



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue  
Seattle, Washington 98101

September 14, 2000

Reply To  
Attn Of: ECL-116

Via Over Night Mail

J.S. Gill  
6568 Lambert Crescent  
Delta, British Columbia V4E1R8  
Canada

Re: Treoil Industries, Ltd. facility

Dear Mr. Gill:

Thank you for your cooperation in allowing the United States Environmental Protection Agency (EPA) access to your property to conduct a removal assessment at the Treoil facility located at 4242 Alder Grove Road at Cherry Point (west of Ferndale), Washington ("Site"). This letter serves as a follow up to our various phone conversations and EPA's Site visit on June 6, 2000.

The purpose of the EPA removal assessment in June was to characterize the contents of tanks, contaminated soil, and drums at the Site that potentially contained material regulated under the Oil Pollution Act, and may have posed a threat of release to nearby surface waters. Due to the possible presence of abandoned oil related substances, based on information from previous Site inspections as discussed below, EPA mobilized for an assessment to characterize and inventory oil products and chemicals, including spills, at the Site.

The following site conditions were noted during previous Site inspections conducted by the Washington Department of Ecology and Whatcom County Health Department employees:

- Several unused 10,000 to 20,000 gallon tanks;
- Approximately 60 to 70 smaller tanks and reaction vessels;
- Approximately 300 abandoned drums (some leaking);
- Two unlocked mobile-home size trailers containing various chemical containers;
- A partially buried drum that appeared to be the discharge point for the drains from one of the trailers (labeled "Lab #2" on Figure 2). Approximately 7 drums were located at the front of this trailer, either full or partially full of unknown materials;
- Approximately 6 to 8 abandoned drums with unknown contents north of the

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northern warehouse building covered by a blue tarp;

- One of the warehouse buildings on the site currently being used for metal fabrication;
- An area near the northeast corner of the containment area covered with a fairly large volume of copper slag sandblast grit believed to be part of the metal fabrication operation; and
- A trailer-mounted propane tank near the entry gate

During the removal assessment, EPA conducted an inventory of the containers in the buildings and collected water, liquid, soil, and solid samples at various site locations. Samples were not collected from any of the 44 drums located near the gate as you were in the process of arranging for removal and disposal. Samples were not collected from the large tanks as the materials inside the tanks were solids and there was no reasonable means to collect these samples at the time.

Samples were submitted for combinations of the following analyses: Target Analyte List metals (EPA SW-846 methods 6010, 6020, and 7000 series), Semivolatile Organic Compounds (SVOCs - EPA Method 8270), Total Petroleum Hydrocarbon (TPH) Identification (WDOE Method NWTPH-HCID), and Extended Range Diesel Petroleum Hydrocarbons (WDOE Method NWTPH-Dx).

Analytical results of samples collected from the containment area indicate petroleum hydrocarbon contamination in the diesel and heavy oil ranges in addition to some TAL detections. No SVOCs were detected in either sample. The TPH results for the water sample exceeded the WDOE Model Toxics Control Act (MTCA) ground water cleanup level of 1 milligram per liter (mg/L). The TPH concentration for the sludge collected from the containment area exceeded the MTCA industrial soil cleanup level. These MTCA values are included for reference. The containment area floor was covered with water to a depth of two inches, therefore it is likely that the floor is impermeable and contaminants are not likely to migrate to the soil or ground water.

Analytical results of the surface soil sample collected from near the containment area indicate petroleum hydrocarbon contamination in the heavy oil range in addition to some TAL detections. The MTCA industrial soil TPH cleanup value was exceeded in this sample. This localized stained area was near the base of a large vertical storage tank. SVOCs were not detected in this sample, although the quantitation limits were elevated due to chemical interferences.

Analytical results of the sandblast grit/soil sample collected from the containment area indicate petroleum hydrocarbon contamination in the heavy oil range, Polynuclear Aromatic Hydrocarbons (PAHs - a subset of SVOCs), in addition to some TAL detections. The MTCA industrial soil TPH cleanup value was exceeded in this sample.

Analytical results of samples collected from the rosin dump areas indicate no significant SVOC detections (elevated detection limits for the solid sample) and some TAL detections. The results

of the liquid sample indicated that there is little, if any, significant contaminant migration from the rosin to the soil.

Analytical results of the soil sample collected from the stained area near the railroad tracks containment area indicate no SVOC detections above the sample quantitation limit.

