at the former DeBock's Texaco (Site), located at 100 West Wine Country Road in Grandview, Washington (Property). In this HASP, measures are provided to minimize potential exposure, accidents, and physical injuries that may occur during onsite activities. Contingency arrangements are also provided for emergency situations.

The HASP will be reviewed and modified as necessary when changes in tasks or Site conditions occur or are anticipated.

1.1 DISCLAIMER

This HASP addresses known or suspected hazards at the Site. Because of the potentially hazardous nature of this Site and the activity occurring thereon, it is not possible to discover, evaluate, and provide protection for all possible hazards that may be encountered. Strict adherence to the health and safety guidelines set forth herein will reduce, but not eliminate, the potential for injury and illness at this Site. The health and safety guidelines in this plan were prepared specifically for this Site and should not be used on any other Site without prior evaluation by trained health and safety personnel.

1.2 WORK PROPOSED

The scope of work covers Interim Remedial Action Measure (IRAM) components, as described below, as well as quarterly groundwater monitoring activities as required by Washington Department of Ecology Agreed Order No. DE 22952.

- EES will implement passive recovery of floating petroleum product (LNAPL) from monitoring well MW-2 using hydrocarbon-absorbent collection devices ("absorbent socks"). Absorbent socks will be inspected on a quarterly schedule to maintain continuous recovery of LNAPL. The well will be gauged and the approximate volume of fluids recovered from the well will be documented as feasible.
- If observations indicate that the volume of free product exceeds the absorptive capacity of the sock (i.e., measurable floating free product present on the water column), surplus LNAPL will be removed manually using low-flow pumping (skimming) prior to installing the replacement sock.
- Spent absorbent materials and any manually recovered LNAPL will be containerized, labeled, temporarily staged in a secure area on the Property and transported off-Site by a licensed contractor for proper disposal at a permitted disposal or treatment facility.
- Quarterly groundwater monitoring activities will include water level measurements and low-flow groundwater sampling at specified Site monitoring wells.

2 SITE DESCRIPTION

Name of the Site:	DeBock's Texaco
Site Location or Address:	100 West Wine Country Road, Grandview, Washington
Operator:	Grandview Auto Electric & Diesel, LLC
Facility Type/Zoning:	Commercial, active.
Current Site Use:	Automotive repair, maintenance and body shop
Past Site Use (if different):	Former fueling station
Topography:	Generally level
Name of and Distance to Nearest Surface Water Body:	Sunnyside Irrigation Canal, approximately 2,700 feet northeast.
Surrounding Land Use/Nearest Population:	Commercial
Site Access:	Accessible from West Wine Country Road and Division Street.
Nearest Drinking Water/Sanitary Facilities:	On Site.
Nearest Telephone (list number if possible):	In office (509-778-3062). EES field staff will have cellular phones.
List Utilities Located (or to be located):	CHARTER COMMUNICATIONS (800)778-9140 CASCADE NATURAL GAS-SUNNYSIDE (509)457-8176 CTLCL- CENTURYLINK (800)778-9140 CHARTER COMMUNICATIONS (800)778-9140 CITY OF GRANDVIEW, PW DEPT (509)882-9211 PACIFIC POWER (503)255-4634 SUNNYSIDE VALLEY IRRIG DIST (509)831-5086
Designated Hazardous Waste Site?	No.
Site Map Attached?	Yes.
Potential Site Contaminants:	Diesel-range hydrocarbons and gasoline-range hydrocarbons, including primary gasoline additives benzene, toluene, ethylbenzene, and xylenes, and additional constituents 1,2-dicholroethane and naphthalene.

3 PROJECT PERSONNEL

Title	Name/Affiliation	Cell Phone
Project Manager	Daniele Peters	808-634-9373
Field Team Leader	Sam Barrus	801-319-5768
Site Safety Officer	Sam Barrus	801-319-5768
EES Field Personnel	Sam Barrus	801-319-5768
EES Field Personnel	Owen Rogers	503-504-6664
Alternate EES Contact	Steve Roberts	503-504-0986
Property Representative	Eduardo Valasquez	509-778-3062

3.1 PERSONNEL RESPONSIBILITIES

The Project Manager has overall responsibility for preparation and modification of the HASP, he/she/they also makes final decisions regarding questions concerning the implementation of the Site-specific HASP. In the event that health and safety issues arise during Site operations, he/she/they will attempt to resolve them in discussion with the appropriate members of the project team. This authority and responsibility may be delegated to the Field Team Leader or Site Safety Officer.

The Field Team Leader ensures that everyone working in the field on this project understands the HASP. He/She/They will maintain a liaison with the Project Manager so that all relevant health and safety issues are communicated effectively to project workers.

The Site Safety Officer is responsible for implementing this HASP in the field. This individual observes the subcontractors to verify that they are following these procedures. The Safety Officer will also assure that proper protective equipment is available and used in the correct manner, decontamination activities are carried out properly, act upon elevated readings from the monitoring according to the plan and implement the appropriate action, and ensure that employees have knowledge of the local emergency medical system.

Subcontractors are responsible for taking precautions to prevent injury to themselves and to other workers. They must also report any accidents or unsafe conditions to the Site Safety Officer. Procedures set forth in the HASP will be implemented and deviations reported to the Site Safety Officer for action.

4 CHEMICAL HAZARD EVALUATION

Gasoline- and diesel-range hydrocarbons and fuel-related volatile organic compounds (VOCs) have been identified as chemicals of potential concern. Relevant information on these substances is summarized below and detailed in the attached safety data sheets (SDS) and/or international chemical safety cards (ICSC).

Substance	Medium	OSHA PEL (ppm)	OSHA STEL (ppm)	IDLH (ppm)	IP(eV)	Carcinogen or Other Hazard
Gasoline	Soil GW	NE	NE	NE	NE	Flammable Carcinogen
Diesel	Soil GW	NE	NE	NE	NE	Flammable Carcinogen
Benzene	Soil GW	1	5	500	9.24	Carcinogen Flammable
Toluene	Soil GW	200	300	500	8.82	Flammable
Ethylbenzene	Soil GW	100	125[a]	800	8.76	Flammable
Xylenes	Soil GW	100	150[a]	900	~8.5	Flammable
Naphthalene	Soil GW	10	15[a]	250	8.12	Flammable
1,2-dichloroethane	Soil GW	50	100	50	11.05	Carcinogen Flammable

Notes:
[a] = See Online NIOSH Pocket Guide to Chemical Hazards, 2020
NA = Not available
NE = None established
ppm = Parts per million
GW = Groundwater
IP(eV) = Ionization potential
PEL = Permissible exposure level
STEL = Short-term exposure level
IDLH = Immediately dangerous to life or health
PEL, STEL, IDLH from the Online NIOSH Pocket Guide to Chemical Hazards, 2020, OSHA Annotated Table Z-1, and annotated OSHA Z-2 Table.

5 PHYSICAL SITE HAZARDS

Possible physical hazards which may be present during Site work activities are as follows:

Physical Site Hazard	Yes	No	Proposed Safety Procedure
Flammability/Explosivity	X		No ignition sources within 50 feet of work area; see Section 5.1
Uneven terrain/tripping	X		Be aware of surroundings. See Section 5.4.1.
Heat stress	X		See Section 5.2
Cold/hypothermia	X		See Section 5.3
Drowning		X	
Falling objects		X	Be aware of surroundings; hard hat use if overhead risks encountered.
Noise		X	Excessive noise not anticipated. Wear ear protection if excessive noise encountered. See Section 5.4.3.
Excavations		X	EES will not enter any excavation greater than 2.5 feet in depth
Scaffolding		X	
Heavy equipment		X	Not anticipated. Stay clear, avoid pinch points if encountered.
Material handling	X		See Section 7
Compressed air equipment		X	Not anticipated. Keep clear of compressed air equipment if encountered.
Confined spaces		X	See Note below and Section 5.4.2.
Back injury	X		Use proper lifting techniques
Electrical shock	X		Will make Site staff aware of power sources (overhead and buried)
Tick bite		X	
Heavy traffic	X		Be aware of surroundings; use cones

Note:

[1] No confined space entry is anticipated; if entry becomes necessary, an additional health and safety plan and a permit will be developed. Personnel must first obtain a confined space entry permit prior to entering any confined spaces.

5.1 FLAMMABILITY/EXPLOSIVITY

Gasoline is highly flammable and readily vaporizes. Both liquid and vapor phases are highly mobile. Vapor mixtures are explosive. When working in the presence or suspected presence of free-phase gasoline, the following precautions should be observed within a 50-foot radius:

- NO open flames;
- NO sparks;

- NO smoking;
- Provide suitable containment and work area ventilation; and
- Use explosive-proof electrical equipment, lighting, and proper grounding.

5.2 HEAT STRESS

"Heat stress" is a term that is used to describe progressively more serious symptoms, as follows:

- An initial rise in skin temperature due to increased blood flow to the skin (skin redness);
- Increase in heart rate, to more than 30 beats/minute above the resting level;
- Collapse, or heat exhaustion, due to inadequate blood flow to the brain;
- Dehydration, due to excessive sweating;
- Hyperventilation, resulting in a reduction of the normal blood carbon dioxide concentrations;
- Tingling around the lips, dizziness, cramping of muscles of hands and feet, and blackout; and
- "Heat Stroke," characterized by unconsciousness, hot dry skin, and absence of sweating.

5.2.1 CONTROL OF HEAT STRESS

On hot, sunny days (high radiant heat load), if using impermeable work clothing, maintain appropriate work-rest cycles (progressively longer rest breaks in a cool location or the shade as temperature and work tasks increase) and drink water or electrolyte-rich fluids to minimize heat stress effects. Impermeable clothing will only be worn when absolutely necessary for control of hazardous chemicals.

Also, when ambient temperatures exceed 70°F, employees will conduct monitoring of the heart (pulse) rates, as follows:

- Each employee will check his or her own pulse rate at the beginning of each break period;
- Take the pulse at the wrist for six seconds and multiply by ten; then
- If the pulse rate exceeds 100 beats per minute, then reduce the length of the next work period by one third.

Example: After a one-hour work period at 80°F, a worker has a pulse rate of 120 beats per minute. The worker must therefore shorten the next work period by one-third, resulting in a work period of 40 minutes until the next break.

5.2.2 TREATMENT OF HEAT STRESS

Individuals affected by mild forms of heat stress (heat exhaustion, dehydration, or cramping) should take a break in a cool or shaded location, drink liquids, and sit or lie down until feeling better. Shorter work periods should be used until temperature cools off.

Individuals affected by heat stroke are in critical condition. Summon emergency aid immediately, remove clothing, and bathe individual in cool water continually to bring down body temperature.

5.3 HYPOTHERMIA

Hypothermia can result from abnormal cooling of the core body temperature. It is caused by exposure to a cold environment, and wind-chill as well as wetness or water immersion can play a significant role. The following discusses signs and symptoms as well as treatment for hypothermia.

Typical warning signs of hypothermia include fatigue, weakness, lack of coordination, apathy, and drowsiness. A confused state is a key symptom of hypothermia. Shivering and pallor are usually absent, and the face may appear puffy and pink. Body temperatures below 90°F require immediate treatment to restore temperature to normal.

