STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
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September 3, 2021

Bill McMurtry
Vice-President of Environmental Affairs, North America
Darling Ingredients
5601 North MacArthur Boulevard
Irving, TX 75038

Re: No Further Action at the following Site:

- **Site Name:** Puget Sound By-products
- **Site Address:** 2041 Marc Avenue, Tacoma, Washington
- **Facility/Site No.:** 25455514
- **VCP Project No.:** SW 1317

Dear Bill McMurtry:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Puget Sound By-products facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

NO. Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.

This opinion is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.

his opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Diesel and oil into the soil and groundwater

Enclosure A includes a detailed description and diagram of the Site, as currently known to Ecology.

Please note that the Lincoln Street Landfill facility (F/S 1240) also affects parcel(s) of real property associated with this Site.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. Subsurface Petroleum Hydrocarbon Evaluation – Puget Sound By Products Site – 2041 Marc Avenue – Tacoma, Washington by Rittenhouse-Zeman and Associates and dated September 27, 1989
2. Underground Storage Tank Closure Review – Darling, International, Inc. Facility – 2041 Marc Avenue – Tacoma, Washington by Whitman Environmental Sciences and dated April 17, 1998
3. Site Investigation Work Plan – Darling International, Inc. LUSTs Site – 2041 Marc Avenue – Tacoma, Washington by MFG and dated January 2, 2002
4. 2002 Year End Report; Darling International, Inc. USTs Site by MFG and dated April 2, 2003
5. 2003 - 2004 Monitoring Report; Darling International Inc. LUSTs Site by Maxim Technologies and dated July 28, 2004
6. Site Investigation Report – Darling – Tacoma Facility – 2041 Marc Avenue – Tacoma,

Washington by Tetratech and dated July 1, 2019

7. Cleanup Action Plan – Darling – Tacoma Facility by Tetratech and dated October 28, 2020

A number of these documents are accessible in electronic form from the Site webpage Site Information (wa.gov) [URL footnote #]. The complete records are stored in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. Visit our Public Records Request page [URL footnote #], to submit a public records request or get more information about the process. If you require assistance with this process, you may contact the Public Records Officer at publicrecordsofficer@ecy.wa.gov or 360-407-6040.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that no further remedial action is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A.**

Prior to September of 1989, three groundwater monitoring wells were installed on site to monitor wastewater lagoons (report not available).

In September of 1989, three additional groundwater wells were installed on site. One soil sample and one groundwater sample were collected from each of the new wells and analyzed for total petroleum hydrocarbons. Total petroleum hydrocarbons were detected in two of the three soil samples, with concentrations of 141 mg/Kg and 645 mg/Kg. Total petroleum hydrocarbons were not detected in any of the three groundwater samples.

From November of 1989 to January of 1993, thirteen rounds of groundwater sampling of the three new wells were conducted, with the samples being analyzed for total petroleum hydrocarbons. Total petroleum hydrocarbons were detected in nine of ten samples in

MW-4, at concentrations up to 20 ppm. Total petroleum hydrocarbons were detected in eleven of thirteen samples in MW-5, with concentrations up to 44 ppm. Total petroleum hydrocarbons were detected in all thirteen samples in MW-6, with concentrations up to 43 ppm.

In 1997, all site groundwater wells were permanently abandoned.

In February of 2002, four groundwater wells were installed at the site. Five soil samples were collected, two from each of two wells and one from a third well, and analyzed for diesel, oil, mineral oil, benzene, ethylbenzene, toluene, xylene, naphthalenes, and carcinogenic polycyclic aromatic hydrocarbons. Diesel was detected in three soil samples, and oil and mineral oil in four soil samples, with all concentrations below the MTCA Method A standard except for one oil detection in one soil sample. Benzene, ethylbenzene, toluene, and xylene were not detected in any of the five soil samples. Naphthalene, 1-methylnaphalene, and 2-methylnaphthalene were all detected in two of five soil samples, with all concentrations below the MTCA Method A standard. All seven carcinogenic polycyclic aromatic hydrocarbons were detected in one soil sample, with six of seven carcinogenic polycyclic aromatic hydrocarbons detected in a second soil sample and one (benzo(b)fluoranthene) detected in a third soil sample. All concentrations exceeded the MTCA Method A (Industrial) standard except for the sample with the single detection of benzo(b)fluoranthene). No carcinogenic polycyclic aromatic hydrocarbons were detected in the other two soil samples.

In February, June, September, and December of 2002, groundwater samples were collected from each of the four wells and analyzed for the same analytes. Diesel, oil, and mineral oil were all detected in each of the four groundwater samples in all rounds, with all concentrations exceeding the MTCA Method A standard, with the exception that oil was not detected in one well in one round. Benzene, ethylbenzene, toluene, and xylene were not detected in three wells in any sampling round, with the exception of one detection of toluene and xylene in one well in one round, with both concentrations below the MTCA Method A standards. The fourth well – MFG 4 – benzene was detected in all four rounds, toluene in three rounds, and xylene in one round, with all concentrations below their respective MTCA Method A standards. Ethylbenzene was not detected in any sampling round. The seven carcinogenic polycyclic aromatic hydrocarbons were not detected in any round in three wells, except for benzo(a)anthracene and

benzo(k)fluoranthene in one well in the September round (whose total concentration exceeded the MTCA standard) and benzo(a)anthracene in a second well, also in the September round, whose concentration equaled the MTCA standard. In the fourth well – MFG 3 – the seven carcinogenic polycyclic aromatic hydrocarbons were not detected in the February, June, and December sampling rounds but six of the seven were detected in the September sampling round, with a total concentration exceeding the MTCA standard. Small concentrations of 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene were detected in most wells in most sampling rounds, with all total naphthalene concentrations below the MTCA standard.

In September and December of 2003, groundwater samples were collected from each of the four monitoring wells and analyzed for the same analytes. Diesel and mineral oil were detected in all wells in both sampling rounds. Oil was detected in two wells in both sampling rounds, in a third well in one sampling round, and not detected in the fourth well in either sampling round. All detected concentrations of diesel, oil, and mineral oil exceeded their respective MTCA Method A standards. When analyzed with a silica gel cleanup, diesel, oil, and mineral oil were not detected in any sample in either round of sampling. Benzene, ethylbenzene, toluene, xylene, and the seven carcinogenic polycyclic aromatic hydrocarbons were not detected in any sample in either round of sampling. Small concentrations of 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene were detected in the same two wells, in both sampling rounds, with all total naphthalene concentrations below the MTCA standard. The other two wells had no detections of 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene in either round of sampling. In March and June of 2004, groundwater samples were collected from each of the four monitoring wells and analyzed for the same analytes. Diesel and mineral oil were detected in all wells in both sampling rounds. Oil was detected in all four wells in the March sampling well but was not detected in any well in the June sapling round. All detected concentrations of diesel, oil, and mineral oil exceeded their respective MTCA Method A standards. When analyzed with a silica gel cleanup, diesel, oil, and mineral oil were not detected in any sample in either round of sampling. Benzene, ethylbenzene, toluene, xylene, and the seven carcinogenic polycyclic aromatic hydrocarbons were not detected in any sample in either round of sampling. Small concentrations of 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene were detected in the same two wells, in the March sampling round, with all total naphthalene concentrations below the MTCA standard. In the June sampling round, only 2-methylnaphthalene was detected in

one of the two wells. The other two wells had no detections of 1-ethylnaphthalene, 2-methylnaphthalene, and naphthalene in either round of sampling.

