

***PLEASE DO NOT ADD ANY
NEW INFORMATION TO
THIS FOLDER***

***PLEASE GO TO THE NEXT
FOLDER***

03-93-0008

Flying J. Milwa

4/23/03

- clay & clayey silt to 15 ft bgs. ; GW 2-9 ft bgs.
- in Jan. 1993, a release from a Petroleum product line discovered during installation of an onsite storage & Vapor recovery system.
- May 1993, a Phase I environmental assessment was completed by Delta Envr. Consultant.
- Geo-Tech exploration completed a Phase II preliminary site assessment - 5 soil borings B1 → B5. Free product was observed in Boring B-1 and B-5.
- In June 1993, Additional 6 borings were drilled & completed as MW1 → MW6. GW entered @ 7 ft bgs.
- Find Benzene ND in MW-6 to a Max. 23,000 ppm in oil sample from boring MW-2
- July 1994, ~ 1 inch of free product was observed in onsite well MW-3. Free Product from MW-3 was removed on a weekly basis from July → Oct. 1994; biweekly Nov. 1994 → Jan. 1995.
- Nov. & Dec. 1994, 5-1,500 gal. Jimmy Cube Motor oil USTs were decommissioned

(2)

- Jan. 1995, onsite wells MW-7, MW-8 & MW-9 were installed.
- Feb. 1995, MW-3 was damaged & subsequently decommissioned.
- June 1995, free product was observed & removed from MW-7 (in vicinity of MW-3). No free product was reported in any onsite monitoring wells after Sept. 1995.
- Sept. 1995 onsite MW-10 was installed.
- August 1996, onsite well MW-11 installed downstream NW of the Jiffy Lube & west of Ed's Muffler & Brakes.
- Onsite wells MW-12 & MW-13 installed in August/September 1996.
- During remedial activities in Sept. 1999 apparent abandoned product lines were encountered between the onsite UST Cavity & MW-2.
- October 1999 1-8500 gal diesel 10000
3-12,000 gal gasoline 10000
were excavated & transported to Northwest Truck Parts Recycling by Pacific Northern Environment — for North central portion of site.
- in Oct. 1999, a temporary steel sheet pile retaining wall was installed 52 inches from the southern edge of the building to a depth of 30 ft below

(3)

→ ~ 5000 Tons of PCS → TPS Technologies for Thermal treatment.

→ A w further excavation was → holding tank
→ excavated & discharged to storm drain
under a NPDES permit. — 200,000 gal
discharged.

→ At western extent of the excavation
nearly 230 tons of soil & 10 tank times
approx Unreported "dump" area. was
excavated & disposed.

→ from late 1995 to Sept. 1999 a ground
water pump & treatment system operated

→ Nov. 1999, onsite wells MW-14 &
MW-15 were installed.

→ Late 1999 & early 2000, new wells
& system were installed.

BBDM

→ Commercial-Industrial land use area.

→ No Completed Pathways Identified

→ Benzene was detected @ 1.2 ug/L in
MW-15 to a max. of 490 ppb in MW-1

→ MTBE detected in MW-1 → 160 ppb

MW-5 → 71 ppb

MW-11 → 1.2 pph

MW-15 → 3.4 pph.

Naphthalene in MW-1 @ 36 ppb.

(4)

- The nearest building to benzene - impacted soil exceeding "Vapor intrusion" RBC is located greater than 10 ft. laterally.
- Benzene & MTBE in soil exceed "Leaching to GW" RBC.
- ~~One domestic well~~ Bent on Oregon (OWRD) well log file, one domestic well ~~and~~ ~ 60 ft ~~deep~~ deep is located ~ 0.2 mile Southwest of the site. The subject site & nearby properties is supplied by the City of Milwaukee & likely will be for the foreseeable future.
- Benzene & MTBE exceed the "Groundwater Ingestion" ~~RBC~~ & "Ingestion & Inhalation from Tapwater" RBC.
- Vinyl chloride in NW-11 exceed the EPA Regm III PRC Target Cleanup level of 0.019 ppb.

Recommendations

→ Completion of one boring in the NE corner of the subject site & one boring immediately North of the adjacent Muffler & Brakes Commercial structure. → Soil & GW sampling in close proximity of the site.

Prepared by
Dale M. M. Co.

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Janet Kayser DATE: 11/19/2002
WITH: ED'S MUFFLERS TIME: 1420
TELEPHONE NO: (503) 618-8686 / Fax 503 661 0637
REGARDING: Delco Investigation Proposal
FILE NO: 03 -93 -0008

SUMMARY OF CALL

Informed Janet that Proposal was submitted & that Delco did not propose to delineate into Ed's Muffler's Building & that DELCO was not going to pursue Access into Building. I told Janet that if possible I would like borings inside building. I sent her

proposal & Asked that she consider Allowing Access into buildings for boring installation or Angle Borings by Delco onto Ed's property. She will have a look & get back to me.

Janet requested that I remove Frank Patrick from the list of Contacts.

12/19/2002:

Ruth Hood
Staff Signature

FAX Cover Sheet



State of Oregon
Department of
Environmental
Quality

Northwest Region
Office

2020 SW 4th Avenue
Suite 400
Portland, OR 97201
503-229-5263

Return Fax:
(503) 229-6945

To: Janet Kayser

Office: _____

Phone: _____

Fax: 503 661 0637

Date: 19 Nov. 2002

From: Rob Hood

Office: _____

Phone: 503 229 5617

Number of Pages (including this cover sheet): 5

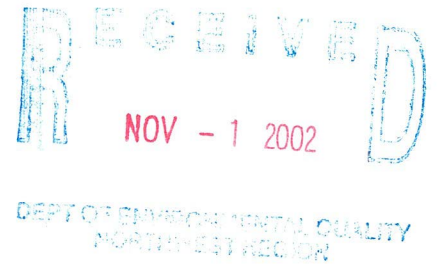
Comments:

Jan: Here is the Wahlers proposal for Boring locations to determine the extent of Contamination. Based on other maps in my file, most Remaining Contamination appears located near the Areas marked USB + MW-3 + MW-7, which is where I would prefer boring locations for ~~more~~ investigation on your property. Have a look & call me with Any Questions. IF you'd like to meet to get a better picture of the overall situation, let me know & we can Arrange it. Thanks, & we'll speak soon.

Rob Hood



31 October 2002



Mr. Robert A. Hood, Jr., UST Cleanup Specialist
Oregon Department of Environmental Quality,
Northwest Region Office
2020 S.W. Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

RE: Proposed Closure Site Assessment Activities at the Delco Petroleum Co. LLC Facility
Located at 17869 S.E. McLoughlin Boulevard in Milwaukie, Oregon
Wohlers Environmental Project No. 02-0139; Oregon DEQ LUST File No. 03-93-0008

Dear Mr. Hood:

This letter provides a response to your correspondence dated 29 August 2002 and 7 November 2001 regarding proposed closure site assessment activities at the Delco Petroleum Company LLC ("Delco") facility located at 17869 S.E. McLoughlin Boulevard in Milwaukie, Oregon ('subject site'). As communicated in e-mail messages, the Oregon Department of Environmental Quality (DEQ) approved an extension of the submittal date for a description of proposed additional site assessment activities from 30 September 2002 to 31 October 2002.

In correspondence dated 24 September 2001, Wohlers Environmental Services, Inc. ("Wohlers Environmental") proposed completion of two additional drivepoint borings at and/or adjacent to the subject site. The location of the proposed borings and proposed sampling/analytical protocols were based on a request for additional information by the former Oregon DEQ Underground Storage Tank (UST) Project Manager, Mr. Robert Williams*. Subsequently, in your correspondence dated 7 November 2001, you inquired regarding the feasibility of completing borings inside the adjacent "Ed's Muffler & Brakes" facility or completing angled borings on the northern boundary of the subject site, angled north and beneath the adjacent "Ed's Muffler & Brakes" building.

Based on discussions with the owner of the subject site property and business, Mr. Gurdev Singh Sohi, access to the interior of the "Ed's Muffler & Brakes" building will not be obtained from the owner of the adjacent property. In addition, based on the current use of the adjacent facility (e.g., brake repair, parts cleaning, etc.), cross-contamination during completion of investigation activities is a potential issue of concern associated with completion of borings inside the adjacent structure.

*Additional information requested by Mr. Williams was included in the September 2001 "Second Quarter '01 Groundwater Monitoring Report".

Mr. Robert A. Hood, Jr., UST Cleanup Specialist
Oregon DEQ, Northwest Region Office
31 October 2002
Page 2

Regarding completion of angled borings on the northern portion of the subject site adjacent to the southern side of the adjacent "Ed's Muffler & Brakes" facility, soil and groundwater data collected from such borings would be expected to be similar to soil and groundwater data collected from boring/well MW-7 formerly located at the northern edge of the subject site. Well MW-7 was abandoned/decommissioned in 1999 in association with decommissioning by removal of four USTs located adjacent to the southern side of the adjacent building.

Based on the above information, and in response to your November 2001 correspondence, Wohlers Environmental and Delco propose completion of four drivepoint borings at and adjacent to the subject site. The proposed four boring locations are illustrated on the enclosed Figure 1 ("Proposed Boring Location Map"). The two borings located at the northeastern corner of the subject site and north (and hydraulically downgradient of the former onsite UST cavity) of the adjacent building are in those locations proposed in Wohlers Environmental's September 2001 correspondence to the Oregon DEQ. The additional proposed borings would be located east and west of the adjacent "Ed's Muffler & Brakes" building, as requested in your November 2001 correspondence.

Completion of the proposed borings is contingent on obtaining access approval from the owner of the "Ed's Muffler & Brakes" property.

Each boring will be completed to approximately 15 feet below surface grade (bsg). As described in the September 2001 letter from Wohlers Environmental, groundwater samples will be collected at each boring location using a groundwater sampling screen inserted into the open drivepoint boring from approximately 12 feet to 15 feet bsg. Assuming sufficient groundwater can be recovered from the screened/open borings, groundwater samples will be collected following purging of several volume of groundwater accumulating in the open boring using a peristaltic pump. Subsequently, groundwater samples will be collected using either a peristaltic pump (i.e., for non-volatile sample analyses) or a ball check valve sampler (i.e., for volatile sample analyses). Samples will be placed in appropriate sample containers, stored at approximately four degrees centigrade, and transported to an analytical laboratory under Chain-of-Custody protocols.

Each of the four groundwater samples will be analyzed for Total Petroleum Hydrocarbon-Diesel extended (TPH-Dx) constituents. The groundwater sample collected from the boring located west of the adjacent building will be analyzed for the full suite of Volatile Organic Compound (VOC) constituents using EPA Method 8260, as requested in Mr. Williams' correspondence dated 20 June 2001 with the remaining three groundwater samples analyzed for Oregon DEQ Risk-Based Decision Making (RBDM) VOC constituents. Depending on results associated with these analyses, followup analyses may include Oregon DEQ RBDM Polynuclear Aromatic Hydrocarbon (PAH) and dissolved lead. All analyses will be completed on normal laboratory turnaround time (i.e., three to five working days).

Mr. Robert A. Hood, Jr., UST Cleanup Specialist
Oregon DEQ, Northwest Region Office
31 October 2002
Page 3

Results associated with completion of the proposed four drivepoint borings and groundwater sampling activities will be presented in a "Subsurface Investigation Report" and submitted to the Oregon DEQ. Assuming that results associated with the investigation continue to indicate an absence of apparent risk to human health and the environment associated with remaining petroleum-impacted soil and groundwater at and/or adjacent to the subject site, Wohlers Environmental and Delco anticipate requesting project file closure and NFA issuance for the subject site by the Oregon DEQ.

Please contact us if you have questions regarding the information included in this letter (e.g., proposed boring locations, sampling protocols and analyses, etc.) or other applicable issues. Once concurrence by the Oregon DEQ with the proposed boring locations and sampling plan has been received, we will proceed with obtaining offsite access and scheduling the proposed field activities.

Sincerely,

WOHLERS ENVIRONMENTAL SERVICES, INC.



Christopher C. Wohlers
President/Senior Consultant

Enclosure

cc: Mr. Gurdev Singh Sohi, Manager, Delco Petroleum Co. LLC (w/encl)

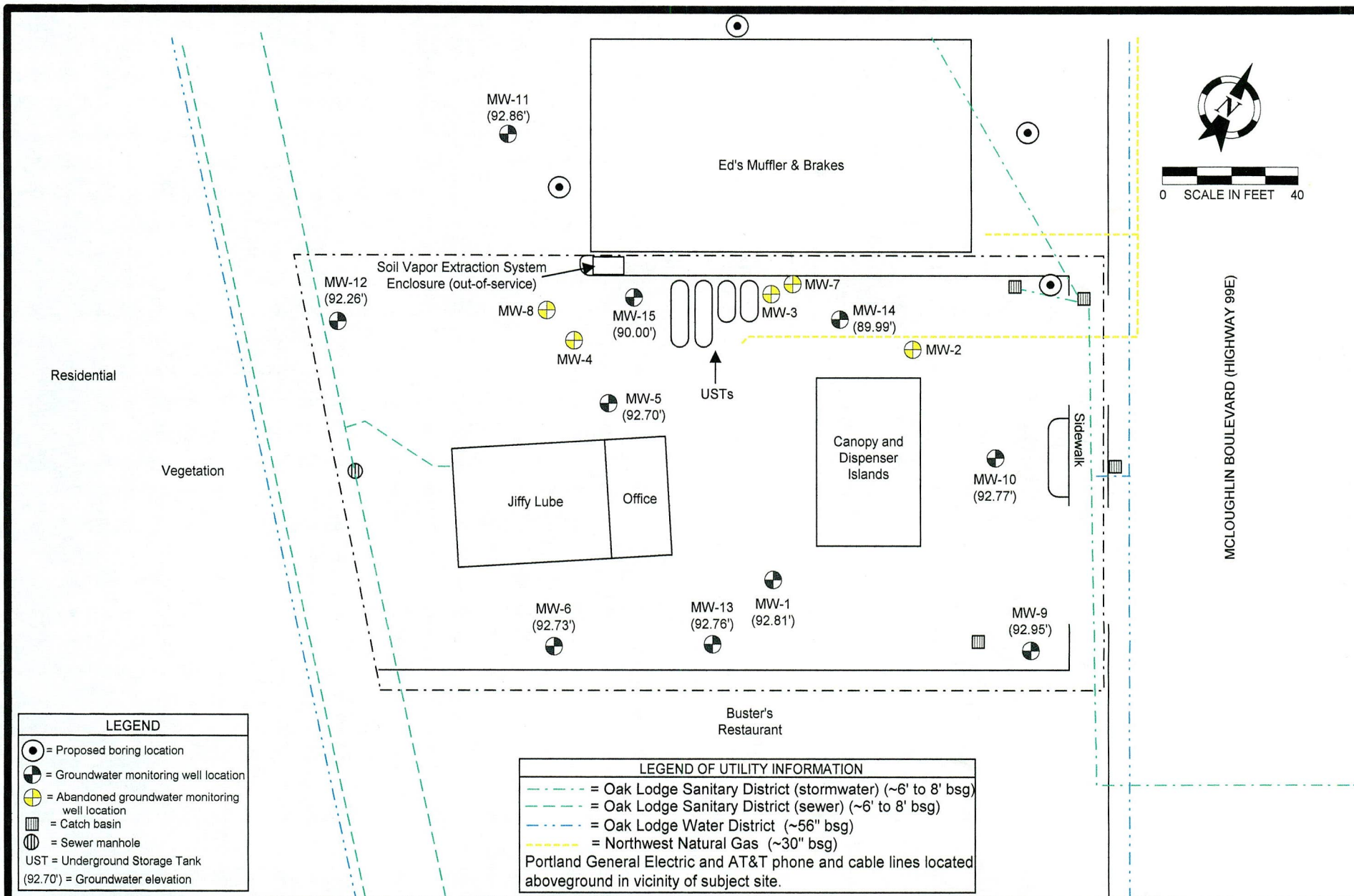


FIGURE 1

PROPOSED BORING LOCATION MAP

DELCO PETROLEUM RETAIL FUELING FACILITY
17873 S.E. MCLOUGHLIN BOULEVARD
MILWAUKIE, OREGON

PROJECT NO.: 02-0139

DATE: 10/30/02

SCALE: 1" = 40'

FILE: Utilities

DRAWN BY: MM

Facsimile Transmittal

Wohlers Environmental Services, Inc.

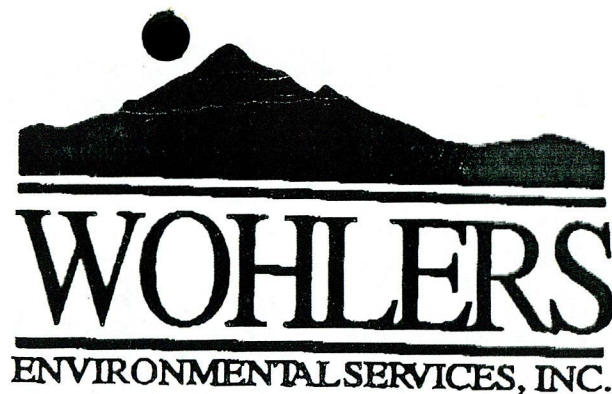
Phone: (503) 670-1344

Fax: (503) 670-1701

7440 S.W. Hunziker Street, Suite C

Tigard, Oregon 97223

e-mail: ccwohlers@aol.com



Date: 10/31/02 Time: 11:15 /am

Attention: Rob Hood DE/Q/UST Fax Number: 229-6945

From: Chris Wohlers

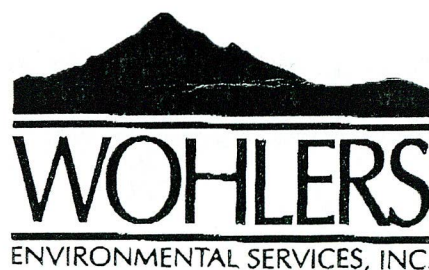
Number of pages (including cover): 5

Comment(s): Rob - The Delco proposal is attached. The utilities on the site map won't show up well on the fax but the original's in the mail today.

Let's discuss when you get the chance.

Ch

Reply requested: ☒ Yes ☐ NoOriginal mailed: ☒ Yes ☐ No



31 October 2002

Mr. Robert A. Hood, Jr., UST Cleanup Specialist
Oregon Department of Environmental Quality,
Northwest Region Office
2020 S.W. Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

RE: Proposed Closure Site Assessment Activities at the Delco Petroleum Co. LLC Facility
Located at 17869 S.E. McLoughlin Boulevard in Milwaukie, Oregon
Wohl's Environmental Project No. 02-0139; Oregon DEQ LUST File No. 03-93-0008

Dear Mr. Hood:

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Mr. Robert A. Hood, Jr., UST Cleanup Specialist
Oregon DEQ, Northwest Region Office
31 October 2002
Page 2

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Mr. Robert A. Hood, Jr., UST Cleanup Specialist
Oregon DEQ, Northwest Region Office
31 October 2002
Page 3

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Please contact us if you have questions regarding the information included in this letter (e.g., proposed boring locations, sampling protocols and analyses, etc.) or other applicable issues. Once concurrence by the Oregon DEQ with the proposed boring locations and sampling plan has been received, we will proceed with obtaining offsite access and scheduling the proposed field activities.

Sincerely,

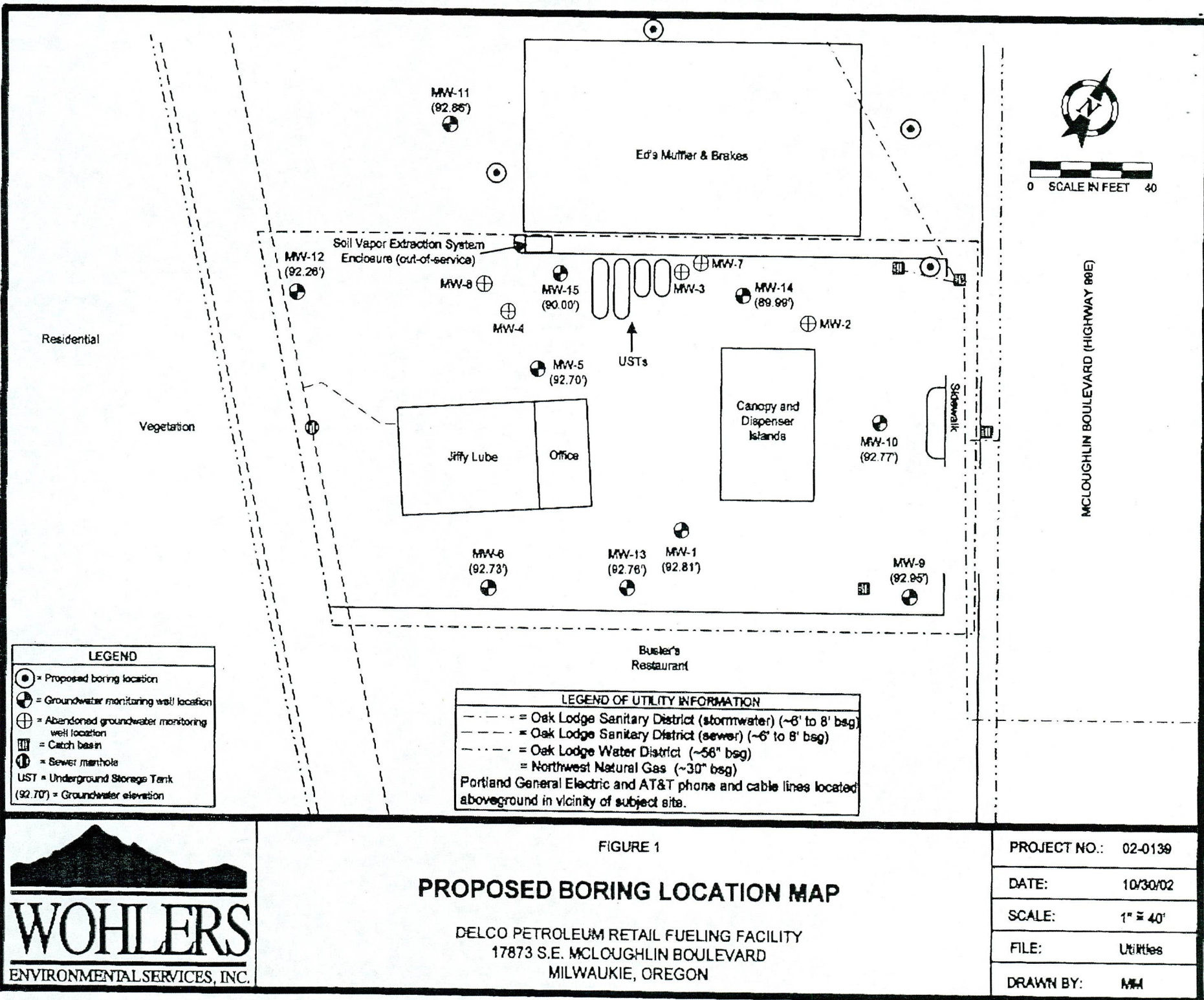
WOHLERS ENVIRONMENTAL SERVICES, INC.



Christopher C. Wohlers
President/Senior Consultant

Enclosure

cc: Mr. Gurdev Singh Sohi, Manager, Delco Petroleum Co. LLC (w/encl)



HOOD Robert

From: CCWOHLERS@aol.com
Sent: Thursday, October 17, 2002 8:19 AM
To: HOOD Robert
Subject: Delco Petroleum/LUST No. 03-93-0008

Rob: You sent a letter to Delco on 29 August requesting a response by 30 September 2002 to your letter of November 2001. We had been working with Mr. Sohi at Delco (Gurdev Singh was killed in an automobile accident in 2001) on their site but we had ongoing problems with getting invoices paid. When we received the copy of your 29 August letter, we didn't respond due to concerns about payment. We told Mr. Sohi that we would need to receive a retainer upfront and do any followup work on a cash basis. We just received a retainer check from Delco and deposited the check on October 16th. We have been directed by Delco to respond to your November 2001 letter per your request in the 29 August letter. Can we have an extension of the response date to the end of October 2002?

Thanks for your help on this issue.

Chris Wohlers
Wohlers Environmental Services, Inc.



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

29 August 2002

ENVIRONMETNAL MANAGER
DELCO PETROLEUM CO LLC
14 LONGLEAF DRIVE
HAMILTON SQUARE NJ 08690

Re: Flying J-Milwaukie #2
File No. 03-93-0008

Dear Sir or Madam:

The Department of Environmental Quality (DEQ) is following up on a letter dated 7 November 2001, regarding additional subsurface investigation relating to the underground storage tank (UST) cleanup at 17869 SE McLoughlin Blvd. in Milwaukie, Oregon. Please respond to the concerns in the 7 November 2001, letter by **30 September 2002**. If you have any questions or if I can be of help in any way, please call me at (503) 229-5617.

Respectfully,

Robert A. Hood, Jr.
UST Cleanup Specialist

enclosure-for Delco only

cc: Chris Wohlers
Wohlers Environmental, Inc.
7440 SW Hunziker, Suite C
Tigard, OR 97223

Gurdev Singh Sohi
Delco Petroleum CO LLC
17873 SE McLoughlin
Milwaukie, OR 97267

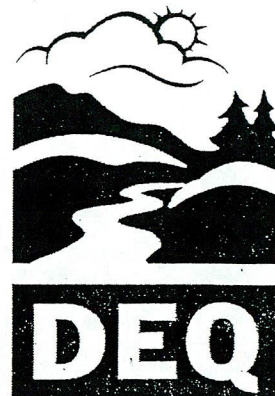
Janet Kayser
Ed's Mufflers Unlimited, Inc.
18081 SE Division St.
Portland, OR 97236

Frank Patrick
PO Box 68570
Portland, OR 97268

(rah:RAH)



FAX Cover Sheet



State of Oregon
Department of
Environmental
Quality
Northwest Region
Office

2020 SW 4th Avenue
Suite 400
Portland, OR 97201
503-229-5263

Return Fax:
(503) 229-6945

To: Janet Kayser

Office: _____

Phone: 503 618 8686

Fax: 503 661 0637

Date: 29 Aug 2002

From: Rob Hood

Office: _____

Phone: 503 229 5617

Number of Pages (including this cover sheet): _____

Comments: Janet: per your request this Afternoon, enclosed is the letter to Delco dated 7 Nov. 2001. The letter responds to Delco's proposed borings on the Ed's mufflers property since contaminated from the Delco property has migrated onto Ed's.

Although Delco has not responded yet, I will do another follow-up in September. I did hear that Delco's manager had passed away. I will continue to copy you on all letter correspondences. Let me know if you've any questions

Rob Hood.

HOOD Robert

From: CCWOHLERS@aol.com
Sent: Wednesday, May 15, 2002 8:56 AM
To: HOOD Robert
Subject: Delco Petroleum

~~34960082~~
03930008

Rob: Regarding Delco, I have not heard from Mr. Sohi since September 2001. Mr. Dhillon died in a car accident in New Jersey at about that time, so I understand that Mr. Sohi is now managing the overall business (but that may not be accurate).

Mr. Sohi and I briefly discussed your correspondence of 7 November 2001, and my recollection is that Mr. Sohi was going to consider the accessibility of the Ed's Mufflers facility. I am somewhat reluctant to drill inside that facility, considering the potential for releases at Ed's to have impacted soil immediately below the floor from surface releases, hydraulic lift issues, etc. I would prefer to work around the outside of Ed's, either on the southern boundary (which given the existing data from the wells on the northern boundary of Delco, probably won't give us a lot of additional information), or preferably, on the northern (i.e., downgradient) side of the building. The building is about 50 feet in depth (i.e., downgradient axis).

I suppose that if you have an interest in seeing this project go forward, a letter to Mr. Sohi might be in order.

Chris Wohlers
Wohlers Environmental Services, Inc.



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

7 November 2001

MR DEVINDER DHILLON
DELCO PETROLEUM CO LLC
14 LONGLEAF DRIVE
HAMILTON SQUARE NJ 08690

Re: Flying J-Milwaukie #2
File No. 03-93-0008

Dear Mr. Dhillon:

I am the newly assigned project manager for the underground storage tank (UST) cleanup at the Flying J-Milwaukie #2, 17869 SE McLoughlin Boulevard in Milwaukie, Oregon. Upon my review, I concur with the former DEQ project manager's letter dated 20 June 2001. Please continue to address the requests that Mr. Williams outlined.

The DEQ is in receipt of the proposed soil boring locations, which was submitted by Wohlers Environmental, Inc. (Wohlers). The location of the northeasterly boring appears adequate. However, to identify and delineate remaining contamination under the Ed's Mufflers property, the DEQ prefers that additional borings be installed along the southern boundary of Ed's Mufflers. Although the DEQ did state this in its previous letter, evidence was not presented to indicate whether or not this is possible. If it is possible to install borings within the Ed's Mufflers building, the DEQ will expect the installation of more than one boring to complete delineation. Also, if borings cannot be installed in these portions of the Ed's Mufflers building, then please determine whether or not angle borings could be an effective means for delineation. If these options are not possible to use for delineation, then the DEQ would prefer at least additional borings to the east and west of the building along with Wohlers proposed north boring location. Also, the DEQ suggests that you discuss this with Ed's Mufflers to ensure it is in agreement with your plan.

During phone discussion with an Ed's Mufflers representative, the DEQ was informed that subsidence of the Ed's Mufflers building is occurring as a result of the excavation activities that occurred on the Delco site. The DEQ does not handle this issue and Delco and Ed's Mufflers will need to resolve it independently.

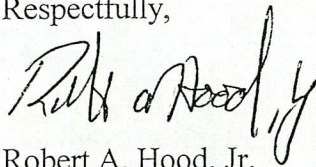
Dhillon

7 November 2001

Page 2

Please provide the information requested in the DEQ letter dated 20 June 2001, and the above concerns by **10 December 2001**. If you have any questions or if I can be of help in any way, please call me at (503) 229-5617.

Respectfully,



Robert A. Hood, Jr.
UST Cleanup Specialist

cc: Chris Wohlers
Wohlers Environmental, Inc.
7440 SW Hunziker, Suite C
Tigard, OR 97223

Robert C. Chatterton
Ed's Mufflers Unlimited, Inc.
815 NE Hogan Rd.
Gresham, OR 97030

Gurdev Singh Sohi
Delco Petroleum CO LLC
17873 SE McLoughlin
Milwaukie, OR 97267

Frank Patrick
PO Box 68570
Portland, OR 97268

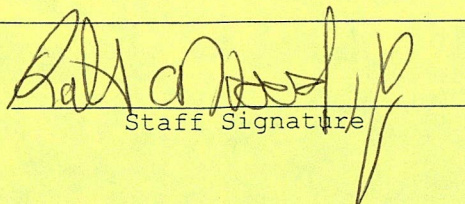
(rah:RAH)

UST CLEANUP TELEPHONE USE REPORT

CALL (FROM) TO: Frank Patrick DATE: 10/26/2001
WITH: Represents Ed's Mufflers TIME: 1350
TELEPHONE NO: 503) 318 - 1013 Fax 653 3415
REGARDING: Status & Subsidence of Ed's building from UST
FILE NO: 03 - 93 - 0008 pull

SUMMARY OF CALL

Wanted to know ~~about~~ project status & mentioned
that the backfilling from the UST removal
on the subject site has affected the Ed's
mufflers building (Adjacent). I have not heard
a change to Review file since I am newly assigned,
but will review next week & get back w/
Mr Patrick


Staff Signature

FAX Cover Sheet

To: Frank Patrick

Office: _____

Phone: 503 318 1013

Fax: 503 653 3415

Date: 10/26/2001

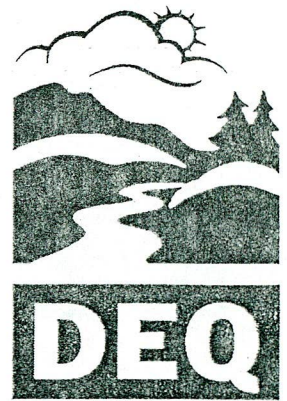
From: Rob Hood

Office: NWR DEQ

Phone: 503 229 5617

Number of Pages (including this cover sheet): 3

Comments: June 20, 2001 letter



State of Oregon
Department of
Environmental
Quality
Northwest Region
Office
2020 SW 4th Avenue
Suite 400
Portland, OR 97201
503-229-5263

Return Fax:
(503) 229-6945



03-93-0008
RAA

24 September 2001

RECEIVED
SEP 27 2001

Mr. Robert A. Hood, Jr., UST Cleanup Specialist
Oregon Department of Environmental Quality,
Northwest Region Office
2020 S.W. Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

DEPT OF ENVIRONMENTAL QUALITY
NORTHWEST REGION

RE: Submittal of "Second Quarter '01 Groundwater Monitoring Report" for the Delco Petroleum Facility Located at 17869 S.E. McLoughlin Boulevard in Milwaukie, Oregon
Wohlers Environmental Project No. 01-0001; Oregon DEQ LUST File No. 03-93-0008

Dear Mr. Hood:

Enclosed is the "Second Quarter '01 Groundwater Monitoring Report" for the Delco Petroleum retail motor fuel facility located at 17869 S.E. McLoughlin Boulevard in Milwaukie, Oregon ('subject site'). As described in Wohlers Environmental Services, Inc. ("Wohlers Environmental") 21 March 2001 correspondence to the Oregon Department of Environmental Quality (DEQ), and corroborated in a telephone conversation with Mr. Robert Williams, Oregon DEQ on 27 March 2001, Wohlers Environmental understands that four consecutive quarterly monitoring events (e.g., August 2000, 10 January 2001, 28 March 2001 and 26 June 2001) have been completed at the subject site.

As noted in the enclosed report, results associated with the recently-completed four consecutive quarterly groundwater monitoring events and previously-completed site assessment and cleanup activities indicate that concentrations of petroleum Constituents of Potential Concern (COPCs) in soil and shallow groundwater at the subject site do not appear to present a significant risk to human health and the environment, based on evaluation using the Oregon DEQ Risk-Based Decision Making (RBDM) process.

As discussed during the above referenced March 2001 telephone conversation, Delco Petroleum Company, L.L.C. ("Delco Petroleum") understands that additional characterization of potential impacts to shallow groundwater is required at and adjacent to the subject site, including completion of a drivepoint boring at the northeastern corner of the subject site (i.e., to assess potential migration pathway issues associated with a storm drain reportedly located in this area) and north of the Ed's Muffler & Brakes building (i.e., to further assess potential hydraulically downgradient groundwater impacts). Enclosed is a figure illustrating the locations of the two proposed borings. Based on our discussions with Mr. Williams, and the relatively comprehensive set of soil and shallow groundwater data already collected at the subject site,

Mr. Robert A. Hood, UST Cleanup Specialist
Oregon DEQ, Northwest Region Office
24 September 2001
Page 2

Wohlers Environmental and Delco representatives assume that if petroleum COPCs either are not detected in groundwater samples collected from these borings or are detected at concentrations below applicable RBDM target cleanup levels, that we will request project file closure and No Further Action (NFA) finding issuance for the subject site by the Oregon DEQ.

Groundwater samples would be collected from each boring located in the two above-referenced proposed locations and analyzed for petroleum COPCs. Wohlers Environmental would appreciate the opportunity to discuss sample location and analytical requirements with you prior to initiation of field activities.

Wohlers Environmental will contact you during the week of 1 October 2001 to confirm your receipt of the enclosed report, and to discuss proceeding with drivepoint boring investigation in those areas illustrated on the enclosed figure.

Sincerely,

WOHLERS ENVIRONMENTAL SERVICES, INC.

A handwritten signature in dark ink, consisting of a large, stylized 'C' followed by a long, horizontal, slightly wavy line.

Christopher C. Wohlers
President/Senior Consultant

cc: Mr. G. Singh Sohi, Manager, Delco Petroleum Co. (w/encl)



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

June 20, 2001

DEVINDER DHILLON
DELCO PETROLEUM CO LLC
14 LONGLEAF DRIVE
HAMILTON SQUARE NEW JERSEY 08690

Re: Flying J-Milwaukie #2
File No. 03-93-0008

Dear Mr. Dhillon:

The Department has completed its review of the Wohlers Environmental Services May 2001 Groundwater Monitoring Report. The Department concurs with the recommendations for a push probe investigation and continued quarterly monitoring. The Department disagrees with Wohlers assertion that the vapor intrusion pathway does not represent a concern at the site.

The "Pocket-In-Place Estimated Extent Map" showing areas of remaining benzene contamination in soil appears to need some revision. Confirmation soil sampling results following excavation indicate pockets of contamination near MW-1, in the northeast corner of the site, and near the former groundwater treatment facility. Many of these areas are close to the onsite building or the Ed's Mufflers and Brakes building. Sample results above the occupational standard for vapor intrusion suggest the possibility for human health risks from this pathway. Push probe sampling should investigate the extent of contamination in these areas. The extent maps should be redrawn when additional information is available following push probe investigation near the above areas.

Sample results from 1993 to 1999 show high concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) in groundwater at the former MW-3 and MW-4. Benzene was as high as 19,900 parts per billion (ppb) in MW-3. Free petroleum product was recovered from MW-3 until it was decommissioned in 1995 in conjunction with asphalt repairs in the vicinity. MW-4 was decommissioned during excavation in 1999. Both wells were located approximately 15-20 feet upgradient of the Ed's Mufflers Building. Excavation work in 1999 has removed much of the contamination from the site but it is not known how much contamination has moved offsite under the muffler shop. Offsite push probe sampling should be used to determine this. Sample points located inside the bays of the shop building would be most effective for this determination. If access problems prohibit this then sample points just north of the building would be the next choice.