5.3.1 Treatment of Hypothermia

Current medical practice recommends slow re-warming as treatment for hypothermia, followed by professional medical care. This can be accomplished by moving the person into a sheltered area and wrapping with blankets in a warm room. In emergency situations where body temperature falls below 90°F and heated shelter is not available, use a sleeping bag, blankets, and/or body heat from another individual to help restore normal body temperature.

5.4 OTHER PHYSICAL HAZARDS

5.4.1 Trips/Falls

As with all field work sites, caution will be exercised to prevent slips on rain slick surfaces, stepping on sharp objects, etc. Work will not be performed on elevated platforms without fall protection. All excavations will be temporarily enclosed during work with barrier tape, or similar measures will be used to prevent workers from accidentally falling into an excavation.

5.4.2 Confined Spaces

Confined space entry is not anticipated for this project. Personnel will not enter any confined space, such as excavations, tanks, or trenches without specific approval of the Project Manager. In addition, no entry into a confined space will be attempted until the atmosphere of the confined space is properly tested and documented by the Project Manager and a self-contained breathing apparatus is available on Site. A confined space entry permit must also be issued and followed. All specified precautions must be carefully followed, including upgrading of personal protective equipment as directed by the Project Manager.

5.4.3 Noise

Appropriate hearing protection (earmuffs or ear plugs with a noise reduction rating of a least 25 dB) will be used for individuals working near high-noise generating equipment.

6 AIR MONITORING

Air monitoring will be conducted when entering previously uncharacterized sites, when working in the vicinity of uncontained chemicals or spills, when opening uncharacterized containers and well casings, and prior to opening and entering confined spaces. Air monitoring must be conducted to identify potentially hazardous environments and determine reference or background concentrations. Air monitoring will be used to define exclusion zones.

The following equipment may be used to monitor air quality in the breathing zone during work activities:

Monitoring Instrument	Calibration Frequency	Parameters of Interest
PID, 10.6 eV bulb	Daily	Organic Vapors
Explosimeter	As specified by manufacturer	Explosive Conditions

Three levels of protection have been established and require the following equipment:

Level D: Gloves, steel-toed boots, eye protection, hardhat, hearing protection (as necessary).

Level C: Gloves, steel-toed boots, eye protection, hardhat, hearing protection, half face or full-face respirator with an organic vapor cartridge (see respirator requirements).

Level B: Gloves, steel-toed boots, eye protection, hardhat, hearing protection, positive pressure supplied air.

The following action levels have been established to determine the appropriate level of personal protection to be used during Site investigation activities:

Instrument	Action Level	Action	Activity
PID 10.6 eV	<1 ppm TWA	Level D	May proceed using Level C.
	<5 ppm	Level D	
	>5 ppm, <10 ppm (not to exceed 15 minutes continuously)	Level D	
	>10 ppm sustained	Stop Work, Re-Evaluate	
Explosimeter	<10% LEL	Level D	
	>10% LEL	Stop work and ventilate with fresh air until LEL is <10%.	

6.1 AIR MONITORING ACTIVITIES

A PID may be used to measure volatile air concentrations during sampling. Upgrade levels are based on the chemical with the lowest PEL/STEL requirements. This chemical is benzene at this Site.

Average exposure time for Site activities is estimated at 8 hours per day (480 minutes). Work activities are estimated for a period of 2 to 3 days. Assuming the PEL of 1 ppm is achieved during the entire 8-hour daily exposure, the time-weighted average (TWA) exposure for benzene would be 1 ppm for an 8-hour shift. The TWA for this activity is calculated as follows:

1 ppm (PEL) / 480 min (average exposure time) / 480 min = 1 ppm TWA Maximum Level D

The PID will be equipped with a 10.6 eV bulb. If PID readings are above Level D action levels, personnel will retreat in an upwind direction to an area where PID readings are less than Level D action levels. The activity will be resumed after five minutes. If PID readings are less than Level D action levels, work will proceed with PID measurements collected with a change in activity and at approximately 30-minute intervals, provided that the benzene STEL (5 ppm) is never exceeded for more than 15 minutes continuously. If PID readings are within the Level C action levels, work will proceed with respiratory protection. PID measurements will be collected continuously while in Level C PPE. If PID readings exceed Level C action levels, work will be halted and reevaluated. PID readings may be recorded on the Daily Air Monitoring Record (attached).

REASONS TO UPGRADE OR DOWNGRADE LEVELS OF PROTECTION	
Upgrade	**Downgrade**
Instrument action levels exceeded.	Change in Site conditions that decreases hazard.
Known presence of dermal hazards.	Change in work task that will reduce contact with hazardous materials.
Likely occurrence of gas or vapor emission.	New information indicating a less hazardous situation than originally anticipated.
Change in work task that will increase contact or potential contact with hazardous materials.	
Request of individual performing task.	

7 PERSONAL PROTECTIVE EQUIPMENT

Based on the hazards identified above, the following personal protective equipment will be required for the following site activities (specify both an initial level of protection and a more protective level of protection in the event conditions should change).

Activities	Level of Protection	
	Initial	Contingency
Drilling	N/A	N/A
Soil sampling	N/A	N/A
Groundwater sampling	D	C
Surface water sampling	N/A	N/A
Site inspection	D	C
Sample handling	D	C
O&M activities	D	C

Notes:
N/A = Not applicable

7.1 ROUTES OF EXPOSURE

Exposure to the Site chemicals can occur from inhalation, eye contact, skin contact, and incidental ingestion of contaminated water.

Route of Exposure	First Aid to be Rendered
Inhalation:	• Remove person from exposure. • Begin rescue breathing if breathing has stopped and CPR if heart action has stopped. • Transfer promptly to a medical facility. Medical observation is recommended for 24 to 48 hours after breathing overexposure, as pulmonary edema may be delayed.
Eye Contact:	• Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting upper and lower lids. • Consult a physician if pain, redness, or irritation persists.
Skin Contact:	• Remove contaminated clothing. • Wash contaminated skin with soap and water. • Consult a physician if redness or irritation persists.
Ingestion:	• Get immediate medical attention. • Give victim water to dilute. • If the victim is unconscious, do nothing except keep victim quiet and warm.

7.1.1 INHALATION

Exposure via this route could occur if large volumes of Site chemicals become airborne during Site activities, especially upon exposure to open air, warm temperatures, and sunlight. Inhalation of dusts

contaminated with Site chemicals is also a possibility during concrete or pavement cutting activities. Control measures specified in this plan will minimize the possibility of inhalation of Site contaminants, as verified by an air monitoring program.

7.1.2 Skin Contact

Exposure via this route could occur if contaminated soil, water, or product contacts the skin or clothing. Dusts generated during concrete cutting and concrete or soil movement may also settle on exposed skin and clothing of Site workers. Dust control, protective clothing, and decontamination activities specified in this plan will minimize the potential for skin contact with the contaminants.

7.1.3 Ingestion

Exposure via this route could occur if the individuals eat, drink, or perform other hand-to-mouth contact in the contaminated (exclusion) zones. Decontamination procedures established in this plan will minimize the inadvertent ingestion of contaminants.

7.2 PERSONAL PROTECTIVE EQUIPMENT

For prolonged exposure, wear a NIOSH/OSHA approved organic respirator. To protect hands, wear rubber or plastic gloves. Chemical goggles or face shield should be worn to protect against eye contact, if appropriate. Long-sleeved clothing, rubber overshoes, and coveralls will normally be sufficient to protect against skin contact.

Each level of protection will incorporate the following equipment:

- Level D: Typically includes gloves, steel- or composite-toed boots, eye protection, hardhat, and hearing protection (as necessary). Include Tyvek outer garments for Modified Level D. ***For this project, Level D consists of steel- or composite-toed footwear, long pants, reflective safety vest, safety glasses, and nitrile gloves when handling absorbent socks, groundwater samples, and sampling equipment.***
- Level C: Gloves, steel-toed boots, eye protection, hardhat, hearing protection, half face or full-face respirator with an organic vapor or particulate cartridge (see respirator requirements).
- Level B: Gloves, steel-toed boots, eye protection, hardhat, hearing protection, and positive pressure supplied air.

Contaminated clothing should be disposed of daily or be washed with a strong detergent and hot water before reuse.

7.2.1 Respirator Requirements

No respiratory protection is anticipated for Level D protection.

8 SAFETY EQUIPMENT

The following safety equipment will be on Site during the proposed field activities:

Air Monitoring (BOLD the items required for this project)

PID	Detector pump and tubes
LEL/CG/O_2 meter	Draeger pump
H_2S meter	Miniram

Health/Medical Monitoring (BOLD the items required for this project)

First Aid Kit (mandatory)	Aspirin
Emergency blanket	Tweezers
Oral thermometer	Stopwatch for heart rate monitoring
Bandages	CPR shield
Topical antibiotic	Eye wash

Other Items (BOLD the items required for this project)

Drinking water	Road flares or cones
Fit test supplies	Tire chains
Respirator cartridges	**Mobile telephone**
Fire extinguisher	Windsock
Insect repellant	**Sunscreen**

8.1 SITE CONTROL MEASURES

- Site safety coordinator will conduct safety briefing before starting field activities. Technicians and contractors will read the HASP and sign the signature page.
- Determine wind direction.
- Establish work zones as applicable: exclusion zones, support/contaminant reduction zone upwind if possible, and a decontamination zone.
- Store chemicals in proper containers, with MSDS's available for each chemical used.
- Establish onsite and offsite communication: cell phone.
- Establish procedures for disposal of material generated on Site.

9 DECONTAMINATION

To minimize the distribution of contaminants outside the exclusion zone or cross-contamination of samples, the following procedures will be used to decontaminate sampling equipment:

- Any non-dedicated disposable sampling equipment will be washed with a non-phosphatic soap and water and rinsed with distilled or deionized water.

To minimize the distribution of contaminants outside the exclusion zone and personal exposure to chemicals, vehicles will not be allowed inside the exclusion zone. If vehicles are required in the exclusion zone, the following procedures will be used to prevent contamination or decontaminate the vehicles:

- Excavation equipment and other non-dedicated equipment used in the excavation/exclusion zone will be decontaminated using pressure washing. All wash water will be contained, profiled, and properly disposed of.

To minimize or prevent personal exposure to hazardous materials, all personnel working in the exclusion zone and contamination reduction zones will comply with the following decontamination procedures:

- Wash boots, remove gloves, wash hands, and shower as soon as possible after leaving Site. Dispose of contaminated protective clothing in appropriate on-Site containers.

Decontamination equipment required on Site will include the following:

- Distilled or deionized water with soap to clean field equipment. Soap and water for personal use. Spray bottle of distilled or deionized water to rinse off water-level probe, meters, and equipment.

Decontamination wastewater and contaminated materials will be disposed of in the following manner:

- All wash water will be contained, profiled, and properly disposed of.

The following personal hygiene practices will be used:

- Long hair will be secured away from the face so that it does not interfere with any activities.
- All personnel leaving potentially contaminated areas will wash their hands and face prior to entering any clean areas or eating areas.
- Personnel leaving potentially contaminated areas will shower (including washing hair) and change to clean clothing as soon as possible after leaving the Site.
- No person will eat, drink, or chew gum or chew/smoke tobacco in potentially contaminated areas. Drink containers and drinking of replacement fluids for heat stress control will be permitted only in areas that are free from contamination.