Analytical results of samples collected from near the former laboratory trailers indicate petroleum hydrocarbon contamination in the diesel range, PAH contamination, and some TAL detections. The soil sample collected from the south end of laboratory #2 (a former drum storage location) had a TPH result exceeding the MTCA industrial soil cleanup level. The liquid sample collected from the bucket near Laboratory #2 contained PAHs at a concentration exceeding the WDOE MTCA ground water cleanup level; this value is included for reference only as the bucket was impermeable and contaminants are not likely to migrate from this area to the soil or ground water.

At the Treoil Industries site there are approximately 40 tanks exceeding 1,000 gallons in size that likely are empty or contain solidified material remaining from the operation of the facility, at least 44 55-gallon drums awaiting disposal, two trailers containing several hundred chemical containers, and areas throughout the site of discarded rosin, sandblast grit, and stained soil. Samples were collected at 10 locations during the removal assessment and were analyzed for various parameters. WDOE MTCA cleanup values were exceeded inside the containment area in water and solid samples for TPH, in a bucket located near laboratory #2 for PAHs, and in two stained soil and the sandblast grit surface soil sample locations for TPH. The MTCA cleanup values are generally for reference purposes only but give an indication of the contamination and potential future cleanup actions at the Site.

Your actions to complete cleanup at the Site should include the removal and disposal of the remaining drums and contents, the sludge and water inside the secondary containment area, and the sandblast grit and rosin material at various locations throughout the site. The chemical containers inside all buildings should be removed and disposed at a hazardous material facility or through the Industrial Materials Exchange Program when applicable. Excavation in the areas of other stained soils should occur until analytical results indicate contamination below the appropriate MTCA cleanup level. As noted above, during the removal assessment conducted by EPA, samples were not collected from the large tanks. Products remaining in the tanks should be sampled and disposed per applicable regulations. All disposal actions must meet applicable national, state, and local regulations.

Please provide documentation regarding the ongoing disposal activities to me at the following address.

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

If you have any questions, feel free to contact me at 206)553-6709 or, if your questions are of a legal nature, contact Lisa Castañon, Office of Regional Counsel at (206) 553-0464.

Thank you for your assistance in this matter.