Devinder Dhillon
June 20, 2001
Page 2

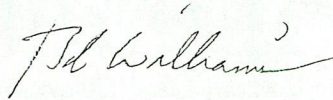
The underground utilities in the vicinity should be located and their depths determined before planning of the push probe investigation is complete. Utilities will need to be assessed for their potential to act as preferential pathways for contamination. This may require additional push probe sample points.

Soil and groundwater samples collected from near the former groundwater treatment facility are close to the old auto parts dump site and should be sampled for volatile organic compounds (VOCs).

Following investigation the conceptual site model (CSM) for the site should be updated with a map showing the plume outline. In order to eliminate the groundwater ingestion and leaching to groundwater pathways the beneficial groundwater use in the area should be further investigated. Properties immediately downgradient of the site should be visited to check for the presence of groundwater wells.

In future monitoring events please try to fit groundwater contours to the water level data and estimate a flow direction. Please submit a work plan for push probe investigation by **July 23, 2001**. If you have any questions please call me at (503) 229-6242.

Sincerely,



Robert Williams
UST Cleanup Specialist

cc: Chris Wohlers
Wohlers Environmental Services Inc
7440 SW Hunziker Suite C
Tigard Oregon 97223

Gurdev Singh Sohi
Delco Petroleum CO LLC
17873 SE McLoughlin Boulevard
Milwaukie, Oregon 97267

Robert C. Chatterton
Ed's Mufflers Unlimited Inc
815 NE Hogan Road
Gresham Oregon 97030

(rkw:RKW)



DEPT OF ENVIRONMENTAL QUALITY
RECEIVED

4 June 2001

JUN 06 2001

Mr. Robert Williams, UST Cleanup Specialist
Oregon Department of Environmental Quality,
Northwest Region Office
2020 S.W. Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

NORTHWEST REGION

RE: Submittal of "Fourth Quarter '00 & First Quarter '01 Groundwater Monitoring Report" for the Delco Petroleum Facility Located at 17869 S.E. McLoughlin Boulevard in Milwaukie, Oregon
Wohlers Environmental Project No. 01-0001; Oregon DEQ LUST File No. 03-93-0008

Dear Mr. Williams:

Enclosed is the "Fourth Quarter '00 & First Quarter '01 Groundwater Monitoring Report" for the Delco Petroleum retail motor fuel facility located at 17869 S.E. McLoughlin Boulevard in Milwaukie, Oregon ('subject site'). As described in Wohlers Environmental Services, Inc. ("Wohlers Environmental") 21 March 2001 correspondence to the Oregon Department of Environmental Quality (DEQ), and corroborated in a telephone conversation with Mr. Robert Williams, Oregon DEQ on 27 March 2001, Wohlers Environmental understands that three consecutive quarterly monitoring events (e.g., August 2000, 10 January 2001 and 28 March 2001) have been completed at the subject site.

As noted in the enclosed report, results associated with the recently-completed three quarterly groundwater monitoring events indicate that concentrations of petroleum Constituents of Potential Concern (COPCs) in soil and shallow groundwater at the subject site do not appear to present a significant risk to human health and the environment, based on evaluation using the Oregon DEQ Risk-Based Decision Making (RBDM) process.

As we discussed during the above referenced March 2001 telephone conversation, Delco Petroleum Company, L.L.C. ("Delco Petroleum") understands that additional characterization of potential impacts to shallow groundwater is required at and adjacent to the subject site, including completion of a drivepoint boring at the northeastern corner of the subject site (i.e., to assess potential migration pathway issues associated with a storm drain reportedly located in this area) and north of the Ed's Muffler & Brakes building (i.e., to further assess potential hydraulically downgradient groundwater impacts). Groundwater samples would be collected from each boring located in these two locations and analyzed for petroleum COPCs. Wohlers Environmental would appreciate the opportunity to discuss sample location and analytical requirements with you prior to initiation of field activities.

Mr. Robert Williams, UST Cleanup Specialist
Oregon DEQ, Northwest Region Office
4 June 2001
Page 2

Assuming that results associated with the fourth consecutive quarterly groundwater monitoring event and additional drivepoint boring investigation activities continue to indicate an absence of significant and/or feasible risk to human health and the environment associated with historical petroleum releases at the subject site, Wohlers Environmental anticipates requesting project file closure and issuance of a No Further Action (NFA) finding for the subject site by the Oregon DEQ upon completion of the quarterly monitoring and investigation activities.

Wohlers Environmental will contact you during the week of 11 June 2001 to confirm your receipt of the enclosed report, and to discuss proceeding with drivepoint boring investigation in those areas discussed above.

Sincerely,

WOHLERS ENVIRONMENTAL SERVICES, INC.

A handwritten signature in dark ink, consisting of a large, stylized 'C' followed by a horizontal line that tapers to a point.

Christopher C. Wohlers
President/Senior Consultant

cc: Mr. G. Singh Sohi, Manager, Delco Petroleum Co. (w/encl)

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Chris Wehlers DATE: 3-26
WITH: Wehlers Env. TIME: 8:45
TELEPHONE NO: () 670 - 1394
REGARDING: Delco
FILE NO: 03 - 93 - 0008

SUMMARY OF CALL

Will it be possible for the Jan 10 sampling event to serve for a late 4th quarter event and make it the 3rd. event from the time of big soil excavation?

3-27 Yes, I think we can use the Jan 10 event as an official quarter. More important issue is the offsite characterization under Ed's building to the north. Chris has also been looking at analyzing the soil data. But not sure how useful this is. We talked about push probe sampling at Ed's rather than wells. Still might be a chance of early closure if offsite is clean. Another issue is the utility line transport to the NE corner at McLoughlin.

T. B. Walker
Staff Signature



DEPT OF ENVIRONMENTAL QUALITY
RECEIVED

21 March 2001

MAR 23 2001

Mr. Robert Williams, UST Cleanup Specialist
Oregon Department of Environmental Quality,
Northwest Region Office
2020 S.W. Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

NORTHWEST REGION

RE: Submittal of Groundwater Monitoring Results Associated with 10 January 2001
Groundwater Monitoring Activities Completed at the Delco Petroleum Facility Located
at 17869 S.E. McLoughlin Boulevard in Milwaukie, Oregon
Wohlers Environmental Project No. 01-0001; Oregon DEQ LUST File No. 03-93-0008

Dear Mr. Williams:

Enclosed are results associated with groundwater monitoring activities completed on 10 January 2001 at the Delco Petroleum Company, L.L.C. ("Delco Petroleum") retail motor fuel facility located at 17869 S.E. McLoughlin Boulevard in Milwaukie, Oregon ('subject site'). Enclosed information includes laboratory analytical results, tabled Top-of-Casing (TOC) elevation and laboratory analytical results, and figures illustrating calculated groundwater elevation contours and laboratory analytical results. A report summarizing these results, including information requested in your 6 November 2000 correspondence addressed to Mr. Devinder Dhillon (owner of the subject site) will be submitted by Wohlers Environmental Services, Inc. ("Wohlers Environmental") to the Oregon Department of Environmental Quality (DEQ) in late March or early April 2001.

As further described in our correspondence to you dated 10 January 2001, and as supported by the groundwater analytical results included with this correspondence, Wohlers Environmental requests that results associated with the 10 January 2001 groundwater monitoring event be counted as the second consecutive quarterly groundwater monitoring event at the subject site. The previous quarterly groundwater monitoring event completed by GeoPro Geologic Services ("GeoPro") on 27 August 2000 would be counted as the first of the consecutive monitoring events. As proposed in our 10 January 2001 correspondence, the third and fourth consecutive quarterly groundwater monitoring events would be completed in late March and mid-June 2001. Following completion of these four consecutive quarterly groundwater monitoring events, re-evaluation of groundwater monitoring frequency and wells would be completed.

Mr. Robert Williams, UST Cleanup Specialist
Oregon DEQ, Northwest Region Office
21 March 2001
Page 2

As noted above, results associated with the January 10 monitoring event indicate that petroleum Constituents of Potential Concern (COPCs) in groundwater samples collected from onsite and offsite wells either were not detected or were detected at relatively low concentrations (i.e., below applicable Oregon DEQ Risk-Based Decision Making or RBDM target cleanup concentrations). In addition, non-petroleum COPCs (i.e., vinyl chloride and 1,2-cis-DiChloroEthene or DCE) also are present at relatively low concentrations (1,2-cis-DCE is below the U.S. EPA Region IX Preliminary Remediation Goal of 61 micrograms per liter for the Tap Water exposure pathway).

Given that the previous quarterly groundwater monitoring event was completed in late August 2000 (i.e., August 27) and that the subsequent groundwater monitoring event was completed in early January 2001, the above request appears reasonably supported by the sampling dates (i.e., approximate four-month interval between sampling events). The proposed four quarters of monitoring activities will allow for effective evaluation of seasonal variations in groundwater depth and constituent concentrations at and adjacent to the subject site.

In addition, Oregon DEQ denial of the requested quarterly monitoring sequence would impose a significant financial burden on a small, family-owned business operation.

We will contact you during the week of March 19 and March 26 to verify your receipt of this correspondence and supporting materials, and to discuss our request.

Sincerely,

WOHLERS ENVIRONMENTAL SERVICES, INC.



Christopher C. Wohlers
President/Senior Consultant

Enclosures

Figure 2	Site Map
Figure 3	Groundwater Contour Map: 10 January 2001
Figure 4	Groundwater Sample Analytical Results: 10 January 2001
Table 1	Groundwater Elevation Data
Table 2	Groundwater Sample Analytical Results
Appendix A	Laboratory Analytical Results

cc: Mr. G. Singh Sohi, Manager, Delco Petroleum Co. (w/encl)

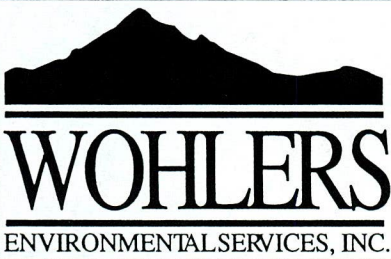
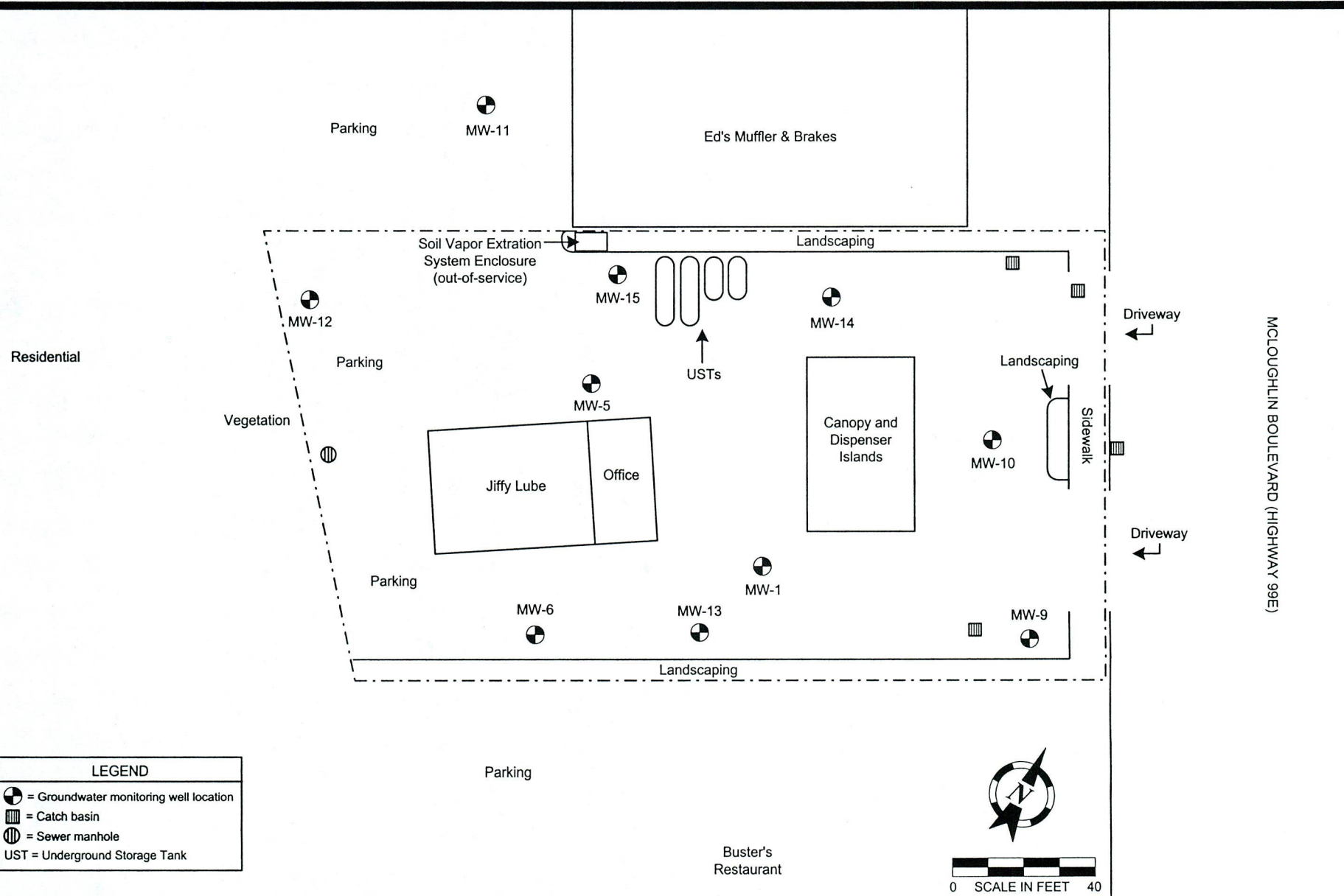


FIGURE 2
SITE MAP

DELCO PETROLEUM RETAIL FUELING FACILITY
17873 S.E. MCLOUGHLIN BOULEVARD
MILWAUKIE, OREGON

PROJECT NO.:	01-0001
DATE:	01/12/01
SCALE:	1" = 40'
FILE:	FG010001
DRAWN BY:	MM

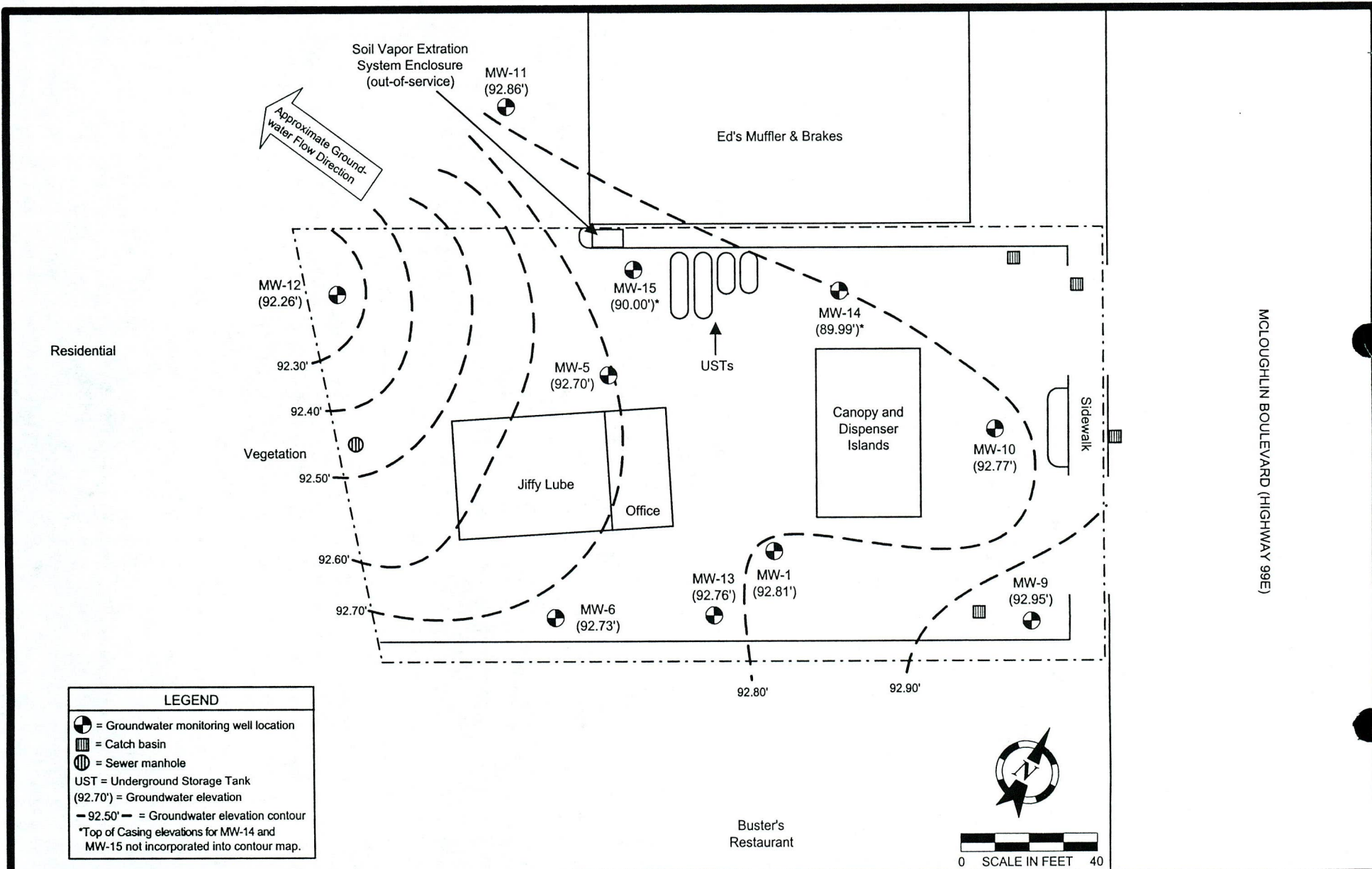


FIGURE 3
**GROUNDWATER CONTOUR MAP:
 10 JANUARY 2001**

DELCO PETROLEUM RETAIL FUELING FACILITY
 17873 S.E. MCLOUGHLIN BOULEVARD
 MILWAUKIE, OREGON

PROJECT NO.:	01-0001
DATE:	02/05/01
SCALE:	1" = 40'
FILE:	FG010001
DRAWN BY:	BSM

MW-5
B = 86
T = ND
E = 1.3
X = 1.0
TPH-Dx:
D = ND
O = ND
EDB/EDC = ND
IPB = 3.3
NPB = 4.2
1,3,5-TMB = ND
1,2,4-TMB = ND
MTBE = 54
N = ND
Dissolved Pb = ND

MW-11
TPH-Dx:
D = ND
O = ND
VOCs:
Vinyl Chloride = 0.8
MTBE = 1.6
CIS-1,2-DiChloroEthene = 1.8

MW-11
Soil Vapor Extration
System Enclosure (out-
of-service)

Ed's Muffler & Brakes

MW-12
NS

MW-15
B = 9.3
TEX = ND
TPH-Dx = ND

MW-14
BTEX = ND
TPH-Dx = ND

MW-10
BTEX = ND
TPH-Dx:
D = 0.6 mg/l
O = 1.0 mg/l
PAHs = ND

MW-1
B = 250
T = 4.0
E = 5.9
X = 8.2
TPH-Dx:
D = 1.0* mg/l
O = ND
EDB/EDC = ND
IPB = 15.0
NPB = 27
1,3,5-TMB = 0.8
1,2,4-TMB = ND
MTBE = 88
N = 11
Dissolved Pb = ND
PAHs: See Table 2

LEGEND

- = Groundwater monitoring well location
- ▨ = Catch basin
- ⊙ = Sewer manhole
- UST = Underground Storage Tank
- TPH-Dx = Total Petroleum Hydrocarbon-Diesel extended
- D = Diesel
- O = Oil
- BTEX = Benzene, Toluene, Ethylbenzene and Xylenes
- VOCs = Volatile Organic Compounds
- PAHs = Polynuclear Aromatic Hydrocarbons
- N = Naphthalene
- 1,2,4-TMB = 1,2,4-Trimethylbenzene
- 1,3,5-TMB = 1,3,5-Trimethylbenzene
- NPB = n-PropylBenzene
- IPB = IsoPropylBenzene
- EDB/EDC = Ethylene DiBromide/Ethylene DiChloride
- MTBE = Methyl Tertiary Butyl Ether
- Pb = Lead
- ND = Not Detected
- NS = Not Sampled
- Results in micrograms per liter (ug/l) or parts per billion (ppb) unless otherwise specified
- mg/l = milligrams per liter or parts per million (ppm)
- * = compounds are lighter than diesel

MW-6
NS

MW-6

MW-13
NS

MW-13

MW-9
B = 0.6
TEX = ND
TPH-Dx = ND



0 SCALE IN FEET 40

Buster's
Restaurant

McLOUGHLIN BOULEVARD (HIGHWAY 99E)

FIGURE 4

GROUNDWATER SAMPLE ANALYTICAL RESULTS: 10 JANUARY 2001

DELCO PETROLEUM RETAIL FUELING FACILITY
17873 S.E. McLOUGHLIN BOULEVARD
MILWAUKIE, OREGON

PROJECT NO.: 01-0001

DATE: 01/23/01

SCALE: 1" = 40'

FILE: FG010001

DRAWN BY: KRB

TABLE 1 (Page 1 of 4)

GROUNDWATER ELEVATION DATA

DELCO PETROLEUM RETAIL FUELING FACILITY
 17873 S.E. MCLOUGHLIN BOULEVARD
 MILWAUKIE, OREGON
WES Project No. 01-0001

Monitoring Well	Date Installed & Installer	Measured By	Date of Measurement	Screened interval (feet bsg)	TOC Elevation (feet amsl)	Depth to water from TOC (feet)	Groundwater Elevation (feet amsl)
MW-1	6/18/93 NWE	NWE	6/21/93	5-15	99.67	NR	94.65
		NWE	1/24/95		99.67	3.97	95.70
		NWE	6/20/95		99.67	4.67	95.00
		NWE	9/29/95		99.67	6.91	92.76
		NWE	2/15/96		99.67	3.00	96.67
		NWE	4/26/96		99.67	3.74	95.93
		NWE	10/29/96		99.67	5.82	93.85
		NWE	1/15/97		99.67	2.74	96.93
		NWE	1/27/98		99.67	4.51	95.16
		GGG	7/24/99		99.37	5.66	93.71
		GGG	8/27/00		99.37	6.16	93.21
		WES	1/10/01		99.37	6.56	92.81
MW-2 ¹	6/18/93 NWE	NWE	6/21/93	4-14	98.79	NR	94.59
		NWE	1/24/95		98.79	2.97	95.82
		NWE	6/20/95		98.79	3.77	95.02
		NWE	9/29/95		98.79	6.48	92.31
		NWE	2/15/96		98.79	1.87	96.92
		NWE	4/26/96		98.79	3.16	95.63
		NWE	10/29/96		98.79	5.00	93.79
		NWE	1/15/97		98.79	2.23	96.56
		NWE	1/27/98		98.79	3.75	95.04
		GGG	7/24/99		98.51	5.18	93.33
MW-3 ²	6/18/93 NWE	NWE	6/21/93	5-15	98.57	NR	94.57
		NWE	1/24/95		98.57	2.89	95.68
MW-4 ³	6/18/93 NWE	NWE	6/21/93	5-15	99.30	NR	94.54
		NWE	1/24/95		99.30	3.56	95.74
		NWE	6/20/95		99.30	4.28	95.02
		NWE	9/29/95		99.30	7.20	92.10
		NWE	2/15/96		99.30	2.57	96.73
		NWE	4/26/96		99.30	3.75	95.55
		NWE	10/29/96		99.30	5.55	93.75
		NWE	1/15/97		99.30	2.75	96.55
		NWE	1/27/98		99.30	4.26	95.04
		GGG	7/25/99		99.00	5.57	93.43
MW-5	6/18/93 NWE	NWE	6/21/93	5-15	100.66	NR	94.52
		NWE	1/24/95		100.66	4.94	95.72
		NWE	6/20/95		100.66	5.63	95.03
		NWE	9/29/95		100.66	8.22	92.44
		NWE	2/15/96		100.66	3.77	96.89
		NWE	4/26/96		100.66	5.00	95.66
		NWE	10/29/96		100.66	6.95	93.71
		NWE	1/15/97		100.66	4.02	96.64
		NWE	1/27/98		100.66	5.62	95.04
		GGG	7/25/99		100.41	5.99	94.42
		GGG	8/27/00		100.41	7.30	93.11
		WES	1/10/01		100.41	7.71	92.70

See final page for Legend

GROUNDWATER ELEVATION DATA

DELCO PETROLEUM RETAIL FUELING FACILITY
 17873 S.E. MCLOUGHLIN BOULEVARD
 MILWAUKIE, OREGON
 WES Project No. 01-0001

Monitoring Well	Date Installed & Installer	Measured By	Date of Measurement	Screened interval (feet bsg)	TOC Elevation (feet amsl)	Depth to water from TOC (feet)	Groundwater Elevation (feet amsl)
MW-6	6/18/93 NWE	NWE	6/21/93	5-14.5	100.29	NR	94.58
		NWE	1/24/95		100.29	4.75	95.54
		NWE	6/20/95		100.29	5.28	95.01
		NWE	9/29/95		100.29	7.38	92.99
		NWE	2/15/96		100.29	3.17	97.12
		NWE	4/26/96		100.29	4.27	96.02
		NWE	10/29/96		100.29	6.47	93.82
		NWE	1/15/97		100.29	3.33	96.96
		NWE	1/27/98		100.29	5.01	95.28
		GGs	7/24/99		100.01	6.25	93.76
		GGs	8/27/00		100.01	6.88	93.13
		WES	1/10/01		100.01	7.28	92.73
MW-7 ⁴	1/27/95/NWE	NWE	6/20/95	4-19	98.95	4.61	94.34
MW-8 ⁴	1/27/95/NWE	NWE	6/20/95	5-20	99.62	4.68	94.94
MW-9	1/27/95 NWE	NWE	6/20/95	5-15	99.71	4.88	94.83
		NWE	9/29/95		99.71	6.73	92.99
		NWE	2/15/96		99.71	3.39	96.32
		NWE	4/26/96		99.71	4.42	95.30
		NWE	10/29/96		99.71	5.66	94.06
		NWE	1/15/97		99.71	2.34	97.38
		NWE	1/27/98		99.71	4.91	94.81
		GGs	7/23/99		99.42	5.64	93.78
		GGs	8/27/00		99.42	6.23	93.19
		WES	1/11/01		99.42	6.47	92.95
		NWE	9/18/96	10-15	98.77	5.18	93.59
		NWE	10/29/96		98.77	4.94	93.83
		NWE	1/15/97		98.77	2.03	96.74
MW-10	8/12/96 NWE	NWE	1/27/98		98.77	3.61	95.16
		GGs	7/23/99		98.50	4.82	93.68
		GGs	8/27/00		98.50	4.78	93.72
		WES	1/11/01		98.50	5.73	92.77
		NWE	9/18/96	10-15	99.98	6.54	93.44
		NWE	10/29/96		99.98	6.37	63.61
		NWE	1/15/97		99.98	4.38	95.60
		NWE	1/27/98		99.98	5.66	94.32
		GGs	7/23/99		99.64	6.42	93.22
		GGs	8/27/00		99.64	6.11	93.53
		WES	1/11/01		99.64	6.78	92.86
		NWE	9/18/96	10-15	100.54	7.19	93.35
		NWE	10/29/96		100.54	6.68	93.86
		NWE	1/15/97		100.54	4.72	95.82
		NWE	1/27/98		100.54	4.96	95.58
MW-11	8/12/96 NWE	GGs	7/23/99		100.26	6.88	93.38
		GGs	8/27/00		100.26	6.62	93.64
		WES	1/10/01		100.26	8.00	92.26
		NWE	9/18/96	10-15	100.11	5.19	94.92
		NWE	10/29/96		100.11	6.29	93.82
		NWE	1/15/97		100.11	3.13	96.98
		NEW	1/27/98		100.11	4.86	95.25
		GGs	7/23/99		99.85	6.00	93.85
		GGs	8/27/00		99.85	6.69	93.16
		WES	1/11/01		99.85	7.09	92.76
		NWE	9/18/96	10-15	100.11	5.19	94.92
		NWE	10/29/96		100.11	6.29	93.82
		NWE	1/15/97		100.11	3.13	96.98
		NEW	1/27/98		100.11	4.86	95.25
		GGs	7/23/99		99.85	6.00	93.85
		GGs	8/27/00		99.85	6.69	93.16
		WES	1/11/01		99.85	7.09	92.76
MW-12	8/12/96 NWE	NWE	9/18/96	10-15	100.54	7.19	93.35
		NWE	10/29/96		100.54	6.68	93.86
		NWE	1/15/97		100.54	4.72	95.82
		NWE	1/27/98		100.54	4.96	95.58
		GGs	7/23/99		100.26	6.88	93.38
		GGs	8/27/00		100.26	6.62	93.64
		WES	1/10/01		100.26	8.00	92.26
		NWE	9/18/96	10-15	100.11	5.19	94.92
		NWE	10/29/96		100.11	6.29	93.82
		NWE	1/15/97		100.11	3.13	96.98
		NEW	1/27/98		100.11	4.86	95.25
		GGs	7/23/99		99.85	6.00	93.85
		GGs	8/27/00		99.85	6.69	93.16
		WES	1/11/01		99.85	7.09	92.76
MW-13	8/12/96	NWE	9/18/96	10-15	100.11	5.19	94.92
		NWE	10/29/96		100.11	6.29	93.82
		NWE	1/15/97		100.11	3.13	96.98
		NEW	1/27/98		100.11	4.86	95.25
		GGs	7/23/99		99.85	6.00	93.85
		GGs	8/27/00		99.85	6.69	93.16
		WES	1/11/01		99.85	7.09	92.76

TABLE 1 (Page 3 of 4)

GROUNDWATER ELEVATION DATA

DELCO PETROLEUM RETAIL FUELING FACILITY
17873 S.E. MCLOUGHLIN BOULEVARD
MILWAUKIE, OREGON
WES Project No. 01-0001

Monitoring Well	Date Installed & Installer	Measured By	Date of Measurement	Screened interval (feet bsg)	TOC Elevation (feet amsl)	Depth to water from TOC (feet)	Groundwater Elevation (feet amsl)
MW-14	11/17/99	GGS	8/27/00	4-9	95.65	5.29	90.36
	GGS	WES	1/10/01		95.65	5.66	89.99
MW-15	11/17/99	GGS	08/27/00	5.5-15.5	96.42	9.00	87.42
	GGS	WES	01/10/01		96.42	6.42	90.00

See final page for Legend

GROUNDWATER ELEVATION DATA

DELCO PETROLEUM RETAIL FUELING FACILITY
17873 S.E. MCLOUGHLIN BOULEVARD
MILWAUKIE, OREGON
WES Project No. 01-0001

LEGEND

- ¹ Monitoring Well MW-2 was decommissioned in 1999.
- ² Monitoring Well MW-3 was decommissioned in 1995.
- ³ Monitoring Well MW-4 was decommissioned in 1999.
- ⁴ Monitoring Wells MW-7 and MW-8 were constructed as production wells for the onsite groundwater treatment system and depth to groundwater measurements were not collected on a quarterly basis from these two monitoring wells.

WES = Wohlers Environmental Services
PEMCO = Petroleum Equipment Maintenance Company
NWE = Northwest Envirocon
GGS = GeoPro Geologic Services
bsg = below surface grade

amsl = above mean sea level
TOC = Top of Casing
NR = Not Recorded
NA = Not Available

TABLE 2 (Page 1 of 9)

GROUNDWATER SAMPLE ANALYTICAL RESULTS

DELCO PETROLEUM RETAIL FUELING FACILITY
 17873 S.E. MCLOUGHLIN BOULEVARD
 MILWAUKIE, OREGON
 WES Project No. 01-0001

Sample ID	Date Sampled	Sampled By	Benzene (ug/l)	Toluene (ug/l)	Ethyl-Benzene (ug/l)	Xylenes (ug/l)	TPH-Dx (mg/l)		TPH-Gx (mg/l)	MTBE (ug/l)	VOCs (ug/l)	PAHs (ug/l)	Dissolved Lead (mg/l)
							Diesel	Oil					
MW-1	06/22/93	NWE	910	1,300	470	2,090	--	--	--	--	--	--	--
	07/18/94	NWE	770	14	264	272	--	--	--	--	--	--	--
	10/28/94	NWE	729	16	269	145	--	--	--	--	--	--	--
	01/24/95	NWE	62	29	349	315	--	--	--	--	--	--	--
	06/20/95	NWE	619	10	66	377	--	--	--	--	--	--	--
	09/29/95	NWE	3,700	43	1,050	895	--	--	--	--	--	--	--
	02/15/96	NWE	727	8	92	261	--	--	--	--	--	--	--
	04/26/96	NWE	497	17	180	159	--	--	--	--	--	--	--
	10/29/96	NWE	231	5	18	15	--	--	--	--	--	--	--
	01/15/97	NWE	83	ND	9	13	--	--	--	--	--	--	--
	01/27/98	NWE	411	11	66	82	--	--	--	--	--	--	--
	07/24/99	GGs	340	4.29	9.60	ND	ND	ND	2,330	112	--	--	--
	08/27/00	GGs	207	8.26	ND	ND	ND	ND	1,820	72.4	IPB = 10.2 NPB = 16.7 N = 14.5	--	--
	01/10/01	WES	250	4.0	5.9	8.2	1.0 ¹	ND	--	88	IPB = 15 NPB = 27 1,3,5-TMB = 0.8 N = 11	N = 6.4	ND

See final page for legend

TABLE 2 (Page 2 of 9)

GROUNDWATER SAMPLE ANALYTICAL RESULTS

DELCO PETROLEUM RETAIL FUELING FACILITY
 17873 S.E. MCLOUGHLIN BOULEVARD
 MILWAUKIE, OREGON
WES Project No. 01-0001

Sample ID	Date Sampled	Sampled By	Benzene (ug/l)	Toluene (ug/l)	Ethyl-Benzene (ug/l)	Xylenes (ug/l)	TPH-Dx (mg/l)		TPH-Gx (mg/l)	MTBE (ug/l)	VOCs (ug/l)	PAHs (ug/l)	Dissolved Lead (mg/l)
							Diesel	Oil					
MW-2 ²	06/22/93	NWE	140	13	20	75	--	--	--	--	--	--	--
	07/18/94	NWE	25	ND	ND	187	--	--	--	--	--	--	--
	10/28/94	NWE	53	ND	4	4	--	--	--	--	--	--	--
	01/24/95	NWE	108	ND	6	8	--	--	--	--	--	--	--
	06/20/95	NWE	240	ND	ND	4	--	--	--	--	--	--	--
	09/29/95	NWE	208	ND	ND	ND	--	--	--	--	--	--	--
	02/15/96	NWE	26	ND	ND	ND	--	--	--	--	--	--	--
	04/26/96	NWE	56	ND	ND	ND	--	--	--	--	--	--	--
	10/29/96	NWE	54	ND	ND	ND	--	--	--	--	--	--	--
	01/15/97	NWE	9	ND	ND	ND	--	--	--	--	--	--	--
	01/27/98	NWE	34	ND	ND	ND	--	--	--	--	--	--	--
	07/23/99	GGs	1.54	ND	ND	ND	ND	ND	ND	113	--	--	--
MW-3 ³	06/22/93	NWE	1,600	3,800	1,900	10,100	--	--	--	--	--	--	--
	07/18/94	NWE	226	141	58	286	--	--	--	--	--	--	--
	10/28/94	NWE	18,400	17,400	3,200	20,200	--	--	--	--	--	--	--
	01/24/95	NWE	19,900	21,200	6,170	31,500	--	--	--	--	--	--	--

See final page for legend

TABLE 2 (Page 3 of 9)

GROUNDWATER SAMPLE ANALYTICAL RESULTS

DELCO PETROLEUM RETAIL FUELING FACILITY
 17873 S.E. MCLOUGHLIN BOULEVARD
 MILWAUKIE, OREGON
WES Project No. 01-0001

Sample ID	Date Sampled	Sampled By	Benzene (ug/l)	Toluene (ug/l)	Ethyl-Benzene (ug/l)	Xylenes (ug/l)	TPH-Dx (mg/l)		TPH-Gx (mg/l)	MTBE (ug/l)	VOCs (ug/l)	PAHs (ug/l)	Dissolved Lead (mg/l)
							Diesel	Oil					
MW-4 ⁴	06/22/93	NWE	3,500	1,500	420	2,360	--	--	--	--	--	--	--
	07/18/94	NWE	7,460	134	2,730	8,120	--	--	--	--	--	--	--
	10/28/94	NWE	8,400	161	5,320	4,724	--	--	--	--	--	--	--
	01/24/95	NWE	14,900	4,200	1,630	7,500	--	--	--	--	--	--	--
	06/20/95	NWE	5,130	281	3,150	16,400	--	--	--	--	--	--	--
	09/29/95	NWE	12,900	70	2,090	733	--	--	--	--	--	--	--
	02/15/96	NWE	4,490	522	1,500	2,390	--	--	--	--	--	--	--
	04/26/96	NWE	4,330	257	1,160	3,320	--	--	--	--	--	--	--
	10/29/96	NWE	490	15	123	442	--	--	--	--	--	--	--
	01/15/97	NWE	4,540	149	739	2,210	--	--	--	--	--	--	--
	01/27/98	NWE	2,960	133	513	1,070	--	--	--	--	--	--	--
	07/25/99	GGs	2,910	ND	109	ND	2.57	0.627	10,300	ND	--	--	--