10 SPILL CONTAINMENT

Provisions must be made for spill containment at any site where bulk liquids will be handled. If the proposed fieldwork includes the handling of bulk liquids, oil, and/or chemicals (other than water); the following provisions for the Site will be enforced.

- Eliminate all ignition sources.
- Ground all electrical equipment.
- Stop leak if it can be done without risk.
- Do not touch or walk through spilled material.
- Prevent entry to waterways, manholes or sewer drains, basements or confined spaces.
- Isolate are until vapors are dispersed.
- Absorb or cover with dry earth, vermiculite, or other non-combustible material.

The sampling vehicle will be equipped with an oil sorbent boom, sorbent pads, and bagged vermiculite. If a spill cannot be contained with these materials, and/or the safety of persons responding to the spill cannot be adequately addressed, the Site owner will be notified and 911 will be called.

10.1 SHIPMENT OF RESTRICTED ARTICLES

Federal laws and international guidelines place restrictions on what materials may be shipped by passenger and cargo aircraft. In the course of this field investigation, the following items will be shipped to and from the Site in the following manner:

Item	Hazardous Constituent	Quantity	Packaging	How Shipped
Samples:	Yes	1-2 gals	Cooler	Truck/FedEx
Solvents:	Methanol	2 liters	Equipment Case	Truck
Calibration Gas:	Isobutylene Gas	1 liter	Equipment Case	Truck
Calibration Gas:	CH4, H2S, CO	1 liter	Equipment Case	Truck
Calibration Gas:	CH4, CO2	1 liter	Equipment Case	Truck
Investigation-Derived Waste	Petroleum Compounds	55-Gallon Steel Drums	55-Gallon Steel Drums	Licensed Transporter

11 HEALTH AND SAFETY TRAINING

State and federal laws establish training requirements for workers at uncontrolled hazardous waste sites (including areas where accumulations of hazardous waste create a threat to the health and safety of an individual, the environment, or both).

EES and subcontractor personnel will be required to complete the following training requirements:

	No Special Training[a]	24-hour	40-hour	80-hour	Annual 8-Hour Refresher
EES Personnel			X		X
Subcontractors: Waste Transporter			X		X

Note:

[a] Provide explanation or justification:

11.1 MEDICAL MONITORING

OSHA requires medical monitoring for personnel potentially exposed to chemical hazards in concentrations in excess of the PEL for more than 30 days per year, and for personnel who must use respiratory protection for more than 30 days per year. EES complies with the OSHA requirements.

12 EMERGENCY INFORMATION

Local Resources	Name	Telephone	Notified Prior to Work (Yes/No)?
Fire:	Grandview Fire Department	911	No
Police:	Grandview Police Department	911	No
Ambulance:		911	No
Hospital:	Sunnyside Community Hospital 1016 Tacoma Ave Sunnyside, WA 98944	509-837-1500	No
Site phone:	EES Cell Phone (Barrus)	801-319-5768	Yes

Directions to Hospital: **See attached map and driving directions**

Corporate Resources	Name	Work Telephone	Home Telephone
EES Health and Safety Officer	Paul Ecker	971-302-7231	503-624-6191

In case of serious injuries, death, or other emergency, the corporate health and safety officer must be notified immediately.

Other Resources	Agency Name/Location	Telephone
Local OSHA office	WA Dept. of Labor and Industries (Moses Lake)	509-764-6900
State OSHA equivalent	Washington OSHA	800-423-7233

13 DOCUMENTATION

	Attached	In File	Not Applicable
EES site safety acknowledgment forms	X		
OSHA or equivalent state poster			X
Site safety meeting minutes	X		
EES heat stress monitoring form		X	
EES confined space entry permit			X
EES confined space entry checklist			X
EES air monitoring record	X		

ATTACHMENTS

	Attached	In File	Not Applicable
Site map	X		
Air monitoring record	X		
Work plan		X	
Material safety data sheets	X		
Hospital route	X		
Health and safety training records		X	
Heat stress standard operating procedure		X	
Confined space entry information			X
Equipment standard operating procedures		X	
Other:			X

SITE SAFETY PLAN ACKNOWLEDGEMENT

I have reviewed the site safety plan prepared by EES Environmental Consulting, Inc., dated July 3, 2025, for the Former DeBock's Texaco site. I understand the purpose of the plan and I consent to adhere to its policies, procedures, and guidelines while an employee of EES or its subcontractors.

Name	***Employer***	***Signature***

SITE SAFETY MEETING MINUTES

Site Name: _____ Contract No: _____

Meeting Location _____

Meeting Date: _____ Time: _____ Conducted by: _____

Pre-Field Work Orientation: ___ Weekly Site Meeting: ___ Other: _____

Subjects Discussed: _____

_____

_____

_____

Safety Officer Comments: _____

_____

_____

_____

Name and Signature of Participating Personnel (list company name if subcontractor):

_____

_____

_____

_____

_____

_____

_____

Attachments

Daily Air Monitoring Record

EES Environmental Consulting, Inc.	Project Name:	Prepared by:
	Project #:	Date:
	Location:	Page: of

Site Conditions	
Weather:	Temperature (°F):

Air Monitoring Equipment

Parameter	Instrument	Serial Number	Calibration Date	Calibration Gas/Method
Volatile Organic Compounds (VOCs)				
Oxygen (O_2)				
Carbon Monoxide (CO)				
Hydrogen Sulfide (H_2S)				
Lower Explosive Limit (LEL)				
Other:				
Other:				

Air Monitoring Data

Time	Location/Description	VOCs (ppmv)	O_2 (%)	CO (ppmv)	H_2S (ppmv)	LEL (%)	Other: ( )	Other: ( )

Notes

Signature:

LEGEND

- PROPERTY LINE
- BUILDING
- RO-DW-Y/SIDEW-LK
- MW-1 — DEBOCK'S TEX-CO MONITORING WELL (OLYMPUS 1998, EES 2018/2019)
- MW-14 — RELLC MONITORING WELL (-ECOM 2022/2023)
- TOMW-6 — TIME OIL MONITORING WELL (DECOMMISIONED BY OTHERS, 2019)
- DRY WELL
- UST FILL PORT
- FORMER UST LOC-TIONS
- -B-NDONED FUEL TR-NSMISSION PIPING
- STORMW-TER INFILTR-TION TRENCH (INST-LLED M-Y 2010)
- SITE FE-TURES -RE -PPROXIM-TE.

MW-22
MW-14
MW-15
MW-16
IW-1
GRANDVIEW MUSEUM
MW-23
101 WEST COMMERCIAL BUSINESS
MW-19
101 EAST
RETAIL/COMMERCIAL BUSINESSES
APPROXIMATE GROUNDWATER FLOW DIRECTION
MW-20
MW-24
MW-17
SIDEWALK
MW-18
MW-21
SIDEWALK
MW-25
WEST MAIN STREET/WINE COUNTRY ROAD
FORMER GASOLINE UST LOCATION (1,000 GAL.)
MW-28
MW-27
MW-26
SIDEWALK
MW-10
MW-11
CANOPY
MW-3
SIDEWALK
RETAIL FUELING
MW-13
FORMER GASOLINE UST LOCATION (550 GAL.)
MW-5
MW-12
RESTAURANT (JAVI'S CHICKEN & CHURROS)
DEBOCK'S TEXACO 100 WEST
FORMER FUEL DISPENSER ISLAND
TIME OIL
RESTAURANT (BOTANAS LOCAS EL SOLESITO)
MW-4
MW-2
MW-9
COMMERCIAL BUSINESS
RESTAURANT (EL CAMPESTRE)
DIVISION STREET
SIDEWALK
RETAIL/ COMMERCIAL BUSINESS
MORA PROPERTY
MW-8
MW-7
MW-1
TOMW-6
FORMER GASOLINE UST LOCATIONS (5,000 & 8,000 GAL.)
MW-6
ALLEY
TOMW-7

N

-PPROXIM-TE SCALE IN FEET

0 40 80

PROJECT NO.	2093-01
DATE: 5-9-24	FIGURE NO. 2
FILE: 2093-01	
DRAWN: JJT	
APPROVED: DBP	

SITE FEATURES

DEBOCK'S TEXACO
100 WEST MAIN ST.
GRANDVIEW, WA.

EES Environmental Consulting, Inc.
514 NW 11th Ave, Suite 209 Portland, Oregon 97209
(503) 847-2740 ees-environmental.com

I:\Autocad Files\EES-Autocad\2093-01 DeBock's Texaco\2024\Jan 2024\2093-01_BM-050324.dwg

GASOLINE

ICSC: 1400

Benzin ICSC # 1400 	CAS # 86290-81-5 RTECS # DE3550000 UN # 1203 EC # 649-378-00-4 October 18, 2001 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Highly flammable.	NO open flames, NO sparks, and NO smoking.	Powder, AFFF, foam, carbon dioxide.
EXPLOSION	Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Prevent build-up of electrostatic charges (e.g., by grounding).	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE			
•**INHALATION**	Confusion. Cough. Dizziness. Drowsiness. Dullness. Headache.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
•**SKIN**	MAY BE ABSORBED! Dry skin. Redness.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•**EYES**	Redness. Pain.	Safety spectacles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•**INGESTION**	Nausea. Vomiting. (See Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING

Evacuate danger area! Consult an expert! Remove all ignition sources. Cover the spilled material with dry earth, sand or non-combustible material. Do NOT wash away into sewer. Do NOT let this chemical enter the environment. Personal protection: self-contained breathing apparatus.	Fireproof.	Marine pollutant. Note: H, P T symbol R: 45-65 S: 53-45 UN Hazard Class: 3 UN Packing Group: I
ICSC: 1400	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.	

GASOLINE

IMPORTANT

PHYSICAL STATE; APPEARANCE:
MOBILE LIQUID

PHYSICAL DANGERS:
The vapour is heavier than air and may travel along the ground; distant ignition possible. The vapour mixes well with air, explosive mixtures are easily formed. As a result of flow, agitation, etc., electrostatic charges can be generated.

CHEMICAL DANGERS:

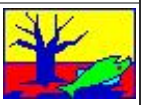
OCCUPATIONAL EXPOSURE LIMITS:
TLV: 300 ppm as TWA, 500 ppm as STEL; A3 (confirmed animal carcinogen with unknown relevance to humans); (ACGIH 2004).

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation of its vapour, through the skin and by ingestion.

INHALATION RISK:
A harmful contamination of the air can be reached very quickly on evaporation of this substance at 20°C.

EFFECTS OF SHORT-TERM EXPOSURE:
The substance is irritating to the eyes , the skin and the respiratory tract . If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis. The substance may cause effects on the central nervous system .

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
The liquid defats the skin. The substance may have effects on the central nervous system and liver . This substance is possibly carcinogenic to humans.

DATA		
PHYSICAL PROPERTIES	Boiling point: 20-200°C Relative density (water = 1): 0.70 - 0.80 Solubility in water, g/100 ml: none Relative vapour density (air = 1): 3 - 4	Flash point: <-21°C Auto-ignition temperature: about 250°C Explosive limits, vol% in air: 1.3-7.1 Octanol/water partition coefficient as log Pow: 2-7
ENVIRONMENTAL DATA	The substance is harmful to aquatic organisms. 	

NOTES

Depending on the degree of exposure, periodic medical examination is suggested. The product may contain additives which may alter the health and environmental effects.Card has been partly updated in April 2005. See section Physical properties.