In July of 2017, four additional soil borings were installed on site. One soil sample was collected from each boring and analyzed for diesel and oil, with and without a silica gel treatment. Diesel and oil were detected in all four soil samples, with concentrations of diesel and oil in one soil sample and oil in a second soil sample exceeding their respective MTCA Method A standards. When analyzed with a silica gel treatment, the same three samples continued to exceed their respective MTCA Method A standards. One groundwater sample was collected from each of two groundwater monitoring wells (MFG -1 and MFG-2) and analyzed diesel and oil. Diesel and oil were detected in both groundwater samples, with both diesel concentrations exceeding the MTCA Method A standard and both oil concentrations below the MTCA Method A standard. When analyzed with a silica gel treatment, all four concentrations were below their respective MTCA Method A standards.

In January of 2019, a groundwater sample was collected from each of two wells (MFG-1 and MFG-2) and analyzed for diesel and oil. Both diesel concentrations and one of two oil concentrations exceeded their respective MTCA Method A standards. Following an analysis with a silica gel treatment, there were no detections of oil in either sample and no detection of diesel in one sample. In the other sample, the concentration of diesel did not exceed the MTCA Method A standard.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

<u>Soil</u>

Diesel – 2,000 mg/Kg
Oil – 2,000 mg/Kg

Groundwater

Diesel – 500 µg/l
Oil – 500 µg/l

Points of Compliance

A standard horizontal point of compliance, the property boundary, was used for soil contamination.

A standard vertical point of compliance, fifteen feet for soils, was established in the soils throughout the site from the ground surface to fifteen feet below the ground surface. Fifteen feet is protective for direct contact with the contaminated soil.

A standard vertical point of compliance, from the uppermost level of the saturated zone to the lowest depth that could potentially be affected, was used for groundwater contamination.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA.

The method selected – excavation of the underground storage tanks and contaminated soil and transporting the tanks and soil off-site to a permitted facility – meets the minimum requirements for cleanup actions by providing a permanent solution, immediate restoration time frame, provides for confirmation monitoring, and protects human health and the environment.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site. This determination is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.

In May of 1989, two underground storage tanks, one diesel and one oil, were excavated and taken off site along with 170 tons of contaminated soil (see document (2)). Two soil samples and one groundwater grab sample were collected from the base of the excavation. The two soil samples were analyzed for total petroleum hydrocarbons while the groundwater sample was analyzed for total petroleum hydrocarbons, benzene, ethylbenzene, toluene, and xylene. Total petroleum hydrocarbons were detected in both soil samples, with both concentrations exceeding the then State standard. Benzene and toluene were not detected in the grab groundwater sample. Total petroleum hydrocarbons, ethylbenzene, and xylene were detected in the groundwater sample, with at least the concentration of total petroleum hydrocarbons exceeding the then State standard. After a delay of several months, the excavation was backfilled with clean soil.

Post-Cleanup Controls and Monitoring

Post-cleanup controls and monitoring are remedial actions performed after the cleanup to maintain compliance with cleanup standards. This opinion is dependent on the continued performance and effectiveness of the following:

1. Operation and maintenance of engineered controls.

Engineered controls prevent or limit movement of, or exposure to, hazardous substances. The following engineered control is necessary at the Site:

- Inspection and maintenance of asphalt/concrete cap

Ecology has approved the operation and maintenance plan you submitted for this engineered control. A copy of the plan is included in the following document and in Enclosure B - Cleanup Action Plan – Darling – Tacoma Facility by Tetratech and dated October 28, 2020.

3. Performance of confirmational monitoring.

Confirmational monitoring is necessary at the Site to confirm the long-term effectiveness of the cleanup. The monitoring data will be used by Ecology during periodic reviews of

post-cleanup conditions. Ecology has approved the monitoring plan you submitted. A copy of the plan is included in the following document and in Enclosure B - Cleanup Action Plan – Darling – Tacoma Facility by Tetratech and dated October 28, 2020.

4. You have also agreed voluntarily to the following conditions:

- To inspect at least annually and maintain the asphalt and concrete areas elsewhere on the property
- To notify any contractor performing excavation(s) on the property of the presence of landfill materials beneath the property if the depth of excavation is likely to disturb the landfill materials
- To notify Ecology if a proposed excavation is likely to disturb the landfill materials beneath the property

Periodic Review of Post-Cleanup Conditions

Ecology will conduct periodic reviews of post-cleanup conditions at the Site to ensure that they remain protective of human health and the environment. If Ecology determines, based on a periodic review, that further remedial action is necessary at the Site, then Ecology will withdraw this opinion.

Listing of the Site

Based on this opinion, Ecology will remove the Site from our Confirmed and Suspected Contaminated Sites List.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.180.

Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (SW 1317).

For more information about the VCP and the cleanup process, please visit our VCP webpage [1]. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at 360 – 407 - 7223 or e-mail at cmau461@ecy.wa.gov.

Sincerely,

Christopher Maurer

Christopher Maurer, P.E.
HQ - Toxics Cleanup Program

Enclosures (2): A – Site Description and Diagrams
B – Operation and Maintenance Plan for Engineered Controls and Confirmational Monitoring Plan