See final page for legend

TABLE 2 (Page 4 of 9)

GROUNDWATER SAMPLE ANALYTICAL RESULTS

DELCO PETROLEUM RETAIL FUELING FACILITY
 17873 S.E. MCLOUGHLIN BOULEVARD
 MILWAUKIE, OREGON
WES Project No. 01-0001

Sample ID	Date Sampled	Sampled By	Benzene (ug/l)	Toluene (ug/l)	Ethyl-Benzene (ug/l)	Xylenes (ug/l)	TPH-Dx (mg/l)		TPH-Gx (mg/l)	MTBE (ug/l)	VOCs (ug/l)	PAHs (ug/l)	Dissolved Lead (mg/l)
							Diesel	Oil					
MW-5	06/22/93	NWE	500	750	180	1,090	--	--	--	--	--	--	--
	07/18/94	NWE	237	24	ND	187	--	--	--	--	--	--	--
	10/28/94	NWE	141	ND	28	35	--	--	--	--	--	--	--
	01/24/95	NWE	726	10	36	125	--	--	--	--	--	--	--
	06/20/95	NWE	150	18	4	70	--	--	--	--	--	--	--
	09/29/95	NWE	386	3	75	63	--	--	--	--	--	--	--
	02/15/96	NWE	23	ND	ND	9	--	--	--	--	--	--	--
	04/26/96	NWE	310	ND	34	30	--	--	--	--	--	--	--
	10/29/96	NWE	350	2	23	49	--	--	--	--	--	--	--
	01/15/97	NWE	33	ND	2	5	--	--	--	--	--	--	--
	01/27/98	NWE	901	5	17	60	--	--	--	--	--	--	--
	07/25/99	GGs	35.7	ND	ND	ND	ND	ND	118	ND	--	--	--
	08/27/00	GGs	170	ND	ND	ND	ND	ND	667	ND	N = 30.2	--	--
	01/10/01	WES	86	ND	1.3	1.0	ND	ND	--	54	IPB = 3.3 NPB = 4.2	--	ND

See final page for legend

TABLE 2 (Page 5 of 9)

GROUNDWATER SAMPLE ANALYTICAL RESULTS

DELCO PETROLEUM RETAIL FUELING FACILITY
 17873 S.E. MCLOUGHLIN BOULEVARD
 MILWAUKIE, OREGON
WES Project No. 01-0001

Sample ID	Date Sampled	Sampled By	Benzene (ug/l)	Toluene (ug/l)	Ethyl-Benzene (ug/l)	Xylenes (ug/l)	TPH-Dx (mg/l)		TPH-Gx (mg/l)	MTBE (ug/l)	VOCs (ug/l)	PAHs (ug/l)	Dissolved Lead (mg/l)
							Diesel	Oil					
MW-6	06/22/93	NWE	14	7	7	26	--	--	--	--	--	--	--
	07/18/94	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	10/28/94	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/24/95	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	06/20/95	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	09/29/95	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	02/15/96	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	04/26/96	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	10/29/96	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/15/97	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/27/98	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	07/24/99	GGs	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
	08/27/00	GGs	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
	01/10/01	WES	--	--	--	--	--	--	--	--	--	--	--

See final page for legend

TABLE 2 (Page 6 of 9)

GROUNDWATER SAMPLE ANALYTICAL RESULTS

DELCO PETROLEUM RETAIL FUELING FACILITY
 17873 S.E. MCLOUGHLIN BOULEVARD
 MILWAUKIE, OREGON
WES Project No. 01-0001

Sample ID	Date Sampled	Sampled By	Benzene (ug/l)	Toluene (ug/l)	Ethyl-Benzene (ug/l)	Xylenes (ug/l)	TPH-Dx (mg/l)		TPH-Gx (mg/l)	MTBE (ug/l)	VOCs (ug/l)	PAHs (ug/l)	Dissolved Lead (mg/l)
							Diesel	Oil					
MW-7	06/20/95	NWE	4,230	6,410	11,700	16,700	--	--	--	--	--	--	--
	09/29/95	NWE	540	4	117	74	--	--	--	--	--	--	--
	02/15/96	NWE	117	26	13	629	--	--	--	--	--	--	--
	04/26/96	NWE	276	31	70	309	--	--	--	--	--	--	--
	10/29/96	NWE	298	5	16	55	--	--	--	--	--	--	--
	01/15/97	NWE	258	50	60	225	--	--	--	--	--	--	--
	01/27/98	NWE	309	121	315	1,560	--	--	--	--	--	--	--
MW-8	06/20/95	NWE	2,830	312	253	2,830	--	--	--	--	--	--	--
	09/29/95	NWE	1,164	70	211	290	--	--	--	--	--	--	--
	02/15/96	NWE	384	38	111	496	--	--	--	--	--	--	--
	04/26/96	NWE	163	ND	41	208	--	--	--	--	--	--	--
	10/29/96	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/15/97	NWE	944	153	130	1,690	--	--	--	--	--	--	--
	01/27/98	NWE	522	63	230	469	--	--	--	--	--	--	--

See final page for legend

TABLE 2 (Page 7 of 9)

GROUNDWATER SAMPLE ANALYTICAL RESULTS

DELCO PETROLEUM RETAIL FUELING FACILITY
 17873 S.E. MCLOUGHLIN BOULEVARD
 MILWAUKIE, OREGON
WES Project No. 01-0001

Sample ID	Date Sampled	Sampled By	Benzene (ug/l)	Toluene (ug/l)	Ethyl-Benzene (ug/l)	Xylenes (ug/l)	TPH-Dx (mg/l)		TPH-Gx (mg/l)	MTBE (ug/l)	VOCs (ug/l)	PAHs (ug/l)	Dissolved Lead (mg/l)
							Diesel	Oil					
MW-9	06/20/95	NWE	ND	ND	ND	2	--	--	--	--	--	--	--
	09/29/95	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	02/15/96	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	04/26/96	NWE	71	ND	12	9	--	--	--	--	--	--	--
	10/29/96	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/15/97	NWE	55	ND	10	15	--	--	--	--	--	--	--
	01/27/98	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	07/23/99	GGs	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
	08/27/00	GGs	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
	01/10/01	WES	0.6	ND	ND	ND	ND	ND	--	--	--	--	--
MW-10	09/18/96	NWE	ND	ND	ND	ND	--	--	ND	--	--	--	--
	10/29/96	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/15/97	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/27/98	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	07/23/99	GGs	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
	08/27/00	GGs	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
	01/10/01	WES	ND	ND	ND	ND	0.6	1.0	--	--	--	ND	--

See final page for legend

GROUNDWATER SAMPLE ANALYTICAL RESULTS

TABLE 2 (Page 8 of 9)

DELCO PETROLEUM RETAIL FUELING FACILITY
17873 S.E. MCLOUGHLIN BOULEVARD
MILWAUKIE, OREGON
WES Project No. 01-0001

Sample ID	Date Sampled	Sampled By	Benzene (ug/l)	Toluene (ug/l)	Ethyl-Benzene (ug/l)	Xylenes (ug/l)	TPH-Dx (mg/l)		TPH-Gx (mg/l)	MTBE (ug/l)	VOCs (ug/l)	PAHs (ug/l)	Dissolved Lead (mg/l)
							Diesel (mg/l)	Oil					
MW-11	09/18/96	NWE	ND	ND	ND	ND	ND	--	ND	ND	--	--	--
	10/29/96	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/15/97	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/27/98	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	07/24/99	CGS	ND	ND	ND	ND	0.542	ND	ND	ND	--	--	--
	08/27/00	CGS	ND	ND	ND	ND	0.610	ND	ND	ND	cis-1,2-DCE = 1.96 Vinyl Chloride = 0.8	--	--
MW-12	09/18/96	NWE	ND	ND	ND	ND	ND	--	ND	--	--	--	--
	10/29/96	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/15/97	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/27/98	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	07/24/99	CGS	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
	08/27/00	CGS	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
MW-13	09/18/96	NWE	ND	ND	ND	ND	--	--	ND	--	--	--	--
	10/29/96	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/15/97	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	01/27/98	NWE	ND	ND	ND	ND	--	--	--	--	--	--	--
	07/23/99	CGS	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
	08/27/00	CGS	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--

See final page for legend

TABLE 2 (Page 9 of 9)

GROUNDWATER SAMPLE ANALYTICAL RESULTS

DELCO PETROLEUM RETAIL FUELING FACILITY
 17873 S.E. MCLOUGHLIN BOULEVARD
 MILWAUKIE, OREGON
WES Project No. 01-0001

Sample ID	Date Sampled	Sampled By	Benzene (ug/l)	Toluene (ug/l)	Ethyl-Benzene (ug/l)	Xylenes (ug/l)	TPH-Dx (mg/l)		TPH-Gx (mg/l)	MTBE (ug/l)	VOCs (ug/l)	PAHs (ug/l)	Dissolved Lead (mg/l)
							Diesel	Oil					
MW-14	08/27/00	GGs	ND	ND	ND	ND	ND	ND	ND	37.8	--	--	--
	01/10/01	WES	ND	ND	ND	ND	ND	ND	--	--	--	--	--
MW-15	08/27/00	GGs	24.6	2.13	10.6	10.3	ND	ND	410	7.66	N = 11.3	--	--
	01/10/01	WES	9.3	ND	ND	ND	ND	ND	--	--	--	--	--

LEGEND

- ¹ Compounds are lighter than diesel.
² Monitoring Well MW-2 was decommissioned in 1999.
³ Monitoring Well MW-3 was decommissioned in 1995.
⁴ Monitoring Well MW-4 was decommissioned in 1999.

WES = Wohlers Environmental Services, Inc.

ID = Identification

TPH = Total Petroleum Hydrocarbon

Dx = Diesel extended

Gx = Gasoline extended

MTBE = Methyl Tertiary Butyl Ether

VOCs = Volatile Organic Compounds

PAHs = Polynuclear Aromatic Hydrocarbons

ug/l = micrograms per liter or parts per billion (ppb)

mg/l = milligrams per liter or parts per million (ppm)

NWE = Northwest Envirocon, Inc.

GGs = GeoPro Geologic Services

IPB = IsoPropylBenzene

NPB = n-PropylBenzene

N = Naphthalene

1,3,5-TMB = 1,3,5-TriMethylBenzene

cis-1,2-DCE = cis-1,2-DiChloroEthene

ND = Not Detected

-- = Not Analyzed

APPENDIX A

LABORATORY ANALYTICAL RESULTS

ANALYSIS REPORT



Professional
Laboratory
Services

13035 S.W. Pacific Hwy.
Tigard, OR 97223

Tel 503 639 9311
Fax 503 684 1588

C
L Wohlers Environmental Services
I Attn. Chris Wohlers
E 6665 SW Hampton St., Suite 100
N Tigard, OR 97223
T

Date Sampled: 1/10/01
Date Received: 1/11/01
Date Analyzed: 1/15/01
Date Reported: 1/16/01
Job Number: 01011/28-32
Page: 1 of 7

Analysis - RBDM List (EPA Method 8260B)

Project: Delco Petroleum - Milwaukie

Project Number: 01-0001

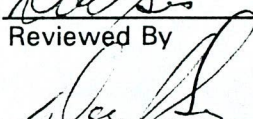
Sample Type - Water

Laboratory Sample # Client Identification	01011/28 MW-1	01011/29 MW-5	Detection Limit	1/15/01 Blank
Compound	ug/L (ppb)	ug/L (ppb)	ug/L (ppb)	ug/L (ppb)
Benzene	250	86	0.5	ND
Toluene	4.0	ND	0.5	ND
Ethylbenzene	5.9	1.3	0.5	ND
Total Xylenes	8.2	1.0	0.5	ND
1,2-Dichloroethane (EDC)	ND	ND	0.5	ND
1,2-Dibromoethane (EDB)	ND	ND	0.5	ND
Isopropylbenzene	15	3.3	0.5	ND
n-Propylbenzene	27	4.2	0.5	ND
1,3,5-Trimethylbenzene	0.8	ND	0.5	ND
1,2,4-Trimethylbenzene	ND	ND	0.5	ND
Methyl tert butyl ether (MTBE)	88	54	0.5	ND
Naphthalene	11	ND	5.0	ND

QC Information: Surrogate % Recovery

(1,2-Dichloroethane-d4)	98	90	100
(Toluene-d8)	94	95	96
(4-Bromofluorobenzene)	98	92	95


Reviewed By


QA Check


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ANALYSIS REPORT



Professional
Laboratory
Services

13035 S.W. Pacific Hwy.
Tigard, OR 97223

Tel 503 639 9311
Fax 503 684 1588

C
W
E
N
T

Wohlers Environmental Services
Attn. Chris Wohlers
6665 SW Hampton St., Suite 100
Tigard, OR 97223

Date Sampled: 1/10/01
Date Received: 1/11/01
Date Analyzed: 1/15/01
Date Reported: 1/16/01
Job Number: 01011/28-32
Page: 2 of 7

Analysis - GC/MS Volatiles (EPA Method 8260B)

Project: Delco Petroleum - Milwaukie

Project Number: 01-0001

Laboratory Sample Number	01011/30	01011/30	Detection	1/15/01
Client Identification	MW-11	duplicate	Limit	Blank
Compound	ug/L (ppb)	ug/L (ppb)	ug/L (ppb)	ug/L (ppb)
Dichlorodifluoromethane	ND	ND	0.5	ND
Chloromethane	ND	ND	0.5	ND
Vinyl chloride	0.8	0.8	0.5	ND
Bromomethane	ND	ND	0.5	ND
Chloroethane	ND	ND	0.5	ND
Trichlorofluoromethane	ND	ND	0.5	ND
1,1-Dichloroethene	ND	ND	0.5	ND
Carbon disulfide	ND	ND	5.0	ND
Iodomethane	ND	ND	0.5	ND
Methylene chloride	ND	ND	2.0	ND
Acetone	ND	ND	10	ND
trans-1,2-Dichloroethene	ND	ND	0.5	ND
Methyl tert butyl ether (MTBE)	1.6	1.7	0.5	ND
1,1-Dichloroethane	ND	ND	0.5	ND
Vinyl acetate	ND	ND	5.0	ND
2,2-Dichloropropane	ND	ND	0.5	ND
cis-1,2-Dichloroethene	1.8	1.7	0.5	ND
Bromochloromethane	ND	ND	0.5	ND
Chloroform	ND	ND	0.5	ND
1,1,1-Trichloroethane	ND	ND	0.5	ND
Carbon tetrachloride	ND	ND	0.5	ND
2-Butanone (MEK)	ND	ND	10	ND
1,1-Dichloropropene	ND	ND	0.5	ND
Benzene	ND	ND	0.5	ND
1,2-Dichloroethane	ND	ND	0.5	ND
Trichloroethene	ND	ND	0.5	ND
1,2-Dichloropropane	ND	ND	0.5	ND
Dibromomethane	ND	ND	0.5	ND
Bromodichloromethane	ND	ND	0.5	ND
2-Chloroethyl vinyl ether	ND	ND	0.5	ND
cis-1,3-Dichloropropene	ND	ND	0.5	ND
Toluene	ND	ND	0.5	ND
2-Hexanone	ND	ND	10	ND
trans-1,3-Dichloropropene	ND	ND	0.5	ND
1,1,2-Trichloroethane	ND	ND	0.5	ND
Tetrachloroethene	ND	ND	0.5	ND
1,3-Dichloropropane	ND	ND	0.5	ND
Dibromochloromethane	ND	ND	0.5	ND
1,2-Dibromoethane	ND	ND	0.5	ND

Paul M. Mangel
Reported By
Paul M. Mangel
QA Check

Paul M. Mangel
Reviewed By

ANALYSIS REPORT



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Wohlers Environmental Services
Attn. Chris Wohlers
6665 SW Hampton St., Suite 100
Tigard, OR 97223

Date Sampled: 1/10/01
Date Received: 1/11/01
Date Analyzed: 1/15/01
Date Reported: 1/16/01
Job Number: 01011/28-32
Page: 3 of 7

Analysis - GC/MS Volatiles (EPA Method 8260B)

Project: Delco Petroleum - Milwaukie

Project Number: 01-0001

Laboratory Sample Number	01011/30	01011/30	Detection	1/15/01
Client Identification	MW-11	duplicate	Limit	Blank
Compound	ug/L (ppb)	ug/L (ppb)	ug/L (ppb)	ug/L (ppb)
4-Methyl-2-pentanone (MIBK)	ND	ND	10	ND
Chlorobenzene	ND	ND	0.5	ND
1,1,1,2-Tetrachloroethane	ND	ND	0.5	ND
Ethylbenzene	ND	ND	0.5	ND
Total Xylenes	ND	ND	0.5	ND
Styrene	ND	ND	0.5	ND
Bromoform	ND	ND	0.5	ND
Isopropylbenzene	ND	ND	0.5	ND
Bromobenzene	ND	ND	0.5	ND
1,1,2,2-Tetrachloroethane	ND	ND	0.5	ND
1,2,3-Trichloropropane	ND	ND	0.5	ND
n-Propylbenzene	ND	ND	0.5	ND
2-Chlorotoluene	ND	ND	0.5	ND
4-Chlorotoluene	ND	ND	0.5	ND
1,3,5-Trimethylbenzene	ND	ND	0.5	ND
tert-Butylbenzene	ND	ND	0.5	ND
1,2,4-Trimethylbenzene	ND	ND	0.5	ND
sec-Butylbenzene	ND	ND	0.5	ND
1,3-Dichlorobenzene	ND	ND	0.5	ND
4-Isopropyltoluene	ND	ND	0.5	ND
1,4-Dichlorobenzene	ND	ND	0.5	ND
1,2-Dichlorobenzene	ND	ND	0.5	ND
n-Butylbenzene	ND	ND	0.5	ND
1,2-Dibromo-3-chloropropane	ND	ND	2.0	ND
1,2,4-Trichlorobenzene	ND	ND	2.0	ND
Hexachlorobutadiene	ND	ND	2.0	ND
Naphthalene	ND	ND	5.0	ND
1,2,3-Trichlorobenzene	ND	ND	2.0	ND

QC Information: Surrogate % Recovery

(1,2-Dichloroethane-d4)	102	104	100
(Toluene-d8)	97	94	96
(4-Bromofluorobenzene)	97	94	95

ND = None Detected

Reported By Pat Marshall
QA Check [Signature]

[Signature]
Reviewed By



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ANALYSIS REPORT

C
L Wohlers Environmental Services
I Attn. Chris Wohlers
E 6665 SW Hampton St., Suite 100
N Tigard, OR 97223
T

Date Sampled: 1/10/01
Date Received: 1/11/01
Date Analyzed: 1/15/01
Date Reported: 1/16/01
Job Number: 01011/28-32
Page: 4 of 7

Project: Delco Petroleum - Milwaukie

Project Number: 01-0001

Sample Type - Water

Lab Number	Client Identification	Analysis - BTEX (EPA Method 8020)				
		ug/L (ppb)				
		Benzene	Toluene	Ethylbenzene	Xylenes	Surrogate % Recovery
01011/31	MW-14	ND	ND	ND	ND	106
01011/32	MW-15	9.3	ND	ND	ND	108

QC Information:

Lab Blank	1/15/01	ND	ND	ND	ND	104
-----------	---------	----	----	----	----	-----

Detection Limit: 0.5 0.5 0.5 0.5

ND = None Detected

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ANALYSIS REPORT

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L Wohlers Environmental Services
I Attn. Chris Wohlers
E 6665 SW Hampton St., Suite 100
N Tigard, OR 97223
T

Date Sampled: 1/10/01
Date Received: 1/11/01
Date Extracted: 1/16/01
Date Analyzed: 1/18&22/01
Date Reported: 1/18/01
Job Number: 01011/28-32
Page: 5 of 7

Project: Delco Petroleum - Milwaukie
Project Number: 01-0001
Sample Type - Water

Lab Number	Client Identification	Analysis - TPH-Dx mg/L (ppm)		
		Diesel	Heavy Oil	Surrogate % Recovery
01011/28	MW-1	1.0*	< 1.0**	108
01011/28-dup	MW-1	1.3*	< 1.0**	112
01011/29***	MW-5	ND	ND	98
01011/30***	MW-11	ND	ND	114
01011/31	MW-14	ND	ND	122
01011/32	MW-15	ND	ND	109

QC Information:

Lab Blank	1/16/01	ND	ND	111
Blank Spike	% Recovery	100	72	100

Detection Limit: 0.25 0.5

ND = None Detected

*Gasoline contamination present. Chromatogram does not match diesel standard.

**Raised detection limit is due to the sample matrix.

***Samples were put through a silica gel cleanup. Blank not put through cleanup.

Pat Marshall
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ANALYSIS REPORT

C
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I Attn. Chris Wohlers
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T

Date Sampled: 1/10/01
Date Received: 1/11/01
Date Extracted: 1/19/01
Date Analyzed: 1/21/01
Date Reported: 1/23/01
Job Number: 01011/28-32
Page: 6 of 7

Analysis - Polynuclear Aromatics (EPA Method 8270C SIM)

Project: Delco Petroleum - Milwaukie

Project Number: 01-0001

Sample Type - Water

Laboratory Sample Number	01011/28	Detection	1/19/01
Client Identification	MW-1	Limit	Blank
	ug/L (ppb)	ug/L (ppb)	ug/L (ppb)
Naphthalene	6.4	0.1	ND
Acenaphthylene	ND	0.1	ND
Acenaphthene	ND	0.1	ND
Fluorene	ND	0.1	ND
Phenanthrene	ND	0.1	ND
Anthracene	ND	0.1	ND
Fluoranthene	ND	0.1	ND
Pyrene	ND	0.1	ND
Benzo(a)anthracene	ND	0.1	ND
Chrysene	ND	0.1	ND
Benzo(b)fluoranthene	ND	0.1	ND
Benzo(k)fluoranthene	ND	0.1	ND
Benzo(a)pyrene	ND	0.1	ND
Indeno(1,2,3-c,d)pyrene	ND	0.1	ND
Dibenzo(a,h)anthracene	ND	0.1	ND
Benzo(g,h,i)perylene	ND	0.1	ND

QC Information: Surrogate % Recovery

2-Fluorobiphenyl 97
p-Terphenyl-d14 107

94
113

ND = None Detected

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ANALYSIS REPORT

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I Attn. Chris Wohlers
E 6665 SW Hampton St., Suite 100
N Tigard, OR 97223
T

Date Sampled: 1/10/01
Date Received: 1/11/01
Date Prepared: 1/15/01
Date Analyzed: 1/19/01
Date Reported: 1/19/01
Job Number: 01011/28-32
Page: 7 of 7

Project: Delco Petroleum - Milwaukie
Project Number: 01-0001
Sample Type - Water

Dissolved Lead
Analysis - EPA Method 200.9
Results mg/L (ppm)

Lab Number	Client Identification	Results mg/L (ppm)
01011/28	MW-1	ND
01011/29	MW-5	ND
Lab Blank	1/19/00	ND

ND = None Detected

Detection Limit = 0.001 mg/L (ppm)

Matrix Spike % Recovery = 92


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QA Check


Reported By



Professional Laboratory Services

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Tigard, OR 97223

Tel 503 639 9311
Fax 503 684 1588

Date Received:

Project Manager: Chris Wohlers

Company Name: **Wohlers Environmental Services, Inc.**

Address: 6665 SW Hampton St., Suite 100

City, State, ZIP: Tigard, OR 97223

Phone: 670-1344

FAX: 670-1701

P.O. # or Project #: 01-0001

Project Name: Delco Petroleum

Project Location: Milwaukee

Sampling Date: 01/10/01

Lab Project Number

01011/28-32

Lab Location

R4

RUSH? YES NO

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE MATRIX	ANALYSIS REQUIRED
01011/88	MW-1	W	TPH-Dx / RBDM VOCs
29	MW-5	W	TPH-Dx / RBDM VOCs
30	MW-11	W	TPH-Dx / Full 8260
31	MW-14	W	TPH-Dx / BTEX
32	MW-15	W	TPH-Dx / BTEX
	Please Filter water samples in each 250ml container.		
	Possible Dissolved Lead Followup		
	Possible PAH or RBDM VOC Followups		

LAB USE ONLY
Additional Analyses: mw1-mw5 Dissolved Pb
mw1-mw11 PAH

Requested By: Ohnī Walters

Date: 19 June 1961

Relinquished By <i>M. O. Wells</i>	Date/Time <i>11/10/01</i>	Received By <i>[Signature]</i>	Date/Time <i>11/10/01</i>
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time



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ANALYSIS REPORT

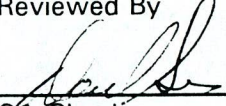
C
L Wohlers Environmental Services
I Attn. Chris Wohlers
E 6665 SW Hampton St., Suite 100
N Tigard, OR 97223
T

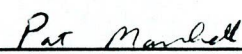
Date Sampled: 1/11/01
Date Received: 1/11/01
Date Analyzed: 1/15/01
Date Reported: 1/16/01
Job Number: 01011/33-34
Page: 1 of 3

Project: Delco Petroleum - Milwaukie
Project Number: 01-0001
Sample Type - Water

Lab Number	Client Identification	Analysis - BTEX (EPA Method 8020)				
		ug/L (ppb)				
		Benzene	Toluene	Ethylbenzene	Xylenes	Surrogate % Recovery
01011/33	MW-9	0.6	ND	ND	ND	107
01011/34	MW-10	ND	ND	ND	ND	103
01011/34dup	MW-10	ND	ND	ND	ND	104
QC Information:						
Lab Blank	1/15/01	ND	ND	ND	ND	104
01011/34 Spike	MW-10	112	107	108	108	115
Detection Limit:		0.5	0.5	0.5	0.5	
ND = None Detected						


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QA Check


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Tigard, OR 97223

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ANALYSIS REPORT

C
L Wohlers Environmental Services
I Attn. Chris Wohlers
E 6665 SW Hampton St., Suite 100
N Tigard, OR 97223
T

Date Sampled: 1/11/01
Date Received: 1/11/01
Date Extracted: 1/16/01
Date Analyzed: 1/18/01
Date Reported: 1/18/01
Job Number: 01011/33-34
Page: 2 of 3

Project: Delco Petroleum - Milwaukie
Project Number: 01-0001
Sample Type - Water

Lab Number	Client Identification	Analysis - TPH-Dx mg/L (ppm)		
		Diesel	Heavy Oil	Surrogate % Recovery
01011/33	MW-9	ND	ND	136
01011/34	MW-10	0.6	1.0	111

QC Information:

Lab Blank	1/16/01	ND	ND	115
Blank Spike	% Recovery	75	78	89

Detection Limit: 0.25 0.5

ND = None Detected

Pat Marshall
Reviewed By

[Signature]
QA Check

[Signature]
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ANALYSIS REPORT

C
L Wohlers Environmental Services
I Attn. Chris Wohlers
E 6665 SW Hampton St., Suite 100
N Tigard, OR 97223
T

Date Sampled: 1/11/01
Date Received: 1/11/01
Date Extracted: 1/19/01
Date Analyzed: 1/21/01
Date Reported: 1/22/01
Job Number: 01011/33-34
Page: 3 of 3

Analysis - Polynuclear Aromatics (EPA Method 8270C SIM)

Project: Delco Petroleum - Milwaukie

Project Number: 01-0001

Sample Type - Water

Laboratory Sample Number	01011/34	Detection	1/19/01
Client Identification	MW-10	Limit	Blank
	ug/L (ppb)	ug/L (ppb)	ug/L (ppb)
Naphthalene	ND	0.1	ND
Acenaphthylene	ND	0.1	ND
Acenaphthene	ND	0.1	ND
Fluorene	ND	0.1	ND
Phenanthrene	ND	0.1	ND
Anthracene	ND	0.1	ND
Fluoranthene	ND	0.1	ND
Pyrene	ND	0.1	ND
Benzo(a)anthracene	ND	0.1	ND
Chrysene	ND	0.1	ND
Benzo(b)fluoranthene	ND	0.1	ND
Benzo(k)fluoranthene	ND	0.1	ND
Benzo(a)pyrene	ND	0.1	ND
Indeno(1,2,3-c,d)pyrene	ND	0.1	ND
Dibenzo(a,h)anthracene	ND	0.1	ND
Benzo(g,h,i)perylene	ND	0.1	ND

QC Information: Surrogate % Recovery

2-Fluorobiphenyl 107
p-Terphenyl-d14 127

94
113

ND = None Detected

Pat Marshall
Reported By
[Signature]
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CHAIN OF CUSTODY RECORD



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Tel 503 639 9311
Fax 503 684 1588

Date Received:

Project Manager: **Chris Wohlers**

Company Name: **Wohlers Environmental Services, Inc.**

Address: **6665 SW Hampton St., Suite 100**

City, State, ZIP: **Tigard, OR 97223**

Phone: **670-1344**

FAX: **670-1701**

P.O. # or Project #: **01-0001**

Project Name: **Delco Petroleum**

Project Location: **Milwaukie**

Sampling Date: **01/11/01**

Lab Project Number

01011/33-34

Lab Location

RY

RUSH? YES ☒ NO

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE MATRIX	ANALYSIS REQUIRED
01011/33	MW-9	W	TPH-Dx / BTEX
34	MW-10	W	TPH-Dx / BTEX
	Possible PAH or RBDm VOC followups		

LAB USE ONLY

Additional Analyses: **PAH MW-10**

Requested By: **Chris Wohlers**

Date: **1/11/01**

Relinquished By Kelly Harrison	Date/Time 1/11/01 15:35	Received By KL	Date/Time 1/11/01
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time



DEPT OF ENVIRONMENTAL QUALITY
RECEIVED

10 January 2001

JAN 12 2001

Mr. Robert Williams, UST Cleanup Specialist
Oregon Department of Environmental Quality,
Northwest Region Office
2020 S.W. Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

NORTHWEST REGION

RE: Notification of Anticipated Schedule for Completion of Quarterly Groundwater Monitoring Activities at the Delco Petroleum Facility Located at 17869 S.E. McLoughlin Boulevard in Milwaukie, Oregon
Wohlers Environmental Project No. 01-0001; Oregon DEQ LUST File No. 03-93-0008

Dear Mr. Williams:

Wohlers Environmental Services, Inc. ("Wohlers Environmental") has been retained by Delco Petroleum Company, L.L.C. ("Delco Petroleum") to complete site assessment and closure-related activities at the Delco Petroleum retail motor fuel facility located at 17869 S.E. McLoughlin Boulevard in Milwaukie, Oregon ('subject site'). The most recent quarterly groundwater monitoring event was completed by GeoPro Geologic Services ("GeoPro") on 7 August 2000 following completion of Underground Storage Tank (UST) decommissioning and soil cleanup activities completed in October 1999. A report summarizing the August 2000 (i.e., Third Quarter) quarterly monitoring event ("August 2000 Quarterly Report") has been submitted to the Oregon DEQ.

Delco Petroleum representatives contacted or attempted to contact GeoPro representatives regarding completion of a Fourth Quarter 2000 groundwater monitoring event. Despite these efforts to assure completion of a Fourth Quarter 2000 monitoring event (i.e., completion in October, November or December 2000), GeoPro did not complete groundwater monitoring activities in Fourth Quarter 2000. Wohlers Environmental has initiated groundwater monitoring activities on 10 January 2001, including collection of groundwater samples from wells MW-1, MW-5, MW-11, MW-14 and MW-15 with subsequent collection of groundwater samples from wells MW-9 and MW-10 on 11 January 2001. Water levels were collected from all of the above-referenced wells on 10 January 2001.

Wohlers Environmental requests that the Oregon Department of Environmental Quality (DEQ) recognize that consecutive quarterly monitoring events began with the August 2000 monitoring event. The next event will be the January 2001 event with subsequent consecutive monitoring events scheduled for March 30 and June 15, 2001. Given that the January 2001 event was

Mr. Robert Williams, UST Cleanup Specialist
Oregon DEQ, Northwest Region Office
10 January 2001
Page 2

completed only 10 days beyond the Calendar end of the Fourth Quarter 2000 timeframe, and that potential seasonal variation is well-covered by the August, early January, late March and mid-June monitoring events, this request appears reasonable. The financial cost for Delco Petroleum associated with completion of an additional quarterly monitoring event is estimated at approximately \$3,000 to \$3,500.

This issue appears to be pertinent given that initial groundwater monitoring results associated with the August 2000 monitoring event indicate that petroleum impacts to shallow groundwater do not appear to pose a significant risk to human health and the environment. Thus, completion of only an additional three quarterly monitoring events, and not an additional four quarterly monitoring events, will have a significant financial impact for the facility owner.

Wohlers Environmental has requested a copy of the "August 2000 Quarterly Report". As we have discussed, based on our initial review of available information, additional subsurface investigation north of the "Ed's Muffler & Brakes" facility may not be required. Our evaluation of the necessity for additional investigation will include a review of the August 2000 report, and results associated with the January 2001 monitoring event. We will discuss this issue with you following receipt and interpretation of laboratory analytical results associated with the January 2001 event (i.e., late January or early February 2001).

As requested in your 6 November 2000 correspondence, Wohlers Environmental will include additional information addressing remaining petroleum-impacted soil at the subject site, and a review of groundwater wells within 0.25 miles of the subject site.

Please contact us if you have questions regarding the information included in this correspondence, or other applicable issues. We hope that our proposed groundwater sampling schedule will be acceptable and approved, particularly given Delco Petroleum's efforts to ensure timely completion of appropriate monitoring activities.

Sincerely,

WOHLERS ENVIRONMENTAL SERVICES, INC.



Christopher C. Wohlers
President/Senior Consultant

cc: Mr. G. Singh Sohi, Manager, Delco Petroleum Co.

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Chris Wchlers DATE: 1-9-01
WITH: Wchlers Env. TIME: 2:45
TELEPHONE NO: () 670-1344
REGARDING: Delco / Flying J site
FILE NO: 03-93-0008

SUMMARY OF CALL

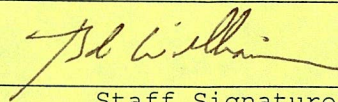
Chris has taken over this project. The last quarterly sampling was Aug 7. They are planning to sample Jan 10, 2001 and Chris would like to use the Aug sample as one of (4) four consecutive quarters of monitoring required for closure.

Since these monitoring dates are nearly 6 months apart I doubt this is appropriate. I feel the site unlikely to be ready for closure soon because off-site impacts not yet assessed.

Chris thinks off-site probably not an issue and will argue against more investigation in next report. I am skeptical.

Chris will work on requested documentation in last Dept. letter.

Chris will sample Mwell, offsite well, for VOCs (8260) due to DCE ^{detection} and my request in Nov 6 letter.



Staff Signature



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

November 6, 2000

DEVINDER DHILLON
DELCO PETROLEUM CO LLC
14 LONGLEAF DRIVE
HAMILTON SQUARE NEW JERSEY 08690

Re: Flying J-Milwaukie #2
File No. 03-93-0008

Dear Mr. Dhillon:

The Department has completed its review of the GeoPro Geologic Services (GGS) Remedial Excavation Report and Quarterly Report Groundwater Monitoring August 2000. In late 1999 and early 2000, tank and fuel systems were removed and replaced and 5,006 tons of petroleum contaminated soil (PCS) was excavated and removed from the Delco Petroleum site at 17869 SE McLoughlin Boulevard in Milwaukie, Oregon. This effort has greatly furthered cleanup of the site.

Quarterly groundwater sampling indicates that some residual groundwater contamination remains at the site. It is expected that groundwater concentration will drop more with time following excavation. Four quarters of continuous groundwater monitoring will be needed before site closure is considered. Quarterly groundwater sampling should continue. In preparation for site closure following Risk-Based Decision Making (RBDM) guidelines, a conceptual site model (CSM) should be prepared for the site. The CSM should include: a map showing the plume outline and if possible, contoured concentrations; mapped location of any remaining PCS; location and current status of nearby groundwater wells especially in the downgradient direction.

Offsite well MW-11 contained 1.96 parts per billion (ppb) cis-1,2-dichloroethene. This concentration is considerably lower than the EPA Region 9 Preliminary Remediation Goal (PRGs) for drinking water. The same contaminant was found in auto parts dump water sample WG-1-9.5' at approximately 100 ppb. Smaller quantities of other chlorinated solvent contaminants were found in this area. Diesel contamination was also found in MW-11 water. In decommissioning a waste oil tank at the Ed's Muffler & Brakes property, soil samples were collected from waste oil-contaminated soil and analyzed. Heavy oil was detected at up to 900 parts per million (ppm) but diesel and volatile organic compounds (VOCs) were not detected. Water in the pit below the former tank was analyzed and contained low concentrations of diesel, heavy oil, and benzene. Since diesel and benzene were not detected in soil above the water table, it is possible that these contaminants came from the Delco site. These results, the north/northwest groundwater flow direction, and

Devinder Dhillon
November 6, 2000
Page 2

residual PCS in the north wall of the excavation suggest that contaminants from the Delco site may have migrated onto the Ed's Muffler & Brakes property. To determine the extent and magnitude of offsite contamination the investigation should be expanded north of the muffler shop. This offsite migration should be explored in the CSM and analysis for volatile organic compounds (VOCs) should continue in MW-11.