NFPA Code: H1; F3; R0;
Transport Emergency Card: TEC (R)-30S1203

ADDITIONAL INFORMATION

ICSC: 1400 **GASOLINE**

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

Page last reviewed: July 22, 2015

Page last updated: July 1, 2014

Content source: Centers for Disease Control and Prevention (http://www.cdc.gov/)

BENZENE

ICSC: 0015

Cyclohexatriene Benzol C_6H_6 Molecular mass: 78.1 ICSC # 0015		CAS # 71-43-2 RTECS # CY1400000 UN # 1114 EC # 601-020-00-8 June 05, 2003 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Highly flammable.	NO open flames, NO sparks, and NO smoking.	Powder, AFFF, foam, carbon dioxide.
EXPLOSION	Vapour/air mixtures are explosive. Risk of fire and explosion: see Chemical Dangers.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Do NOT use compressed air for filling, discharging, or handling. Use non-sparking handtools. Prevent build-up of electrostatic charges (e.g., by grounding).	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		AVOID ALL CONTACT!	
•INHALATION	Dizziness. Drowsiness. Headache. Nausea. Shortness of breath. Convulsions. Unconsciousness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
•SKIN	MAY BE ABSORBED! Dry skin. Redness. Pain. (Further see Inhalation).	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
•EYES	Redness. Pain.	Face shield, or eye protection in combination	First rinse with plenty of water for several minutes

		with breathing protection.	(remove contact lenses if easily possible), then take to a doctor.
•**INGESTION**	Abdominal pain. Sore throat. Vomiting. (Further see Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Remove all ignition sources. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer. Do NOT let this chemical enter the environment. Personal protection: complete protective clothing including self-contained breathing apparatus.	Fireproof. Separated from food and feedstuffs oxidants and halogens .	Do not transport with food and feedstuffs. Note: E F symbol T symbol R: 45-46-11-36/38-48/23/24/25-65 S: 53-45 UN Hazard Class: 3 UN Packing Group: II

ICSC: 0015	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

BENZENE

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PHYSICAL STATE; APPEARANCE:
COLOURLESS LIQUID , WITH CHARACTERISTIC ODOUR.

PHYSICAL DANGERS:
The vapour is heavier than air and may travel along the ground; distant ignition possible. As a result of flow, agitation, etc., electrostatic charges can be generated.

CHEMICAL DANGERS:
Reacts violently with oxidants, nitric acid, sulfuric acid and halogens causing fire and explosion hazard. Attacks plastic and rubber.

OCCUPATIONAL EXPOSURE LIMITS:
TLV: 0.5 ppm as TWA; 2.5 ppm as

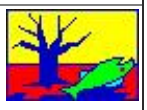
STEL; (skin); A1; BEI issued; (ACGIH 2004).

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation , through the skin and by ingestion .

INHALATION RISK:
A harmful contamination of the air can be reached very quickly on evaporation of this substance at 20°C.

EFFECTS OF SHORT-TERM EXPOSURE:
The substance is irritating to the eyes , the skin and the respiratory tract . Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis. The substance may cause effects on the central nervous system , resulting in

lowering of consciousness . Exposure far above the occupational exposure

N T D A T A	MAK: H; Carcinogen category: 1; Germ cell mutagen group: 3A; (DFG 2004). OSHA PEL: 1910.1028 TWA 1 ppm ST 5 ppm See Appendix F NIOSH REL: Ca TWA 0.1 ppm ST 1 ppm See Appendix A NIOSH IDLH: Ca 500 ppm See: 71432	limit value may result in unconsciousness and death . **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** The liquid defats the skin. The substance may have effects on the bone marrow and immune system , resulting in a decrease of blood cells. This substance is carcinogenic to humans.
PHYSICAL PROPERTIES	Boiling point: 80°C Melting point: 6°C Relative density (water = 1): 0.88 Solubility in water, g/100 ml at 25°C: 0.18 Vapour pressure, kPa at 20°C: 10 Relative vapour density (air = 1): 2.7	Relative density of the vapour/air-mixture at 20°C (air = 1): 1.2 Flash point: -11°C c.c. Auto-ignition temperature: 498°C Explosive limits, vol% in air: 1.2-8.0 Octanol/water partition coefficient as log Pow: 2.13
ENVIRONMENTAL DATA	The substance is very toxic to aquatic organisms. 	

NOTES

Use of alcoholic beverages enhances the harmful effect. Depending on the degree of exposure, periodic medical examination is indicated. The odour warning when the exposure limit value is exceeded is insufficient. Card has been partly updated in October 2004. See sections Occupational Exposure Limits, EU classification, Emergency Response.

Transport Emergency Card: TEC (R)-30S1114 / 30GF1-II

NFPA Code: H2; F3; R0

ADDITIONAL INFORMATION

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

Page last reviewed: July 22, 2015

Page last updated: July 1, 2014

Content source: Centers for Disease Control and Prevention (http://www.cdc.gov/)

ETHYLBENZENE

ICSC: 0268

Ethylbenzol Phenylethane EB $C_8H_{10}/C_6H_5C_2H_5$ Molecular mass: 106.2 ICSC # 0268 	CAS # 100-41-4 RTECS # DA0700000 UN # 1175 EC # 601-023-00-4 November 23, 2007 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Highly flammable.	NO open flames, NO sparks, and NO smoking.	Dry powder. Foam. Carbon dioxide.
EXPLOSION	Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Do NOT use compressed air for filling, discharging or handling.	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		PREVENT GENERATION OF MISTS!	
•**INHALATION**	Cough. Sore throat. Dizziness. Drowsiness. Headache.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
•**SKIN**	Redness.	Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•**EYES**	Redness. Pain. crimation; deleted at update Nov 07 - only at very high levels.	Safety goggles	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•**INGESTION**	Burning sensation in the	Do not eat, drink, or smoke	Rinse mouth. Do NOT

INGESTION	throat and chest. (Further see Inhalation).	during work.	induce vomiting. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Ventilation. Collect leaking liquid in covered containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer Do NOT let this chemical enter the environment.	Fireproof. Separated from strong oxidants. Provision to contain effluent from fire extinguishing. Store in an area without drain or sewer access.	F symbol Xn symbol R: 11-20 S: 2-16-24/25-29 UN Hazard Class: 3 UN Packing Group: II Signal: Danger Flame-Excl mark-Health haz Highly flammable liquid and vapour May be harmful if swallowed Harmful if inhaled vapour Causes mild skin irritation Causes eye irritation Suspected of causing cancer May cause respiratory irritation May cause drowsiness or dizziness May be harmful if swallowed and enters airways Toxic to aquatic life

ICSC: 0268

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

ETHYLBENZENE

IMPORTANT

PHYSICAL STATE; APPEARANCE:
COLOURLESS LIQUID , WITH AROMATIC ODOUR.

PHYSICAL DANGERS:
The vapour mixes well with air, explosive mixtures are easily formed.

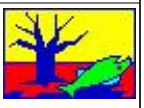
CHEMICAL DANGERS:
Reacts with strong oxidants. Attacks plastic and rubber.

OCCUPATIONAL EXPOSURE LIMITS:
TLV: 100 ppm as TWA, 125 ppm as STEL; A3 (confirmed animal carcinogen with unknown relevance to humans); BEI issued, (ACGIH 2007).

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation of its vapour, and by ingestion.

INHALATION RISK:
A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C.

EFFECTS OF SHORT-TERM EXPOSURE:
The substance is irritating to the eyes , the skin and the respiratory tract Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis. The

I A N T D A T A	EU OEL: 442 mg/m³ 100 ppm as TWA 884 mg/m³ 200 ppm as STEL (skin) (EU 2006). OSHA PEL‡: TWA 100 ppm (435 mg/m³) NIOSH REL: TWA 100 ppm (435 mg/m³) ST 125 ppm (545 mg/m³) NIOSH IDLH: 800 ppm 10%LEL See: 100414	substance may cause effects on the central nervous system. Exposure above the OEL could cause lowering of consciousness. **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** This substance is possibly carcinogenic to humans. The substance may have effects on the kidneys and liver , resulting in impaired functions Repeated contact with skin may cause dryness and cracking.
PHYSICAL PROPERTIES	Boiling point: 136°C Melting point: -95°C Relative density (water = 1): 0.9 Solubility in water, g/100 ml at 20°C: 0.015 Vapour pressure, kPa at 20°C: 0.9 Relative vapour density (air = 1): 3.7	Relative density of the vapour/air-mixture at 20°C (air = 1): 1.02 Flash point: 18°C c.c. Auto-ignition temperature: 432°C Explosive limits, vol% in air: 1.0-6.7 Octanol/water partition coefficient as log Pow: 3.1 Viscosity, mm²/s at 25 °C: 0.6
ENVIRONMENTAL DATA	The substance is toxic to aquatic organisms. It is strongly advised that this substance does not enter the environment. 	

NOTES

The odour warning when the exposure limit value is exceeded is insufficient.

Transport Emergency Card: TEC (R)-305 1135 or 30GF1- I+II

NFPA Code: H2; F3; R0

ADDITIONAL INFORMATION

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

Page last reviewed: July 22, 2015

Page last updated: July 1, 2014

Content source: Centers for Disease Control and Prevention (http://www.cdc.gov/)

TOLUENE

ICSC: 0078

Methylbenzene Toluol Phenylmethane $C_6H_5CH_3$ / C_7H_8 Molecular mass: 92.1 ICSC # 0078 	CAS # 108-88-3 RTECS # XS5250000 UN # 1294 EC # 601-021-00-3 October 10, 2002 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Highly flammable.	NO open flames, NO sparks, and NO smoking.	Powder, AFFF, foam, carbon dioxide.
EXPLOSION	Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Prevent build-up of electrostatic charges (e.g., by grounding). Do NOT use compressed air for filling, discharging, or handling. Use non-sparking handtools.	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		STRICT HYGIENE! AVOID EXPOSURE OF (PREGNANT) WOMEN!	
•INHALATION	Cough. Sore throat. Dizziness. Drowsiness. Headache. Nausea. Unconsciousness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
•SKIN	Dry skin. Redness.	Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.

•EYES	Redness. Pain.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION	Burning sensation. Abdominal pain. (Further see Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Evacuate danger area in large spill! Consult an expert in large spill! Remove all ignition sources. Ventilation. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer. Do NOT let this chemical enter the environment. Personal protection: self-contained breathing apparatus in large spill.	Fireproof. Separated from strong oxidants.	F symbol Xn symbol R: 11-38-48/20-63-65-67 S: 2-36/37-46-62 UN Hazard Class: 3 UN Packing Group: II

ICSC: 0078	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

TOLUENE

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PHYSICAL STATE; APPEARANCE:
COLOURLESS LIQUID , WITH CHARACTERISTIC ODOUR.

PHYSICAL DANGERS:
The vapour mixes well with air, explosive mixtures are formed easily. As a result of flow, agitation, etc., electrostatic charges can be generated.

CHEMICAL DANGERS:
Reacts violently with strong oxidants causing fire and explosion hazard.

OCCUPATIONAL EXPOSURE LIMITS:
TLV: 50 ppm as TWA; (skin); A4; BEI issued; (ACGIH 2004).

MAK:
Pregnancy risk group: C;

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation, through the skin and by ingestion.

INHALATION RISK:
A harmful contamination of the air can be reached rather quickly on evaporation of this substance at 20°C.