Sincerely,



Jeffrey Rodin

On-Scene Coordinator

cc N. Peck WA-DOE

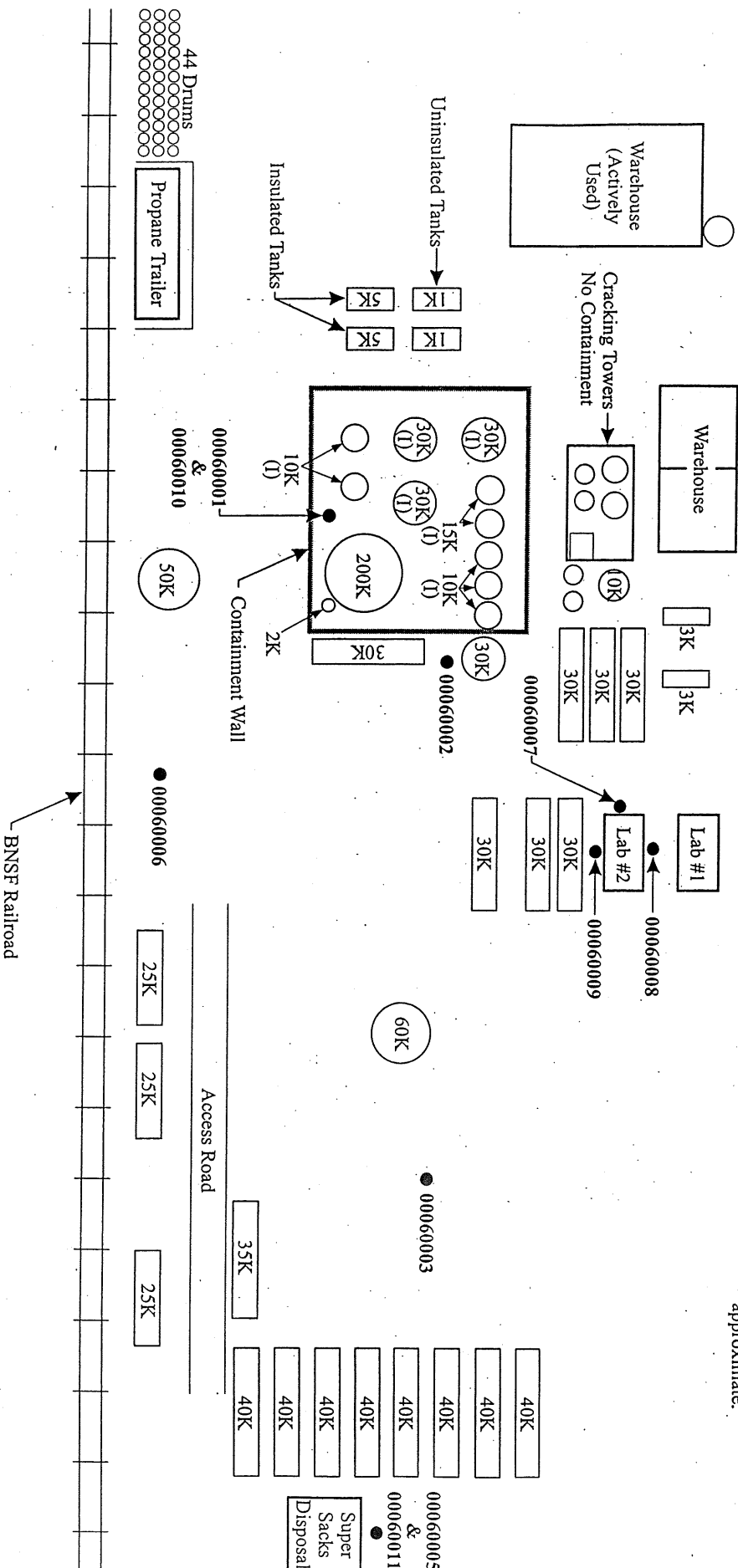
M. Miller, Whatcom Co. HD

Encl.



**KEY:**

- (1) Insulated Tank
  - Sample Location
  - 00060001 Sample Number
- Note: Sample Locations are approximate.



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International Specialists in the Environment  
Seattle, Washington

**TREBOIL INDUSTRIES**  
Ferndale, Washington

**Figure 2**  
**JUNE 2000 SITE AND SAMPLE LOCATION MAP**

Not to Scale

Drawn: AES	Date 9/6/00	Job No. EC0801R0T0	Dwg.No. EC0801:2	Pubs.No. S540
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Table 1

**SAMPLE COLLECTION INFORMATION  
TREOIL INDUSTRIES  
FERDALE, WASHINGTON**

Sample	Matrix	Location/Description	Analyses
00060001	Water	Containment area liquid	SVOCs, NWTPH-HCID, NWTPH-Dx
00060002	Soil	Stained soil near containment area	TAL metals, SVOCs, NWTPH-HCID, NWTPH-Dx
00060003	Solid	Black sandblast grit/soil	TAL metals, SVOCs, NWTPH-HCID, NWTPH-Dx
00060005	Rosin	Rosin, honey/peanut butter consistency	TAL metals, SVOCs
00060006	Soil	Staining near railroad tracks on east side of property	SVOCs
00060007	Soil	South end of Laboratory #2 - former drum area	TAL metals, SVOCs, NWTPH-HCID, NWTPH-Dx
00060008	Water	Laboratory #2 Drain Area	SVOCs
00060009	Liquid	Contents from 5-gallon bucket on east side of Laboratory #2	SVOCs
00060010	Solid	Containment area sludge, honey-like consistency	TAL metals, SVOCs, NWTPH-HCID, NWTPH-Dx
00060011	Liquid	Liquid from rosin bag area	SVOCs

Key:

- NWTPH-Dx = Northwest Total Petroleum Hydrocarbons-Extended Range Diesel.
- NWTPH-HCID = Northwest Total Petroleum Hydrocarbons-Hydrocarbon Identification.
- SVOCs = Semivolatile organic compounds.
- TAL = Target analyte list.