Apparently due to anomalous groundwater levels in MW-14 and MW-15, the contours presented in the quarterly report are difficult to interpret. The software used for contouring tends to produce "island contours". A method that avoids this tendency is recommended.

The quarterly report recommends eliminating monitoring wells MW-6, MW-12, and MW-13 from regular monitoring. Since the contaminants in these wells have been insignificant or not detected, the Department approves removing them from the monitoring schedule. Water level measurement should continue in all wells.

Please continue to submit quarterly monitoring reports. Please include a draft CSM and a conceptual plan for further site investigation with the next report. If you have any questions please call me at (503) 229-6242.

Sincerely,



Robert Williams
UST Cleanup Specialist

cc: Richard Kent
GeoPro Geologic Services
- PO Box 26
Battle Ground Washington 98604

Gurdev Singh Sohi
Delco Petroleum CO LLC
17873 SE McLoughlin Boulevard
Milwaukie, Oregon 97267

Robert C. Chatterton
Ed's Mufflers Unlimited Inc
815 NE Hogan Road
Gresham Oregon 97030

(rkw:RKW)

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Rick Kent DATE: 8/23/00
WITH: GeoPro TIME: 4:05
TELEPHONE NO: (360) 666 - 1465
REGARDING: Delco Site
FILE NO: 03 - 93 - 0008

SUMMARY OF CALL

Delco is back on track and Rick is putting finishing touches on the excavation report. He is ready to go out and sample wells for first time since excavation. We decided to sample all wells at this time. May reduce the number of sampled wells after one round.

We discussed the "mystery tanks" from Jiffy Lube days that we could never find paperwork on. Rick said he saw a reference to some waste oil tanks improperly removed in a Phase 1 for Pennzoil. Also an 80-gal surface spill that was cleaned up. These events apparently near MW-6 which has always been clean.

TBA Luth

Staff Signature



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

July 28, 2000

DEVINDER DHILLON
DELCO PETROLEUM CO LLC
14 LONGLEAF DRIVE
HAMILTON SQUARE, NEW JERSEY 08690

Re: Flying J-Milwaukie #2
File No. 03-93-0008

Dear Mr. Dhillon:

In late 1999 and early 2000, tank removal and extensive soil excavation work was performed at the Delco Petroleum leaking underground storage tank (LUST) site at 17869 SE McLoughlin Boulevard in Milwaukie, Oregon. To date the Department has not received results from this fieldwork or from quarterly sampling of site monitoring wells that was to resume following excavation work. Oregon Administrative Rule (OAR) 340-122-0240 specifies that the responsible person shall submit the information collected in site characterization investigation for the magnitude and extent of contamination, within 45 days of completing fieldwork. The above rule also specifies the collection of groundwater samples from site monitoring wells on a quarterly basis.

Please submit a report discussing results of tank removal, soil excavation, and site characterization, as well as a schedule for the resumption of quarterly sampling by **August 31, 2000**. If you have any questions please call me at (503) 229-6242.

Sincerely,

Robert Williams
UST Cleanup Specialist

cc: Richard Kent
GeoPro Geologic Services
PO Box 26
Battle Ground Washington 98604

(rkw:RKW)



UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Richard Kent DATE: 7-28-00

WITH: _____ TIME: 11:30

TELEPHONE NO: (360) 666 - 1465

REGARDING: Delco

FILE NO: 03 - 93 - 0008

SUMMARY OF CALL

Delco is apparently financially strapped. Richard has all the data
and has been working with insurance co. reps. Property owners
out of the country - will return next week. I told Rick we
need to get the data and get on with quarterly monitoring. Must
send a letter requesting this

T. B. Collins

Staff Signature

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Frank Patrick DATE: 5-24-00

WITH: _____ TIME: 11:00

TELEPHONE NO: (503) 224 - 8888

REGARDING: Flying J

FILE NO: 03 - 93 - 0008

Add.
CC: Info

SUMMARY OF CALL

Frank representing Eds Mufflers, the adjacent down gradient property. Eds has a waste oil tank site near the Flying J/Delco plume. Eds is concerned that groundwater contamination below waste oil tank coming from Delco site.

I reply that it could be but the offsite well on Eds property has been clean in the past and contamination could also have come from waste oil tank. Need more information

Add Ed and Frank to cc list. for Flying J

Frank Patrick

P.O. Box 68570

Portland, OR 97268

Ed Hickam

Eds Mufflers Unlimited

815 NE Hogan Rd.

Gresham, OR 97030

TSJ Walker

Staff Signature

March 20, 2000

Mr. Jan D. Sokol
Stewart Sokol & Gray, LLC
1500 Benj. Franklin Plaza
One SW Columbia Street
Portland, OR 97258-2016

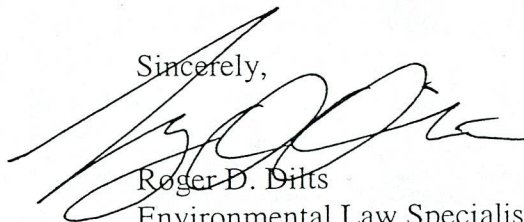
Re: Mutual Agreement and Order
In the Matters of:
*Devinder Dhillon and Delco Petroleum Co.,
LLC*
No. WMC/T-NWR-99-064
and
Delco Petroleum, LLC
No WQ/I-NWR-99-079
Multnomah County

Dear Jan:

The Mutual Agreement and Order (MAO) we negotiated is enclosed for signature. After your client signs the document, please return it to me by March 31, 2000. The MAO will reduce the civil penalties in these matters from \$37,212 to \$6,400. A check for \$6,400 made payable to: "State Treasurer, State of Oregon" must accompany the signed MAO. When the MAO is approved by our Enforcement Administrator, Neil Mullane, I will send you a copy of the fully signed MAO.

If you have any questions or need more time to respond, please contact me at 229-5692.

Sincerely,



Roger D. Dilts
Environmental Law Specialist

e:\winword\delco\maoltr

Enclosure

cc: Waste Management and Cleanup Division, DEQ
Water Quality Division, DEQ
Robert Williams, Northwest Region, DEQ



2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5528
TTY (503) 229-5471
DEQ-1

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Richard Kent DATE: 2-23-03
WITH: Gec Pro TIME: 11:45
TELEPHONE NO: (360) 666 - 1965
REGARDING: Deles - Flying J
FILE NO: 03 - 93 - 0008

SUMMARY OF CALL

Rick called with site update. 60 day reporting deadline may be missed due to lab results delay. Many soil samples collected - may use stat. methods to show compliance.

Hot spit remains near ^{storm} sewer drain but extent and magnitude well documented. Probably extends into Hwy 99 right of way.

Napthalene not analyzed for. We discussed this. If diesel or gas results Low or ND then should not be a big problem.

Some VOCs at auto parts dump.

J. E. Wilkins

Staff Signature

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Richard Kent DATE: 12-28-99

WITH: GeoPro TIME: 12:15

TELEPHONE NO: () -

REGARDING: Flying J

FILE NO: 03-93-0008

SUMMARY OF CALL

Auto parts dump is being dug up and removed. Earlier sample results erroneous. Final sample results show much less contamination. Not hazardous waste. Material is going to Arlington as normal waste because Hillsboro is full for the season. Soil still going to TPS.

We talked about installing another excavation well in the backfill at the dump but decided it would not be that useful since all the backfill areas are connected and we already have 2 wells going into backfill. Discussed possible need for new well in native soil near dump. Wait for data and report.

Ted Walham

Staff Signature

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Richard Kent DATE: 12-9-99
WITH: Geo Pro TIME: 10:30
TELEPHONE NO: (360) 666 - 1465
REGARDING: Flying J
FILE NO: 03 - 93 - 008

SUMMARY OF CALL

Benzene and lead are over the limits for Hillsboro.

Must do TCLP leachability analysis to determine if it
can go to Hillsboro. They seem to think it might still
be OK for Hillsboro. I told Richard he should do a
Hazardous Waste Determination. If it is hazardous the RP
will need an EPA generator number and material would
have to go to a hazardous waste landfill like Arlington.

Lab is revising the PCB number - may not really be
PCB's there. Methylene Chloride still stands.

Bd Williams

Staff Signature

**GEOPRO GEOLOGIC SERVICES****RICHARD C. KENT, R.G.**

Post Office Box 26, Battle Ground, WA 98604

(360) 666-1465

Fax (360) 666-8915

Fax Cover Sheet

To: Mr. Robert K. Williams, R.G., DEQ UST Cleanup & Compliance Section, Portland**RE:** DELCO AUTO PARTS DUMP SOIL SAMPLES**Fax Number:** (503) 229-6945**Pages Including This Cover Sheet:** 2**Phone:** (503) 229-6242**Date:** 08 December 1999

cc:

- ☐ **Per Your Request**
- ☐ **For Your Information**
- ☒ **For Your Review and Comment**
- ☐ **For Your Approval**

☒ **Response Requested** This fax is sent as a request for the following:

Your discussion on disposition of material is requested.

☐ **No Response Request**

• Comments:

Heavy-oil hydrocarbons, metals, PCB's, and VOC's were detected in soil samples from dump area. These analytes appear unrelated to UST leakages.

☐ **No Comments**

December 8, 1999

Two sample from DELCO auto parts dump area were analyzed for NWTPH-Dx, Total Metals, PCB, and VOC (as requested by Hillsboro landfill).

The following tables include only detected analytes.

SAMPLE D-1-5C

Analyte	Reporting Limit	Result	Units
Heavy Oil Range Hydrocarbons	2000	2010	mg/kg
Barium	0.500	182	mg/kg
Cadmium	0.500	1.25	mg/kg
Chromium	0.500	41.5	mg/kg
Lead	10.0	82.5	mg/kg
Mercury	Results not completed		mg/kg
Arsenic	Results not completed		mg/kg
Selenium	Results not completed		mg/kg
Aroclor 1260	67.0	89.1	µg/kg
Benzene	100	1700	µg/kg
n-Butylbenzene	100	113	µg/kg
Ethylbenzene	100	111	µg/kg
Isopropylbenzene	100	116	µg/kg
Methylene chloride	500	8450	µg/kg
n-Propylbenzene	100	359	µg/kg
Tetrachloroethene	100	1790	µg/kg
1,2,4-Triethylbenzene	100	887	µg/kg
1,3,5-Triethylbenzene	100	193	µg/kg
m,p-Xylene	200	860	µg/kg

SAMPLE D-2-SPOIL

Analyte	Reporting Limit	Result	Units
Heavy Oil Range Hydrocarbons	2000	16100	mg/kg
Barium	0.500	186	mg/kg
Cadmium	0.500	1.38	mg/kg
Chromium	0.500	25.3	mg/kg
Lead	10.0	188	mg/kg
Mercury	Results not completed		mg/kg
Arsenic	Results not completed		mg/kg
Selenium	Results not completed		mg/kg
Benzene	100	13200	µg/kg
Ethylbenzene	100	1120	µg/kg
Isopropylbenzene	100	191	µg/kg
Methylene chloride	500	1850	µg/kg
n-Propylbenzene	100	248	µg/kg
Tetrachloroethene	100	185	µg/kg
Toluene	100	613	µg/kg
1,2,4-Triethylbenzene	100	117	µg/kg
1,3,5-Triethylbenzene	100	160	µg/kg
o-Xylene	100	398	µg/kg
m,p-Xylene	200	4780	µg/kg

NWR UST FIELD INSPECTION REPORT

Inspection Date: 12-6-99

Site Name: Flying J

Total Time* 1 1/4

Site Address: 17873 SE McLoughlin Blvd.
Milwaukie

*Include inspection, travel, paperwork

DEQ Inspector: Bob Williams

File/Facility No: 03-93-0008
(both UST & UST Cleanup file #'s as appropriate)

Others Onsite: Mr. Sohi, Pacific Northern

Env. Pile driving crew
(include company name)

Supervisor License No. : _____ Exp. date _____
(note the name of the license holder with **)

Inspection Type (check all that apply)

- | | | |
|--|---|---|
| ☐ Decommissioning | ☐ Install-New | ☐ Complaint |
| ☐ 1998 Compliance (Full) | ☐ Install-Retrofit | ☐ WQ-New Permit |
| ☐ 1998 Compliance (partial) | ☐ Service Provider Audit | ☐ WQ-Existing Permit |
| ☐ Leak Detection | ☒ Cleanup | ☐ Oxy Fuel |
| ☐ Financial Responsibility | ☐ SWLA/Soil Treatment | ☐ Stage 1 |
| ☐ Corrosion Protection | ☐ Distributor Audit | ☐ Stage 2 |
| ☐ Spill & Overfill | | |

Photos Taken? ☒ Y ☐ N (attach)

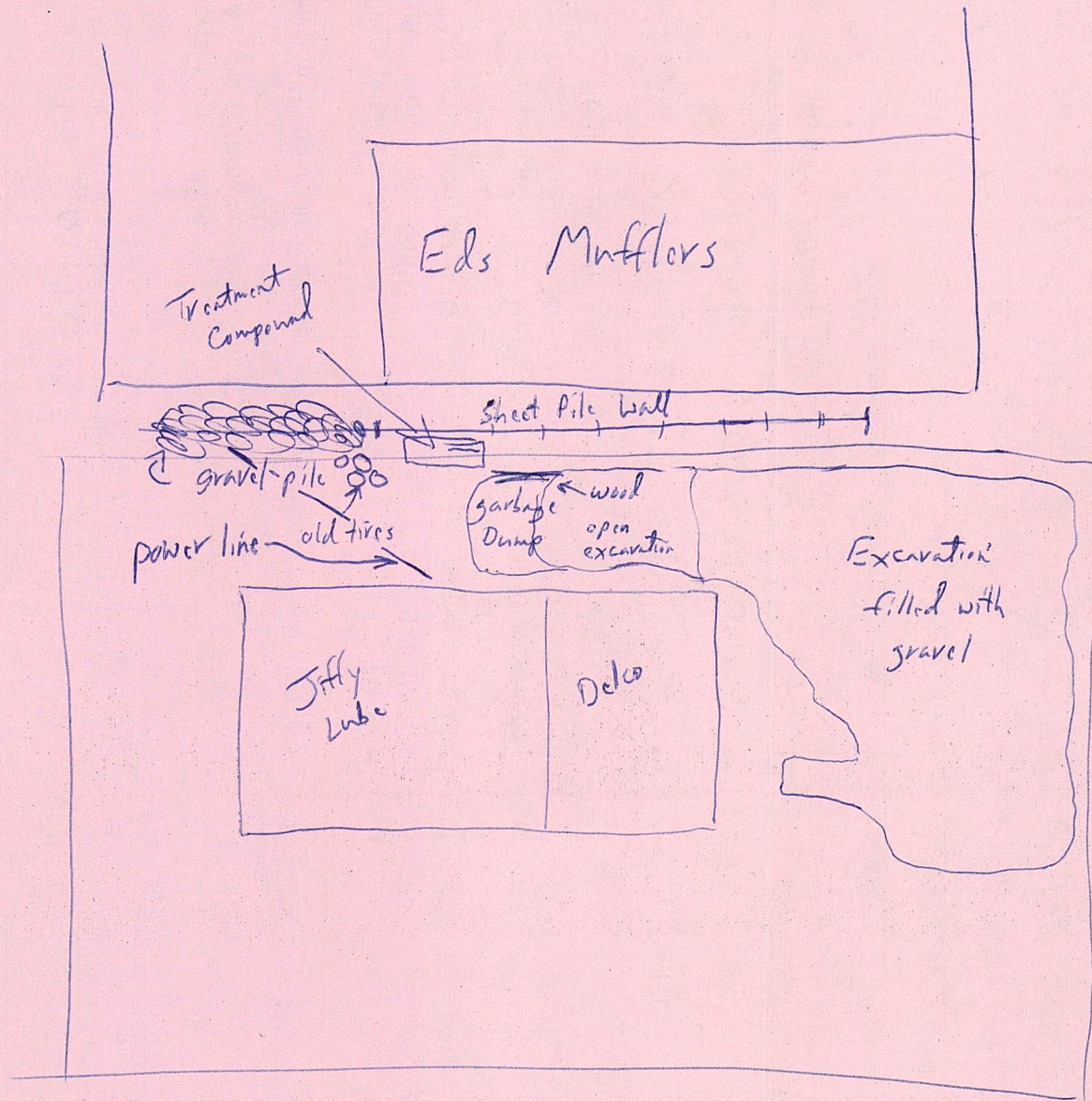
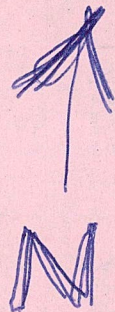
Samples Taken? Y / N (attach results)

INSPECTION RESULTS - IN COMPLIANCE? Y / N

Notes (use back of form as necessary)

Pile driving crew removing piles with large crane. Mr. Sohi points
out the garbage dump area in NW corner. old tires, bottles, oil filters.
Also considerable wood seen in bank on the north. Rep. from PNE points
out buried power line which may be in an area with buried garbage.
He asks me what to do about relocating line. Not sure - lets see if
garbage continues that far...

Site Sketch (Show North)









Auto parts dump area

Flying J Site



RECORDS.TRN (10/29/92)

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Richard Kent DATE: 12-2-99

WITH: Geo Pro TIME: 2:45

TELEPHONE NO: () -

REGARDING: Delco Site

FILE NO: 03-93-0008

SUMMARY OF CALL

Chasing contaminated soil on west side of site, near MW-5. Ran into considerable garbage from old station operation. Old oil filters, air filters, oil cans, tires, engine fluids(?), plastic, old wall board(?), wood, and assorted construction debris. TPS will not take waste with metal. Waiting for soil sample results for permission to remove garbage to Hillsboro. RP considering leaving garbage on site. I suggest this kind of oil-containing garbage should be removed. Suggest a VOC sample would be appropriate.

T. B. Wilkins
Staff Signature



DEPT OF ENVIRONMENTAL QUALITY
RECEIVED

GeoPro Geologic Services

NOV 12 1999

Post Office Box 26
Battle Ground, WA 98604
(360) 666-1465

NORTHWEST REGION

November 11, 1999

RE: Abandonment of Monitoring Wells

Project No. 990621

Oregon Water Resources Department
158 12th St. NE
Salem, Oregon 97310-4172

Attn.: Mr. Mike McCord

Dear Mr. McCord:

Attached please find information regarding the abandonment of monitoring wells per your request during our telephone conversation of September 23, 1999 in which you gave verbal permission to proceed with abandonment by overexcavation. Groundwater contamination was previously identified at the Site, located at Delco Petroleum Co., LLC, 17873 SE McLoughlin Blvd., Milwaukie, Oregon 97267, Tax Lot 1700, Clackamas County, Oregon. The wells were located in the SE/4 of the SW/4, Section 18, Township 2 South, Range 2 East.

Four (4) groundwater monitoring wells were abandoned by overexcavation from October 18 through 25, 1999. The wells are identified at the Site as "MW-2", "MW-4", "MW-7", and "MW-8" as shown on the attached figure titled "Abandoned Monitor Well Locations" and were located within the perimeter of the contaminated soil excavation.

Overexcavation of the wells was accomplished with a Komatsu PC200LC Tackhoe and bucket, which removed casing, screen, annular sealing material, and filter pack material. Native clay was compacted into the bucket-width holes after removal of the well material. Photographs of typical material removed during abandonment are attached.

Available information from the landowner's records does not include WRD Start Card numbers or well identification numbers. However, attached are available copies of boring and well construction logs showing previous emplacement depths of casing, screen, filter packs, seals, and surface covers.

Very truly yours,

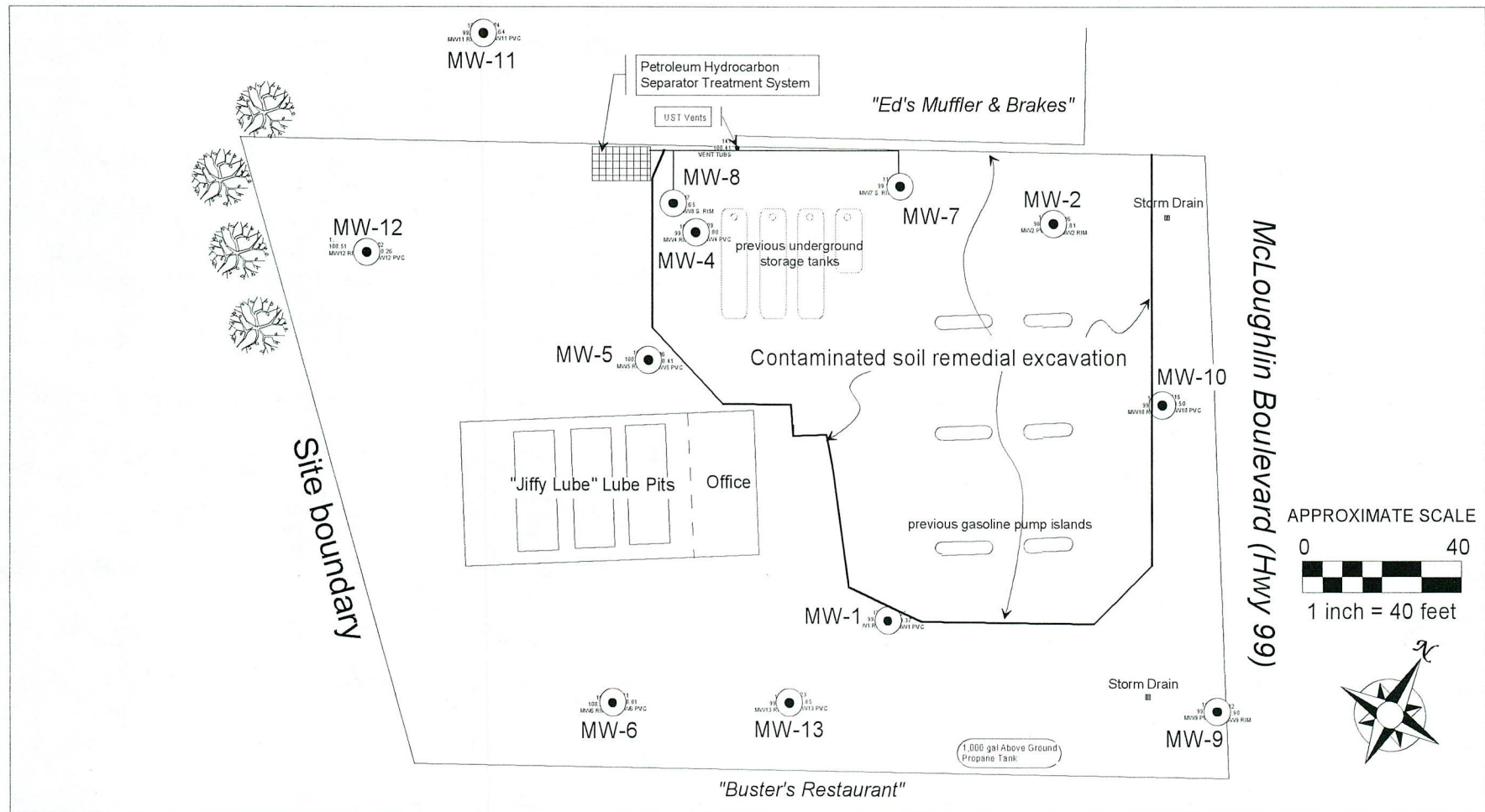
Richard C. Kent, Project Geologist

cc: Mr. Robert K. Williams, Oregon Dept. of Environmental Quality, Portland, Oregon ✓
Mr. Gurdev Singh Sohi, Landowner's Site Manager, Delco Petroleum Co., LLC, Milwaukie, Oregon
Mr. Kelly W. Kellogg, Project Manager, Pacific Northern Environmental, Longview, Washington

Attachments: Abandoned Monitor Well Locations Figure (1), MW-2 Well Construction Log (1), MW-2 Geologic Log (1), MW-4 Well Construction Log (1), MW-4 Geologic Log (1), MW-7 Well Construction and Geologic Log (1), MW-8 Well Construction and Geologic Log (1), photographs (4).

Delco Petroleum Co. LLC
17873 SE McLoughlin Blvd.
Milwaukie, OR

SE/4 of SW/4, Sec. 18, T2S., R2E.
Tax Lot 1700



Monitor wells MW-2, MW-4, MW-7, MW-8
abandoned by overexcavation by
Pacific Northern Environmental, Longview, WA
October 18-25, 1999



Monitor Well Location

**ABANDONED
MONITOR WELL
LOCATIONS**

INSTALLATION OF FLUSH GRADE MONITORING WELL

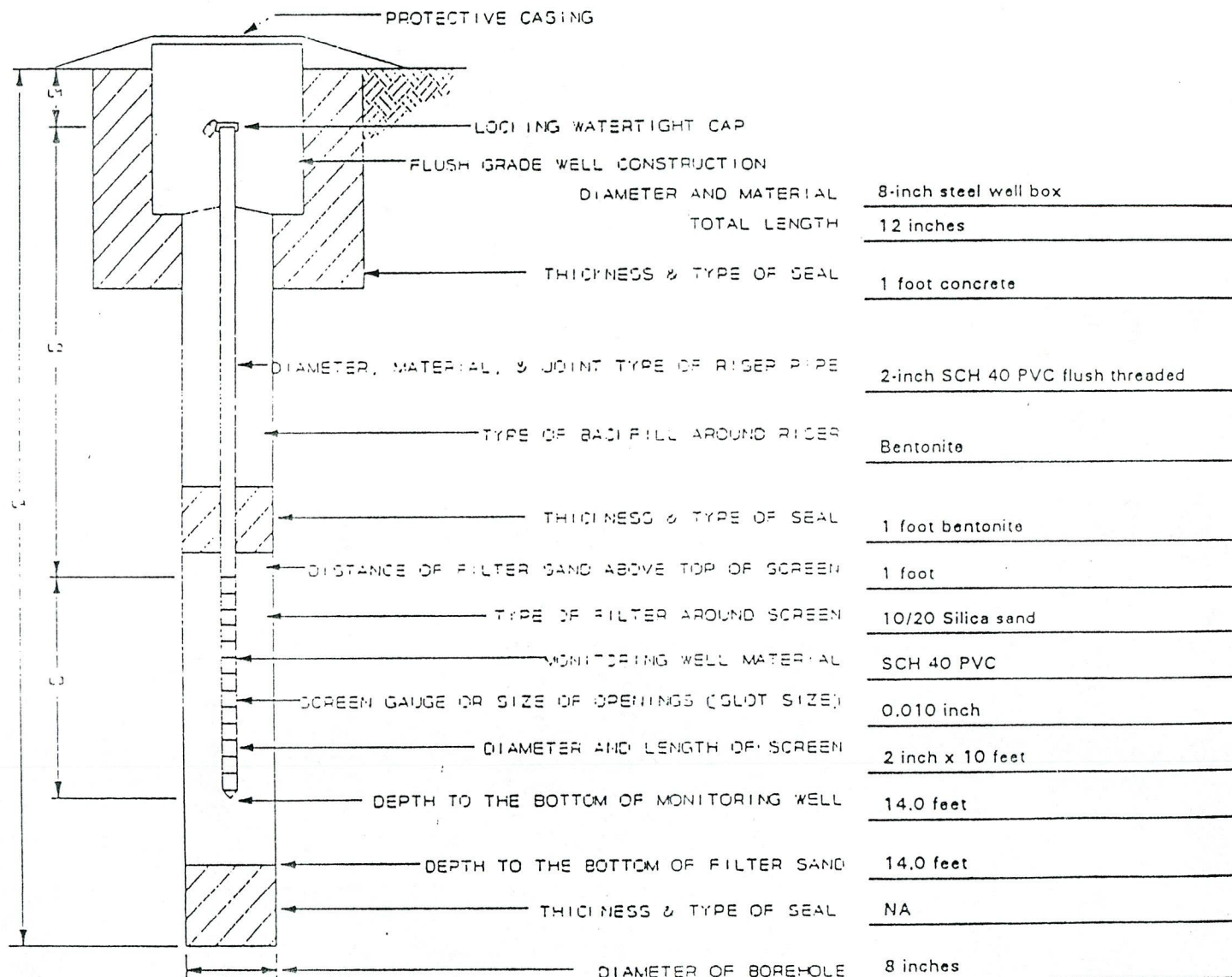
Project Jiffy Lube International
17869 S.E. McLoughlin Blvd.
Milwaukie, OR

Monitoring Well No. MW-2

Elevations:
 Top of Riser: 98.79

Delta No. 43-92-011

Ground Level: ----



L1 = ---- FT
 L2 = 4.5 FT
 L3 = 10.0 FT
 L4 = 15.5 FT

Installation Completed

Date: 06/18/93

Time: 11:25 a.m.



Monitoring Well Water Level Measurements		
Date	Time	Water Level*
06/21/93	6:17 p.m.	94.59 feet

* Measure Point Top of casing

PROJECT NAME/LOCATION:					Project Number	43-93-011	Boring Number	MW-2
Jiffy Lube International Store #1012 17869 S.E. McLoughlin Boulevard Milwaukie, OR					Contractor	Geotech Exploration	Drilling Method	6 1/4" Hollow Stem Auger
					Driller	Mike Reneker	Drilling Rig	B-61
					Start	10:23 a.m. 06/18/93	Completed	11:16 p.m. 06/18/93
Landowner: Flying J Corporation					Surface Elev.	----	Logged By	Mark Underhill
Sample		Blow Count	Sample		Depth Scale 1" = 4'	Descriptions of Materials and Conditions	Observations	
Type	No.		Interval (ft)	Recovery (in.)			Instrument: Units:	bNu ppm
					0	Asphalt Concrete and Gravel Base		
					1			
SS	1	2 5 6	2.5-4.0	6	2	SILTY CLAY; dark grey, damp		30
					3			
					4			
SS	2	1 3 1	5.0-6.5	6	5	CLAY; trace silt, dark grey, damp		0
					6			
					7			
SS	3	2 6 8	7.5-9	6	8	CLAY; trace silt, medium grey, moist-damp		0
					9			
					10			
SS	4	2 3 3	10.0-11.0	6	11	CLAY; trace silt, dark grey, moist		0
					12			
					13			
SS	5	2 3 6	12.5-14.0	6	14	CLAY; trace organics, moist		0
					15			
SS	6	N/A	15.0-16.5	6	15	3" heave-no sample recovered		0
					16	End of boring at 16.5 feet below ground surface. Monitoring Well MW-2 installed.		
					17			
					18			
					19			
					20			
					21			
					22			
					23			

BOREHOLE WATER LEVEL DATA

Date	06/18/93		
Time	11:25 a.m.		
GWL	7.0 feet		
Casing Depth	14.0 feet		



INSTALLATION OF FLUSH GRADE MONITORING WELL

Project

Jiffy Lube International

Monitoring Well No.

MW-4

17869 S.E. McLoughlin Blvd.

Elevations:

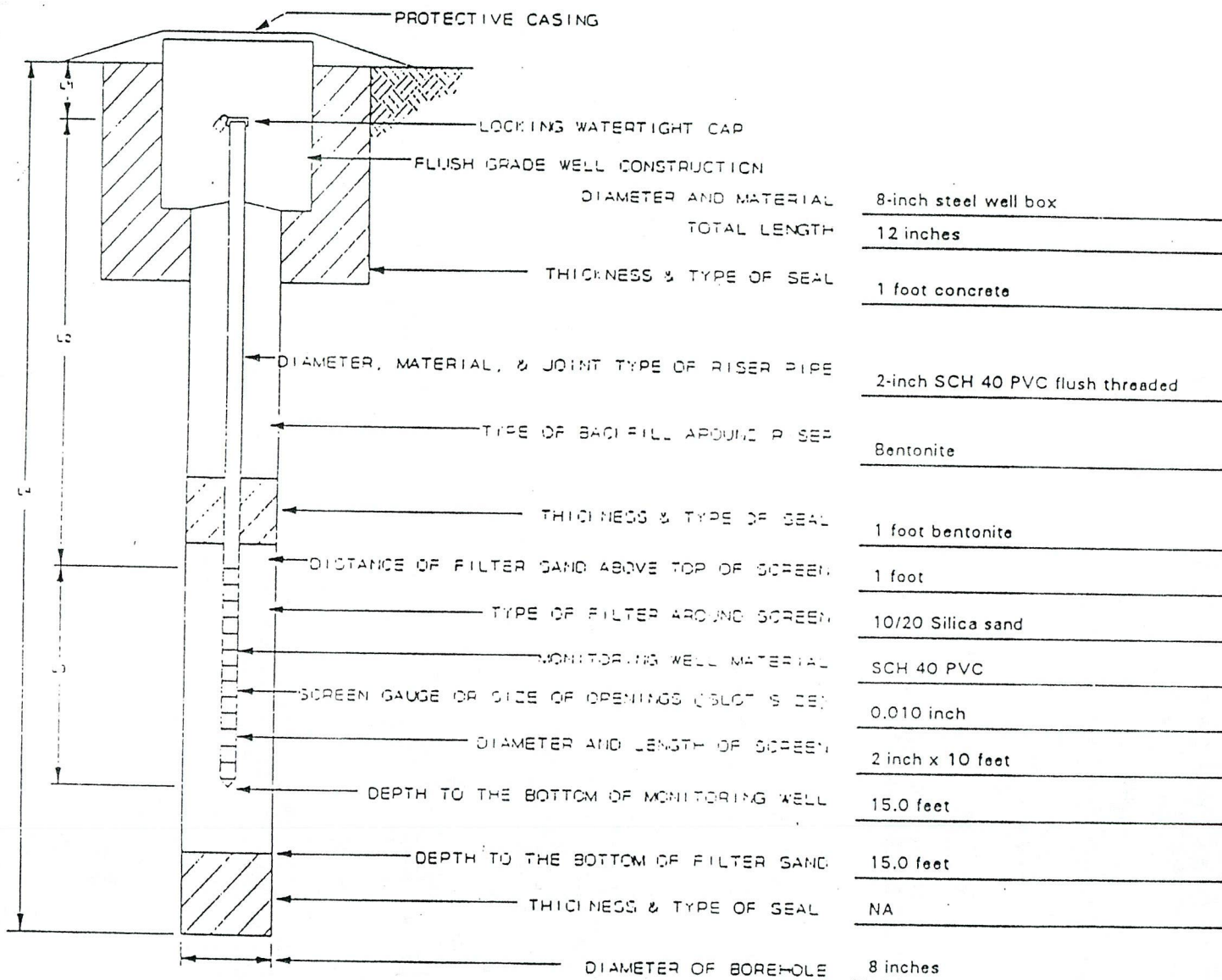
Milwaukie, OR

Top of Riser: 99.30

Delta No.

43-92-011

Ground Level: ----



L1 = ---- FT

L2 = 4.5 FT

L3 = 10.0 FT

L4 = 16.5 FT

Installation Completed

Date: 06/18/93

Time: 3:35 p.m.



Monitoring Well Water Level Measurements		
Date	Time	Water Level*
06/21/93	5:09 p.m.	94.54 feet

* Measure Point Top of casing

PROJECT NAME/LOCATION:					Project Number	43-93-011	Boring Number	MW-4
Jiffy Lube Internation Store #1012 17869 S.E. McLoughlin Boulevard Milwaukie, OR					Contractor	Geotech Explorations	Drilling Method	6 1/4" Hollow Stem Auger
					Driller	Mike	Drilling Rig	B-61
					Start	2:45 p.m. 06/18/93	Completed	3:23 p.m. 06/18/93
Landowner: Flying J Corporation					Surface Elev.	-----	Logged By	Mark Underhill
Sample		Blow Count	Sample		Depth Scale 1" = 4'	Descriptions of Materials and Conditions	Observations	
Type	No.		Interval (ft)	Recovery (in.)			Instrument: Units:	bNu ppm
SS	1	6	2.5-4.0	6	0	Asphalt Concrete and Gravel Base	33 ppm	
		5			1			
		3			2			
SS	2	4	5.0-6.5	6	3	SILTY CLAY; dark grey, damp	83 ppm	
		3			4			
		1			5			
SS	3	2	7.5-9.0	6	6	CLAYEY SILT; dark grey, moist	2.5 ppm	
		4			7			
		5			8	CLAY; trace silt with organics, medium grey, moist		
SS	4	3	10.0-11.0	6	9		0	
		4			10	CLAY; trace silt, dark grey, moist		
		5			11			
SS	5	6	12.5-14.0	6	12		0	
		4			13	FINE-MEDIUM SAND; dark grey, wet		
		5			14			
SS	6	3	15.0-16.5	6	15	FINE-MEDIUM SAND; dark grey, wet	0	
		5			16			
		8			17	End of Soil Boring at 16.5 feet below ground surface. Monitoring Well MW-4 installed.		
					18			
					19			
					20			
					21			
					22			
					23			

BOREHOLE WATER LEVEL DATA

Date	06/18/93		
Time	3:35 p.m.		
GWL	7.0 feet		
Casing Depth	15.0 feet		



SOIL BORING LOG AND WELL CONSTRUCTION

DELCO Service Station
17873 S.E. McLoughlin
Milwaulkie, Oregon

Boring Number

MW-7

Page Number

1 of 1

Drilling Contractor

Tank - Liners, Inc.