EFFECTS OF SHORT-TERM EXPOSURE:
The substance is irritating to the eyes and the respiratory tract . The substance may cause effects on the central nervous system . If this liquid is swallowed, aspiration into the lungs

may result in chemical pneumonitis. Exposure at high levels may result in

A N T D A T A	(DFG 2004). EU OEL: 192 mg/m^3 50 ppm as TWA 384 mg/m^3 100 ppm as STEL (skin) (EU 2006). OSHA PEL‡: TWA 200 ppm C 300 ppm 500 ppm (10-minute maximum peak) NIOSH REL: TWA 100 ppm (375 mg/m^3) ST 150 ppm (560 mg/m^3) NIOSH IDLH: 500 ppm See: 108883	cardiac dysrhythmia and unconsciousness. **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** The liquid defats the skin. The substance may have effects on the central nervous system . Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development.
PHYSICAL PROPERTIES	Boiling point: 111°C Melting point: -95°C Relative density (water = 1): 0.87 Solubility in water: none Vapour pressure, kPa at 25°C: 3.8 Relative vapour density (air = 1): 3.1	Relative density of the vapour/air-mixture at 20°C (air = 1): 1.01 Flash point: 4°C c.c. Auto-ignition temperature: 480°C Explosive limits, vol% in air: 1.1-7.1 Octanol/water partition coefficient as log Pow: 2.69
ENVIRONMENTAL DATA	The substance is toxic to aquatic organisms. 	

NOTES

Depending on the degree of exposure, periodic medical examination is suggested. Use of alcoholic beverages enhances the harmful effect. Card has been partly updated in October 2006: see section Occupational Exposure Limits.

Transport Emergency Card: TEC (R)-30S1294

NFPA Code: H 2; F 3; R 0;

ADDITIONAL INFORMATION

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

Page last reviewed: July 22, 2015

Page last updated: July 1, 2014

Content source: Centers for Disease Control and Prevention (http://www.cdc.gov/)

o-XYLENE

ICSC: 0084

ortho-Xylene 1,2-Dimethylbenzene o-Xylol $C_6H_4(CH_3)_2$ / C_8H_{10} Molecular mass: 106.2 ICSC # 0084		CAS # 95-47-6 RTECS # ZE2450000 UN # 1307 EC # 601-022-00-9 August 03, 2002 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Flammable.	NO open flames, NO sparks, and NO smoking.	Powder, water spray, foam, carbon dioxide.
EXPLOSION	Above 32°C explosive vapour/air mixtures may be formed.	Above 32°C use a closed system, ventilation, and explosion-proof electrical equipment. Prevent build-up of electrostatic charges (e.g., by grounding).	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		STRICT HYGIENE! AVOID EXPOSURE OF (PREGNANT) WOMEN!	
•**INHALATION**	Dizziness. Drowsiness. Headache. Nausea.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
•**SKIN**	Dry skin. Redness.	Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•**EYES**	Redness. Pain.	Safety spectacles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
	Burning sensation.	Do not eat, drink, or smoke	Rinse mouth. Do NOT

•**INGESTION**	Abdominal pain. (Further see Inhalation).	during work.	induce vomiting. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Ventilation. Remove all ignition sources. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT let this chemical enter the environment. (Extra personal protection: filter respirator for organic gases and vapours.)	Fireproof. Separated from strong oxidants and strong acids .	Note: C Xn symbol R: 10-20/21-38 S: 2-25 UN Hazard Class: 3 UN Packing Group: III

ICSC: 0084	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

o-XYLENE

IMPORTANT

PHYSICAL STATE; APPEARANCE:
COLOURLESS LIQUID , WITH CHARACTERISTIC ODOUR.

PHYSICAL DANGERS:
As a result of flow, agitation, etc., electrostatic charges can be generated.

CHEMICAL DANGERS:
Reacts with strong acids and strong oxidants .

OCCUPATIONAL EXPOSURE LIMITS:
TLV: 100 ppm as TWA; 150 ppm as STEL A4 (ACGIH 2001). BEI specified by (ACGIH 2001).
EU OEL: 50 ppm as TWA; 100 ppm as STEL
(skin)
(EU 2000).
OSHA PEL†: TWA 100 ppm (435 mg/m^3)
NIOSH REL: TWA 100 ppm (435 mg/m^3) ST 150 ppm (655 mg/m^3)

NIOSH IDLH: 900 ppm See: 95476

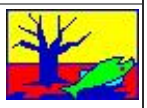
ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation, through the skin and by ingestion.

INHALATION RISK:
A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C.

EFFECTS OF SHORT-TERM EXPOSURE:
The substance is irritating to the eyes and the skin . The substance may cause effects on the central nervous system . If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to

the substance may enhance hearing damage caused by exposure to noise.

I D A T A		Animal tests show that this substance possibly causes toxicity to human reproduction or development.
PHYSICAL PROPERTIES	Boiling point: 144°C Melting point: -25°C Relative density (water = 1): 0.88 Solubility in water: none Vapour pressure, kPa at 20°C: 0.7	Relative vapour density (air = 1): 3.7 Relative density of the vapour/air-mixture at 20°C (air = 1): 1.02 Flash point: 32°C c.c. Auto-ignition temperature: 463°C Explosive limits, vol% in air: 0.9-6.7 Octanol/water partition coefficient as log Pow: 3.12
ENVIRONMENTAL DATA	The substance is toxic to aquatic organisms. 	

NOTES

Depending on the degree of exposure, periodic medical examination is indicated. The recommendations on this Card also apply to technical xylene. See ICSC 0086 p-Xylene and 0085 m-Xylene.

Transport Emergency Card: TEC (R)-30S1307-III

NFPA Code: H 2; F 3; R 0;
Card has been partially updated in January 2008: see Occupational Exposure Limits.

ADDITIONAL INFORMATION

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national

	legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

Page last reviewed: July 22, 2015

Page last updated: July 1, 2014

Content source: Centers for Disease Control and Prevention (http://www.cdc.gov/)

p-XYLENE

ICSC: 0086

para-Xylene 1,4-Dimethylbenzene p-Xylol $C_6H_4(CH_3)_2$ / C_8H_{10} Molecular mass: 106.2 ICSC # 0086		CAS # 106-42-3 RTECS # ZE2625000 UN # 1307 EC # 601-022-00-9 August 03, 2002 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Flammable.	NO open flames, NO sparks, and NO smoking.	Powder, water spray, foam, carbon dioxide.
EXPLOSION	Above 27°C explosive vapour/air mixtures may be formed.	Above 27°C use a closed system, ventilation, and explosion-proof electrical equipment. Prevent build-up of electrostatic charges (e.g., by grounding).	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		STRICT HYGIENE! AVOID EXPOSURE OF (PREGNANT) WOMEN!	
•**INHALATION**	Dizziness. Drowsiness. Headache. Nausea.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
•**SKIN**	Dry skin. Redness.	Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•**EYES**	Redness. Pain.	Safety spectacles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
	Burning sensation.	Do not eat, drink, or smoke	Rinse mouth. Do NOT

•**INGESTION**	Abdominal pain. (Further see Inhalation).	during work.	induce vomiting. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Ventilation. Remove all ignition sources. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT let this chemical enter the environment. (Extra personal protection: filter respirator for organic gases and vapours.)	Fireproof. Separated from strong oxidants and strong acids .	Note: C Xn symbol R: 10-20/21-38 S: 2-25 UN Hazard Class: 3 UN Packing Group: III

ICSC: 0086	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

p-XYLENE

IMPORTANT

PHYSICAL STATE; APPEARANCE:
COLOURLESS LIQUID , WITH CHARACTERISTIC ODOUR.

PHYSICAL DANGERS:
As a result of flow, agitation, etc., electrostatic charges can be generated.

CHEMICAL DANGERS:
Reacts with strong acids and strong oxidants .

OCCUPATIONAL EXPOSURE LIMITS:
TLV: 100 ppm as TWA; 150 ppm as STEL A4 (ACGIH 2001). BEI specified by (ACGIH 2001).
EU OEL: 50 ppm as TWA; 100 ppm as STEL (skin) (EU 2000).
OSHA PEL†: TWA 100 ppm (435 mg/m^3)
NIOSH REL: TWA 100 ppm (435 mg/m^3) ST 150 ppm (655 mg/m^3)
NIOSH IDLH: 900 ppm See: 95476

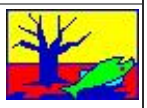
ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation, through the skin and by ingestion.

INHALATION RISK:
A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C.

EFFECTS OF SHORT-TERM EXPOSURE:
The substance is irritating to the eyes and the skin . The substance may cause effects on the central nervous system . If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to

the substance may enhance hearing damage caused by exposure to noise.

I D A T A		Animal tests show that this substance possibly causes toxicity to human reproduction or development.
PHYSICAL PROPERTIES	Boiling point: 138°C Melting point: 13°C Relative density (water = 1): 0.86 Solubility in water: none Vapour pressure, kPa at 20°C: 0.9	Relative vapour density (air = 1): 3.7 Relative density of the vapour/air-mixture at 20°C (air = 1): 1.02 Flash point: 27°C c.c. Auto-ignition temperature: 528°C Explosive limits, vol% in air: 1.1-7.0 Octanol/water partition coefficient as log Pow: 3.15
ENVIRONMENTAL DATA	The substance is toxic to aquatic organisms. 	

NOTES

Depending on the degree of exposure, periodic medical examination is indicated. The recommendations on this Card also apply to technical xylene. See ICSC 0084 o-Xylene and 0085 m-Xylene.

Transport Emergency Card: TEC (R)-30S1307-III

NFPA Code: H 2; F 3; R 0;

Card has been partially updated in January 2008: see Occupational Exposure Limits.

ADDITIONAL INFORMATION

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national

	legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

Page last reviewed: July 22, 2015

Page last updated: July 1, 2014

Content source: Centers for Disease Control and Prevention (http://www.cdc.gov/)

m-XYLENE

ICSC: 0085

meta-Xylene 1,3-Dimethylbenzene m-Xylol $C_6H_4(CH_3)_2$ / C_8H_{10} Molecular mass: 106.2 ICSC # 0085		CAS # 108-38-3 RTECS # ZE2275000 UN # 1307 EC # 601-022-00-9 August 03, 2002 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Flammable.	NO open flames, NO sparks, and NO smoking.	Powder, water spray, foam, carbon dioxide.
EXPLOSION	Above 27°C explosive vapour/air mixtures may be formed.	Above 27°C use a closed system, ventilation, and explosion-proof electrical equipment. Prevent build-up of electrostatic charges (e.g., by grounding).	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		STRICT HYGIENE!	
•**INHALATION**	Dizziness. Drowsiness. Headache. Nausea.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
•**SKIN**	Dry skin. Redness.	Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•**EYES**	Redness. Pain.	Safety spectacles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•**INGESTION**	Burning sensation. Abdominal pain. (Further see Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Ventilation. Remove all ignition sources. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT let this chemical enter the environment. (Extra personal protection: filter respirator for organic gases and vapours.)	Fireproof. Separated from strong oxidants and strong acids .	Note: C Xn symbol R: 10-20/21-38 S: 2-25 UN Hazard Class: 3 UN Packing Group: III
ICSC: 0085	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.	

m-XYLENE

IMPORTANT

PHYSICAL STATE; APPEARANCE:
COLOURLESS LIQUID , WITH CHARACTERISTIC ODOUR.