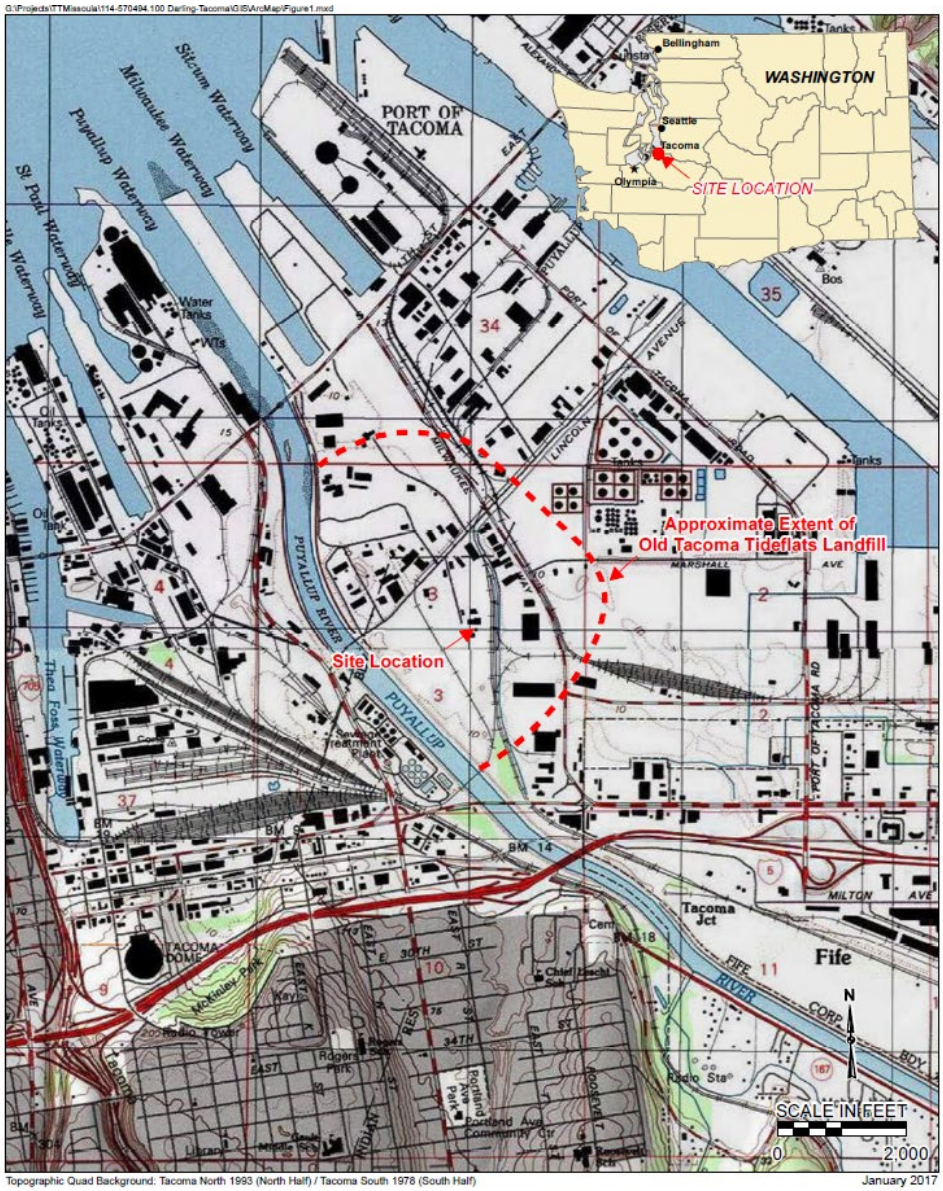
cc Natalie Morrow, Tetratech
Tra Thai, Ecology

[1] http://www.ecy.wa.gov/vcp

Enclosure A

Site Description and Diagrams

Section 03 Township 20 Range 03 Quarter 13 COM AT INTER OF LINCOLN AVE & MILWAUKEE AVE TH S 42 DEG 44 MIN 46 SEC W ALG C/L OF LINCOLN AVE 846.86 FT TH S 32 DEG 23 MIN 36 SEC E 62.07 FT TO SELY LI LINCOLN AVE TH S 42 DEG 44 MIN 46 SEC W ALG SD LI 121.97 FT TO POB TH S 12 DEG 55 MIN 49 SEC E 1021.42 FT TH E 353.16 FT TO A LI WHICH IS 167 FT W OF & PAR TO E LI OF SW OF NE TH S ALG SD E LI 268.55 FT M/L TO S LI OF SD SUBD TH W ALG S L 695 FT M/L TO ELY R/W LI OF N P R R TH NWLY ALG SD ELY LI TO A PT WHICH IS S 28 DEG 52 MIN 24 SEC E 490 FT FROM SELY LI OF LINCOLN AVE TH S 89 DEG 43 MIN 24 SEC E 440 FT TH N 12 DEG 55 MIN 49 SEC W 966.43 FT TO SLY LI LINCOLN AVE TH N 42 DEG 44 MIN 46 SEC E 72.62 FT TO POB EXC FOLL DESC PROP COM AT INTER OF LINCOLN AVE & MARC AVE TH N 44 DEG 08 MIN 57 SEC E 99.36 FT TH S 45 DEG 51 MIN 03 SEC E 60 FT TH S 11 DEG 33 MIN 56 SEC E 37.52 FT TO POB TH N 44 DEG 08 MIN 57 SEC E 72.55 FT TH S 11 DEG 31 MIN 38 SEC E 293.79 FT TO BEG OF NON-TANG C TO R HAVING RAD OF 87 FT WHOSE CENTER BEARS N 15 DEG 37 MIN 38 SEC E TH NWLY ALG ARC OF SD CURVE 65.74 FT THRU CENTRAL ANGLE OF 43 DEG 17 MIN 35 SEC TH N 31 DEG 04 MIN 46 SEC W 52.40 FT TH N 11 DEG 33 MIN 56 SEC W 155.21 FT TO POB EXC THAT POR CYD TO CY OF TAC PER ETN 4246456 DC00178036 03/16/2011MC OUT OF 1-019 SEG 2010-0085 JU 8/31/09JU



Topographic Quad Background: Tacoma North 1993 (North Half) / Tacoma South 1978 (South Half)