Drilling Method

Hollow-Stem-Auger

Start (Date - Time)

1/27/95 - 8:50

Finish (Date - Time)

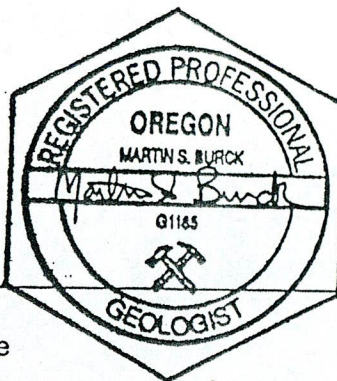
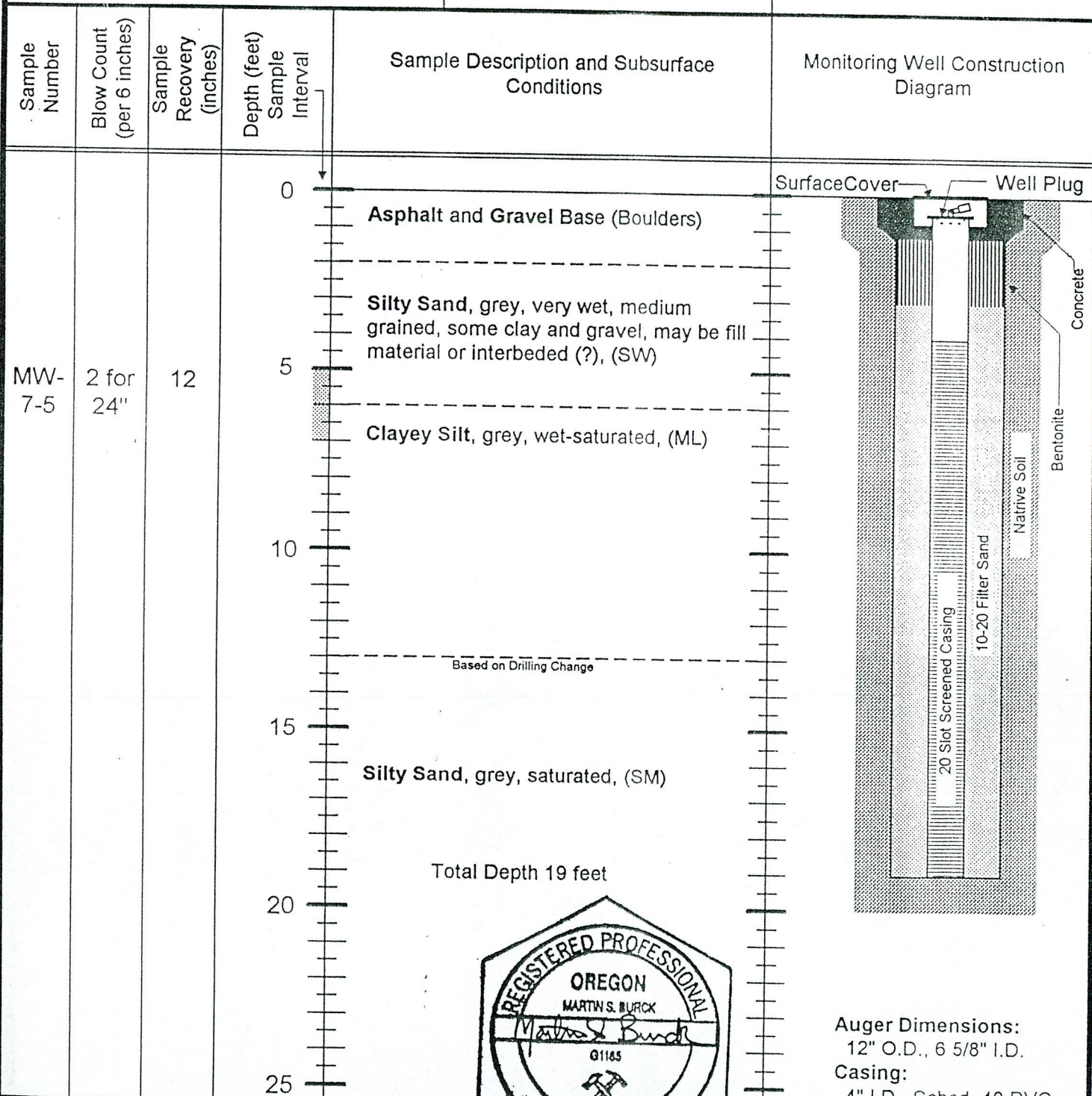
1/27/95 - 9:30

Elevation (Surface / Top of Well Casing)

not available

Logged By

Martin S. Burck R.G.



Auger Dimensions:
12" O.D., 6 5/8" I.D.
Casing:
4" I.D., Sched. 40 PVC

Comments: * Based on approximate msl elevation.
ND = Not Detected, NA = Not Available

SOIL BORING LOG AND WELL CONSTRUCTION

DELCO Service Station
17873 S.E. McLoughlin
Milwaulkie, Oregon

Boring Number

MW-8

Page Number

1 of 1

Drilling Contractor

Tank - Liners, Inc.

Drilling Method

Hollow-Stem-Auger

Start (Date - Time)

1/27/95 - 10:15

Finish (Date - Time)

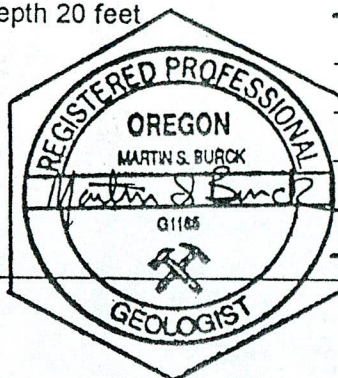
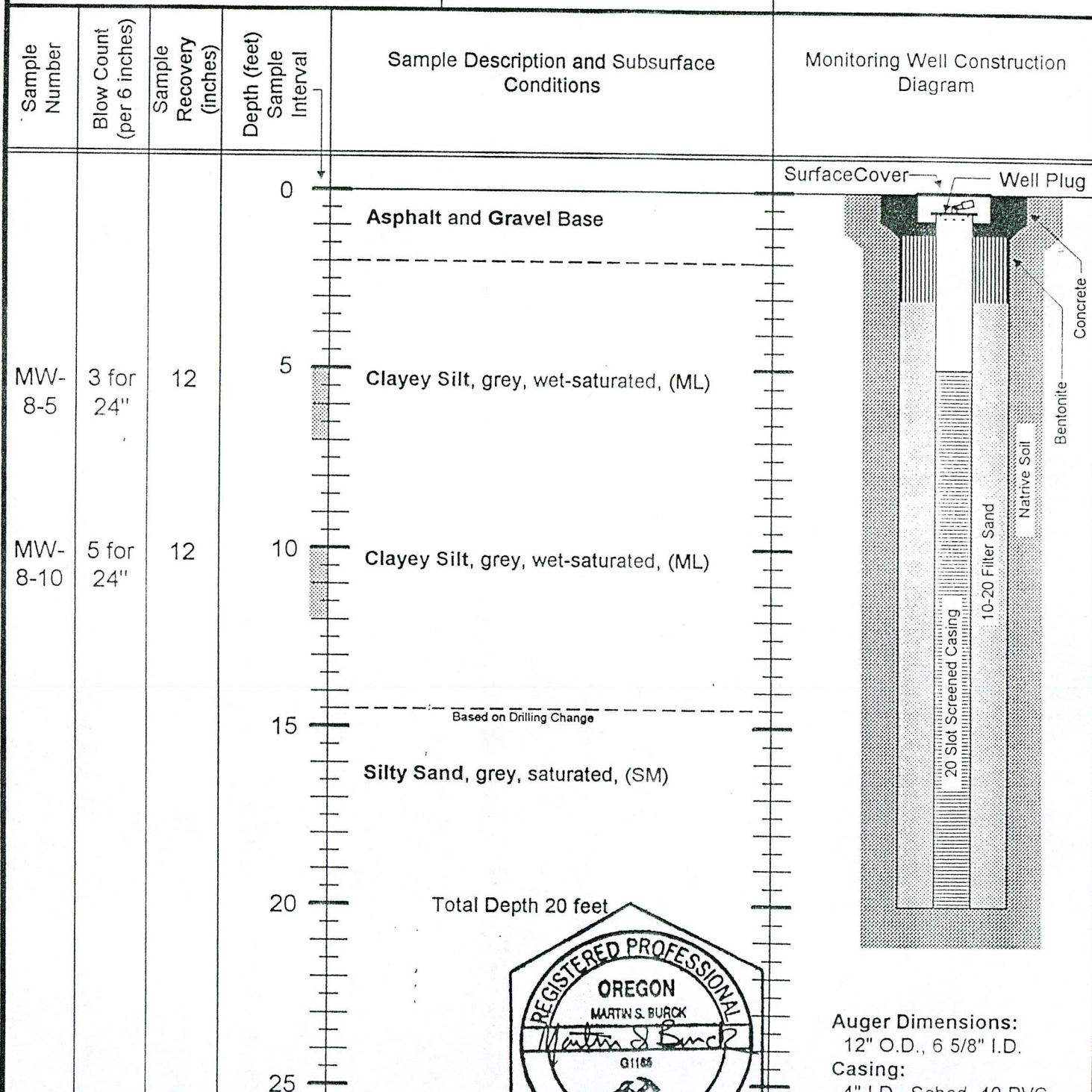
1/27/95 - 11:30

Elevation (Surface / Top of Well Casing)

not available

Logged By

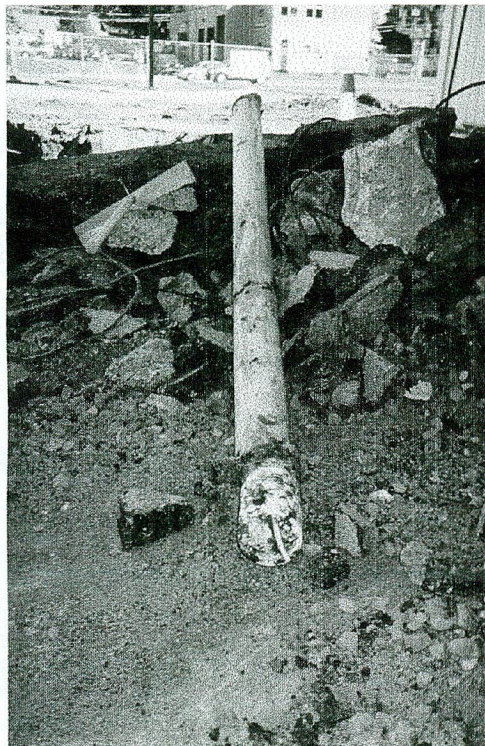
Martin S. Burck R.G.



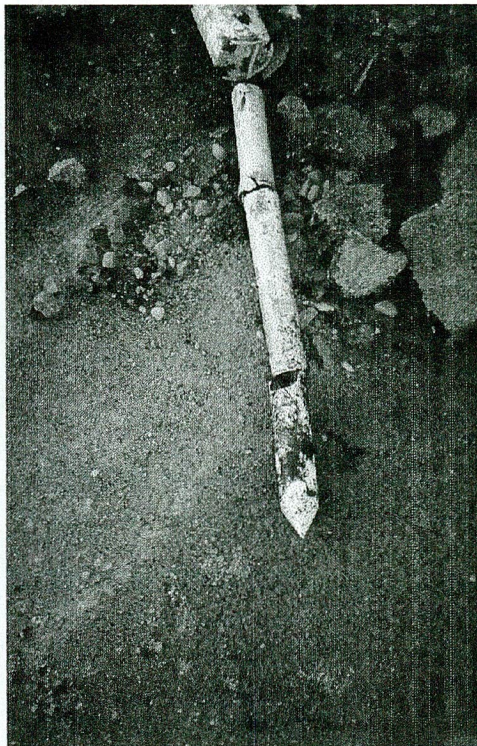
Comments: * Based on approximate msl elevation.
ND = Not Detected, NA = Not Available

Auger Dimensions:
12" O.D., 6 5/8" I.D.
Casing:
4" I.D., Sched. 40 PVC

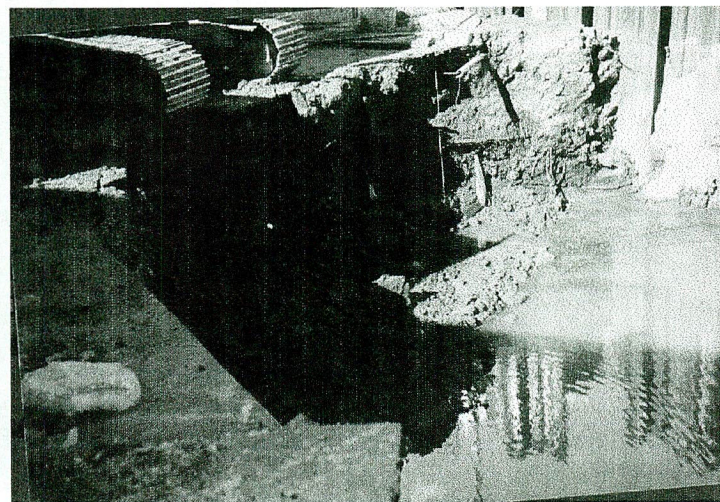
Delco Petroleum Co. LLC, 17873 McLoughlin Blvd., Milwaukie, OR
SE/4 of SW/4, Sec. 18, T2S., R2E., Tax Lot 1700



MW-8 casing and screen

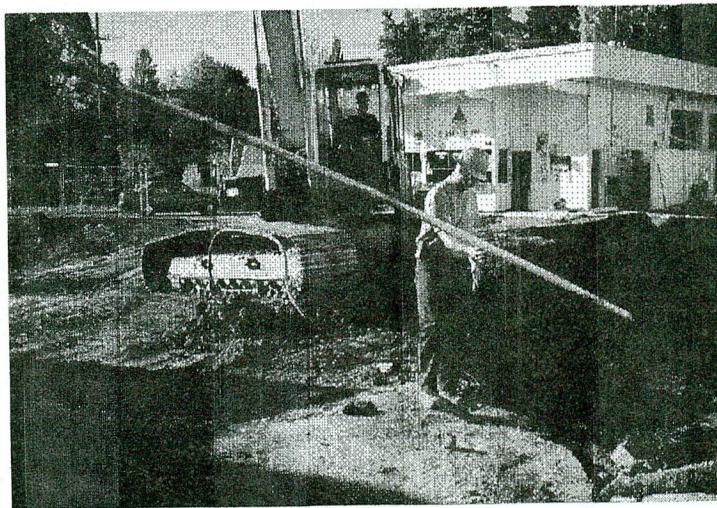


MW-4 casing and screen



MW-8 overexcavation

Delco Petroleum Co. LLC, 17873 McLoughlin Blvd., Milwaukie, OR
SE/4 of SW/4, Sec. 18, T2S, R2E., Tax Lot 1700



MW-2 casing and screen



MW-7 sand filter pack

**GEOPRO GEOLOGIC SERVICES****RICHARD C. KENT, R.G.**

Post Office Box 26, Battle Ground, WA 98604

(360) 666-1465

Fax (360) 666-8915

Fax Cover Sheet

To: Mr. ROBERT K. WILLIAMS**RE:** DELCO PROPOSED MONITOR WELL LOCATIONS and DESIGN**Fax Number:** 503-229-8945**Pages Including This Cover Sheet:** 3**Phone:** 503-229-8242**Date:** 12 November 1999

cc:

- ☐ **Per Your Request**
- ☐ **For Your Information**
- ☒ **For Your Review and Comment**
- ☐ **For Your Approval**

☒ **Response Requested** This fax is sent as a request for the following:

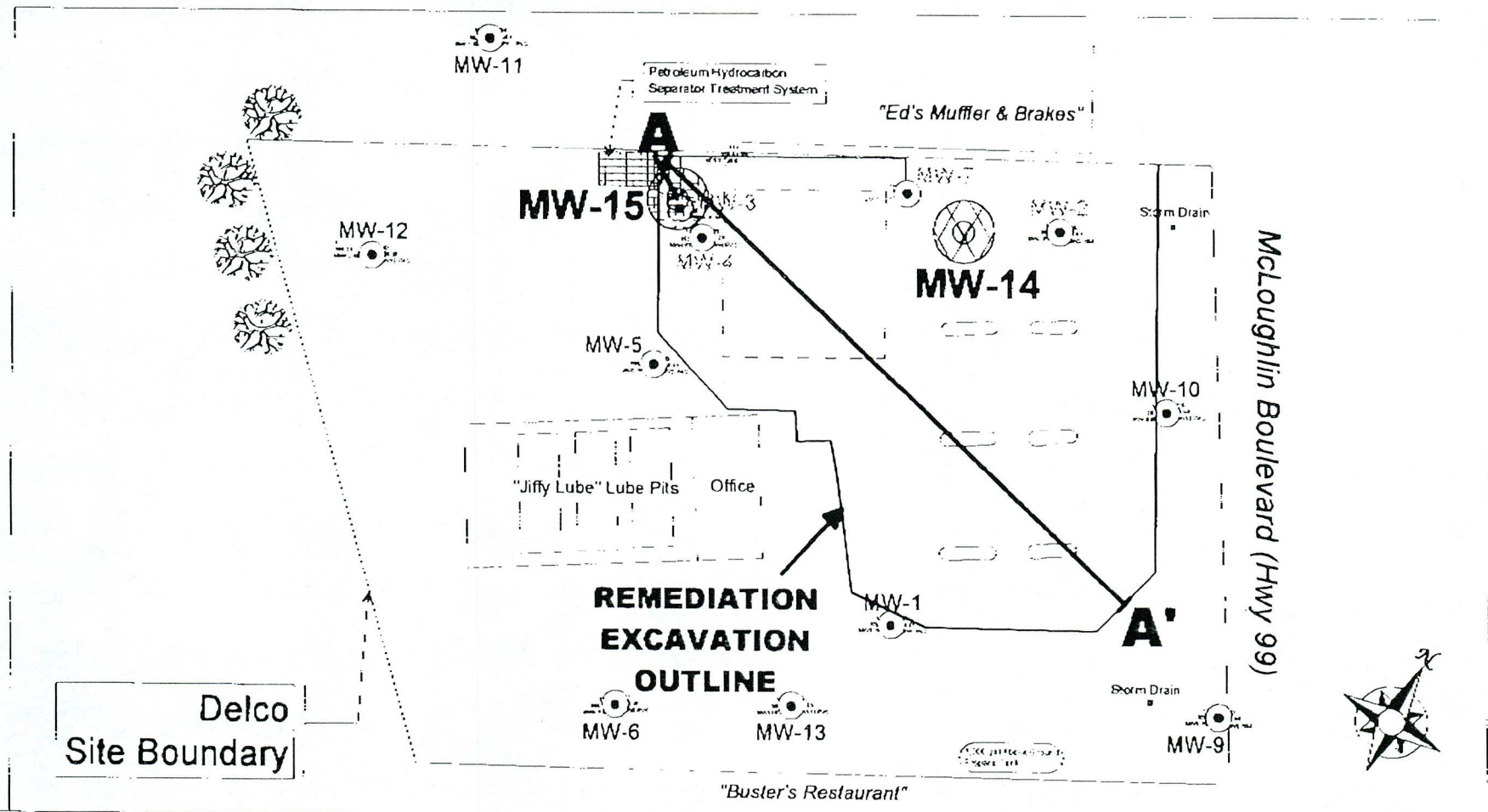
1. Two new monitor well locations proposed. Both 4-inch diam.
2. New UST depths will intersect clay-gravel-sand contacts near 12 to 13 feet depth. Therefore, plan to install a 10 foot screen in MW-15 from 5 to 15 feet depth. Use MW-15 as a production well for treatment system.
3. MW-14 replaces MW-2 and MW-7 and would screen 5 feet from 3 to 8 feet depth only above the clay and within new backfill material of 2"-4" gabion crushed rock (from 5 feet depth to TD of excavation) and 1 1/4 inch minus crushed rock (to 5 feet depth). The two sizes of crushed rock used a backfill in the excavation are separated by a permeable geotextile fabric.
4. Your comments please.

☐ **No Response Request**

• Comments:

Area of new UST location still requires remedial soil removal. Sand below clay analysis previously indicated contamination.

DRAFT FOR DISCUSSION



GeoPro Geologic Services
Battle Ground, WA
Project No. 990621
Date(s): _____



NEW 4"
MONITOR WELL



NEW 4"
PRODUCTION WELL



NEW 4" PIPE
TO TREATMENT
FACILITY



Existing or Previous
Monitor Well Location
MW-13

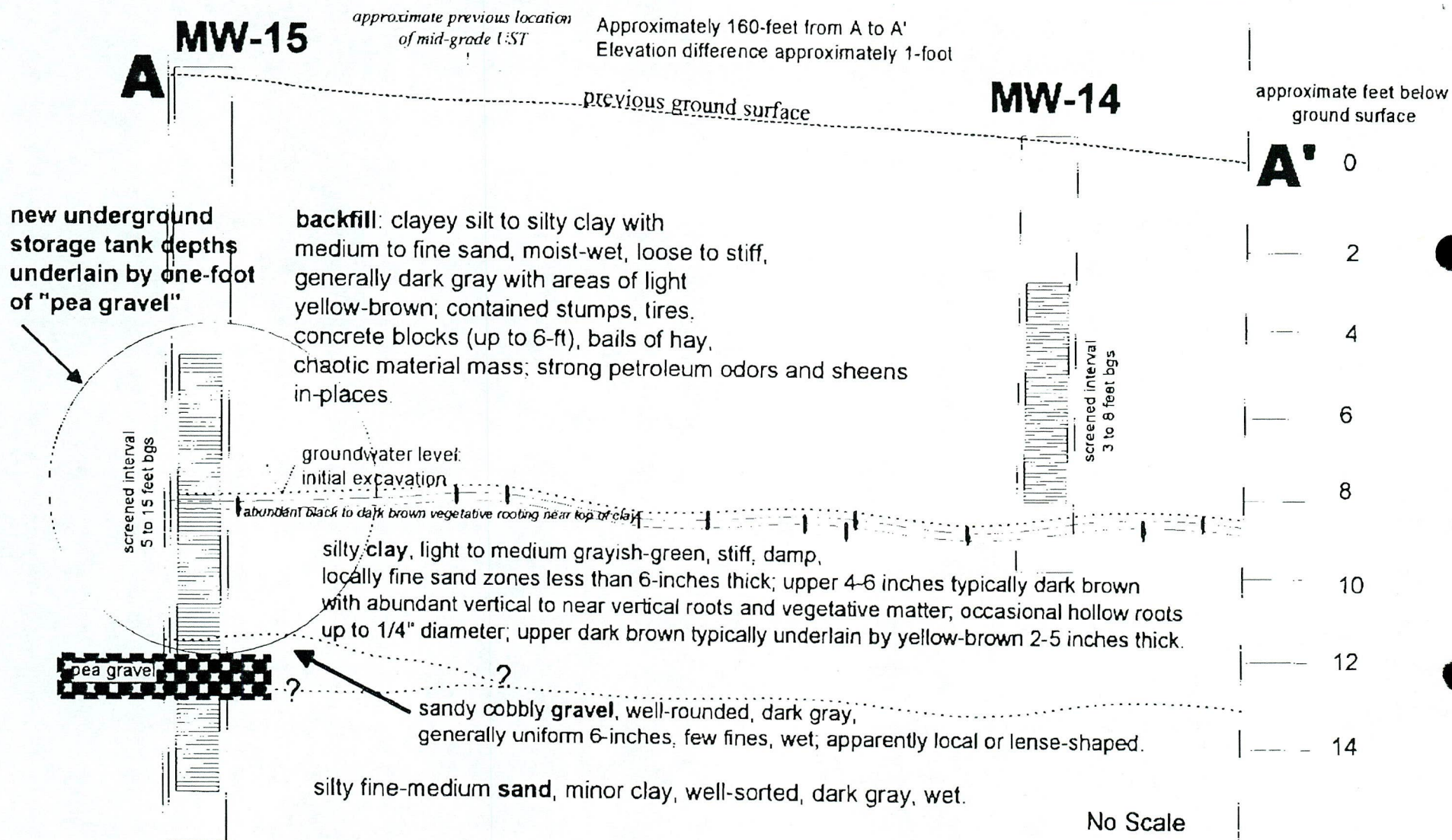
APPROXIMATE SCALE



Figure _____
**CROSS-SECTION SKETCH INDEX
AND NEW GROUNDWATER MONITOR
WELL LOCATIONS**

DELCO PETROLEUM CO. LLC
17873 SE McLoughlin Blvd.
Milwaukie, OR

DRAFT FOR DISCUSSION



GeoPro Geologic Services
Battle Ground, WA
Project No. 990621

Date(s): _____

NOTES:
MW-14: between previous MW-2 and MW-7
MW-15: production of downgradient groundwater to treatment facility

Figure _____
CROSS-SECTION SKETCH
NEW MONITOR WELLS

DELCO PETROLEUM CO. LLC
17873 SE McLoughlin Blvd.
Milwaukie, OR

FAX TRANSMITTAL

COVER SHEET

DATE 11/9/99

TO: BOB WILLIAMS
DEQ - NW REGION
UST CLEANUP

FAX (503) 229 6945 VOICE (503) 229-6242

FROM: Richard Kent, Geo Pro ³⁶⁰⁻⁶⁶⁶⁻¹⁴⁶⁵ ~~503~~

REFERENCE: Delco Petroleum, Milwaukee

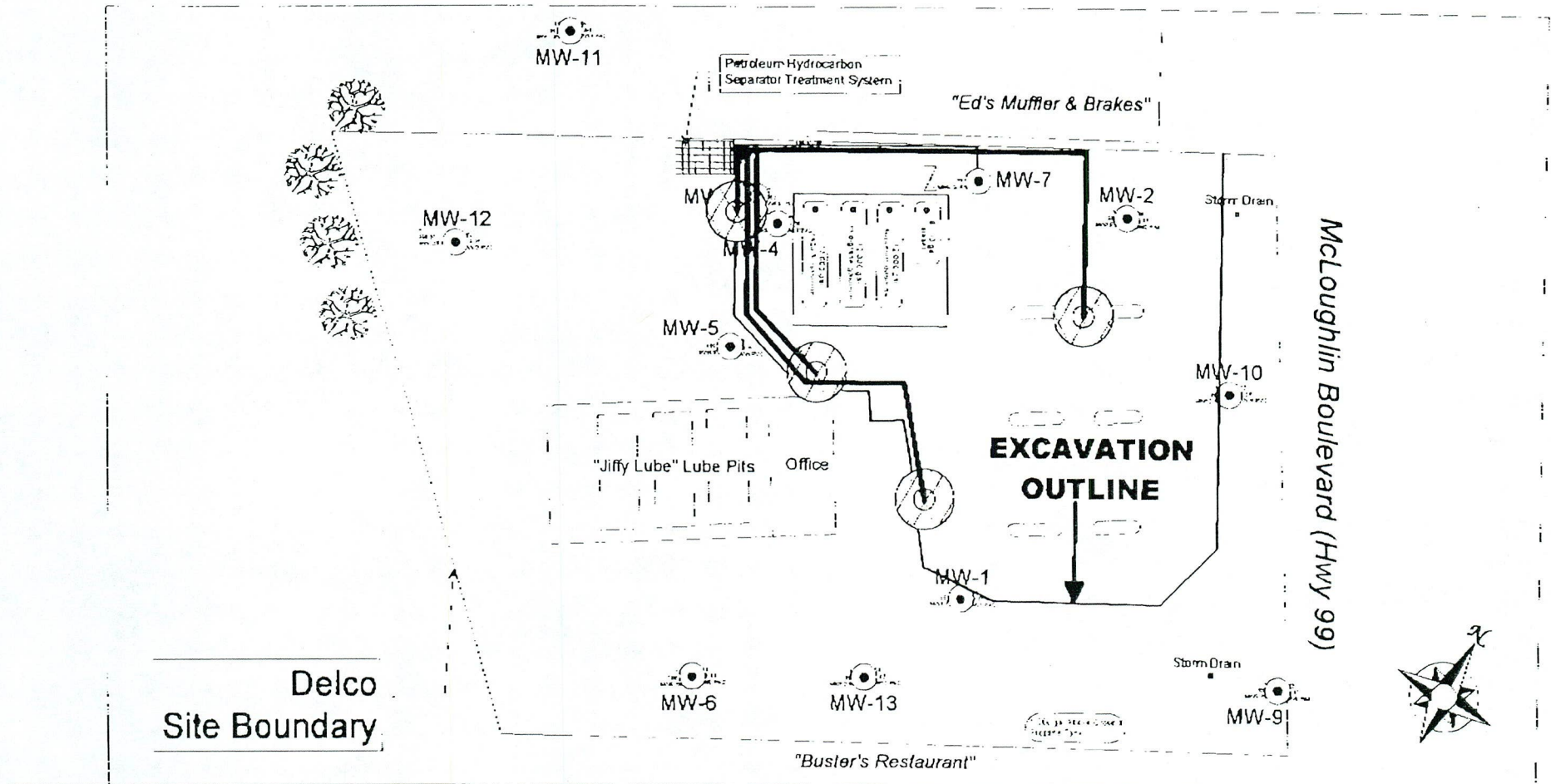
TOTAL PAGES INCLUDING THIS COVER SHEET: 2

COMMENTS:

PROPOSED NEW MONITOR WELLS

AREAS OF HIGHEST TPH IN

SOIL CANNOT EXCAVATE (generally
± 50-100 ppm TPH)



GeoPro Geologic Services
Battle Ground, WA

Date _____

Project No. 990621



NEW 4"
MONITOR WELL



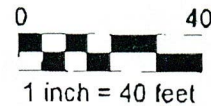
NEW 2" PIPE
TO TREATMENT
FACILITY



MW-13

Monitor Well Location

APPROXIMATE SCALE



**REMEDATION EXCAVATION AND NEW
GROUNDWATER RECOVERY WELL
LOCATIONS**

DELCO PETROLEUM CO. LLC
17873 SE McLoughlin Blvd.
Milwaukie, OR

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Richard Kent DATE: 11-9
WITH: Geo Pro TIME: 11:30
TELEPHONE NO: (360) 666 - 1465
REGARDING: Flying J
FILE NO: 03 - 93 - 0008

SUMMARY OF CALL

Talked to Richard about the remediation scheme. Suggested that fewer extraction wells (maybe just 1) would probably be sufficient for dewatering the backfilled pit. The old pumps from former pump and treat are to be used. I suggested the pumps may not be rated for the kind of discharge possible in ~~a~~ large excavation.

Also discussed installing 2 monitoring points (2 in or 4 in) in the pit, near the NE building corner (hot spot) and near Mw 2.

JBL
Staff Signature

FAX TRANSMITTAL COVER SHEET

DATE 11/8/99

TO:

Bob Williams
DEQ - NW Region
UST Cleanup

FAX (503) 229-6242

VOICE (503) 229-6242

FROM:

Richard Kent, Geo Pro

REFERENCE:

DELCO PETROLEUM
McLoughlin Blvd., Milwaukee

TOTAL PAGES INCLUDING THIS COVER SHEET:

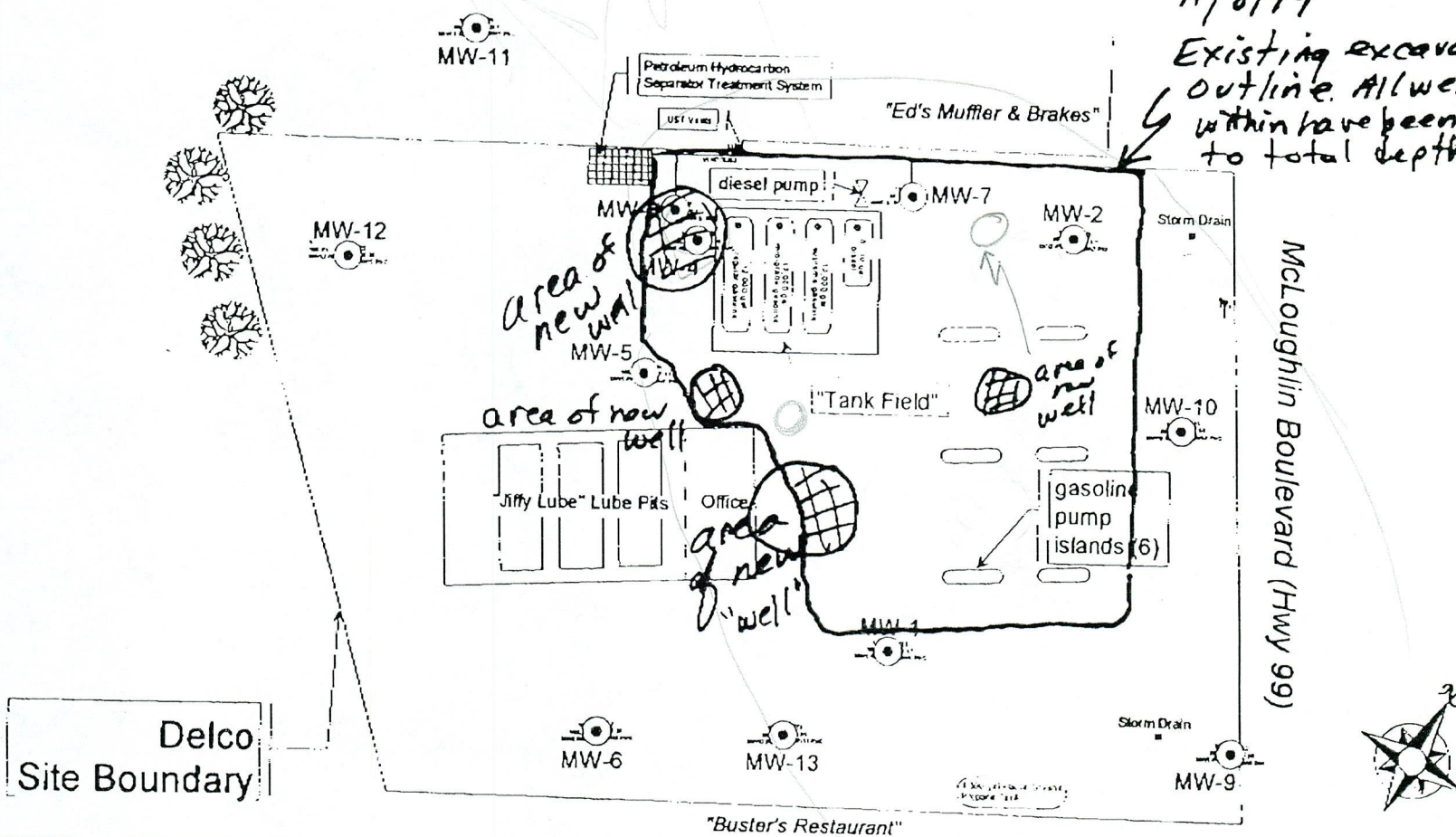
3

COMMENTS:

Map sketch & proposed excavation
well construction as sent to
GeoTech (who will ask for variance
+ Start Cards from DWR).

Figure 2 - SITE MAP

11/8/99
Existing excavation
outline. All wells
within have been removed
to total depth.