PHYSICAL DANGERS:
As a result of flow, agitation, etc., electrostatic charges can be generated.

CHEMICAL DANGERS:
Reacts with strong acids and strong oxidants .

OCCUPATIONAL EXPOSURE LIMITS:
TLV: 100 ppm as TWA; 150 ppm as STEL A4 (ACGIH 2001). BEI specified by (ACGIH 2001).
EU OEL: 50 ppm as TWA; 100 ppm as STEL (skin) (EU 2000).
OSHA PEL‡: TWA 100 ppm (435 mg/m^3)
NIOSH REL: TWA 100 ppm (435 mg/m^3) ST 150 ppm (655 mg/m^3)
NIOSH IDLH: 900 ppm See: 95476

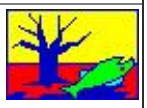
ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation, through the skin and by ingestion.

INHALATION RISK:
A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C.

EFFECTS OF SHORT-TERM EXPOSURE:
The substance is irritating to the eyes and the skin . The substance may cause effects on the central nervous system . If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
The liquid defats the skin. The substance may have effects on the central nervous system .Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

D A T A	

PHYSICAL PROPERTIES	Boiling point: 139°C Melting point: -48°C Relative density (water = 1): 0.86 Solubility in water: none Vapour pressure, kPa at 20°C: 0.8	Relative vapour density (air = 1): 3.7 Relative density of the vapour/air-mixture at 20°C (air = 1): 1.02 Flash point: 27°C c.c. Auto-ignition temperature: 527°C Explosive limits, vol% in air: 1.1-7.0 Octanol/water partition coefficient as log Pow: 3.20
ENVIRONMENTAL DATA	The substance is toxic to aquatic organisms. 	

NOTES

Depending on the degree of exposure, periodic medical examination is indicated. The recommendations on this Card also apply to technical xylene. See ICSC 0084 o-Xylene and 0086 p-Xylene.

NFPA Code: H 2; F 3; R 0;

Transport Emergency Card: TEC (R)-30S1307-III

Card has been partially updated in January 2008: see Occupational Exposure Limits.

ADDITIONAL INFORMATION

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the

	cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

Page last reviewed: July 22, 2015

Page last updated: July 1, 2014

Content source: Centers for Disease Control and Prevention (http://www.cdc.gov/)

1,2-DICHLOROETHANE

ICSC: 0250

Ethylene dichloride 1,2-Ethylene dichloride Ethane dichloride $ClCH_2CH_2Cl$ / $C_2H_4Cl_2$ Molecular mass: 98.96 ICSC # 0250 	CAS # 107-06-2 RTECS # KI0525000 UN # 1184 EC # 602-012-00-7 March 13, 1995 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Highly flammable. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking.	Water spray, foam, powder, carbon dioxide.
EXPLOSION	Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Prevent build-up of electrostatic charges (e.g., by grounding). Do NOT use compressed air for filling, discharging, or handling.	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR!
•INHALATION	Abdominal pain. Cough. Dizziness. Drowsiness. Headache. Nausea. Sore throat. Unconsciousness. Vomiting. Symptoms may be delayed (see Notes).	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Half-upright position. Artificial respiration may be needed. Refer for medical attention.

•SKIN	Redness.	Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
•EYES	Redness. Pain. Blurred vision.	Safety goggles face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION	Abdominal cramps. Diarrhoea. (Further see Inhalation).	Do not eat, drink, or smoke during work. Wash hands before eating.	Give nothing to drink. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Evacuate danger area! Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer. Personal protection: self-contained breathing apparatus.	Fireproof. Separated from strong oxidants, food and feedstuffs , and other incompatible materials . See Chemical Dangers. Cool. Dry.	Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs. Marine pollutant. Note: E F symbol T symbol R: 45-11-22-36/37/38 S: 53-45 UN Hazard Class: 3 UN Subsidiary Risks: 6.1 UN Packing Group: II

ICSC: 0250	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

1,2-DICHLOROETHANE

I M P O R T	

A N T D A T A	**PHYSICAL STATE; APPEARANCE:** COLOURLESS VISCOUS LIQUID , WITH CHARACTERISTIC ODOUR. TURNS DARK ON EXPOSURE TO AIR, MOISTURE AND LIGHT. **PHYSICAL DANGERS:** The vapour is heavier than air and may travel along the ground; distant ignition possible. As a result of flow, agitation, etc., electrostatic charges can be generated. **CHEMICAL DANGERS:** The substance decomposes on heating and on burning producing toxic and corrosive fumes including hydrogen chloride (ICSC 0163) and phosgene (ICSC 0007). Reacts violently with aluminium, alkali metals, alkali amides, ammonia, bases, strong oxidants. Attacks many metals in presence of water. Attacks plastic. **OCCUPATIONAL EXPOSURE LIMITS:** TLV: 10 ppm as TWA; A4 (not classifiable as a human carcinogen); (ACGIH 2004). MAK: skin absorption (H); Carcinogen category: 2; (DFG 2004). OSHA PEL†: TWA 50 ppm C 100 ppm 200 ppm 5-minute maximum peak in any 3 hours NIOSH REL: Ca TWA 1 ppm (4 mg/m^3) ST 2 ppm (8 mg/m^3) See Appendix A See Appendix C (Chloroethanes) NIOSH IDLH: Ca 50 ppm See: 107062	**ROUTES OF EXPOSURE:** The substance can be absorbed into the body by inhalation of its vapour, through the skin and by ingestion. **INHALATION RISK:** A harmful contamination of the air can be reached very quickly on evaporation of this substance at 20°C. **EFFECTS OF SHORT-TERM EXPOSURE:** The vapour is irritating to the eyes , the skin and the respiratory tract . Inhalation of the vapour may cause lung oedema (see Notes). The substance may cause effects on the central nervous system, kidneys, liver , resulting in impaired functions. **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** Repeated or prolonged contact with skin may cause dermatitis. This substance is probably carcinogenic to humans.
PHYSICAL PROPERTIES	Boiling point: 83.5°C Melting point: -35.7°C Relative density (water = 1): 1.235 Solubility in water, g/100 ml: 0.87 Vapour pressure, kPa at 20°C: 8.7 Relative vapour density (air = 1): 3.42	Relative density of the vapour/air-mixture at 20°C (air = 1): 1.2 Flash point: 13°C c.c. Auto-ignition temperature: 413°C Explosive limits, vol% in air: 6.2-16 Octanol/water partition coefficient as log Pow: 1.48
ENVIRONMENTAL DATA		
NOTES		

Depending on the degree of exposure, periodic medical examination is suggested. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an appropriate inhalation therapy by a doctor or a person authorized by him/her, should be considered. Card has been partly updated in October 2005. See sections Occupational Exposure Limits, Emergency Response.

Transport Emergency Card: TEC (R)-30GTF1-II

NFPA Code: H 2; F 3; R 0;

ADDITIONAL INFORMATION

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

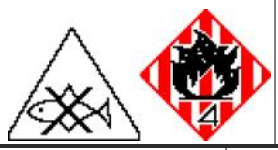
Page last reviewed: July 22, 2015

Page last updated: July 1, 2014

Content source: National Institute for Occupational Safety and Health (https://www.cdc.gov/NIOSH/)

NAPHTHALENE

ICSC: 0667

Naphthene $C_{10}H_8$ Molecular mass: 128.18 ICSC # 0667 	CAS # 91-20-3 RTECS # QJ0525000 UN # 1334 (solid); 2304 (molten) EC # 601-052-00-2 April 21, 2005 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Combustible.	NO open flames.	Powder, water spray, foam, carbon dioxide.
EXPLOSION	Above 80°C explosive vapour/air mixtures may be formed. Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE		PREVENT DISPERSION OF DUST!	
•**INHALATION**	Headache. Weakness. Nausea. Vomiting. Sweating. Confusion. Jaundice. Dark urine.	Ventilation (not if powder), local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
•**SKIN**	MAY BE ABSORBED! (Further see Inhalation).	Protective gloves.	Rinse skin with plenty of water or shower.
•**EYES**		Safety spectacles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•**INGESTION**	Abdominal pain. Diarrhoea. Convulsions. Unconsciousness. (Further see Inhalation).	Do not eat, drink, or smoke during work. Wash hands before eating.	Rest. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Personal protection: filter respirator for organic gases and vapours. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place.	Separated from strong oxidants, food and feedstuffs . Store in an area without drain or sewer access.	Do not transport with food and feedstuffs. Marine pollutant. Xn symbol N symbol R: 22-40-50/53 S: 2-36/37-46-60-61 UN Hazard Class: 4.1 UN Packing Group: III

ICSC: 0667	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

NAPHTHALENE

IMPORTANT

PHYSICAL STATE; APPEARANCE:
WHITE SOLID IN VARIOUS FORMS , WITH CHARACTERISTIC ODOUR.

PHYSICAL DANGERS:
Dust explosion possible if in powder or granular form, mixed with air.

CHEMICAL DANGERS:
On combustion, forms irritating and toxic gases. Reacts with strong oxidants .

OCCUPATIONAL EXPOSURE LIMITS:
TLV: 10 ppm as TWA; 15 ppm as STEL; (skin); A4 (not classifiable as a human carcinogen); (ACGIH 2005).
MAK: skin absorption (H); Carcinogen category: 2; Germ cell mutagen group: 3B; (DFG 2004).
OSHA PEL†: TWA 10 ppm (50 mg/m^3)
NIOSH REL: TWA 10 ppm (50 mg/m^3) ST 15 ppm (75 mg/m^3)
NIOSH IDLH: 250 ppm See: 91203

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation, through the skin and by ingestion.

INHALATION RISK:
A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C. See Notes.

EFFECTS OF SHORT-TERM EXPOSURE:
The substance may cause effects on the blood , resulting in lesions of blood cells (haemolysis) . See Notes. The effects may be delayed. Exposure by ingestion may result in death. Medical observation is indicated.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
The substance may have effects on the blood , resulting in chronic haemolytic anaemia. The substance may have effects on the eyes , resulting in the development of cataract. This substance is possibly carcinogenic to humans.

DATA	

PHYSICAL PROPERTIES	Boiling point: 218°C Sublimation slowly at room temperature Melting point: 80°C Density: 1.16 g/cm^3 Solubility in water, g/100 ml at 25°C: none	Vapour pressure, Pa at 25°C: 11 Relative vapour density (air = 1): 4.42 Flash point: 80°C c.c. Auto-ignition temperature: 540°C Explosive limits, vol% in air: 0.9-5.9 Octanol/water partition coefficient as log Pow: 3.3
ENVIRONMENTAL DATA	The substance is very toxic to aquatic organisms. The substance may cause long-term effects in the aquatic environment. 	

NOTES

Some individuals may be more sensitive to the effect of naphthalene on blood cells.