January 2017

Figure 1
Location Map
Darling-Tacoma
2041 Marc Avenue, Tacoma, WA

114-570494
4/5/2019

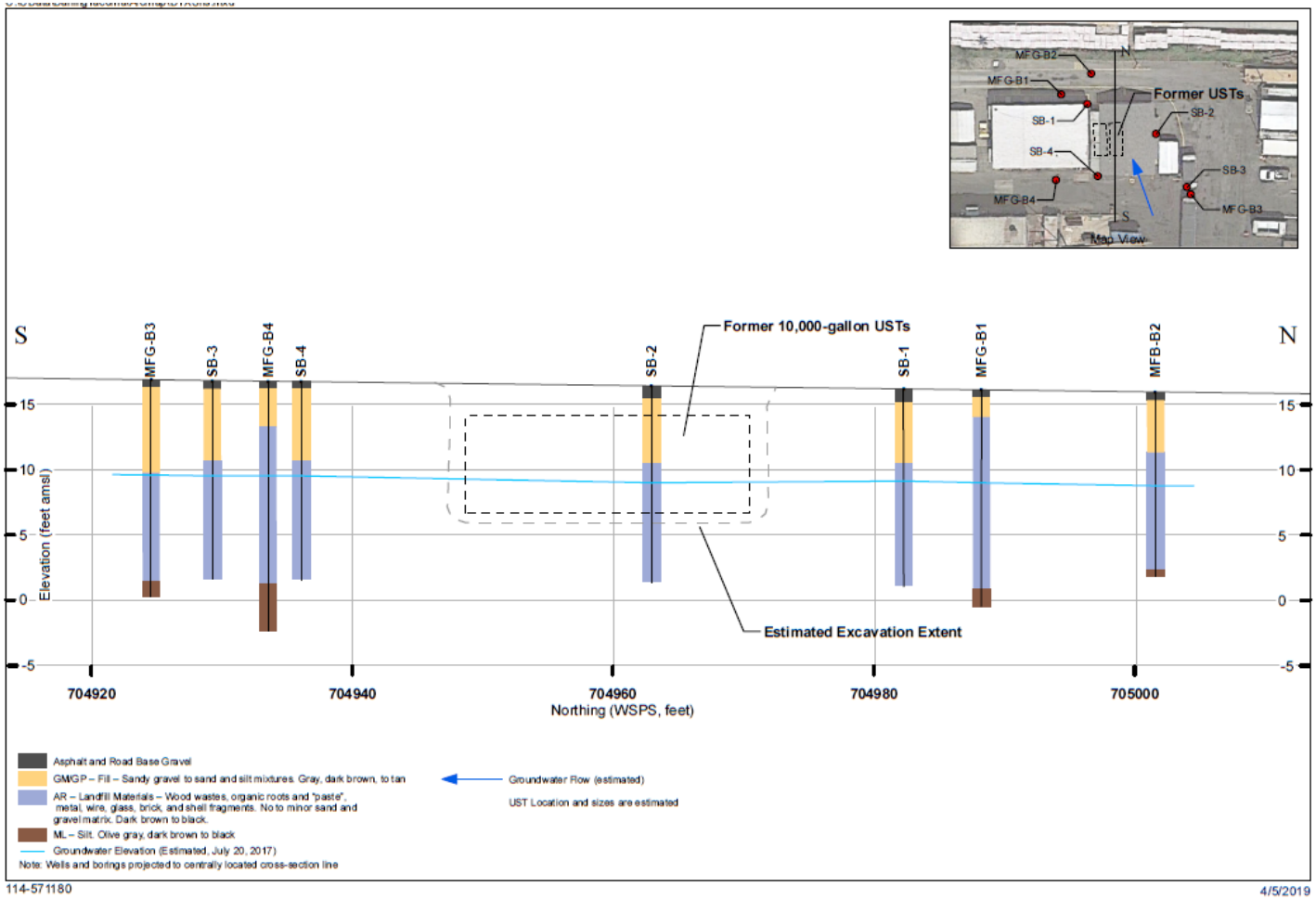
Groundwater Flow (estimated)
Groundwater Monitoring Well
Soil Boring Location
8.99 (10.54) 2017 (2019) Water Table Elevation (feet amsl)
Fence
Former USTs

Figure 2
Site Map
Darling-Tacome
2041 Marc Avenue
Tacoma, Washington

114-570494
4/5/2019

Groundwater Flow (estimated)
Groundwater Monitoring Well
Soil Boring Location
Bold - Exceeds MTCA A Cleanup Level
SGT - Silica Gel Treatment
Fence
Former USTs

Figure 3
Sampling Results
Darling-Tacome
2041 Marc Avenue
Tacoma, Washington

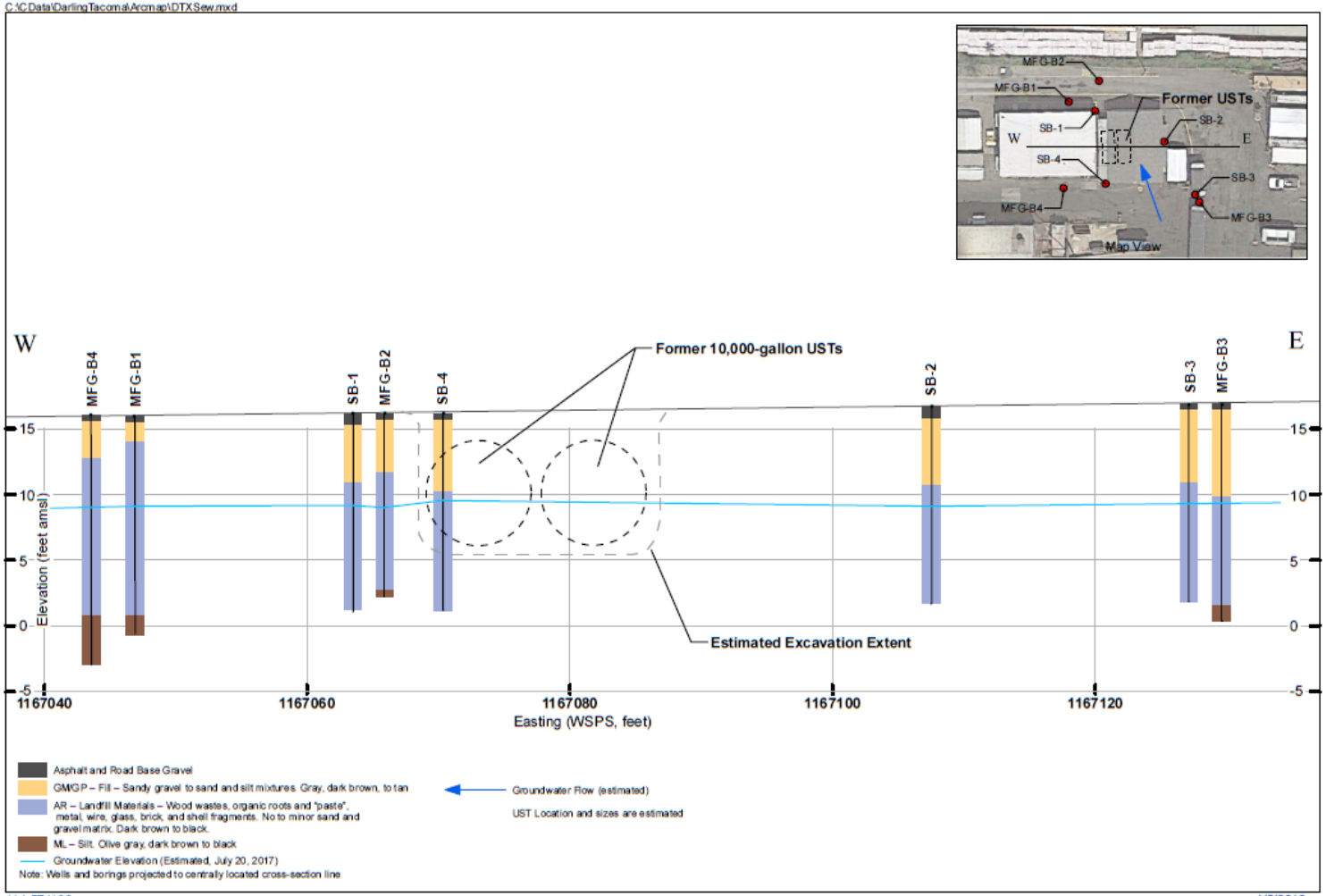


114-571180

4/5/2019

Figure 3
North to South Cross-Section
Darling-Tacoma
2041 Marc Avenue, Tacoma, WA