GeoPro Geologic Services
Battle Ground, WA

August 4, 1999

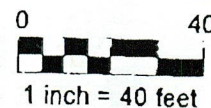
Project No. 990621

Legend



Monitor Well Location

APPROXIMATE SCALE

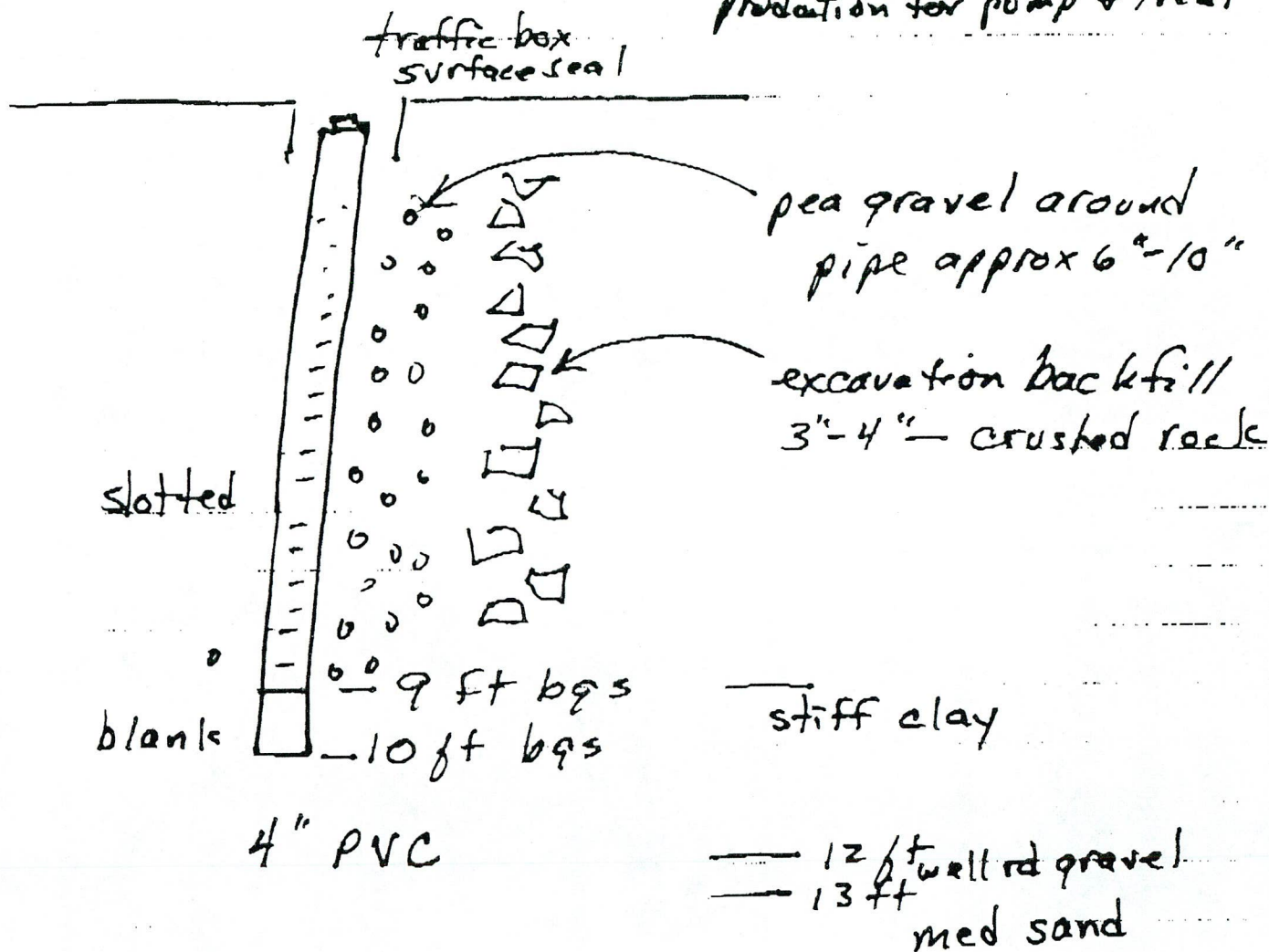


SITE MAP

DELCO PETROLEUM CO. LLC
17873 SE McLoughlin Blvd.
Milwaukie, OR

Four (4) each New "Well" Construction

future groundwater sampling and
production for pump & treat



GeoPro Geologic Services
Battle Ground WA
(360) 666-1465

Delco Petroleum
McLaughlin Blvd.
Milwaukie, OR

11/8/99 Hand-Sketch

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Richard Kent DATE: 11-8-99

WITH: Geo Pro TIME: 2:30

TELEPHONE NO: () -

REGARDING: Flying J

FILE NO: 03-93-0008

SUMMARY OF CALL

Site update: Big hole after excavation. Still trying to get out a little more gas contaminated soil. Owners want to get new tanks in. Water level coming up with rain.

Thinking about remediation schemes with hole still open. Horizontal pipe considered but some concern about crushing it beneath tanks. I suggest vertical pipes instead. Probably cheaper and could be placed around tanks. Might be just as effective. Vapor extraction and sparging are possible too. There is some desire to use existing pump-and-treat systems.

Richard will check with water resources on question of water well license for ~~excavation~~ pit "well" construction. Richard will send a simple map and summary of proposed system.

Staff Signature

NWR UST FIELD INSPECTION REPORT

Inspection Date: 10/22/99

Site Name: Flying J

Total Time* 2.8 hr

Site Address: 17873 SE McLoughlin Blvd.
Milwaukee

*Include inspection, travel, paperwork

DEQ Inspector: Rob Williams

File/Facility No: 03-93-0008
(both UST & UST Cleanup file #'s as appropriate)

Others Onsite: Richard Kent (GeoPro) Derindar Bhillon (Deleg) Mr. Sahi
Brad (P+E)
(include company name)

Supervisor License No. : _____ Exp. date _____
(note the name of the license holder with **)

Inspection Type (check all that apply)

- | | | |
|--|---|---|
| ☐ Decommissioning | ☐ Install-New | ☐ Complaint |
| ☐ 1998 Compliance (Full) | ☐ Install-Retrofit | ☐ WQ-New Permit |
| ☐ 1998 Compliance (partial) | ☐ Service Provider Audit | ☐ WQ-Existing Permit |
| ☐ Leak Detection | ☒ Cleanup | ☐ Oxy Fuel |
| ☐ Financial Responsibility | ☐ SWLA/Soil Treatment | ☐ Stage 1 |
| ☐ Corrosion Protection | ☐ Distributor Audit | ☐ Stage 2 |
| ☐ Spill & Overfill | | |

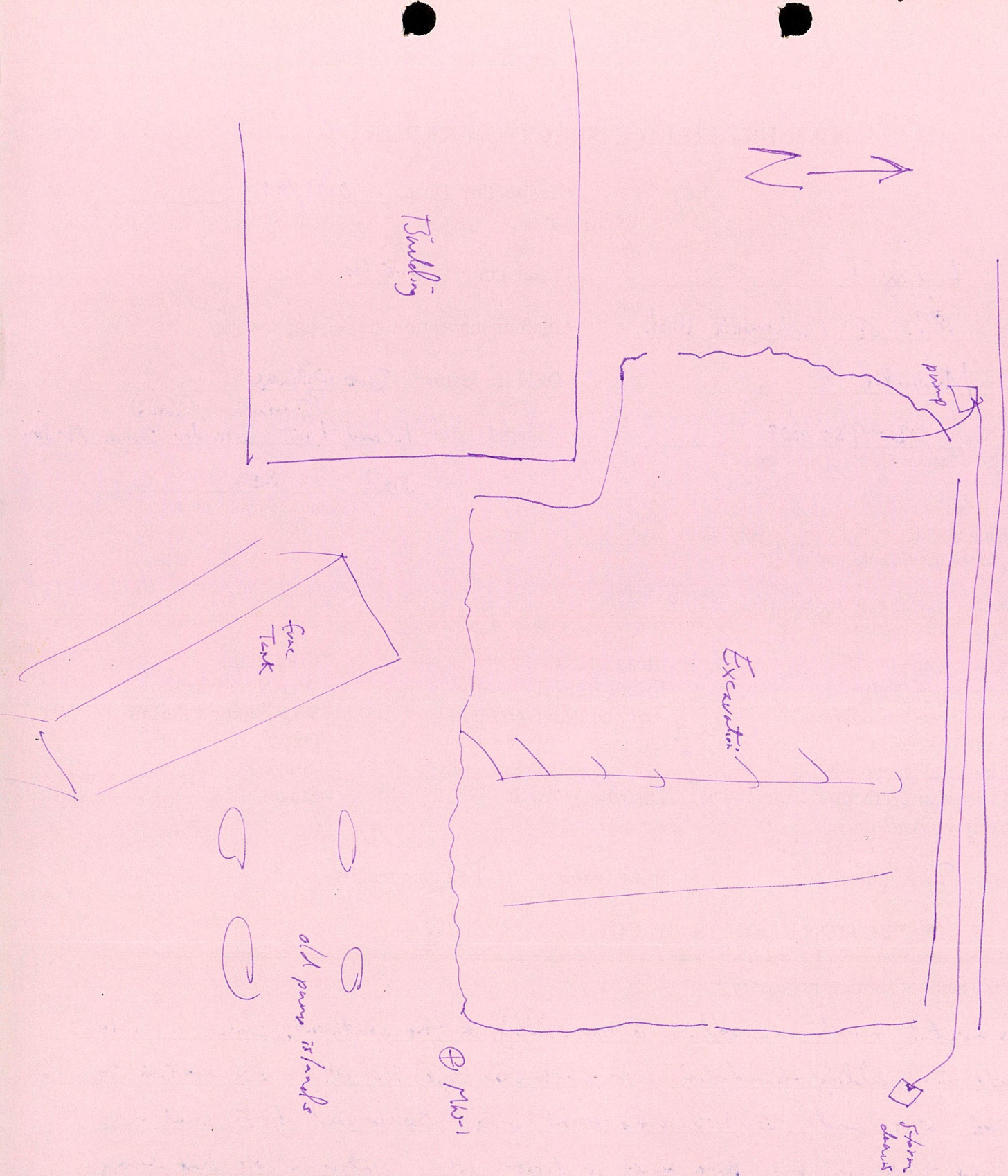
Photos Taken? Y/N (attach)

Samples Taken? Y/N (attach results)

INSPECTION RESULTS - IN COMPLIANCE? Y / N

Notes (use back of form as necessary)

Excavation much enlarged. To the building on the southwest. Looks a little
unsafe for building foundation but contractor says its ok. Excavation to
proceed west and SE into pump island area. Owner and P+E went to
get new tanks in but hole must be deeper yet. Water in hole has strong
sheen. Petroleum oozing from clays. Several frac tanks at site full to brim,
sparging.

















GEOPRO GEOLOGIC SERVICES

RICHARD C. KENT, R.G.

Post Office Box 26, Battle Ground, WA 98604

(360) 666-1465

Fax (360) 666-8915

Fax Cover Sheet

To: Mr. ROBERT K. WILLIAMS

RE: DELCO PRELIMINARY EXCAVATION INFORMATION

Fax Number: 503-229-6945

Pages Including This Cover Sheet: 7

Phone: 503-229-6242

Date: 22 October 1999

cc

- ☐ **Per Your Request**
- ☒ **For Your Information**
- ☐ **For Your Review and Comment**
- ☐ **For Your Approval**

☐ **Response Requested** This fax is sent as a request for the following:

☐ **No Response Request**

• Comments:

Prepared for your review for meeting October 22, 1999, 2 pm at Site.

☐ **No Comments**

Notice: This fax may be privileged or contain a client confidence. It is a private message to the person named above. Do not permit access by any other person. If the intended recipient is not currently at this location, please telephone us immediately.

DELCO: PRELIMINARY DRAFT. CONFIRMATION REQUIRED. All soil results in milligrams per kilogram ("mg/kg") ("ppm"). Water in mg/L.

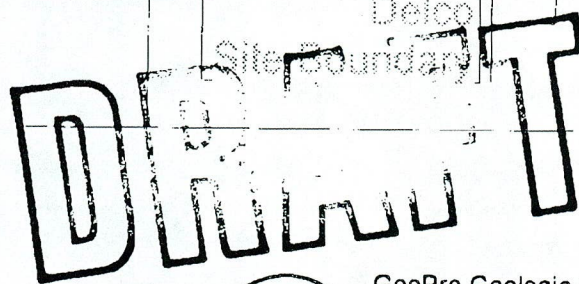
	Gasoline	Diesel	Benzene	Toluene	EthylBenzene	Xylenes	MTBE
NORTH WALL							
NW-13-12'	ND	ND	ND	ND	ND	ND	ND
NW-17-9'	5.10	ND	0.0531	ND	ND	ND	ND
NW-22-9'	15.1	ND	0.247	ND	0.111	0.232	ND
NW-18-9'	38.5	ND	0.209	0.182	1.03	1.2	ND
NW-19-9'	5.49	ND	ND	ND	ND	ND	ND
NW-20-9'	6.22	ND	ND	ND	ND	ND	0.402
NW-27-14'		ND					
NW-28-14'		ND					
NW-29-15'		ND					
NW-32-6'	8.82	ND	ND	ND	ND	ND	ND
WEST WALL							
WW-1-4'	105	ND	0.210	0.147	1.70	0.827	ND
WW-2-12'	5.77	ND	0.257	ND	ND	ND	ND
WW-3-4'	12.7	ND	0.390	ND	ND	0.476	ND
WW-4-12'	2.69	ND	0.0849	ND	ND	ND	ND
WW-5-4'	101	ND	1.05	0.321	3.55	0.785	ND
WW-6-12'	9.32	ND	0.181	ND	ND	ND	ND
SOUTH WALL							
SW-7-4'	3.180	587 (2)	ND	6.3	50.7	189	ND
SW-8-12'	16.7	ND	0.756	ND	0.123	0.552	ND
SW-9-4'	1.160	234 (2)	2.30	2.21	20.6	97.4	ND
SW-10-12'	1.110 (1)	424	2.94	ND	15.8	89.8	ND
SW-11-4'	420	289 (2)	1.58	5.85	6.80	45.0	ND
SW-12-11'	738	ND	3.55	6.98	11.2	60.5	ND
SW-13-8'	2.870	593 (2)	12.8	68.6	52.9	314	ND
SW-23-4'		85.0					
SW-24-8'		167					
SW-25-4'		52.1					
SW-26-8'		259					

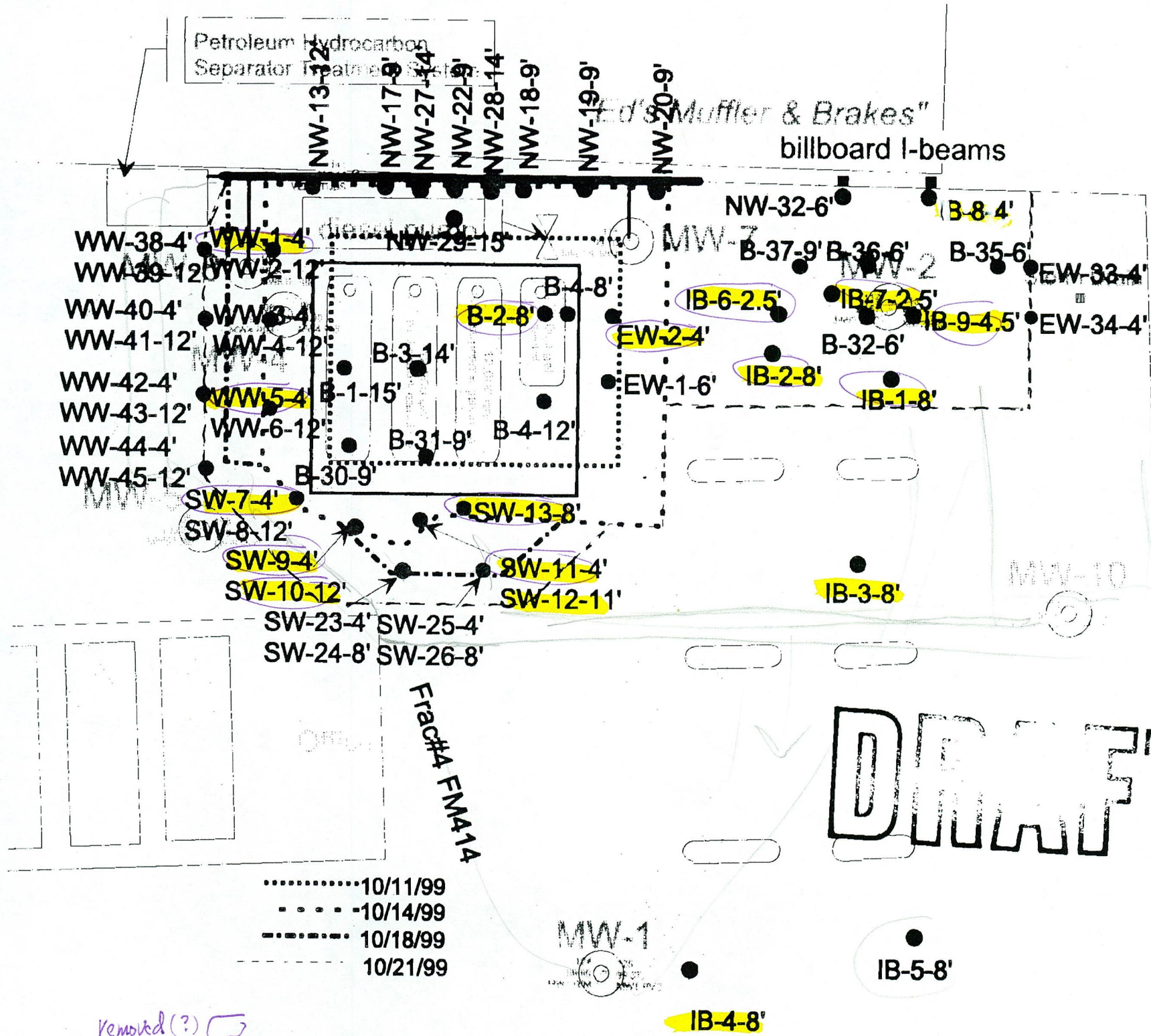
DRAFT

	Gasoline	Diesel	Benzene	Toluene	EthylBenzene	Xylenes	MTBE
EAST WALL							
EW-1-6'	2.86	ND	ND	ND	ND	ND	ND
EW-2-4'	95.2	35.2	1.62	0.312	2.80	2.19	1.67
BOTTOM							
B-1-15'	ND	ND	0.730	ND	ND	ND	ND
B-2-8'	2,290	1,220 (3)	18.7	116	34.9	191	ND
B-3-14'	3.95	ND	ND	ND	ND	ND	ND
B-4-8'	22.7	ND	1.01	0.423	0.523	2.92	ND
B-4-12'	8.75	ND	0.253	ND	0.280	0.865	ND
B-30-9'		224					
B-31-9'		ND					
ISLAND AREA							
IB-1-8'	147	ND	3.07	ND	3.17	9.05	ND
IB-2-8'	39.4	ND	2.44	ND	0.921	4.08	3.36
IB-3-8'	82.8	ND	2.58	ND	2.64	5.93	ND
IB-4-8'	187	ND	6.58	ND	2.78	6.5	ND
IB-5-8'	16.4	ND	ND	ND	ND	ND	ND
IB-6-2.5' (tar)	2,840		54.1	7.90	7.82	8.73	ND
IB-7-2.5'	3,310		7.74	58.9	53.1	133	ND
IB-8-4'	66.1	ND	ND	ND	ND	ND	ND
IB-9-4.5'	5,120	388 (2)	31.8	190	105	293	ND
FRAC-TANKS							
NPDES LIMITS	TPH 1mg/L	0.025mg/L	BTEX 0.25 mg/L			pH 6-9	
PW-1 (FM421)	1	0.0095	0.1826 (ppb: B=9.5, T=9.8, E=0.8, X _N =99, X _O =73)			8.87	
PW-2 (FM 431)	2.8	0.0155	0.3549 (ppb: B=15.5, T=26, E=5.9, X _N =207, X _O =116)			8.83	
FM431-10-20	0.561	0.000872	0.065 (ppb: B=0.872, T=2.56, E=2.69, X=26.3)			8.25	

NOTES: 1) interference from gasoline-range organics; 2) detected hydrocarbons in the diesel range appear to be primarily due to the overlap of weathered gasoline, though chromatogram indicates the presence of diesel; 3) hydrocarbon pattern and range are consistent with a combination of weathered gasoline and heavily weathered diesel.

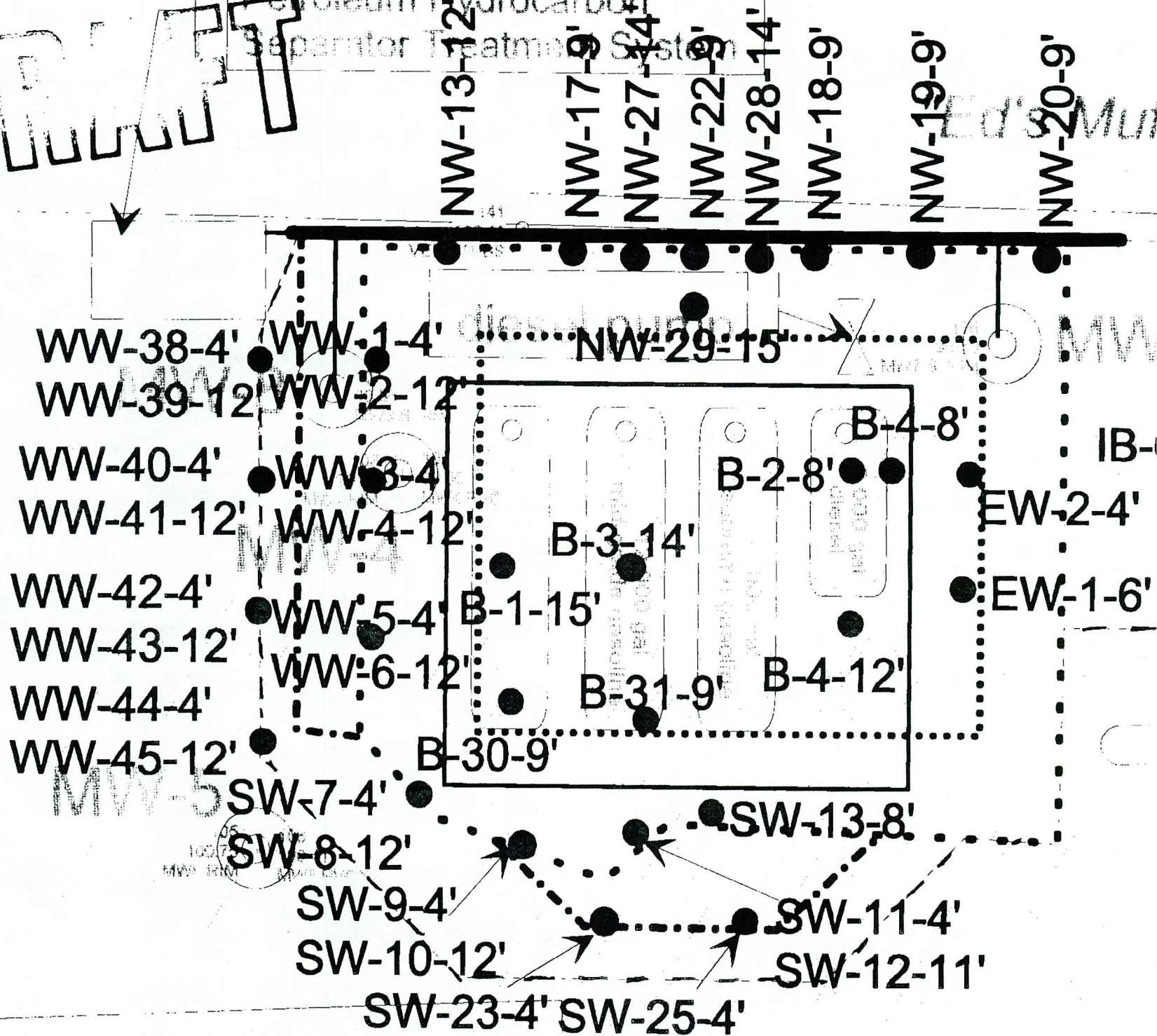
DRAFT





DRAFT

Petroleum Hydrocarbon
Separator Treatment System



billboard I-beams

NW-32-6'

IB-8-4'

B-37-9'

B-36-6'

B-35-6'

EW-33-4'

IB-6-2.5'

IB-7-2.5'

IB-9-4.5'

EW-34-4'

2-4'

B-32-6'

1-6'

IB-2-8'

IB-1-8'

DRAFT

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Richard Kont DATE: 10/20/99

WITH: GeoPro TIME: 2:45

TELEPHONE NO: () -

REGARDING: Flying J

FILE NO: 03-93-0008

SUMMARY OF CALL

Cleanup work update:

Four Frac tanks on site now. One tank tests clean enough for NADIES so it will be discharged. Permit mentions storm sewer. Can it go to sanitary also? I suggest calling Elliot Zais for this question.

Still digging contaminated soil. Main hole will go to 17 ft. depth to accommodate new large tanks. Lots of fill encountered: old tires, brick, boulders and clay. Think about remediation. Sparging not likely to be effective. Pump and treat may be only choice. I suggested some kind of horizontal extraction piping for the pit while it is open. We also discussed installing a prepacked "well" in the excavation. (Henning would approve of this.)

J. Schilham
Staff Signature

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Richard Kent DATE: 10/15
WITH: Geo Pro TIME: 10.20
TELEPHONE NO: () -
REGARDING: Flying J / Delco
FILE NO: 03 - 93 - 8

SUMMARY OF CALL

Update:

- Should we do delay the quarterly sampling? [Send me a letter with request to delay and altered sampling schedule.]
- Contamination is present around the piping/pump islands as deep as 14 ft. More excavation probably needed.
- Based on past records from decommissioning there is a possibility of as much as 20,000 gal release in tank pit.
- Contamination is likely offsite under Ed's muffler shop.

J. B. Williams
Staff Signature

NWR UST FIELD INSPECTION REPORT

Inspection Date: 10/8

Site Name: Flying J

Total Time* 2 hr.

Site Address: 17873 SE McLoughlin Blvd.
Milwaukee

*Include inspection, travel, paperwork

DEQ Inspector: Bob Williams

File/Facility No: 03-93-0008
(both UST & UST Cleanup file #'s as appropriate)

Others Onsite: Kelly (P+E), Richard Kent (Geopro)
Mr. Schi (Delco) John Worland (Converse)
(include company name)

Supervisor License No. : _____ Exp. date _____
(note the name of the license holder with **)

Inspection Type (check all that apply)

- | | | |
|--|---|---|
| ☐ Decommissioning | ☐ Install-New | ☐ Complaint |
| ☐ 1998 Compliance (Full) | ☐ Install-Retrofit | ☐ WQ-New Permit |
| ☐ 1998 Compliance (partial) | ☐ Service Provider Audit | ☐ WQ-Existing Permit |
| ☐ Leak Detection | ☒ Cleanup | ☐ Oxy Fuel |
| ☐ Financial Responsibility | ☐ SWLA/Soil Treatment | ☐ Stage 1 |
| ☐ Corrosion Protection | ☐ Distributor Audit | ☐ Stage 2 |
| ☐ Spill & Overfill | | |

Photos Taken? Y / N (attach)

Samples Taken? Y / N (attach results)

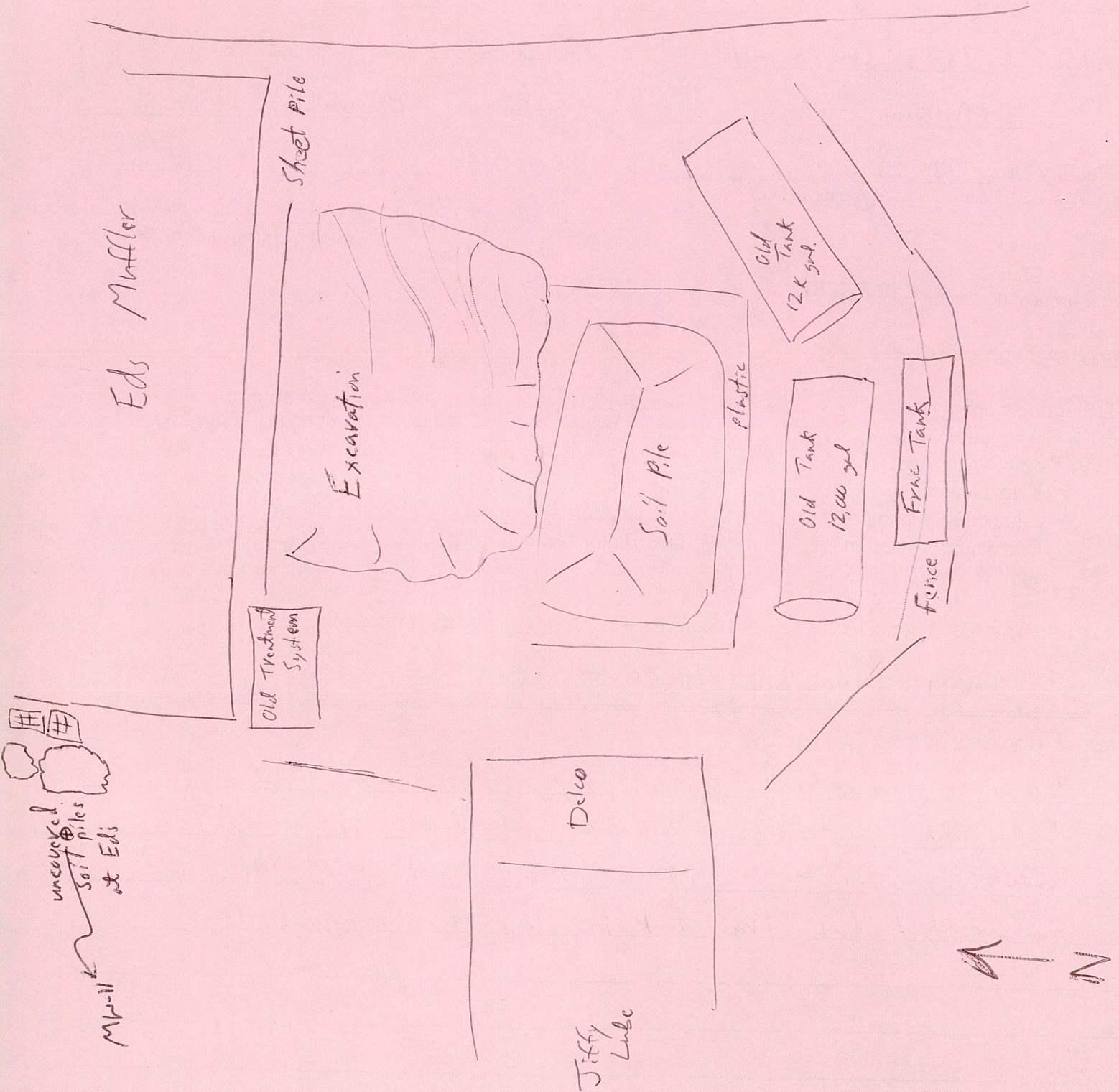
INSPECTION RESULTS - IN COMPLIANCE? Y / N

Notes (use back of form as necessary)

Two large tanks recently removed. Appear to be in very good shape.
Tanks being inerted before removal and digging resumes. Native
material appears to be silty clay rather than sand. No water
pumped yet but Frac tank in place for pumping

Site Sketch (Show North)

McLoughlin Blvd

















UST CLEANUP TELEPHONE USE REPORT

CALL (FROM) TO: Richard Kent DATE: 9-24-99

WITH: GeoPro TIME: 10:30

TELEPHONE NO: () - -

REGARDING: Delco Flying J

FILE NO: 03-93-0008

SUMMARY OF CALL

Update on site work: extra thick drive slab broken up. Proximity of Ed's muffler shop and sloughing fill in excavation will require driving sheet pile to protect structure. Bids are being taken today. Work to begin Monday. Richard talked to DWRO and obtained verbal auth. from Mike McCord to pull out existing wells with trackhoe. Will MW-7, -8, -9 probably all will be pulled

T. B. Wilkins

Staff Signature

Northwest Envirocon, Inc.

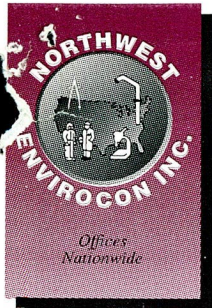
- ENVIRONMENTAL SERVICES • ENVIRONMENTAL DUE DILIGENCE •
- ASBESTOS/LEAD • OCCUPATIONAL SAFETY •
- INDUSTRIAL HYGIENE • DEMOLITION •

Peter Trabusiner

PROJECT MANAGER, PE, CES

210 North Perry Street, Ste. B
Kennewick, WA 99336
kennewe@gte.net

(509) 736-1187
FAX (509) 736-1068
CELL (509) 948-6741



Inspection Date: 7-29-99

Site Address: McLowry Rd. *Include inspection, travel, paperwork

File/Facility No.: 1747/03-93-0008
(both UST & UST Cleanup file #'s as appropriate)

Others Onsite: Peter Trabuciner, NW
include Envirocon, Inc
company _____
name _____

Supervisor License No.: NA Exp. date _____
(note name with ** that Lic. No. applies to)

Potential Site Hazards

Hazards Appraised? Y / N Construction Activities
 Photos Taken? Y / N (attach)
 Samples Taken? Y / N (attach results)

Inspection Type (check one)

- ☐ Install (New/Retro/StII)
- ☒ Decommission
- ☐ UST Facility - Full
- ☐ UST Facility - Partial
- ☒ Cleanup
- ☐ Soil Treatment
- ☐ Complaint
- ☐ Distrib. Audit
- ☐ Service Provider Audit
- ☐ Leak Detection
- ☐ Fuels (StI/StII/Tanker)

INSPECTION RESULTS - IN COMPLIANCE? Y / N / NA

↑ SITE SKETCH (Plan View)

Notes (use back of form as necessary)

Met Mr. Trabuciner (Envirocon)
no decom/clean up activities
being conducted, project
on hold pending emptying of
USTs (4). Discussed site
conditions; impacted GW,
unable to obtain closure
without access to PCS surrounding
USTs. Tanks in excellent condition,
sgl-walled FRP piping questionable.

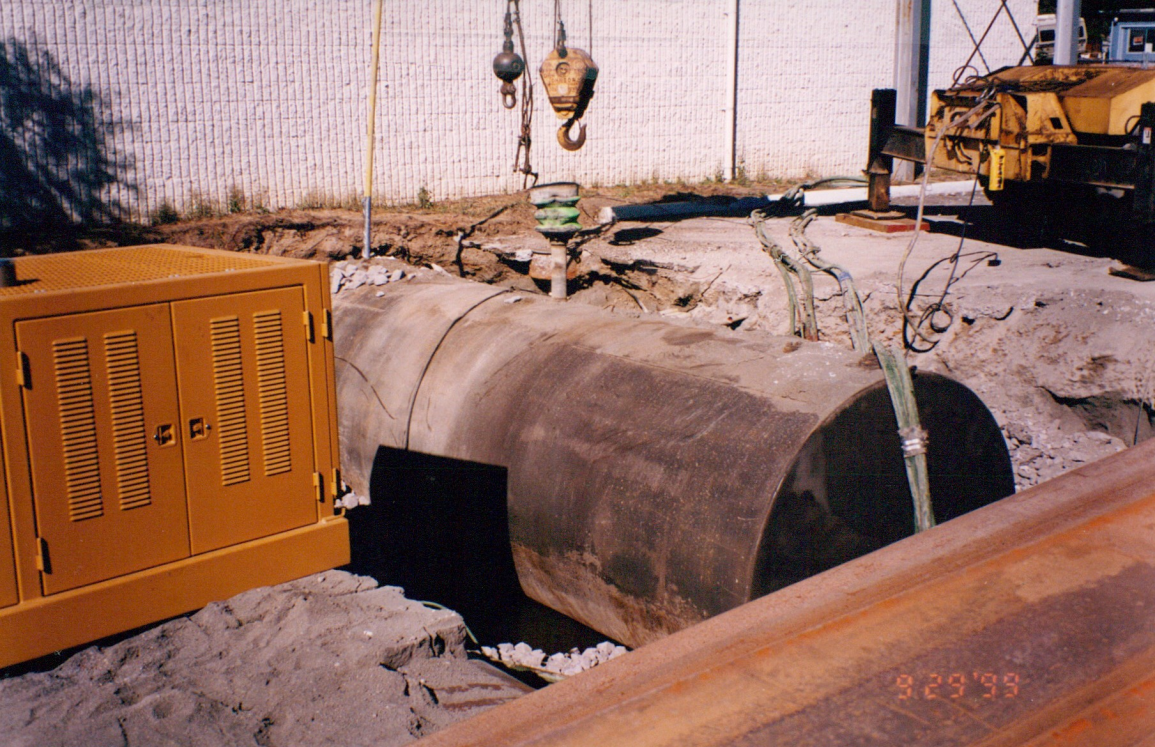
INSPECTION NOTES: (cont.)

Leak caused by suspected piping breach when
tanks floated beneath concrete cap, damaging ^{product} pipe.
To remove USTs, shoring must be installed to
protect Ed's Muffler bldg. New UST system
to be installed by PNE.



NON-TOXIC
BIODEGRADABLE
VEGETABLE
HYDRAULIC OIL

9/29/99







**T
H
E
LAST** MUFFLER YOU'LL
EVER HAVE TO BUY
FOR YOUR CAR!

03-97-0008
03-95-0935



ED'S MUFFLERS UNLIMITED, INC. 815 N.E. Hogan Rd. Gresham, Oregon 97030

12/29/98

Oregon D.E.Q.

RECEIVED

To Whom it may concern:

In December of 1988 we had a waste oil storage tank installed at our Milwaukie location, (17855 S.E. McLoughlin Blvd.) Installation was supposed to have included the permits: (see enclosed receipt)

In 1995, ground water contamination was discovered in the area and our shop was put under a microscope until it was determined that the contamination was coming from the shop or facility adjacent and to the south of us. At that time a ground water cleanup system was installed by Northwest Envirocon, Inc. and was supposed to be there for one year. It is still there. We allowed them to install the system on our property because it was requested by D.E.Q.

In March of 1996, a disgruntled employee filed a complaint alleging that we were dumping our waste oil from the tank into the drain leading to the sewer. An Oregon D.E.Q. inspector, conducted an on site investigation and another came to our corporate office in Gresham and demanded the files from our Milwaukie location concerning the waste oil storage and oil pick-up. threats were made that they "would put us out of business" if it was found that we were dumping oil. Our secretaries were so intimidated that they allowed the inspector to take the entire file. It was never returned to us.

To my knowledge, no contamination has ever been found or linked to our facility!

Because of EPA concerns and our desire to keep the environment clean. We are going to De-Commission the tank and install an approved above ground tank along with a waste oil furnace at that location.

Mr. Ed Hickam, President of Ed's Mufflers Unltd., Inc. spoke with Mr. Greg Toran from EPA, earlier this month. Mr. Toran felt that his department had erred and he just wanted to update his computers.

This letter will be to notify you that we will De-Commission the tank after 30 days. If this is not sufficient for notification, please let me know and furnish me with the proper forms.