Transport Emergency Card: TEC (R)-41S1334 (solid); 41GF1-II+III (solid); 41S2304 (molten)

NFPA Code: H2; F2; R0;

ADDITIONAL INFORMATION

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

Page last reviewed: July 22, 2015

Page last updated: July 1, 2014

Content source: Centers for Disease Control and Prevention (http://www.cdc.gov/)

DIESEL FUEL -

Fuels, Diesel, No. 2
Diesel oil No. 2 -
Gasoil unspecified

I S : 1561

Oct ber 004

AS #: 68476-34-6
U #: 1 0
E umber: 70-676-1

	A UTE HAZARDS	PREVE TIO N	FIRE FIGHTI G
FIRE & EXPLOSIO N	Flammable. Gives off irritating or toxic fumes (or gases) in a fire. Above 52°C explosive vapour/air mixtures may be formed.	NO open flames. Above 52°C use a closed system, ventilation and explosion proof electrical equipment.	Use water spray, alcohol resistant foam, dry powder, carbon dioxide. In case of fire: keep drums, etc., cool by spraying with water.

	SYMPTOMS	PREVE TIO N	FIRST AID
Inhalati n	Dizziness. Headache. Nausea.	Use ventilation, local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
Skin	Dry skin. Redness. -	Protective gloves. -	Rinse and then wash skin with water - and soap.
Eyes	Redness. Pain.	Wear safety goggles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.
Ingesti n	See Inhalation.	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Refer for medical attention .

SPILLAGE DISPOSAL C

Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Collect - leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

STORAGE -

Well closed. -

PA KAGI G

-

LASSIFI ATIO N & LABELLI G

Acc rding t U GHS riteria

Transp rtati n
U lassificati n
UN Hazard Class: 3; UN Pack Group: III

Prepared by an international group of experts on behalf of ILO and WHO, with the financial assistance of the European Commission. -

International Labour Organization
World Health Organization
European Commission

PHYSI AL & HEMI AL I FORMATION

Physic l St te; Appe r nce
BROWN SLIGHTLY VISCOUS LIQUID WITH CHARACTERISTIC ODOUR. a

Physic l d ngers a

hemic l d ngers a

Boiling point: 282-338°C
Melting point: -30 - -18°C
Density: 0.87-0.95 g/cm³
Solubility in water, g/100ml at 20°C: 0.0005
Flash point: 52°C c.c.
Auto-ignition temperature: 254-285°C
Explosive limits, vol% in air: 0.6-6.5
Octanol/water partition coefficient as log Pow: >3.3

EXPOSURE & HEALTH EFFE TS

R utes f exp sure a
The substance can be absorbed into the body by inhalation of its a aerosol. a

Effects f sh rt-term exp sure a
The substance is irritating to the eyes, skin and respiratory tract. The substance may cause effects on the central nervous system. If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis.

Inh l ti n risk
A harmful contamination of the air will not or will only very slowly be reached on evaporation of this substance at 20°C.

Effects f l ng-term r repe ted exp sure
The substance defats the skin, which may cause dryness or cracking.

O C UPATIO NAL EXPOSURE LIMITS

TLV: 100 mg/m^3, as TWA; (skin); A3 (confirmed animal carcinogen with unknown relevance to humans)

E VIRO NME T

The substance is harmful to aquatic organisms. a

OTES

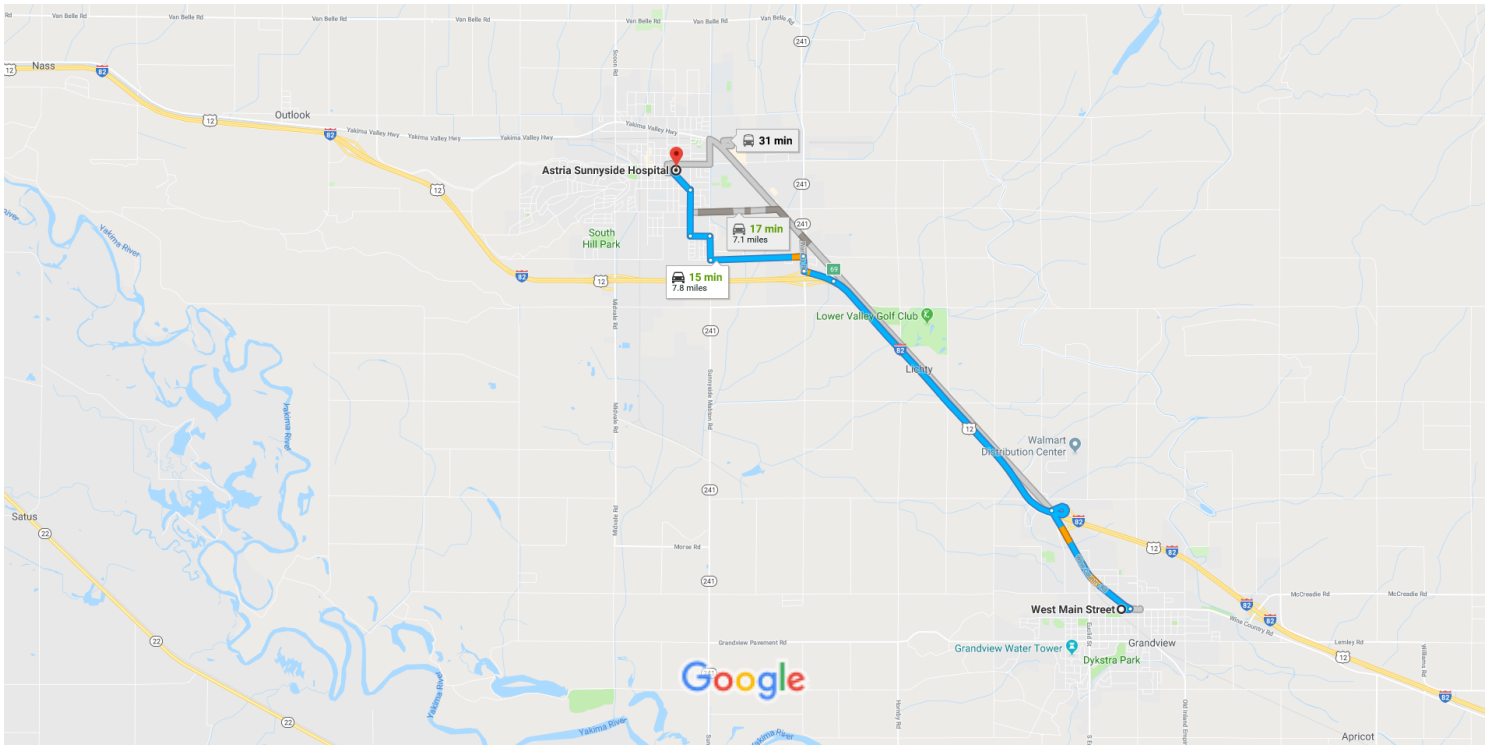
This card does not address Diesel exhaust. Additives to Diesel fuel in winter may change physical and toxicological properties of the substance. a

ADDITIONAL I FORMATIO N

E l ssific ti n
Symbol: Xn; R: 40; S: (2)-36/37; Note: H

W Main St, Grandview, WA 98930 to Astria Sunnyside Hospital

Drive 7.8 miles, 15 min



Map data ©2018 Google 5000 ft

W Main St

Grandview, WA 98930

1. Head east on W Main St toward Wine Country Rd

44 s (0.1 mi)

Continue on Wine Country Rd. Take I-82 W/US-12 W to Allen Rd in Sunnyside

8 min (5.6 mi)

2. Turn left onto Wine Country Rd

1.3 mi

3. Turn right to merge onto I-82 W/US-12 W toward Yakima

3.7 mi

4. Take exit 69 for WA-241 toward Sunnyside Mabton

0.3 mi

5. Turn right onto WA-241 N/Waneta Rd (signs for Mabton)

0.2 mi

Continue on Allen Rd. Take S 13th St to Tacoma Ave

6 min (2.2 mi)

6. Turn left onto Allen Rd

1.0 mi

7. Turn right onto Sunnyside Mabton Rd

0.2 mi

8. Turn left onto South St

0.2 mi

9. Turn right onto S 13th St

0.5 mi

10. Turn left onto Tacoma Ave

Destination will be on the right

0.2 mi

Astria Sunnyside Hospital

1016 Tacoma Ave, Sunnyside, WA 98944

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Appendix C

SEPA[1] Environmental Checklist

Purpose of checklist

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization, or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. **You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown.** You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to **all parts of your proposal**, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for lead agencies

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B, plus the Supplemental Sheet for Nonproject Actions (Part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in "Part B: Environmental Elements" that do not contribute meaningfully to the analysis of the proposal.

[1] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/Checklist-guidance

A.Background

Find help answering background questions[2]

1. **Name of proposed project, if applicable:**

   Former DeBock's Texaco, Grandview, Washington. Interim Remedial Action—Floating Free Product (LNAPL) Recovery.

2. **Name of applicant:**

   Prepared on behalf of Christensen, Inc. by EES Environmental Consulting, Inc.

3. **Address and phone number of applicant and contact person:**

   Daniele Peters
   EES Environmental Consulting
   514 NW 11th Avenue, Suite 209
   Portland, OR 97209

   daniele@ees-environmental.com

4. **Date checklist prepared:**

   July 3, 2025

5. **Agency requesting checklist:**

   Washington Department of Ecology (Ecology)

6. **Proposed timing of schedule (including phasing, if applicable):**

   Ongoing interim remedial action (LNAPL recovery) has been conducted at the site since February 2019 and will continue until Ecology determines that objectives have been achieved, or until the final cleanup action plan has been implemented.

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

   No.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

   Environmental information for this site is detailed in the reports listed below and is listed as Ecology Facility ID 94369212 and Cleanup Site ID 6910, and covered under Ecology Agreed Order No. DE 22952.

   - Remedial Investigation Report, EES Environmental Consulting, Inc., November 23, 2020.
   - Technical Memorandum: IRAM Status Update (April 2020), EES Environmental Consulting, Inc., May 13, 2020.

[2] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-A-Background

- Technical Memorandum: IRAM Status Update – 4Q 2020, EES Environmental Consulting, Inc., December 22, 2020.
- Technical Memorandum: IRAM Status Update – 4Q 2021, EES Environmental Consulting, Inc., December 2, 2021.
- Technical Memorandum: IRAM Status Update – 4Q-2022, EES Environmental Consulting, Inc., December 30, 2022
- Technical Memorandum: IRAM Status Update – 4Q-2023, EES Environmental Consulting, Inc., May 24, 2024
- Technical Memorandum: Interim Action Status Update for 2024, EES Environmental Consulting, Inc., February 13, 2025
- Interim Action Work Plan, EES Environmental Consulting, Inc. (Planned)

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

This work is being conducted under Ecology's Agreed Order No. DE 22952.

10. List any government approvals or permits that will be needed for your proposal, if known.

This checklist is a component of the Interim Action Work Plan, which is being submitted to Ecology for approval.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Remedial investigation (RI) activities conducted between 2017 and 2025 have confirmed residual gasoline contamination in smear-zone soils and shallow groundwater, including localized free-phase LNAPL in monitoring well MW-2.

The current interim action at the former DeBock's Texaco started in 2018 and continues to remove free phase petroleum product (LNAPL) from atop the shallow water table at MW-2. Interim Remedial Action Measure (IRAM) efforts initially included total fluids recovery (conducted episodically between February 2018 and January 2019), followed by continuous passive recovery using absorbent collection devices (ongoing, beginning in February 2019).

Hydrocarbon-absorbent socks have been deployed in Site monitoring well MW-2. The absorbent material is inspected on a quarterly basis, weighed to estimate product recovery mass/volume, and replaced as needed. If present, surplus floating product exceeding the absorptive capacity of the sock material is manually removed from MW-2 before installing new absorbents.