C:\C:Data\DarlingTacoma\Arcmap\DTXSew.mxd



114-571180

4/5/2019

Figure 4
East to West Cross-Section
Darling-Tacoma
2041 Marc Avenue, Tacoma, WA

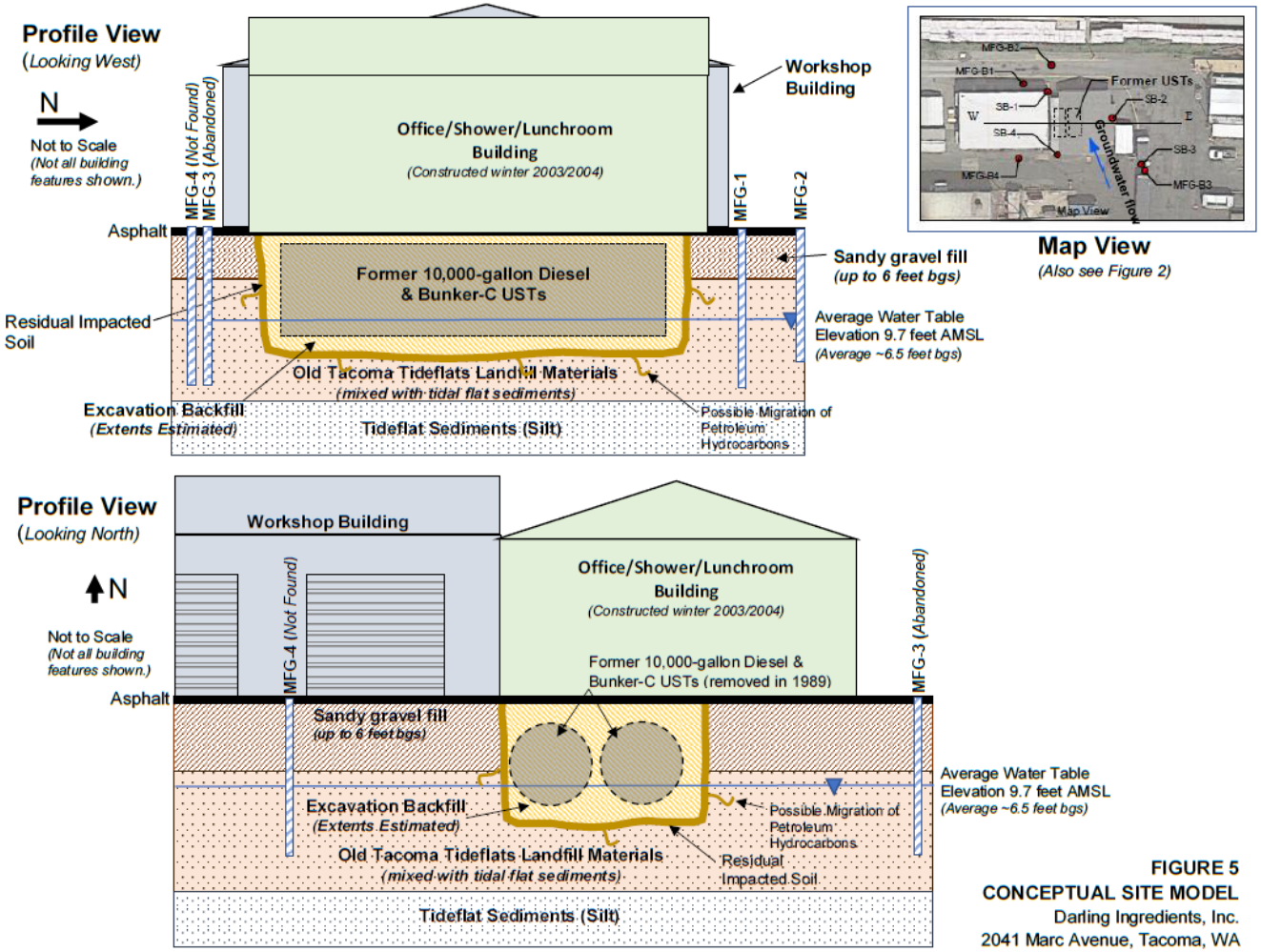
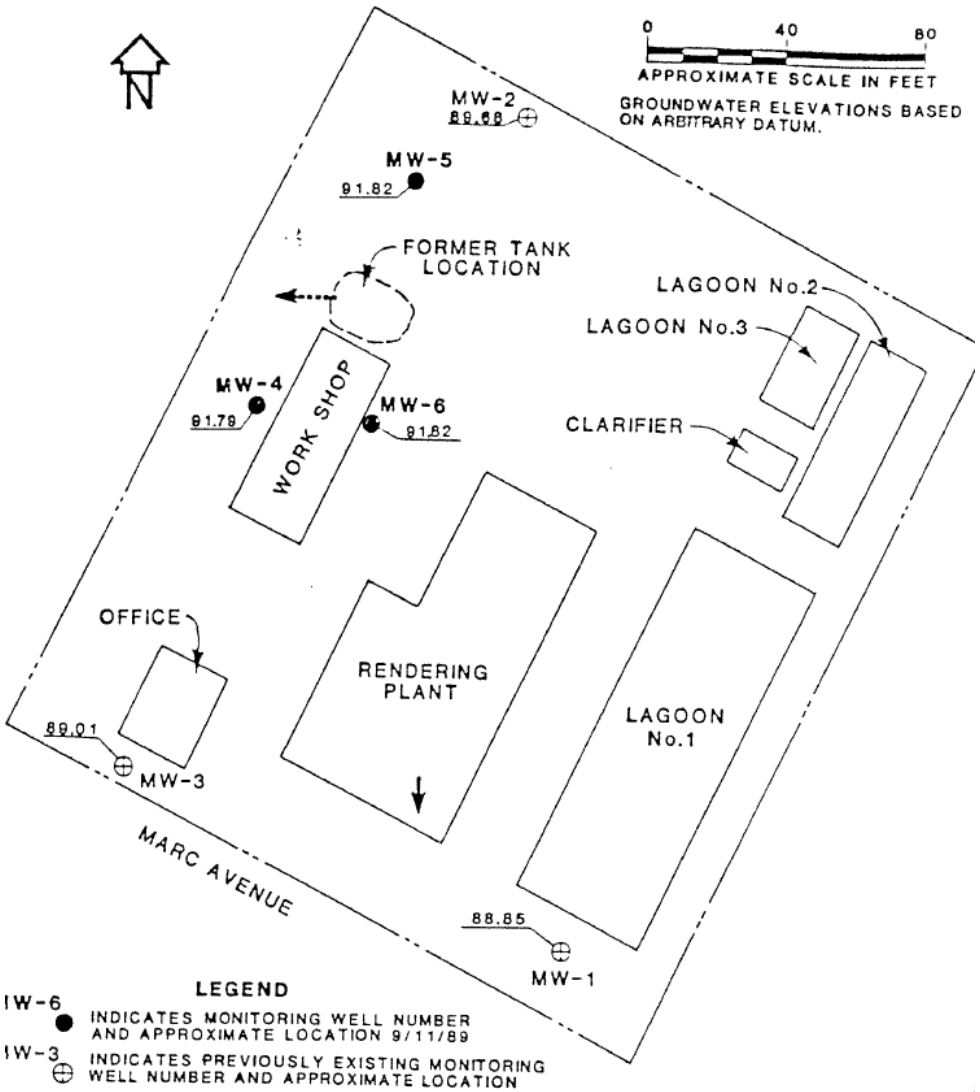