Sincerely;

Robert Chatterton
General Manager

667-2575



SEP 17 1999

RICHARD C. KENT, R.G.
GeoPro Geologic Services

Post Office Box 26
Battle Ground, WA 98604
(360) 666-1465

NORTHWEST REGION

September 16, 1999

RE: NPDES PERMIT OR004018-5
Project No.99062b

Mr. Elloit Zais
Oregon Department of Environmental Quality
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

Dear Mr Zais:

Per our recent telephone conversation, this is to notify you that samples pursuant to the referenced NPDES Permit will not be collected from the existing treatment system configuration which will be temporarily out-of-service during the initial stages of remediation activities at Delco Petroleum's facility located at 17873 SE McLoughlin Blvd., Milwaukie, Oregon. Remediation will include an upgrade to underground storage tanks and excavation of soil and groundwater which is anticipated to begin September 20, 1999. A Work Plan for the upgrade has been submitted to DEQ and it has been approved.

As we discussed, our plans are to relocate the treatment system to handle groundwater to be pumped from the excavation to an on-site Baker Tank. A schematic diagram of the new treatment system layout will be sent to you.

Should you have any questions, or need further information, please do not hesitate to contact me or others receiving copies of this letter.

Very truly yours,

15/

Richard C. Kent, R.G.

cc: Mr. Gurdev Sohi, Owner's Representative, Milwaukie, OR (503) 654-9812
Mr. Naresh Singh, Project Manager, NW Envirocon, Vancouver, WA (360) 699-4015
Mr. Robert Williams, Project Manager, DEQ UST Cleanup & Compliance Section ✓
Mr. Roger Dilts, DEQ Enforcement Section



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

September 14, 1999

DEVINDER DHILLON
DELCO PETROLEUM COMPANY, LLC
14 LONG LEAF DRIVE
HAMILTON, NEW JERSEY 08690

Re: Flying J-Milwaukie #2
File No. 03-93-0008

Dear Mr. Dhillon:

The Department has completed its review of the GeoPro Geologic Services work plan, dated August 11, 1999 concerning underground storage tank (UST) upgrade and soil excavation at 17873 SE McLoughlin Boulevard in Milwaukie, Oregon.

The Department approves the work plan as submitted. If any existing site wells are decommissioned during excavation please provide the Department with copies of decommissioning paperwork. Decommissioned wells may need to be replaced in order to monitor groundwater conditions in the source area.

Please include methyl tert-butyl ether (MTBE) in the list of analytes for the next quarterly sampling round. The July 1999 Quarterly Report summary of previous groundwater sampling analyses does not indicate analysis for MTBE in the past. Depending on results, this additional analyte may not be required in future monitoring.

If you have any questions or if I can be of help in any way, please call me at (503) 229-6242.

Sincerely,

Robert Williams
UST Cleanup Specialist

cc: Gurdev Singh Sohi
Delco Petroleum Company, LLC
17873 SE McLoughlin Boulevard
Milwaukie, Oregon 97267



Devinder Dhillon
September 14, 1999
Page 2

Naresh Singh
Northwest Envirocon, Inc.
101 East 8th Street, Suite 250
Vancouver, Washington 98660

Richard Kent
GeoPro Geologic Services
PO Box 26
Battleground, Washington 98604



Oregon

State Board of Geologist Examiners

707 13th Street SE Suite 275
Salem, Oregon 97301
Phone: (503) 566-2837
Fax: (503) 362-6393
E-mail: osbge@open.org

August 25, 1999

DEQ NORTHWEST REGION UST
PROGRAM MANAGER ANDREE POLLUCK
2020 SW 4TH
PORTLAND OR 97201

DEPT OF ENVIRONMENTAL QUALITY
RECEIVED

AUG 26 1999

RE: Enclosed Report

NORTHWEST REGION

Dear Mr. Polluck:

Will you please review the enclosed report and confirm for me that this was received by DEQ? Information hand written on the report when it was received in our office indicates that it is a DEQ file report. However, there is no date stamp or any other mark to indicate that it was presented to DEQ. Because the ground water monitoring was done at a Milwaukie, Oregon facility, the thought is that this report was presented to your office. The postmark was also Portland.

I would appreciate a timely response to this question, but please, no later than September 15, 1999. Your assistance in this matter is appreciated. If you have any questions, feel free to call me here at the Board office.

Sincerely,

Susanna R. Knight
Administrator

Enclosure

CC99020

THIRD QUARTERLY GROUND WATER MONITORING REPORT

Delco Company (formerly Flying J)
17873 SE McLoughlin Boulevard
Milwaukie, Oregon 97267

RECEIVED

JUN 29 1999

Oregon State Board
of Geologist
Examiners

Project Number 38-000002
(formerly 16122)

Prepared for:
Devinder Dhillon
14 Longleaf Drive
Hamilton Square, New Jersey

June 15, 1995

Prepared by:
Jeff Jackman

Northwest Envirocon, Inc.
7410 Delaware Lane
Vancouver, Washington 98664
(360) 699-4015

AC99321
CC# 99-06-0009

1.0 INTRODUCTION

This report is to summarize the third quarterly ground water sampling event that took place on January 24, 1995 at the Milwaukie Fuel Stop/Delco facility (formerly Flying J) in Milwaukie, Oregon. This site is located at 17873 McLoughlin Boulevard, as shown in Figure 1. Ground water was sampled on January 24, 1995 from each of six (6) monitoring wells on the site. Analytical results indicated that the benzene concentration in wells MW-1, MW-2, MW-3, MW-4, and MW-5 exceeds the Oregon Cleanup Level of 5 parts per billion (ppb). The ethylbenzene concentration in MW-3 and MW-4 exceeds the Oregon Cleanup Level of 700 ppb. MW-3 and MW-4 also exceed the allowable limits of 10,000 ppb total xylenes, and 1,000 ppb toluene.

Free product was observed in MW-3 during this sampling event. Manual removal of free product from MW-3 was conducted on a weekly basis from July 19, 1994 to October 30, 1994; and biweekly from November 6, 1994 until this sampling event. Free product has not been observed in the other five (5) monitoring wells.

1.1 Objective

The purpose of this investigation was to ascertain the environmental impact of a petroleum hydrocarbon plume to the ground water at the Delco (formerly Flying J) gasoline station in Milwaukie, Oregon.

1.2 Background

In May of 1993, Delta Environmental in Bellevue, Washington conducted a Phase I Environmental Assessment of the Flying J (now Delco) gasoline station in Milwaukie, Oregon. Conclusions based on the results of the Phase I indicated the likelihood the facility may have had an unauthorized release and a Phase II preliminary site characterization was initiated. Geotech Exploration drilled five soil borings in prearranged locations within the property's boundaries. The borings did not penetrate the soil/groundwater interface. Soil samples were collected from each of the borings and analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX), total petroleum hydrocarbons (TPH) and total petroleum hydrocarbons as gasoline (TPH-G). Concentrations of BTEX and TPH were found in the soil samples in levels high enough to warrant additional drilling on the site. All five borings were subsequently abandoned with concrete after the investigation was concluded.

In June of 1993, Geotech Explorations and Delta Environmental drilled six monitoring wells on site to evaluate the potential environmental impact to ground water. According to the Delta Environmental Phase III report, the wells on the site are constructed of flush-jointed, 2-inch diameter, schedule 40 PVC pipe, fitted with 10-foot long, 0.020-inch factory slotted well screens. In each well, the screen was set at a depth which intersected the groundwater surface observed at the time of the drilling, and was surrounded by a washed silica sand filter pack to a level at least one foot above the top of the screened interval. The remaining borehole was filled with bentonite, and the well was completed with a concrete seal and a flush-mounted locking steel protective well box at the ground surface.

Groundwater Elevations

<u>Monitoring Well</u>	<u>Depth to ground water</u>	<u>Elevation of Well</u>
MW-1	3.97 feet	99.67 feet
MW-2	2.97 feet	98.79 feet
MW-3	2.89 feet	98.57 feet
MW-4	3.56 feet	99.30 feet
MW-5	4.94 feet	100.66 feet
MW-6	4.75 feet	100.29 feet

Based on the ground water measurements, the ground water gradient for the third quarter is virtually flat. A groundwater contour map is contained in Appendix B.

2.2 Ground Water Analysis and Results

Northwest Envirocon conducted the third quarterly ground water sampling on January 24, 1995. A total of twelve 40-milliliter VOA vials (two from each well) were analyzed by WyEast Laboratory for BTEX. The results were compared to the Oregon UST Cleanup Levels [340-122-242(4)]. Laboratory analysis revealed that five of six monitoring wells exceed the Oregon cleanup level of 5 parts per billion (ppb) benzene. Also, two wells exceed the 1,000 ppb cleanup level for toluene, the cleanup level of 10,000 ppb xylenes, and the cleanup level of 700 ppb ethylbenzene. The charts below show the laboratory results relative to Oregon Cleanup levels.

Oregon Cleanup Levels [340-122-242(4)]

<u>Benzene</u>	<u>Toluene</u>	<u>Ethylbenzene</u>	<u>Xylenes</u>
5 ppb	1,000 ppb	700 ppb	10,000 ppb

Laboratory Analytical Results for BTEX

MW-1	62 ppb*	29 ppb	349 ppb	315 ppb
MW-2	108 ppb*	ND	6 ppb	8 ppb
MW-3	19900 ppb*	21200 ppb*	6170 ppb*	31500 ppb*
MW-4	14900 ppb*	4200 ppb*	1630 ppb*	7550 ppb
MW-5	726 ppb*	10 ppb	36 ppb	125 ppb
MW-6	ND	ND	ND	ND

* Exceeds Oregon Cleanup Levels

MW-3 to the east of the UST basin was the only well that exceeded cleanup levels for all BTEX constituents. In addition to MW-3, MW-4 was the only other well that exceeded cleanup levels for more than one constituent (benzene, toluene and ethylbenzene). The overall BTEX concentration in, MW-2, MW-3, MW-4, and MW-5 increased considerably in comparison with the second quarterly sampling event; while the overall BTEX concentration in MW-1 decreased. BTEX concentrations in MW-6 remained the same (non-detect). A copy of the laboratory results and chain-of-custody can be found in Appendix C.

3.0 FREE PRODUCT RECOVERY

Free product was observed in MW-3 during this sampling event. Manual removal of free product from MW-3 was conducted on a weekly basis from July 19, 1994 to October 30, 1994; and biweekly from November 6, 1994 until this sampling event. Free product has not been observed in the other five (5) monitoring wells. A copy of the Free Product Recovery Chart can be found in Appendix E.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The results of this sampling event indicate an overall increase in BTEX concentration in MW-2, MW-3, MW-4 and MW-5, and an overall decrease in MW-1 since the last sampling event in October, 1994. MW-3 and MW-4 (closest to the UST basin) were the only two wells to exceed Oregon cleanup levels for more than one constituent. Since five of six monitoring wells on the site detected benzene above Oregon cleanup levels, we recommend the installation of a groundwater cleanup system.

5.0 LIMITATIONS

This assessment has been performed in accordance with generally accepted environmental practices and procedures, as of the date of the report. All services have been performed employing that degree of care and skill ordinarily exercised under similar circumstances by reputable environmental technologists practicing in this, or similar localities. No other warranty or guarantee, expressed or implied, is made or offered.

The conclusions and recommendations stated in this report are based upon observations made by employees of Northwest Envirocon, Inc. and also upon information provided by others. We have no reason to suspect or believe that the information provided is inaccurate. However, we cannot be held responsible for the accuracy of the information provided to us by others.

Jeff Jackman
Senior Environmental Assessor

Stan Schoof
Account Executive

Ed's Muffler

MW-2 (95.82)

MW-3 (95.68)

MW-4 (95.74)

MW-5 (95.72)

Delco

MW-1 (95.70)

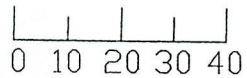
MW-6 (95.54)

S.E. McLoughlin Blvd.



Key

- Monitoring Well
Mw-# (elevation)



Approximate Scale
in Feet

3rd Quarterly Groundwater Elevation Diagram

PROJECT Groundwater Monitoring

SURVEY AREA Delco

DRAWN BY Jeff Jackman

DATE 8-8-95

DRAWING #

38-000002-2



AUG 12 1999

RICHARD C. KENT, R.G.
GeoPro Geologic Services

NORTHWEST REGION

Post Office Box 26
Battle Ground, WA 98604
(360) 666-1465
Fax (360) 666-8915

August 11, 1999

RE: DELCO Petroleum Co. LLC
UST Upgrade Work Plan
Project No. 990621wp

Mr. Robert Williams, R.G.
UST Cleanup Specialist
UST Cleanup & Compliance Section, Northwest Region
Oregon Department of Environmental Quality
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201

Dear Mr. Williams:

Enclosed please find two (2) copies of the report titled "Work Plan, Upgrade Underground Storage Tanks" for the Delco Petroleum Co. LLC Site located at 17873 SE McLoughlin Blvd., Milwaukie, Oregon.

It is my understanding that Mr. Brad Trebelhorn (503-684-6995) of Pacific Northern Environmental Corporation ("PNE"), Portland, is in the process of making application to DEQ for installation of new USTs at the referenced Site. Also of PNE, Longview, WA, Mr. Steve Anderson (800-533-2867) is in the process of submitting UST closure forms to DEQ for removal of the old tanks.

As we discussed, I will be out of town as of this date until August 27th. Should you have any questions or need further information, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Richard C. Kent", written over a horizontal line.

Richard C. Kent, R.G.

cc: Mr. Naresh Singh, Northwest Envirocon, Vancouver, WA
Mr. Gurdev Singh Sohi, Delco Petroleum Co. LLC, Milwaukie, OR *for* Mr. Devinder Dhillon
Mr. Brad Trebelhorn, PNE
Mr. Steve Anderson, PNE

attachments: UST Upgrade Work Plan (1, except DEQ, 2 ea.)

DEPT OF ENVIRONMENTAL QUALITY
RECEIVED

WORK PLAN

AUG 12 1999

NORTHWEST REGION

UPGRADE UNDERGROUND STORAGE TANKS

"Flying J – Milwaukie #2"
DEQ Site No. 03-93-0008

Delco Petroleum Company, LLC
17873 S.E. McLoughlin Boulevard
Milwaukie, Oregon 97267

August 11, 1999

Prepared For:

Delco Petroleum Company, LLC

14 Long Leaf Drive
Hamilton, New Jersey 08690
through NW Envirocon, Vancouver, WA

Prepared By:

Richard C. Kent, R.G.
GeoPro Geologic Services
Post Office Box 26
Battle Ground, WA 98604

Project Number 990621wp



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1. INTRODUCTION

1.1. PURPOSE AND SCOPE OF WORK

The purpose of this Work Plan is to outline a proposed scope of work to upgrade underground storage tanks at Delco Petroleum Co. LLC, 17873 SE McLoughlin Blvd., Milwaukie, Oregon ("Site"). This Work Plan is submitted for approval by the Oregon Department of Environmental Quality, UST Cleanup & Compliance Section, Northwest Region.

Richard C. Kent, Registered Geologist of GeoPro Geologic Services ("Consultant"), was authorized by Delco Petroleum Company, LLC, 14 Long Leaf Drive, Hamilton, New Jersey 08690 ("Client" and "Landowner") to prepare this outline of proposed scope of work as a Work Plan on July 1, 1999.

This Work Plan has been prepared in partial response to a Notice of Violation, Department Order, and Assessment of Civil Penalty No. WMC/T-NWR-99-064 Clackamas County in the Matter of Devinder Dhillon and Delco Petroleum Co., LLC before the Environmental Quality Commission of the State of Oregon ("Order"). The preparation of a Work Plan is required as stated in a cover letter to the Order by Certified Mail Z 440 760 423 dated June 7, 1999 from Mr. Langdon Marsh, Director of the Oregon Department of Environmental Quality ("DEQ") to Mr. Devinder Dhillon.

1.2. CONTACT LIST

This proposed Work Plan includes various tasks for which the following firms could be responsible for appropriate work tasks. All communications should be first directed through the Project Manager. *Please note that this listing is tentative, pending final contract negotiations with the Owner.*

Landowner:

Mr. Devinder Dhillon
Delco Petroleum Company, LLC
14 Long Leaf Drive
Hamilton, New Jersey, 08690

Landowner's Site Manager:

Mr. Gurdev Singh Sohi
Delco Petroleum Company, LLC
17873 SE McLoughlin Blvd.
Milwaukie, Oregon 97267
(503) 654-9812

Project Manager:

Mr. Naresh Singh, C.Q.A.
Corporate Quality/Safety Manager
Northwest Envirocon, Inc.
101 East 8th Street, Suite 250
Vancouver, Washington 98660
(360) 699-4015

Oregon Registered Geologist:

Mr. Richard C. Kent, R.G.
GeoPro Geologic Services
Post Office Box 26
Battle Ground, Washington 98604
(360) 666-1465

Chemical Laboratory:

North Creek Analytical
9405 SW Nimbus Avenue
Beaverton, Oregon 97008-7132
(503) 906-9200

On-Site Treatment Facility Maintenance (NPDES # OR004018-5):

Cherokee General Corporation
Post Office Box 62
Troutdale, Oregon 97060
(503) 661-1113

Underground Storage Tanks Removal, Disposal, and Soil/Groundwater Excavation:

Pacific Northern Environmental Corporation
7000 SW Hampton Street, Suite 112
Portland, Oregon 97223
(503) 684-6995

Oregon Licensed Soil Matrix Cleanup Services Supervisor:

Mr. Peter Trabusiner
Northwest Envirocon, Inc.
210 N. Perry, Suite B
Kennewick, Washington 99336
(509) 736-1187

Oregon Water Well Licensed Driller:

Geo-Tech Explorations, Inc.
19700 SW Teton
Tualatin, Oregon 97062
(503) 692-6400

Soil Disposal Facility:

TPS (thermal desorption)

Groundwater Disposal:

Spencer Environmental
Post Office Box 5207
Oregon City, Oregon 97045
(503) 657-3395

DEQ Project Manager:

Mr. Robert K. Williams, R.G.
Oregon Department of Environmental Quality UST Cleanup Specialist
UST Cleanup & Compliance Section, Northwest Region
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201
(503) 229-6242

1.3. PROGRESS SUMMARY

An ongoing groundwater monitoring investigation has been summarized in a report titled "July 1999 Groundwater Monitoring" for Delco Petroleum Co. LLC dated August 4, 1999 by Richard C. Kent of GeoPro Geologic Services.

"Phase I" and "Phase II" Environmental Assessments were completed by Delta Environmental Consultants Inc. ("Delta"), 3150 Richards Road, Suite 100, Bellevue, Washington 98005 between May 12 and May 27, 1993. Phase I was completed to assess the historical and potential environmental impacts to the Site. Phase II involved drilling five soil borings to collect and analyze soil samples. The Site was known as "Jiffy Lube International Store #1012", located at 17869 S.E. McLoughlin Boulevard, Milwaukie, Oregon.

Between June 18 and June 21, 1993, Delta performed a "Phase III" Environmental Assessment as summarized in an undated report by Patricia A. Crump and Daniel S. Whitman of Delta. Phase III involved the drilling and installation of six (6) groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6. Soil samples from the borings for the monitor wells were analyzed for BTEX and TPH. Groundwater samples collected from each monitor well were analyzed for BTEX, TPH, and TPH-G.

During Phase III, petroleum hydrocarbons were detected in soil samples from MW-1 through MW-4 at unknown depths and MW-5 at 5 to 6.5-feet. Benzene was detected in groundwater samples from wells MW-1 through MW-5. Toluene was detected in water samples from MW-1, MW-3, and MW-4. Ethylbenzene and xylenes were detected in all groundwater samples, but apparently exceeded DEQ action levels only in well MW-3. Apparently no constituents were detected in the water sample from well MW-6.

Delta concluded from water level measurements taken during Phase III that the groundwater gradient was approximately 0.001-foot/foot between MW-1 and MW-5 in a west to northwest direction. Groundwater was encountered at approximately seven (7)-feet below ground surface during the drilling of the monitor wells. The Site is essentially underlain by silty sands, with a silty clay occurring at shallow depths.

As reported in the "Third Quarterly Ground Water Monitoring Report" by NWE dated June 15, 1995, free product was observed only in Monitor Well MW-3 during sampling on January 24, 1995. As stated in the report: *"Manual removal of free product from MW-3 was conducted on a weekly basis from July 19, 1994 to October 30, 1994; and biweekly from November 6, 1994 until January 24, 1995."* The free product *"smelled like gasoline, was dark brown-black in color"*, and was one (1)-inch thick in MW-3 on July 19, 1994. No measurable layer of free product was observed during sampling of MW-3 on October 2, 1994, after which *"residue"* was observed in the bailer during subsequent sampling events.

As reported in the "Fourth Quarterly Ground Water Monitoring Report" by NWE dated June 22, 1995, free product was observed only in Monitor Well MW-7 during sampling on June 20, 1995. As stated in the report: *"The bailed free product and ground water from MW-7 is stored in a 55-gallon drum on the site."*

No free product was reported in any monitor wells on and after September 29, 1995 (Fifth Quarterly Ground Water Monitoring Report).

Thirteen (13) groundwater monitor wells have been installed in response to potential impact by petroleum hydrocarbons to groundwater following the initial Environmental Assessment Phases I through III

as described above. Two (2) wells are utilized as production for the treatment system, and one (1) well, MW-3, was decommissioned. Ten (10) monitoring wells are currently accessible for obtaining groundwater samples.

Monitoring Well MW-3 was decommissioned on February 20, 1995 by Geo-Tech Explorations, Inc., Tualatin, Oregon as summarized in a letter to DEQ by Martin S. Burck, R.G. on March 24, 1995. The decommissioning was caused by site characterization excavation activities (apparently a backhoe or similar) which removed soil around MW-3 to a depth of four (4)- to five (5)-feet and destroyed the annular seal. The well was reportedly decommissioned by overdrilling and backfilling with bentonite per Oregon Department of Water Resources procedures. Monitor Well MW-7 was previously installed on January 27, 1995 as an anticipated monitoring location replacement for well MW-3.

Also on January 27, 1995, monitor wells MW-8 and MW-9 were installed at the Site. MW-7 and MW-8 are constructed with four (4)-inch PVC as production wells for the treatment facility. All other monitor wells are constructed with two (2)-inch PVC. One monitoring well, MW-11, was installed off-site in a down-gradient direction on August 17, 1996 to the northwest on the "Ed's Muffler & Brakes" property.

2. GEOLOGY AND HYDROGEOLOGY

2.1. GEOLOGY

The Site is within Pleistocene fine-grained facies of coarse sand to silt deposited by catastrophic floods.¹ The finer sediments are predominantly quartz and feldspar and also contain white mica. The coarser sediments are predominantly Columbia River Basalt fragments. Poorly defined beds of 1- to 3-feet thick have complex layering. Soil development commonly introduces significant clay in the upper 6- to 15-feet. The fine sediments are locally thick and extend upslope to elevations 300- to 350-feet. Local variations to shallow groundwater flow directions may occur due to changes in lithology and thickness of beds.

The Site is bounded by the northwest trending Oatfield Fault to the north and the sub-parallel Concord Fault to the south. The faults are mapped (*ibid*) as cutting through the youngest sediments, including the Pleistocene fine-grained facies.

The Site is generally at approximate elevation 100-feet mean sea level ("msl") as shown in Figure 1 – "Location Map". It is surrounded by gently sloping terrain toward the Willamette River, which flows northerly approximately one-half mile to the west. Wells within one-mile of the Site to the west include 2 monitoring wells, one industrial well, ten domestic wells (about 42-feet average depth), and one unused well. (U.S. Geological Survey Water Resource Division). Most wells develop from basalt aquifers.²

2.2. HYDROGEOLOGY

The monitor wells are essentially in a configuration representing five (5) upgradient (MW-1, MW-6, MW-9, MW-10, and MW-13), and two (2) downgradient locations (MW-11, MW-12) relative to the suspected contaminant release location at or near the existing USTs. Monitor wells MW-2, MW-4, MW-5, MW-7 and MW-8 are essentially located within the suspected contaminant release location of the existing USTs (see Figure 2 – "Site Map").

¹ "Geologic Map of the Lake Oswego Quadrangle, Clackamas, Multnomah, and Washington Counties, Oregon", M.H. Beeson and Others, State of Oregon Department of Geology and Mineral Industries GMS-59, 1989, 1 Plate.

² NWE memo dated June 30, 1994.

A survey by Barbieri & Associates, Inc., 7017 NE Hwy 99, Suite 204, Vancouver, WA 98665 of selected monitor well PVC casing tops was completed on July 27, 1999 as reported July 30. The groundwater flow direction is estimated to be north-northwesterly based on July 1999 static water level measurements. During July 1999, the inferred groundwater gradient from Monitor Well MW-13 (4884.4892N, 5056.2117E) to Monitor Well MW-11 (5035.1486N, 4984.8006E) is approximately 0.63-feetV per 150.7-feetH, or 0.0042-feet per foot.

An isolated high groundwater peak occurred in the vicinity of Monitor Well MW-5 during the July 1999 sampling event. The cause of this high groundwater is unknown, however it could be caused by a zone of low permeability, such as, a clay lense. Other causes could be related to the tank field north of the well serving as a sump area; a leak in a water supply pipe; or possibly the well encountered a perched groundwater zone and is screened in multiple groundwater-bearing intervals.

In general, static water levels between wells are within one-half foot when measured during a sampling event. Based on previous reports, groundwater levels have fluctuated over time approximately four (4)-feet. The groundwater gradient direction has been variable, but is generally in a north to northwest direction.

3. LABORATORY RESULTS

The detected contaminants of concern are gasoline (as TPH) and its' related constituent benzene. Lower concentrations of toluene, ethyl benzene, and xylenes have been detected, as well as, diesel (as TPH).

Previous groundwater sampling had detected high concentrations of gasoline constituents BTEX in wells MW-1, MW-2, MW-4, MW-5, MW-7, and MW-8; all of which, except MW-1, are located in the proximity of the suspected contaminant release location. Previous groundwater sampling had detected lower concentrations of BTEX in monitor wells MW-6 (only at time of installation) and MW-9. BTEX had not been detected in monitor wells MW-10, MW-11, MW-12 or MW-13. During the July 1999 sampling event, moderate sheen and diesel odors were observed during the sample collection at Monitor Well MW-4. No free product was reported in any monitor wells on and after September 29, 1995 (Fifth Quarterly Ground Water Monitoring Report).

The July 1999 groundwater sampling event resulted in gasoline-range hydrocarbons being detected in samples from monitor wells MW-1, MW-2, MW-4, and MW-5. MTBE, a typical gasoline additive, was detected in samples from MW-1 and MW-2. Concentrations of benzene above 5 µg/l (ppb) were detected in samples from MW-1, MW-2, MW-4, and MW-5. Toluene was detected in a sample from one (1) monitor well (MW-1) at 4.29 µg/l. Ethylbenzene was detected in two (2) well samples: 9.60 µg/l (MW-1) and 109 µg/l (MW-4). Total xylenes were not detected in any well samples. A low concentration of diesel-range hydrocarbons (2.57 mg/l) was detected in the groundwater sample from monitor well MW-4. No free product or sheen was observed during purging or sampling of any other monitor wells.

The results of analyzing groundwater samples from MW-2, MW-4, and MW-5 in July 1999 indicate that previous leakage from the gasoline USTs, pipelines, or associated facilities, and possibly the diesel UST, are potential sources of contamination to shallow groundwater.

The potential source of contaminants detected in the groundwater sample from the upgradient monitor well MW-1 cannot be identified. However, a gasoline pump island is located less than twenty (20)-feet north of MW-1. Groundwater samples collected from Monitor Well MW-13, located approximately thirty (30)-feet southwest of MW-1, resulted in non-detection of analytes since September 18, 1996.

In July 1999, gasoline hydrocarbons were analyzed per NWTPH-Gx Method and BTEX/MTBE were analyzed per EPA Method 8020A. Diesel and Heavy Range Hydrocarbons were analyzed per NWTPH-Dx Method. Total xylenes include m,p- and o-xylenes. These analytical methods will be used for samples collected during excavation.

4. WORK PLAN SUMMARY

The following is a summary of activities related to the decommissioning of the existing underground storage tanks, cleanout and disposal of USTs, removal of existing facilities related to the USTs, demolition and disposal of pump islands and canopy, excavation of contaminated soil, pumping of contaminated groundwater, sampling of excavation bottom and sidewalls, sampling of groundwater, installation of new USTs, canopy and pump islands, and installation of new surface material. The activities are proposed in chronological order as much as feasible, although it is recognized that some may be concurrent, such as, obtaining permits.

- Reference to firms who may perform the work is tentative pending final contract negotiations with the Owner.
 - Anticipated start date: 2nd week of September, 1999.
- ☐ UST Installer submits application for Permit to install new tanks.
 - ☐ UST Excavator secures local permits.
 - ☐ UST excavator submits "UST Decommissioning/Change-in-Service 30-Day Notice Form" to DEQ.
 - ☐ UST Excavator provides telephone notification to DEQ 3-days before start of decommissioning work.
 - ☐ UST Excavator locks out electrical services and removes existing dispensers, pump islands, tank slab, drive slabs, wood canopy, and product vent and vapor lines.
 - ☐ Excavate and remove one (1) diesel and three (3) gasoline USTs (see Figure 3 – "Tank Field Sketch").
 - ☐ Expand excavation as required for contamination cleanup. Dewater excavation as required. Collect soil and groundwater samples for analysis.
 - ☐ Install new USTs, monitor system, product lines, pump islands, canopy and drive slabs.
 - ☐ Installer submits UST Decommissioning/Change-in-Service Report and Checklist Forms to DEQ within 30-days of completion.
 - ☐ Local permit forms submitted.
 - ☐ Owner submits letters and forms related to finance, insurance, and liability.
 - ☐ Submit Cleanup Report on Excavation to DEQ - UST Cleanup & Compliance Section, Northwest Region.

5. UST CLOSURE

5.1. PERMITS

Notify DEQ 30 days in advance of the start of construction.

Give required 72-hour notice to DEQ.

Secure local permits.

5.2. ACTIVITY SHUTDOWN AND PRE-EXCAVATION

Mobilize to site, lock out electrical services and remove existing dispensers.

Demo and remove six existing pump islands, one 37' x 34' x 8' tank slab; one 76' x 35' x 6' drive slab; one 76' x 35' wood canopy and all existing product, vent and vapor lines to facilitate the installation of the new fuel system.

Mobilize Baker tank to site. Notify chemical laboratory, water well driller, soil matrix supervisor and registered geologist.

5.3. UST REMOVAL AND DISPOSAL

Mobilize trucks to site to haul excavated soil (thermal treatment facility).

Excavate and remove one (1) existing diesel and three (3) existing gasoline UG storage tanks.

Collect soil samples from bottom and sidewalls of excavation and analyze for NWTPH-HCID (as a screening procedure) as required.

Tilt, triple rinse, and ventilate the USTs until all explosive vapors are entirely removed.

Clean and properly dispose of all liquids and sludge removed from the tanks. Cut and dispose of tanks per EPA regulations.

Pump groundwater into Baker tank as required. Collect water samples from Baker tank and analyze for contaminants of concern. Collect bottom samples from Baker tank and analyze.

Excavate existing monitor wells up to 20-feet depth with trackhoe as required and supervised by licensed water well driller. Wells MW-4, MW-7 and MW-8 may be decommissioned by excavation. The decision to remove the production wells for the on-site treatment system will depend upon the excavation limits and contaminant concentrations in the vicinity of the wells.

6. EXCAVATION

6.1. SOIL SAMPLING

Collect soil samples by an Oregon Licensed Soil Matrix Provider from bottom and sidewalls of excavation as required and analyze for NWTPH-HCID. Descriptions of the soil and hydrogeologic conditions will be performed by an Oregon Registered Geologist as required by ORS 672.505 (6), (7) and 672.525 (1), (2). It is anticipated that soil samples will be collected below the nominal groundwater table. Because the contaminants of concern are LNAPLs, it is estimated that the bottom samples would not be collected below approximately 91.0-foot relative elevation. The lowest recorded static water level was at 92.10-foot elevation in MW-2 on September 29, 1995 (6.48-feet bgs). The lowest static water level below ground surface was recorded for well MW-5 on September 29, 1995 at 8.22-feet bgs. Soil sample locations will be measured and marked on a map drawn to scale.

6.2. GROUNDWATER SAMPLING

Collect and analyze water samples from the bottom of the excavation as required for contaminants of concern: gasoline as NWTPH-Gx and its' related constituent benzene. Analyze water samples for previously detected lower concentrations of toluene, ethyl benzene, and xylenes, as well as, diesel (as NWTPH-Dx). Descriptions of the soil and hydrogeologic conditions will be performed by an Oregon Registered Geologist as required by ORS 672.505 (6), (7) and 672.525 (1), (2). Water sample locations will be measured and marked on a map drawn to scale.

6.3. SOIL REMEDIATION AND DISPOSAL

Soil remediation by excavation will be performed using analysis NWTPH-HCID as a screening procedure. When analyses indicate the extent of contamination, closure samples will be collected and analyzed for contaminants of concern: gasoline as NWTPH-Gx and its' related constituent benzene; as well as, toluene, ethyl benzene, xylenes, and diesel (as NWTPH-Dx). Contaminated soil will be trucked offsite to the TPS Technologies thermal desorption facility. A map drawn to scale will be compiled of the excavation.

6.4. GROUNDWATER REMEDIATION AND DISPOSAL

It is proposed to decontaminate excavated water pumped into Baker tank(s) by using the onsite treatment system. A revision to the existing, active NPDES Permit for the Site will be made to include a new schematic for the piping from the Baker tank to the treatment system. An alternative would be to haul the excavated water in the Baker tank(s) to a treatment facility.

6.5. SAMPLING PROTOCOL

Field screening will be used as a general guideline to delineate areas of possible contamination. Screening results will be used to aid in the selection of soil samples to be submitted to the laboratory for chemical analysis. Screening methods will include: a) visual, b) water sheen, and c) headspace. The precision and accuracy of field screening will not be quantified.

During visual screening, the soil will be observed for petroleum residuals, anomalous color, and stains indicative of possible contamination. A portion of the sample will be placed in water and observed for signs of sheen. Changes to the surface of the water will be noted including color, iridescence, how rapid the sheen flows and dissipates. Headspace screening will include placing a portion of the sample in plastic bags, gently shaking the bag, and allowing it to remain closed for about 5 minutes before headspace vapors are measured.

New disposable gloves will be worn when collecting soil and water samples. Samples will be transferred into new sample containers supplied by the laboratory. Sample container volumes and preservation methods will be furnished by the laboratory to be compatible with the method QC analyses on a laboratory-batch basis.

Sample labels will be completed for each sample. Immediately following the collection of each sample, they will be stored on a cooler with ice until they are delivered to the analytical laboratory. Chain of custody procedures will be followed, including a form and sample request form inside each shipping container.

Field duplicates will be obtained for quality assurance. Duplicates will consist of two samples collected sequentially. Field duplicate samples will be collected at a minimum frequency of 10 percent of the total number of samples collected.

Trip blanks will be included for chemical analysis at a frequency of one per sampling day. Trip blanks will be prepared by the laboratory and placed in an appropriate sample shipping container.

6.6. HAZARD EVALUATION

Prior to the beginning of each day of intrusive activity at the site, a tailgate safety meeting will be held with all participating individuals. The purpose of the tailgate safety meeting will be to address health and safety issues relevant to the planned activities. A record of the tailgate safety meeting will be maintained by the Site Safety Officer assigned to the project.

Security in the exclusion zone will be maintained by the Site Safety Officer. Any site visitors will not be allowed within the exclusion zone. Field team members also will be responsible for ensuring that unauthorized individuals do not enter the exclusion zone.

The primary exposure pathway is direct contact with contaminated soil or groundwater. Exposure would be primarily to relatively low levels of contaminants; therefore, the potential for significant exposure via the pathway is low.

Field work near backhoes will pose physical hazards. Workers must be aware of activity around equipment and be prepared to avoid moving equipment. Prior to intrusive activity, the UST Excavator will coordinate with local utility companies to clearly mark underground utilities. General construction safety practices will be followed during all field activities.

It is anticipated that the level of protection necessary to accomplish the tasks outlined for this Action Plan is modified Level D. Modified Level D PPE will be worn during all intrusive activities and is necessary to prevent worker exposure to hazardous materials. Modified Level D will consist of the following:

- Hard hat,
- Safety glasses with side guards,
- One-piece disposable coveralls, such as poly-coated Tyvek (rain gear can be substituted for coveralls),
- Thin disposable latex or PVC inner gloves with nitrile outer gloves, and,
- Chemically resistant steel-toed boots.

Other safety gear that will be on site during intrusive work and sampling will include a first aid kit, mobile telephone and fire extinguisher.

Personnel involved with excavating, soil and ground water sampling will complete an abbreviated decontamination prior to leaving the site and/or eating lunch. An abbreviated decontamination procedure is:

- Clean boots and outer gloves with a Liquinox wash and clean water rinse.
- Examine outerwear for excessive wear, severe contamination, rips or tears. If outer garments are highly contaminated or damaged, they will be replaced, and the used outerwear will be placed in a disposal drum labeled "personal protective clothing."

7. NEW UST AND OTHER INSTALLATION

Install a set of four (2) Xerxes 20,000-gallon double wall fiberglass tanks per manufacturer instructions and EPA regulations.

Backfill excavation with pea gravel for tanks, vents, product and vapor lines.

Install three new turbine sumps and associated tank trim including piping fittings and tank slab manholes.

Form and pour six new 4-ft x 4-ft x 6-ft canopy footings.

Excavate (as necessary) between tank nest area and prepare for flexible and FRP piping.