Table 2

SAMPLE RESULTS  
TREOIL INDUSTRIES  
FERNDAL, WASHINGTON

SAMPLE NUMBER	00060001	00060002	00060003	00060005	00060006	00060007	00060008	00060009	00060010	00060011
Units	µg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/L	µg/L	mg/kg	µg/L
<b>SVOCs</b>										
Anthracene	2 U	0.48 U	0.066	16 U	7.9 U	3.5 U	10 U	6 UJ	78 U	0.50 U
Benzo(a)anthracene	2 U	0.48 U	0.23	16 U	7.9 U	3.5 U	10 U	6 UJ	78 U	0.50 U
Benzo(a)pyrene	2 U	0.48 U	0.18	16 U	7.9 U	3.5 U	10 U	7.6 J	78 U	0.50 U
Benzo(b)fluoranthene	2 U	0.48 U	0.43	16 U	7.9 U	3.5 U	10 U	6 UJ	78 U	0.50 U
Benzo(g,h,i)perylene	2 U	0.48 U	0.12	16 U	7.9 U	3.5 U	10 U	6 UJ	78 U	0.50 U
Benzo(k)fluoranthene	2 U	0.48 U	0.31	16 U	7.9 U	3.5 U	10 U	6 UJ	78 U	0.50 U
Bis(2-Ethylhexyl)phthalate	10 U	2.4 U	0.34 U	79 U	39 U	1.9 U	50 U	30 UJ	390 U	4.9
Chrysene	2 U	0.48 U	0.51	16 U	7.9 U	3.9	10 U	6.1 J	78 U	0.50 U
Dibenz(a,h)anthracene	2 U	0.48 U	0.04 J	16 U	7.9 U	3.5 U	10 U	6 UJ	78 U	0.50 U
Fluoranthene	2 U	0.48 U	0.47	16 U	7.9 U	7.6	10 U	6 UJ	78 U	0.50 U
Indeno(1,2,3-cd)pyrene	2 U	0.48 U	0.12	16 U	7.9 U	3.5 U	10 U	6 UJ	78 U	0.50 U
Naphthalene	2 U	0.48 U	0.069 U	16 U	7.9 U	3.5 U	10 U	13	78 U	0.50 U
2-Methylnaphthalene	2 U	0.48 U	0.069 U	16 U	7.9 U	3.5 U	10 U	14	78 U	0.50 U
Phenanthrene	2 U	0.48 U	0.12	16 U	7.9 U	8.9	10 U	5.1 J	78 U	0.50 U
Pyrene	2 U	0.48 U	0.55	16 U	7.9 U	32	10 U	6 UJ	78 U	0.50 U
<b>Inorganics</b>										
Aluminum	NA	12,982	31,081	39.2	NA	6,936	NA	NA	6,059	NA
Barium	NA	84	316	6.9	NA	46.6	NA	NA	24	NA
Cadmium	NA	1.59	0.52 U	0.6 U	NA	0.68	NA	NA	0.62 U	NA
Calcium	NA	3,289	108,864	132	NA	3,000	NA	NA	21,804	NA
Chromium	NA	33.4	41	1	NA	31	NA	NA	3.5	NA
Cobalt	NA	8.4	24.4	3 U	NA	3.3 U	NA	NA	6.7	NA
Copper	NA	28.6	1,406	2.9	NA	28.6	NA	NA	284	NA
Iron	NA	20,046	94,597	529	NA	27,691	NA	NA	22,208	NA
Lead	NA	78	9.1	6 U	NA	476	NA	NA	13	NA
Magnesium	NA	3,166	18,206	30 U	NA	3,818	NA	NA	5,073	NA
Manganese	NA	604	2,314	2.2	NA	272	NA	NA	427	NA
Mercury	NA	0.36 U	0.26 U	0.3 U	NA	0.75	NA	NA	0.31 U	NA
Nickel	NA	27	40.2	1.2 U	NA	32.6	NA	NA	32	NA
Potassium	NA	614	2,961	180 U	NA	482	NA	NA	687	NA
Silver	NA	0.72 U	1.4	0.60 U	NA	0.66 U	NA	NA	0.62 U	NA
Sodium	NA	369	955	317	NA	299	NA	NA	510	NA
Vanadium	NA	34.4	74.7	3 U	NA	18.9	NA	NA	15.4	NA
Zinc	NA	171	97.4	1.2 U	NA	191	NA	NA	70.9	NA

Table 2 (CONTINUED)

SAMPLE RESULTS  
TREOIL INDUSTRIES  
FERNDAL, WASHINGTON

SAMPLE NUMBER	00060001	00060002	00060003	00060005	00060006	00060007	00060008	00060009	00060010	00060011
Units	µg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/L	µg/L	mg/kg	µg/L
<b>Petroleum Hydrocarbons</b>										
Gasoline Range	250 U	36 U	26 U	NA	NA	330 U	NA	NA	320 U	NA
Diesel Range	630	72 U	52 U	NA	NA	660	NA	NA	620 U	NA
Heavy Oil Range	630	145	100	NA	NA	1300 U	NA	NA	1,200	NA
Diesel Fuel #2	10,000	720 UJ	26 UJ	NA	NA	57,000 J	NA	NA	6200 UJ	NA
Heavy Oil	39,000	39,000 J	210 J	NA	NA	6600 UJ	NA	NA	63,000 J	NA

Note: Bold type indicates concentrations above sample quantitation limits or detection limits.

Key:

J = The analyte was positively identified. The associated numerical value is an estimate.

µg/L = Micrograms per liter.

NA = Not analyzed.

mg/kg = Milligrams per kilogram.

SVOCs = Semivolatile organic compounds.

U = Not detected.

UJ = The associated numerical value is an estimate of the quantitation limit of the analyte in this sample.