FIGURE 5
CONCEPTUAL SITE MODEL
Darling Ingredients, Inc.
2041 Marc Avenue, Tacoma, WA



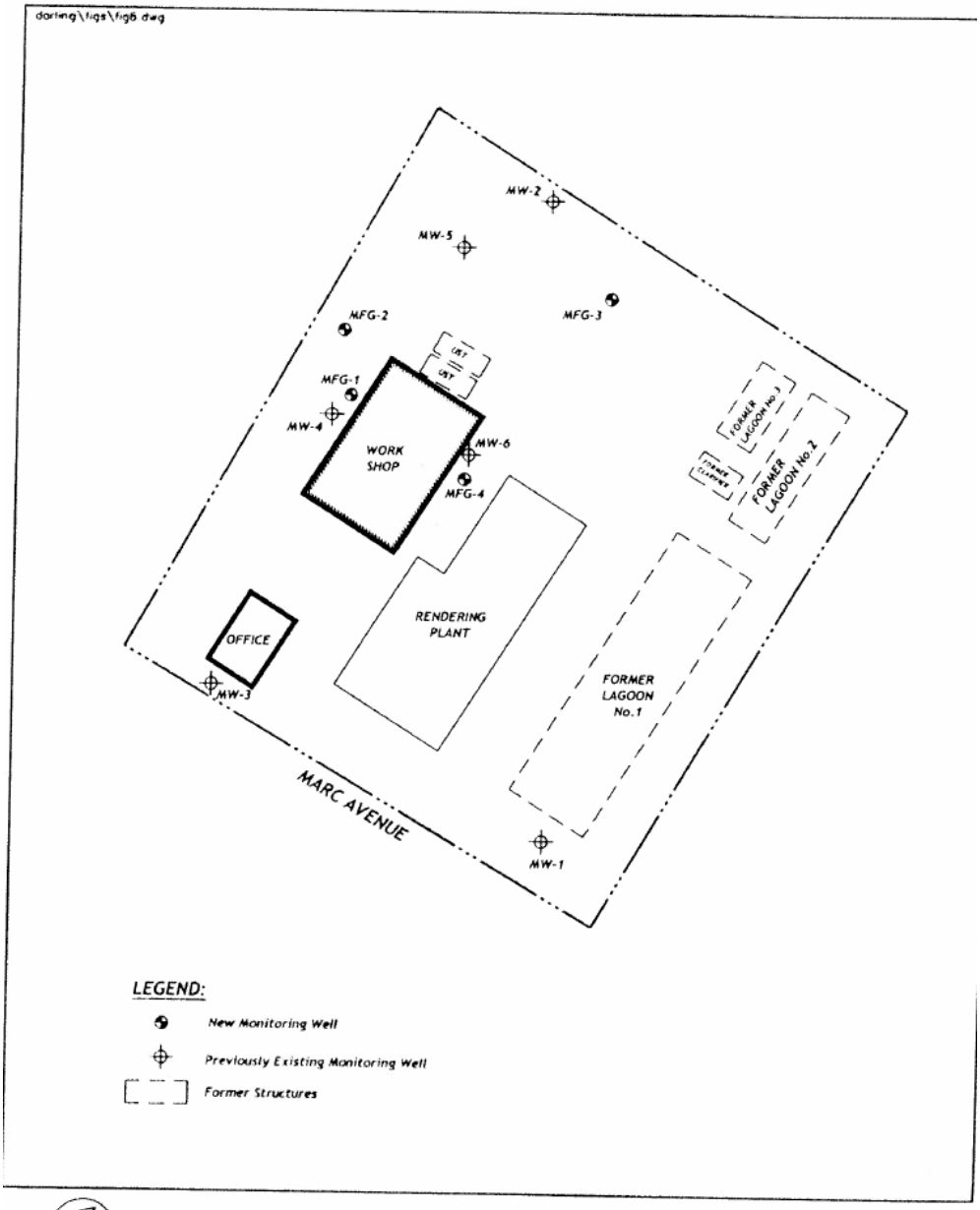
PUGET SOUND BY-PRODUCTS

SITE & EXPLORATION PLAN

FIGURE 1

W O W-6364
BY SME
DATE SEP 1989
SCALE NOTED

RITTENHOUSE-ZEMAN & ASSOCIATES, INC.
Geotechnical & Hydrogeological Consultants
1400 140th Avenue N.E.
Bellevue, WA 98005
RZA