EES is working with the Site property owner, Ecology, and two other Potentially Liable Parties on the north side of West Wine Country Road, in Grandview, Washington, on a long-term cleanup action plan action (CAP) consistent with Agreed Order No. 22952. This IRAM is

expected to be a component of that more comprehensive CAP. The current IRAM is conducted in accordance with WAC 173-340.

12. **Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

    The project location address is:
    100 West Wine Country Road
    Grandview, Washington

    The legal description of the Site is:
    Section 23, Township 09 North, Range 23 East, Willamette Principal Meridian

    Relevant site figures, and a project location map are included in the Interim Action Work Plan.

B.Environmental Elements

1. Earth

Find help answering earth questions[3]

a. **General description of the site:**

    The site is located in a commercial district in the City of Grandview. The topography is generally flat and covered with asphalt, concrete, and gravel. The IRAM is conducted at Site monitoring well MW-2.

b. **What is the steepest slope on the site (approximate percent slope)?**

    The steepest slope at the Site is approximately 1%.

c. **What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them, and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.**

    Soils at the site are mapped as Pleistocene flood deposits, composed predominantly of silt and sand. This native, unconsolidated, overburden material reportedly extends to approximately 50 feet below ground surface. Previously excavated areas of the site, (including former underground storage tank cavities) were likely backfilled with pea gravel and other coarse-grained, non-native fill material.

[3] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-earth

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

None have been identified.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

No excavations are currently planned as part of this IRAM.

f. Could erosion occur because of clearing, construction, or use? If so, generally describe.

No.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The project will not change the current surface conditions of the site. The site is almost entirely covered by asphalt, concrete, or buildings.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any.

No work is planned that would require erosion control.

2. Air

Find help answering air questions[4]

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Only vehicle emissions related to worker transportation to the site are expected. Emissions from LNAPL removal are de minimis.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None required.

[4] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-Air

3. Water

Find help answering water questions[5]

a. Surface:

Find help answering surface water questions[6]

1. **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

   The nearest identified surface water body is the Sunnyside Canal, located approximately 0.5 miles to the northeast of the site.

2. **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

   No.

3. **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

   None planned.

4. **Will the proposal require surface water withdrawals or diversions? Give a general description, purpose, and approximate quantities if known.**

   No.

5. **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

   No.

6. **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

   No.

b. Ground:

Find help answering ground water questions[7]

1. **Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate**

[5] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water
[6] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Surface-water
[7] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Groundwater

quantities withdrawn from the well. Will water be discharged to groundwater? Give a general description, purpose, and approximate quantities if known.

Small amounts of groundwater may be withdrawn from MW-2 as part of LNAPL removal. All extracted groundwater at the site is handled as Investigation-Derived Waste and is temporarily stored in 55-gallon drums pending disposal at an appropriate disposal facility.

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (domestic sewage; industrial, containing the following chemicals…; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

   There will be no discharges to the ground.

c. Water Runoff (including stormwater):

1. **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

   This IRAM will not generate any additional stormwater runoff. Stormwater generated at the site is directed to the City of Grandview municipal system.

2. **Could waste materials enter ground or surface waters? If so, generally describe.**

   No, the minimal free product handling is conducted using containment measures.

3. **Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

   No.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Not applicable.

4. Plants

Find help answering plants questions

a. Check the types of vegetation found on the site:

☐ **deciduous tree: alder, maple, aspen, other**

☐ **evergreen tree: fir, cedar, pine, other**

☐ **shrubs**

☒ **grass**

☐ **pasture**

☐ **crop or grain**

☐ **orchards, vineyards, or other permanent crops.**

☐ **wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**

☐ **water plants: water lily, eelgrass, milfoil, other**

☐ **other types of vegetation**

b. What kind and amount of vegetation will be removed or altered?

None.

c. List threatened and endangered species known to be on or near the site.

None. A Terrestrial Ecological Evaluation (TEE) has been conducted as part of the ongoing remedial investigation for the Site. The TEE concluded that there is no habitat on or adjacent to the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.

No landscaping will be conducted as part of this IRAM.

e. List all noxious weeds and invasive species known to be on or near the site.

None known.

5. Animals

Find help answering animal questions[8]

List any birds and other animals that have been observed on or near the site or are known to be on or near the site. None known.

Examples include:

- **Birds: hawk, heron, eagle, songbirds, other:**
- **Mammals: deer, bear, elk, beaver, other:**
- **Fish: bass, salmon, trout, herring, shellfish, other:**

a. List any threatened and endangered species known to be on or near the site.

None known.

b. Is the site part of a migration route? If so, explain.

The area is part of the Pacific Flyway. However, the site's urban setting will discourage nesting in the immediate area.

c. Proposed measures to preserve or enhance wildlife, if any.

Not applicable.

d. List any invasive animal species known to be on or near the site.

None known.

[8] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-5-Animals

6. Energy and natural resources

Find help answering energy and natural resource questions[9]

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

The only energy required is gasoline for worker transportation to the site.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.

IRAM monitoring and maintenance efforts are combined with other site activities or activities at other nearby sites whenever possible.

7. Environmental health

Health Find help with answering environmental health questions[10]

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.

Free phase petroleum products and dissolved constituents can be toxic and can be flammable under certain conditions. The hazards are mitigated with the use of personal protective equipment and proper handling procedures. Containment measures are used during operations and maintenance procedures. All EES staff conducting IRAM operations and maintenance activities are certified in accordance with OSHA HAZWOPER standards.

1. **Describe any known or possible contamination at the site from present or past uses.**

   Groundwater beneath the site is contaminated by historic releases of petroleum products.

2. **Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

   Not applicable.

[9] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-6-Energy-natural-resou
[10] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-7-Environmental-health

3. **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

   Free phase petroleum product and contaminated groundwater will be stored onsite temporarily in sealed and labeled containers, pending disposal at an appropriate facility.

4. **Describe special emergency services that might be required.**

   A site-specific Health & Safety Plan (HASP) has been developed for the IRAM project, which is attached to the Interim Action Work Plan. The HASP outlines emergency procedures and requirements in the event of spills or accidents. The HASP includes emergency contact information and the locations of the nearest emergency services.

5. **Proposed measures to reduce or control environmental health hazards, if any.**

   Proper implementation of the HASP and Interim Action Work Plan will minimize the potential for releases and accidents.

b. Noise

1. **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

   Traffic and other urban background noise are unlikely to impact the IRAM.

2. **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site)?**

   The IRAM will not cause significant noise.

3. **Proposed measures to reduce or control noise impacts, if any:**

   Not applicable.

8. Land and shoreline use

Find help answering land and shoreline use questions[11]

a. **What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.**

   The site is currently used for auto repair and the adjacent properties are used for other commercial purposes. The IRAM will not affect land use on nearby properties.

b. **Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses because of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?**

[11] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-8-Land-shoreline-use

It is not known if the site was historically used as farmland. The subject property has been developed as a retail fueling station since approximately 1920. The surrounding properties are used for commercial purposes.

1. **Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?**

   No.

c. Describe any structures on the site.

The former DeBock's Texaco property includes a single commercial building used for automotive service and maintenance.

d. Will any structures be demolished? If so, what?

No.

e. What is the current zoning classification of the site?

The site is zoned for commercial use.

f. What is the current comprehensive plan designation of the site?

Commercial use.

g. If applicable, what is the current shoreline master program designation of the site?

Not applicable.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

No.

i. Approximately how many people would reside or work in the completed project?

Not applicable.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any.

Not applicable.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

Not applicable. The project will improve land use by removing petroleum contamination.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

Not applicable. No impacts anticipated.

9. Housing

Find help answering housing questions[12]

a. **Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

   No housing units will be provided.

b. **Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

   No housing units will be eliminated.

c. **Proposed measures to reduce or control housing impacts, if any:**

   No impacts to housing are anticipated.

10. Aesthetics

Find help answering aesthetics questions[13]

a. **What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

   No structure(s) proposed.

b. **What views in the immediate vicinity would be altered or obstructed?**

   No views will be affected.

c. **Proposed measures to reduce or control aesthetic impacts, if any:**

   There are no measures or plans in place.

11. Light and glare

Find help answering light and glare questions[14]

a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

   The project will not produce light or glare.

b. **Could light or glare from the finished project be a safety hazard or interfere with views?**

   No.

c. **What existing off-site sources of light or glare may affect your proposal?**

   Not applicable.

[12] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-9-Housing
[13] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-10-Aesthetics
[14] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-11-Light-glare

d. Proposed measures to reduce or control light and glare impacts, if any:

Not applicable.

12. Recreation

Find help answering recreation questions

a. What designated and informal recreational opportunities are in the immediate vicinity?

The site is situated in an urban setting. There are no known recreational opportunities in the immediate vicinity.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Not applicable.

13. Historic and cultural preservation

Find help answering historic and cultural preservation questions[15]

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

Yes, the following buildings are listed in the National Register of Historic Places and are located within ¼ mile of the Site:

- Grandview Herald Building (107 Division St)
- Grandview State Bank (100 W Second St)

The following buildings are listed in the State Register of Historic Places and are located within a ¼ mile of the Site:

- Grandview City Hall (201 W Second St)
- Iowa Building (125-133 Division St)
- Keck Building (138 Division St)

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

None have been identified.

[15] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-13-Historic-cultural-p

c. **Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

Not applicable since no ground disturbance work is anticipated as part of the IRAM.

d. **Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.**

Not applicable.

14. Transportation

Find help with answering transportation questions[16]

a. **Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.**

Access to nearby streets will not be affected by the IRAM.

b. **Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

Yes, the Ben Franklin Transit provides bus services to the site area.

c. **Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

No.

d. **Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

No.

e. **How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?**

The IRAM necessitates one trip to the site per calendar quarter using a standard passenger vehicle.

f. **Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

No.

[16] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-14-Transportation

g. Proposed measures to reduce or control transportation impacts, if any:

Not applicable.

15. Public services

Find help answering public service questions[17]

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Not applicable.

16. Utilities

Find help answering utilities questions[18]

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

The site is served by the following utilities:

- Electricity
- Water
- Refuse Service
- Telecommunications
- Municipal sanitary sewer

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

No additional utilities are proposed for the IRAM.

[17] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-15-public-services
[18] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-16-utilities

Signature

Find help about who should sign[19]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Type name of signee: Daniele Peters

Position and agency/organization: Project Manager

Date submitted: 07/10/2025

[19] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-C-Signature

Supplemental sheet for nonproject actions

Find help for the nonproject actions worksheet[20]

Do not use this section for project actions.

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. **How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

    - **Proposed measures to avoid or reduce such increases are:**

2. **How would the proposal be likely to affect plants, animals, fish, or marine life?**

    - **Proposed measures to protect or conserve plants, animals, fish, or marine life are:**

3. **How would the proposal be likely to deplete energy or natural resources?**

    - **Proposed measures to protect or conserve energy and natural resources are:**

4. **How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection, such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?**

    - **Proposed measures to protect such resources or to avoid or reduce impacts are:**

5. **How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?**

[20] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-d-non-project-actions

- **Proposed measures to avoid or reduce shoreline and land use impacts are:**

6. **How would the proposal be likely to increase demands on transportation or public services and utilities?**

   - **Proposed measures to reduce or respond to such demand(s) are:**

7. **Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**