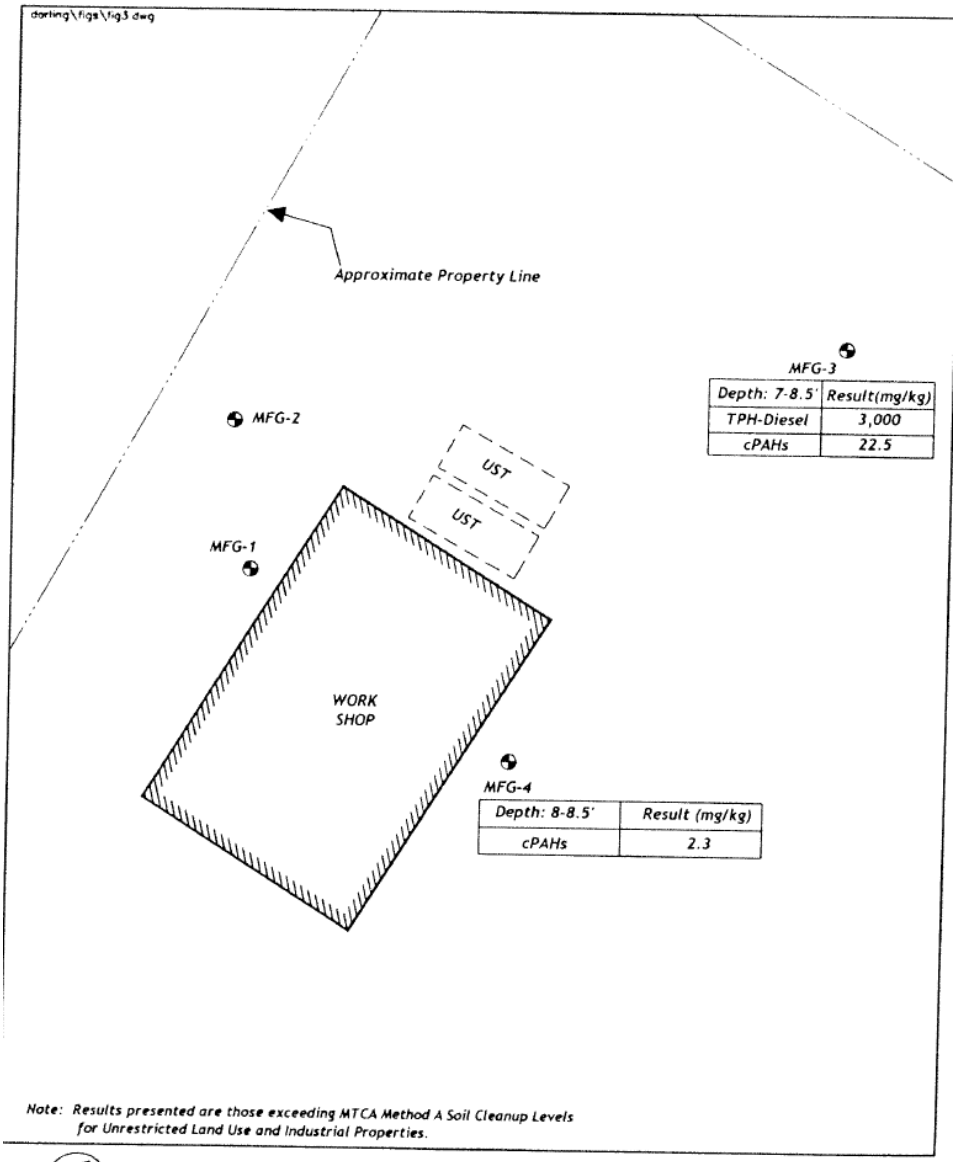


0 Feet 50

MAXIM 4570484

July 2004

Site Map
Darling International, Inc. LUST Site
2041 Marc Avenue
Tacoma, Washington
FIGURE 2



Note: Results presented are those exceeding MTCA Method A Soil Cleanup Levels for Unrestricted Land Use and Industrial Properties.

0 Feet 20

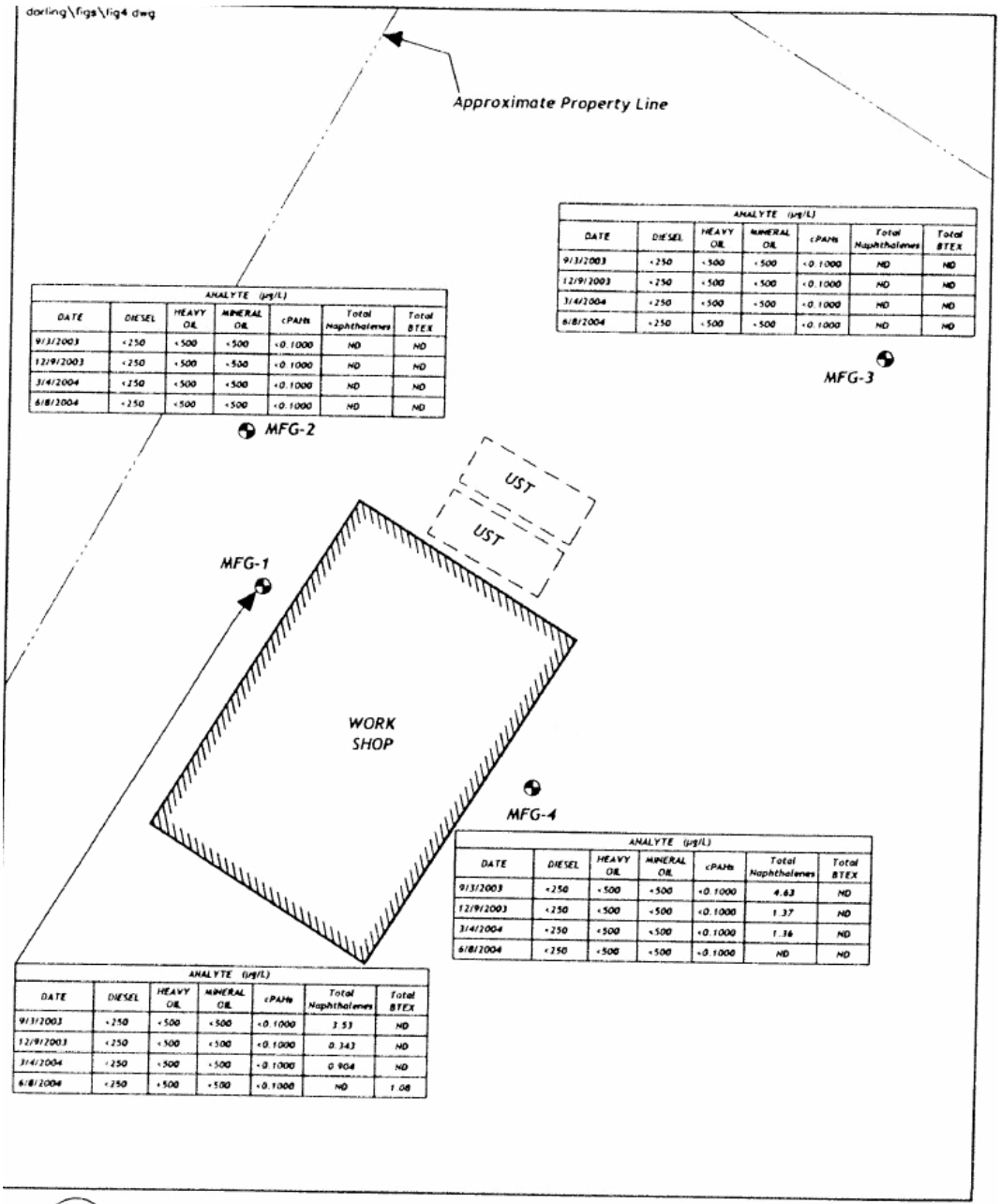
MAXIM TECHNOLOGIES INC. 4570484

Monitoring Well

Former Structures

July 2004

February 2002 Subsurface Soil Analytical Results
Darling International, Inc. LUST Site
2041 Marc Avenue
Tacoma, Washington
FIGURE 3



ANALYTE (µg/L)

DATE	DIESEL	HEAVY OIL	MINERAL OIL	cPAHs	Total Naphthalenes	Total BTEX
9/3/2003	<250	<500	<500	<0.1000	ND	ND
12/9/2003	<250	<500	<500	<0.1000	ND	ND
3/4/2004	<250	<500	<500	<0.1000	ND	ND
6/8/2004	<250	<500	<500	<0.1000	ND	ND

ANALYTE (µg/L)

DATE	DIESEL	HEAVY OIL	MINERAL OIL	cPAHs	Total Naphthalenes	Total BTEX
9/3/2003	<250	<500	<500	<0.1000	ND	ND
12/9/2003	<250	<500	<500	<0.1000	ND	ND
3/4/2004	<250	<500	<500	<0.1000	ND	ND
6/8/2004	<250	<500	<500	<0.1000	ND	ND

ANALYTE (µg/L)

DATE	DIESEL	HEAVY OIL	MINERAL OIL	cPAHs	Total Naphthalenes	Total BTEX
9/3/2003	<250	<500	<500	<0.1000	4.63	ND
12/9/2003	<250	<500	<500	<0.1000	1.37	ND
3/4/2004	<250	<500	<500	<0.1000	1.36	ND
6/8/2004	<250	<500	<500	<0.1000	ND	ND

ANALYTE (µg/L)

DATE	DIESEL	HEAVY OIL	MINERAL OIL	cPAHs	Total Naphthalenes	Total BTEX
9/3/2003	<250	<500	<500	<0.1000	3.53	ND
12/9/2003	<250	<500	<500	<0.1000	0.343	ND
3/4/2004	<250	<500	<500	<0.1000	0.904	ND
6/8/2004	<250	<500	<500	<0.1000	ND	1.08

0 Feet 20

Monitoring Well

Former Structures

ND No individual constituents detected at or above laboratory PQL

< Constituent was not detected at or above laboratory PQL

MAXIM CONSULTING INC. 4570484

July 2004

2003-2004 Groundwater Analytical Results Summary
Darling International, Inc. LUST Site
2041 Marc Avenue
Tacoma, Washington
FIGURE 4

Enclosure B

Operation and Maintenance Plan for Engineered Controls and Groundwater Confirmational Monitoring Plan

3.0 CAP REQUIREMENTS

3.1 GROUNDWATER MONITORING

Two remaining wells (MFG-1 and MFG-2) exist at the Facility on the northern side of the work shop (MFG-1) and at the property boundary (MFG-2) in downgradient locations from the former UST basin. Groundwater monitoring will require that these wells be properly maintained and not paved over or destroyed during maintenance of the asphalt paving. Repairs to the wells will be required if wells become damaged, or replacement wells will be installed and the old wells abandoned should wells be destroyed or compromised.

Groundwater monitoring will occur at a frequency of once every 3 years during the period between January and March of the monitoring year; the period when hydrocarbons historically were typically at their highest concentration (**Table 4**). Based on the 3 year schedule, the next groundwater monitoring event would be conducted January-March of 2022, based on the most recent monitoring event conducted in January 2019.

DII will conduct the groundwater sampling for the purpose of evaluating site conditions for changes in petroleum hydrocarbon concentrations. The need for continuation of the monitoring program on a 3-year basis will be re-evaluated with DII, Ecology, and the Port after each monitoring period based on: 1) groundwater concentrations; 2) status of structures over the former UST basin in anticipation of petroleum-impacted soil removal; and 3) status of DII's property lease with the Port.

Groundwater monitoring will include recording water levels and sampling of the two remaining wells, MFG-1 and MFG-2, which are downgradient of the former UST basin and at and near the northern property line (**Figure 2**). The wells will be sampled using low-flow purging and sampling methods (e.g., peristaltic or bladder pump) using designated, disposable tubing and bladders, as applicable. Field personnel will purge wells at a consistent rate between 0.1 and 0.5 liters per minute such that drawdown is less than 0.3 feet. Purge water will be monitored using a multi-parameter meter with flow-through cell. Purging will continue until field parameters, recorded at approximately 5-minute increments, stabilize for three consecutive readings based on the following schedule, or until a minimum of 3 well volumes have been purged if parameters fail to stabilize:

- pH: ±0.1 pH units
- Specific conductance: ±3%
- Oxidation-Reduction Potential: ±10 millivolts
- Temperature: ±3%
- Dissolved oxygen: ±10% if >0.5 mg/L or stable if three values less than 0.5 mg/L
- Turbidity: <5 NTUs or ±10% when turbidity is 5 NTUs or greater

Once field parameters stabilize, field personnel will collect groundwater samples in laboratory-provided sample containers. The selected laboratory will analyze the samples for diesel-range petroleum hydrocarbons by method NWTPH-Dx, with SGT and without SGT. Field personnel will preserve the samples in coolers containing doubled re-sealable bags with ice and handle the samples under standard chain-of-custody procedures.

3.2 LONG-TERM FACILITY MAINTENANCE

Subsurface soil impacted by residual petroleum hydrocarbons resides at depths of 6.5 to 7 feet below grade, which is within the water table fluctuation zone. The existing asphaltic concrete driving surface provides a cap over the subsurface soil that may be impacted by petroleum hydrocarbons in and adjacent to the former UST basin area. The asphalt-paved areas are a critical component of the Facility due to truck traffic for deliveries. DII performs regular maintenance of the asphalt, which includes re-sealing the surface and, when needed, applying additional layers of asphalt. The lunchroom structure also serves as a cap over a portion of the former UST basin.

Long-term facility maintenance of these features is a CAP requirement to limit precipitation infiltration into the subsurface in the former UST basin area to limit migration of remaining contaminants. Secondarily, the asphalt surface and structure acts as a barrier to potential inadvertent construction worker exposure to impacted subsurface soil. The only known subsurface utility (a drainpipe) near the former UST basin is in the corridor between the workshop and rendering plant buildings. This is the only area known where construction workers would have the potential to contact subsurface soil in the former UST basin area should the drainpipe require repair.

3.3 SUBSURFACE SOIL INVESTIGATION & DISPOSAL OF IMPACTED SOIL

DII's current lease on the property extends to September 30, 2028. At the time of this CAP, DII anticipates that near the end of the lease with the Port, that the lease will be extended and DII will continue operating at the 2041 Marc Avenue location for the foreseeable future. DII understands that, together, the CAP and an NFA Likely designation by Ecology constitutes an agreement that further investigation of subsurface soil and, potentially, a soil removal action will be required in the case that subsurface soil in the former UST basin area exhibits petroleum hydrocarbons impacts above the established Ecology cleanup Levels at the time of the investigation.

Implementation of a subsurface soil investigation, and potentially soil removal, will be triggered by one or both of the following:

1. Removal of the lunchroom structure and asphalt driving surface; and/or
2. Discontinuation of the lease with the Port and DII vacating the facility.

Site-specific investigation and cleanup work plans will be developed at the time that one or both of the above criteria are met. The work plan will provide for the lateral and vertical characterization of subsurface soil impacts such that cleanup will be effective to address the residual petroleum hydrocarbons associated with the former UST basin. The work plan(s) will specify the analytical parameters required and the soil screening/cleanup levels by which those parameters will be compared to evaluate which areas require soil removal. Soil removed during the effort will be properly characterized for disposal and disposed at an approved disposal facility.