Install double wall Enviroflex pipe for product lines, 2-inch single wall fiberglass pipe for vent lines, and single wall fiberglass pipe for stage 2 recovery line. All stage 2 lines would be piped to the unleaded tank and connected to the six new MPD dispensers at the islands to be used as a fully operative Healy system.

Provide electrical directly to the fueling system, canopy lighting and the TLS 300 tank monitoring system.

Form, pour and finish 42-ft x 26-ft x 8-ft tank slab, one 82-ft x 40-ft x 6-ft drive slab and six 12-ft x 4-ft dogbone style pump islands.

Asphalt patch excavated areas with 3-inch Class 'C' asphalt to match existing grade.

Install six MPD dispensers, one tank monitor system and connect.

8. CLEANUP REPORT

A Cleanup Report on Upgrade activities will be completed within 60-days of work completion, unless a longer period is approved by DEQ. The report will include at least the following information:

- History of release and previous investigation regarding contaminated soil and groundwater.
- Description of decommissioned USTs after removal from excavation.
- Description of soil and groundwater removed from excavation. Descriptions of the soil and hydrogeologic conditions will be performed by an Oregon Registered Geologist as required by ORS 672.505 (6), (7) and 672.525 (1), (2).
- Persons who collected samples and name of laboratory analyzing samples.
- Name of water well driller decommissioning water wells.
- Site map drawn to scale showing location of previous tanks, new tanks, buildings, pump islands, excavated soils, sample locations, and any pockets of remaining contamination.
- Copies of all laboratory analyses.
- Copies of all permits related to the UST decommissioning, disposal of soil and groundwater, and local permits.
- A summary of concentrations of closure ('final round') soil and groundwater samples.
- A summary of discussions with DEQ during decommissioning, including any problems encountered during the cleanup.

9. LIMITATIONS

This Work Plan is restricted to an investigation which has involved the review of previous work involving underground storage tanks which contained known or suspected hazardous products identified either by the property owner(s), historical records, or previous reports. Such records and investigations have been relied upon in good faith, however, no responsibility is accepted for errors or omissions of previous work. Drilling services were performed under separate agreement with the landowner and Consultant makes no claim of responsibility for services provided by drilling services or others. Plans for the decommissioning of existing USTs and the installation of new USTs have been provided by others and Consultant makes no claim of responsibility for services provided by UST Service Providers, haulers, or similar proposed services.

It is possible that exploration or sampling by others failed to reveal the presence of hazardous materials at areas where hazardous materials were assumed, suspected or expected to exist. Client understands that third-party failures to discover contaminated or hazardous materials through appropriate and mutually agreed-upon sampling techniques does not guarantee that such materials do not exist at the Site. Similarly, a Site which in fact is unaffected by contaminated or hazardous materials at the time of exploration or sampling, may later, due to natural causes or human intervention, become contaminated. Consultant is not responsible for failing to locate groundwater monitoring wells which have not discovered hazardous materials at the time of this report or in the future.

This Work Plan should not be construed as presenting a value to the Site nor the condition as to construction capabilities. In the event of changes in future development plans as understood at the time of this report, the conclusions and recommendations made herein shall be invalid until given the opportunity to review and modify this Work Plan in writing.

Services by GeoPro Geologic Services will be performed, findings obtained, and recommendations prepared in a manner generally exercised by members of the profession under similar conditions at the time services were rendered. This warranty is in lieu of all other warranties, either expressed or implied. Findings apply only to present conditions, and opinions expressed are subject to revision when additional or new information is submitted in writing. This Work Plan has been prepared for the landowner(s) or landowner's agents and Consultant shall not accept liability or responsibility for detachment, partial use or separation by third parties and such use shall be at user's sole risk.

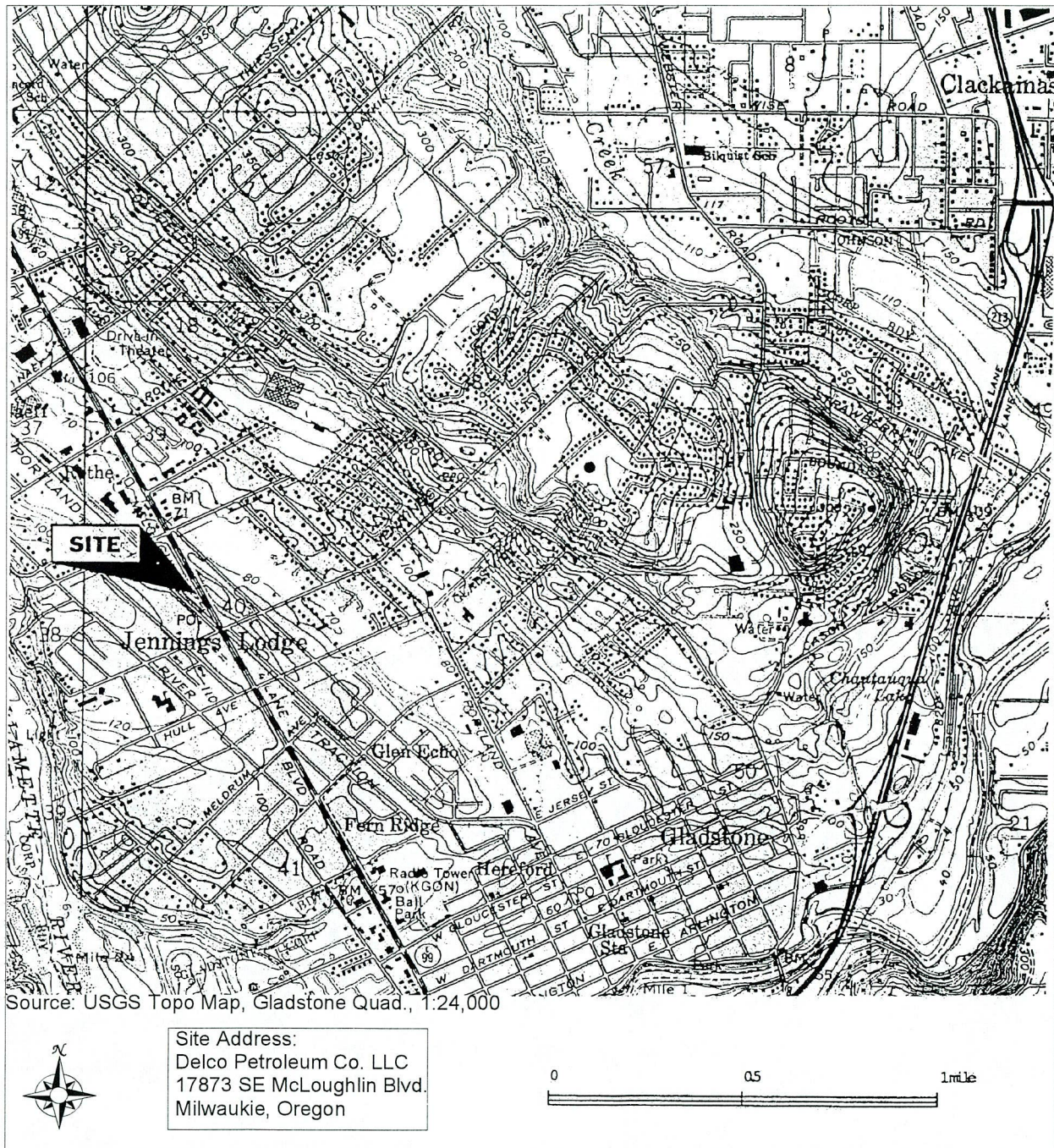
Portions of an Agreement to perform professional services for the Client may or may not be disclosed in this report. Final approval of environmental investigations and remediation is authorized only by appropriate governmental agencies.

Respectfully submitted,



Richard C. Kent, R.G.
Professional Geologist

Figure 1 – LOCATION MAP



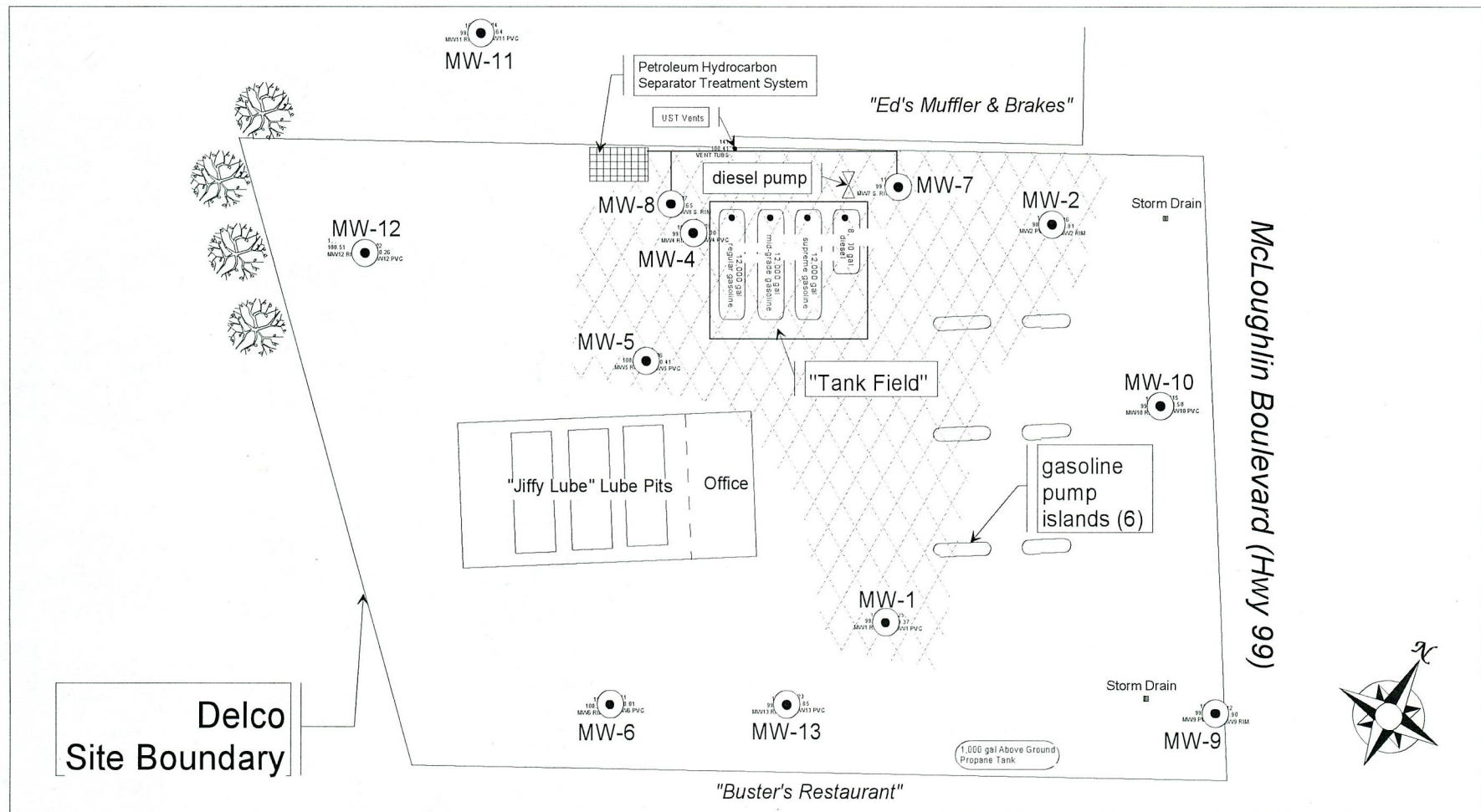
GeoPro Geologic Services
Battle Ground, WA

August 10, 1999

Project No. 990621wp

**WORK PLAN
LOCATION MAP**

Figure 2 – SITE MAP



Legend



Estimated area
of groundwater
contamination



Monitor Well Location

APPROXIMATE SCALE



1 inch = 40 feet

**WORK PLAN
SITE MAP**

DELCO PETROLEUM CO. LLC
17873 SE McLoughlin Blvd.
Milwaukie, OR



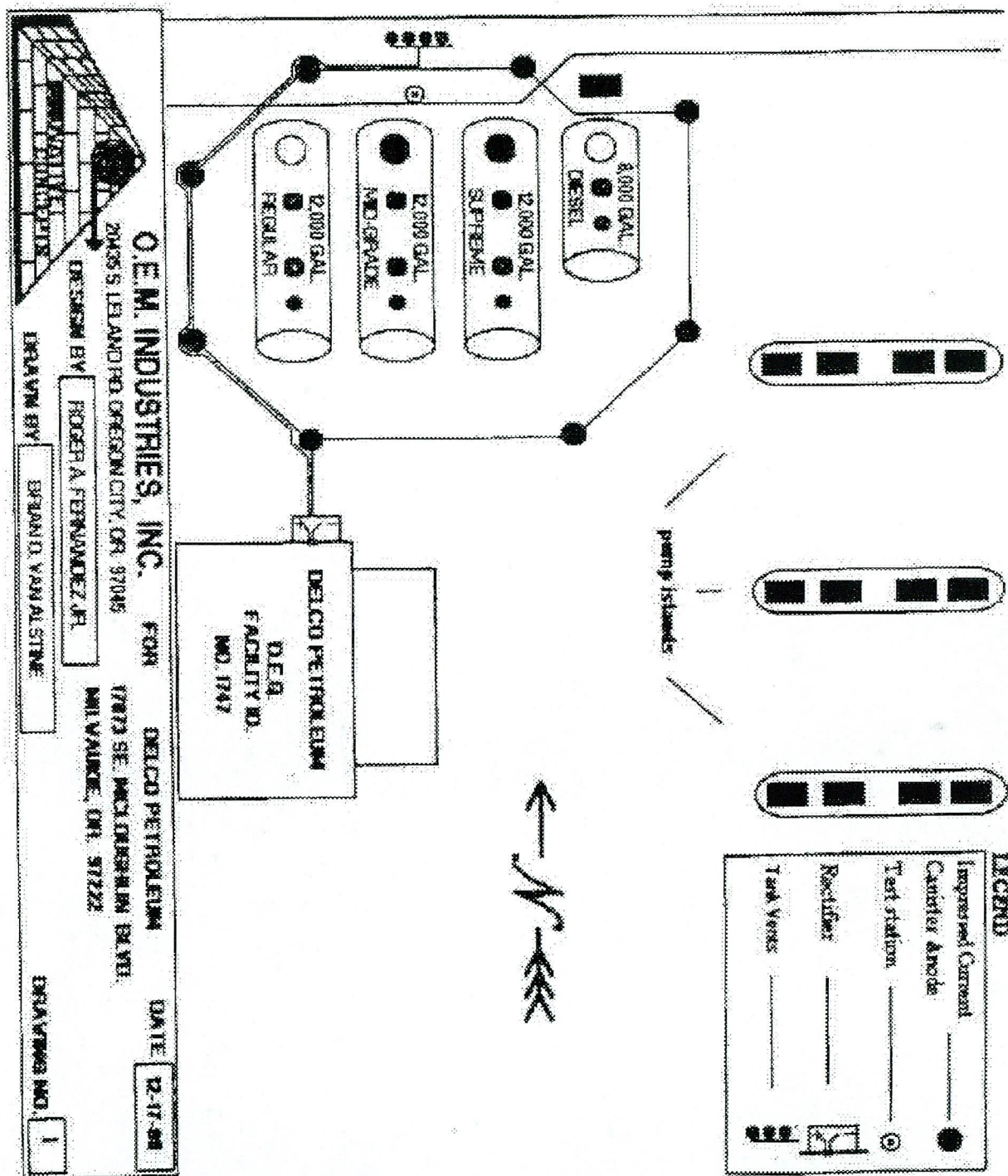
GeoPro Geologic Services
Battle Ground, WA

August 11, 1999

Project No. 990621wp

August 11, 1999

Figure 3 – TANK FIELD SKETCH MAP



CERTIFIED MAIL Z 440 760 426

June 7, 1999

Delco Petroleum Co., LLC
Jan D. Sokol,
Registered Agent
One Southwest Columbia
Suite 1700
Portland, OR 97258-2097

Re: Notice of Violation, Department Order, and
Assessment of Civil Penalty
No. WQ/I-NWR-99-079
Clackamas County

The enclosed Notice and Order addresses two separate violations of Oregon environmental law, both of which resulted from Delco's operation of the Milwaukie Fuel Stop.

The first violation resulted from the failure to properly monitor the groundwater treatment system at the facility. In August 1995 Delco Petroleum was issued a National Pollutant Discharge Elimination System (NPDES) 1500A permit for the discharge from a groundwater treatment system located at 17873 S.E. McLaughlin Boulevard in Milwaukie, Oregon. The NPDES permit requires the permittee to analyze a sample of the discharge from the system every month, and report the results to the Department on a Discharge Monitoring Report form (DMR). Although the system has been operating for three and one-half years, Delco has not submitted any DMRs.

In response to two Notices of Noncompliance, Delco submitted a summary in February 1999 showing the analytical results for sampling between September 1995 and February 1998. The summary included no results for February, June, and November of 1997. Delco has not submitted DMRs or analytical results for the period of March 1998 through April 1999. DMRs are required every month, whether a discharge is occurring or not. The permit also requires that the permittee notify the Department within twenty-four hours of any breakdown or failure of the system.

The second violation resulted from Delco placing gasoline and diesel in underground storage tanks that had not been issued a Certificate to Operate. On



811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1



December 23, 1998, Mr. Gurdev Singh Sohi, manager of Delco's Milwaukie Fuel Stop came to the Department's Northwest Region office seeking a Certificate to Operate so that the facility could receive fuel. Department staff could not verify that the tanks met the upgrade standards from the checklist Mr. Sohi presented. Staff told Mr. Sohi that he would have to return the following Monday, December 28th, when a DEQ staff person could review the checklist. Between the 23rd and the 28th, Mr. Sohi accepted two deliveries of fuel.

When Mr. Sohi returned on the 28th, DEQ staff verified the upgrade checklist, and informed Mr. Sohi that he needed to file a General Permit Registration Form to complete the application for the Certificate to Operate. Mr. Sohi did not complete this process until January 20, 1999. Between December 28th and January 20th, Mr. Sohi accepted ten deliveries of fuel.

As the permittee of the groundwater treatment system, Delco is legally responsible for complying with all NPDES permit requirements, including sampling the discharge and reporting the results. Monthly sampling is required to ensure the continued effectiveness of the treatment system and to prevent discharge of contaminated water to waters of the state. Submission of results on DMR forms requires certification by a responsible corporate officer that the data is correct.

Placing gasoline and diesel in underground storage tanks that do not have a Certificate to Operate is a violation of Oregon law. The Department has developed a system for certifying underground storage tanks and issuing permits for their operation. This system allows DEQ to track the status of tanks throughout the state and to ensure that only certified tanks continue to operate. Operation without such a certificate compromises the reliability of Department records.

Delco is liable for a civil penalty assessment because the company violated Oregon environmental law. In the enclosed Notice, I have assessed a civil penalty of \$5,125 for the two violations. In determining the amount of the penalty, I used the procedures set forth in Oregon Administrative Rule (OAR) 340-12-045. The Department's findings and civil penalty determination are attached to the Notice as Exhibits 1 and 2.

In addition to the civil penalty, the enclosed Order requires Delco to do the following:

- Submit copies of the laboratory reports from which already-submitted data was derived, and any data on sampling done since March 1998. This submittal must be certified as detailed in the Order.
- Submit a written description of the groundwater treatment system.
- Resume monthly sampling and submit results as required in the permit.

Appeal procedures are outlined in Section VI of the Notice. If Delco fails to either pay or appeal the penalty within twenty (20) days, a Default Order will be entered against the company and the Order will become final and enforceable.

If Delco wishes to discuss this matter, or if the company believes there are mitigating factors which the Department might not have considered in assessing the civil penalty, the

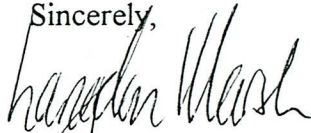
company may request an informal discussion by attaching a request to the appeal. The request to discuss this matter with the Department will not waive Delco's right to a contested case hearing.

I look forward to Delco's cooperation in complying with Oregon environmental law in the future. However, if any additional violations occur, the company may be assessed additional civil penalties.

Copies of referenced rules are enclosed. Also enclosed is a copy of the Department's internal management directive regarding civil penalty mitigation for Supplemental Environmental Projects (SEPs). If Delco is interested in having a portion of the civil penalty fund an SEP, the company should review the enclosed SEP directive. Exceptional pollution prevention could result in partial penalty mitigation.

If Delco has any questions about this action, please contact Roger Dilts with the Department's Enforcement Section in Portland at 229-5692 or toll-free at 1-800-452-4011, enforcement extension 5692.

Sincerely,



Langdon Marsh
Director

e:\winword\delco\delco\cvr\tr

Enclosures

cc: Robert Williams, Northwest Region, DEQ
Rich Rose, Northwest Region, DEQ
Waste Management and Cleanup Division, DEQ
Water Quality Division, DEQ
Oregon Department of Justice
U.S. Environmental Protection Agency
Environmental Quality Commission
Clackamas County District Attorney

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF:
DELCO PETROLEUM, LLC,
an Oregon limited liability company,

Respondent.

**NOTICE OF VIOLATION,
DEPARTMENT ORDER,
AND ASSESSMENT OF
CIVIL PENALTY**
No. WQ/I-NWR-99-079
CLACKAMAS COUNTY

I. AUTHORITY

This Notice of Violation, Department Order, and Assessment of Civil Penalty (Notice and Order) is issued by the Department of Environmental Quality (Department or DEQ) pursuant to Oregon Revised Statutes (ORS) 468.100, ORS 466.810, ORS Chapter 183, and Oregon Administrative Rules (OAR) Chapter 340, Divisions 11 and 12.

II. FINDINGS

1. Respondent Delco Petroleum, LLC, is, and at all relevant times was, an Oregon limited liability company.

2. At some time during 1994, Respondent began operating a retail gasoline station at 17873 S.E. McLaughlin Boulevard, Milwaukie, Oregon, under the name of "Milwaukie Fuel Stop," hereinafter "the site."

Sampling of groundwater treatment system

3. On or about September 6, 1995, Respondent began operating a groundwater treatment system at the site.

4. The groundwater treatment system at the site is, and at all relevant times was, subject to a National Pollutant Discharge Elimination System (NPDES) 1500A permit, which was issued to Respondent on August 24, 1995, with file number 108705. The permit was issued pursuant to ORS 468B.050.

5. Respondent's NPDES 1500A permit requires monthly sampling and analysis of the discharge from the system, and reporting of results by the 15th day of the following month on a Discharge Monitoring Report (DMR) form. DMR forms must be signed by the principal

1 executive officer or agent of the permittee, certifying under penalty of law that the information is
2 true, accurate, and complete.

3 6. Respondent began sampling the discharge from the treatment system as required
4 on September 6, 1995.

5 7. On October 15, 1997, the Department issued a Notice of Noncompliance to
6 Respondent for the failure to submit DMRs, and requested future timely submittals.

7 8. Respondent failed to report results of discharge monitoring until February 23,
8 1999. At that time Respondent submitted a tabular summary of monitoring results for the period
9 September 1995 through February, 1998. Respondent did not report results on DMR forms.

10 9. Respondent failed to sample the discharge of the groundwater remediation system
11 and report the results as required for the months of February 1997, June 1997, November 1997,
12 March through December 1998, and January through April 1999.

13 *Operation of underground storage tanks*

14 10. On December 23, 1998, the permit for the USTs at the site expired by operation of
15 law.

16 11. Tank permittee Devinder Dhillon failed to obtain an underground storage tank
17 general permit registration certificate for the USTs at the site until January 20, 1999.

18 12. Acting through its manager Gurdev S. Sohi, Respondent arranged for delivery and
19 placement of gasoline and/or diesel into the USTs at the site on the following dates: December
20 26, 1998, December 27, 1998, December 30, 1998, December 31, 1998, January 3, 1999, January
21 6, 1999, January 7, 1999, January 9, 1999, January 11, 1999, January 14, 1999, January 16, 1999,
22 and January 19, 1999.

23 III. VIOLATIONS

24 Based upon the Findings above, Respondent has violated Oregon's laws and rules as
25 follows:

26 1. Respondent violated ORS 468B.025(2) by violating the terms of a waste discharge
27 permit issued under ORS 468B.050. Specifically, Respondent violated Section C.5 and Schedule

1 B of its NPDES permit by failing to submit discharge monitoring reports for the months of
2 February 1997, June 1997, November 1997, March through December 1998, and January through
3 April 1999. This is a Class II violation OAR 340-012-0055(2)(f).

4 2. Respondent violated OAR 340-150-0150(3) by causing a regulated substance to
5 be deposited into an underground storage tank that had not been issued a general permit
6 registration certificate by the Department. Specifically Respondent arranged for and accepted
7 delivery and placement of gasoline and diesel into unpermitted underground storage tanks on:
8 December 26, 1998, December 27, 1998, December 30, 1998, December 31, 1998, January 3,
9 1999, January 6, 1999, January 7, 1999, January 9, 1999, January 11, 1999, January 14, 1999,
10 January 16, 1999, and January 19, 1999. This is a Class I violation pursuant to OAR 340-012-
11 0067(1)(g).

12 IV. DEPARTMENT ORDER

13 Based upon the foregoing FINDINGS AND VIOLATIONS, Respondent is hereby
14 ORDERED TO:

15 1. Immediately initiate actions necessary to correct all of the above cited violations
16 and come into full compliance with Oregon's laws and rules.

17 2. Within thirty days of this Order submit to the Department copies of laboratory
18 reports from which were derived the data in the "Discharge Monitoring Chart" in the First
19 Quarter 1998 Ground Water Monitoring Report, Appendix E, along with results of any analyses
20 of discharge sampling done since March 1998. This submittal must be accompanied by a
21 certificate signed by the permittee's principal executive officer, or agent, stating:

22 "I certify under penalty of law that I have personally examined and am familiar with the
23 information submitted herein; and based on my inquiry of those individuals immediately
24 responsible for obtaining the information, I believe the submitted information is true,
25 accurate and complete. I am aware that there are significant penalties for submitting false
26 information, including the possibility of fine and imprisonment."

27 ///

3. Within thirty days of receipt of this Order, provide a written description of the groundwater treatment system at the site. This description must include a summary of the system with information on pumping wells including typical flow rates, potential capture zones, and groundwater contamination trends related to system pumping.

4. Immediately resume monthly sampling and analysis of the discharge from the groundwater treatment system and reporting the results on DMR forms by the 15th day of the month following sampling. Monthly reports are required even if there is no discharge.

V. ASSESSMENT OF CIVIL PENALTIES

The Director imposes civil penalties for the violations cited in Section III, paragraphs 1 and 2 as follows:

<u>Violation</u>	<u>Penalty Amount</u>
1	\$3,125
2	\$2,000

Respondent's total civil penalty is \$5,125.

The findings and determination of Respondent's civil penalty pursuant to OAR 340-12-045 are attached and incorporated as Exhibit Nos. 1 and 2.

VI. OPPORTUNITY FOR CONTESTED CASE HEARING

This Notice and Order shall become final unless Respondent requests, in writing, a hearing before the Environmental Quality Commission. **The request must be received by the Department's Rules Coordinator within 20 days from the date Respondent receives this Notice and Order, and must be accompanied by a written "Answer" to the allegations contained in this Notice and Order.**

In the written Answer, Respondent shall admit or deny each allegation of fact contained in this notice, and shall affirmatively allege any and all affirmative claims or defenses to violations and assessment of any civil penalty that Respondent may have and the reasoning in support thereof. Except for good cause shown:

///

- 1 1. Factual matters not controverted shall be presumed admitted;
- 2 2. Failure to raise a claim or defense shall be presumed to be a waiver of such claim
- 3 or defense;
- 4 3. New matters alleged in the Answer shall be presumed to be denied unless admitted
- 5 in subsequent pleading or stipulation by the Department or Commission.

6 Send the request for hearing and Answer to: **DEQ Rules Coordinator, Office of the**
7 **Director, 811 S.W. Sixth Avenue, Portland, Oregon 97204.** Following receipt of a request for
8 hearing and an Answer, Respondent will be notified of the date, time and place of the hearing.

9 If Respondent fails to file a timely request for hearing and Answer, the Notice and Order
10 shall become a final and enforceable Order of the Environmental Quality Commission by
11 operation of law without any further action or proceeding. If the Order becomes final by
12 operation of law, the right to judicial review, if any, is outlined within ORS 183.480.

13 Failure to appear at a scheduled hearing or meet a required deadline may result in a
14 dismissal of the request for hearing and also an entry of a Default Order.

15 The Department's case file at the time the Notice and Order was issued may serve as the
16 record for purposes of entering the Default Order.

17 VII. OPPORTUNITY FOR INFORMAL DISCUSSION

18 In addition to filing a request for a contested case hearing, Respondent may also request
19 an informal discussion with the Department by attaching a written request to the hearing request
20 and Answer.

21 VIII. PAYMENT OF CIVIL PENALTY

22 The civil penalty is due and payable ten (10) days after the Order imposing the civil
23 penalty becomes final by operation of law or on appeal. Respondent may pay the penalty before
24 that time. Respondent's check or money order in the amount of \$5,125 should be made payable

25 ///
26
27

1 to "State Treasurer, State of Oregon" and sent to the **Business Office, Department of**
2 **Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204.**

3
4
5
6 Date

6-7-99

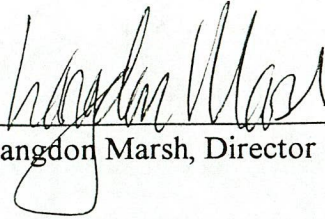

Langdon Marsh, Director

EXHIBIT 2
WMC/T-NWR-99-079

**FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045**

VIOLATION 2: Causing a regulated substance to be placed in an unpermitted UST

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-012-0067(1)(g).

MAGNITUDE: The magnitude of the violation is minor, pursuant to OAR 340-012-0045(1)(a)(B)(ii), because the tanks were subsequently permitted without modification.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

"BP" is the base penalty which is \$1,000 for a Class I, minor magnitude violation in the matrix listed in OAR 340-12-042(1).

"P" is Respondent's prior significant action(s) and receives a value of 0, because Respondent has no prior significant actions.

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct any prior significant action(s) and receives a value of 0, because Respondent has no prior significant actions.

"O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 2, because the violation was repeated.

"R" is the cause of the violation and receives a value of 10, because the violation resulted from the flagrant action of the Respondent. On December 23, 1998, Respondent's manager met with DEQ staff to obtain approval of an upgrade/retrofit checklist and issuance of a certificate to operate. Department staff was not able to verify that the tanks complied with applicable standards, so no certificate could be issued. Respondent then accepted delivery of fuel on December 26 and 27, 1998. Respondent returned to DEQ on December 28, when the checklist was approved. Staff explained that the Respondent needed to file a permit registration form to receive the certificate. Respondent did not file the form or obtain the certificate until January 20, 1999. Respondent accepted deliveries of fuel on December 30 and 31, 1998, and January 3, 6, 7, 9, 11, 14, 16, and 19, 1999. Respondent, after being informed of the legal requirement for a certificate before obtaining fuel, arranged for and accepted delivery of fuel.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of -2, because Respondent corrected the violation by obtaining a permit for the tanks.

"EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of 0, because the Department lacks the evidence on which to make a reasonable estimate.

PENALTY CALCULATION:

Penalty

$$\begin{aligned} &= BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB \\ &= \$1,000 + [(0.1 \times \$1,000) \times (0 + 0 + 2 + 10 + -2)] + \$0 \\ &= \$1,000 + [\$100 \times 10] + \$0 \\ &= \$1,000 + \$1,000 + \$0 \\ &= \$2,000 \end{aligned}$$

PENALTY CALCULATION:

Penalty = BP + [(0.1 x BP) x (P + H + O + R + C)] + EB
 = \$1,000 + [(0.1 x \$1,000) x (0 + 0 + 2 + 10 + 2)] + \$725
 = \$1,000 + [\$100 x 14] + \$725
 = \$1,000 + \$1,400 + \$725
 = \$3,125

EXHIBIT 1
WQ/I-NWR-99-079

**FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045**

- VIOLATION 1:** Failure to submit discharge monitoring reports.
- CLASSIFICATION:** This is a Class II violation pursuant to OAR 340-012-0055(2)(f).
- MAGNITUDE:** The magnitude of the violation is moderate, pursuant to OAR 340-012-0045(1)(a)(B), because the violation does not have a selected magnitude.
- CIVIL PENALTY FORMULA:** The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$
- "BP" is the base penalty which is \$1,000 for a Class II, moderate magnitude violation in the matrix listed in OAR 340-12-042(1).
- "P" is Respondent's prior significant action(s) and receives a value of 0, because Respondent has no prior significant actions.
- "H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct any prior significant action(s) and receives a value of 0, because Respondent has no prior significant actions.
- "O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 2, because the violation was repeated.
- "R" is the cause of the violation and receives a value of 10, because the violation resulted from Respondent's flagrant acts. On October 15, 1997, the Department issued a Notice of Noncompliance (NON) to Respondent for failure to submit DMRs since March 1997. The Department requested that Respondent submit separate DMRs for January through October 1997 and monthly thereafter. Respondent failed to respond to the request. The Department issued another NON on February 17, 1999, again requesting that Respondent submit DMRs. On February 23, 1999, Respondent submitted a summary of analytical results through February 1998. Although informed twice of the legal requirement to do so, Respondent has failed to submit DMRs for the entire period of operation of the groundwater treatment system.
- "C" is Respondent's cooperativeness in correcting the violation and receives a value of 2, because Respondent has not corrected the violation.
- "EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of \$725. Respondent avoided expenditures estimated at \$1,088 by not performing analyses necessary for submittal of DMRs. By avoiding this expenditure, Respondent realized an economic benefit of \$725, as calculated by the US EPA BEN computer model, pursuant to OAR 340-012-0045(1)(c)(F)(iii).

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Richard Kent DATE: 6/30/99
WITH: GeoPro Geologic Services TIME: 10:00
TELEPHONE NO: (360) 687 - 0509
REGARDING: Delco Petroleum / Flying J
FILE NO: 03 - 93 - 0008

SUMMARY OF CALL

Richard is taking over much of the site work. Planning a full round of sampling for BTEX. I suggested MTBE at least for first round. Tank excavation / source removal is also planned. According to segment database there are 3 (fac. ID 9929) new oil tanks and 1 waste oil tanks active and not upgraded. Gas tanks not registered?! Yes, they are under different fac ID, 1747. I suggested the need for waste oil constituent sampling if there appears to be any kind of oil release. Apparently the treatment system is still down, awaiting a part. Should be up in a week or so.

4:30

Diesel tank said to abandoned ~~first~~ and 3 active gas tanks

John Waltham
Staff Signature



RICHARD C. KENT, R.G.
GeoPro Geologic Services

Post Office Box 26
Battle Ground, WA 98604
(360) 666-1465
Fax (360) 666-8915

August 4, 1999

RE: DELCO Petroleum Co. LLC
July 1999 Quarterly Report
Project No. 990621

Mr. Robert Williams
Project Manager
Oregon Department of Environmental Quality
2020 SW Fourth Avenue
Portland, Oregon 97201

Dear Mr. Williams:

Enclosed please find two (2) copies of the report titled "Quarterly Report, July 1999, Groundwater Monitoring" for the Delco Petroleum Co. LLC Site located at 17873 SE McLoughlin Blvd., Milwaukie, Oregon.

Should you have any questions or need further information, please do not hesitate to contact me.

Very truly yours,

Richard C. Kent, R.G.

cc: Mr. Naresh Singh, Northwest Envirocon, Vancouver, WA
Mr. Gurdev Singh Sohi, Delco Petroleum Co. LLC, Milwaukie, OR *for* Mr. Devinder Dhillon
attachments: July 1999 Quarterly Report, 1 bound (1 unbound DEQ only))

DEPT OF ENVIRONMENTAL QUALITY
RECEIVED

AUG 04 1999

NORTHWEST REGION

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Pat Yador DATE: 3-30-99
WITH: Cherokee General TIME: 1:40
TELEPHONE NO: () 661 - 1113
REGARDING: Delco Site
FILE NO: 03 - 93 - 0008

SUMMARY OF CALL

He is having a lot of "friction" on the Delco site system problems. They are responsible for maintenance of system and there have been break downs. Has been trying to keep costs down and system has been falling into dis-repair. Now it needs major work to get it fully operational.

Just checking in to see if DEQ is blaming them for anything as Delco seems to be.

I told him no, it is Delco and NW Environ who have dropped the ball (in my eyes)

T. J. L. Walker
Staff Signature



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

March 9, 1999

DEVINDER DHILLON
DELCO PETROLEUM CO LLC
14 LONGLEAF DRIVE
HAMILTON SQUARE, NEW JERSEY 08690

Re: Flying J-Milwaukie #2
File No. 03-93-0008

Dear Mr. Dhillon:

The Department has completed its review of the reports submitted to date, concerning the underground storage tank cleanup at 17869 SE McLoughlin Boulevard in Milwaukie, Oregon.

The only material received by the Department as of March 8, 1999 is the first quarter 1998 Ground Water Monitoring Report, dated February 12, 1998. This report documented a sampling event in January 1998. The previous quarterly sampling event was in January 1997. In the back of the February 12, 1998 report is a table summarizing Discharge Monitoring Report (DMR) data from 9/95 through 2/98. Data was not submitted on DMR forms. We have no DMR records for the period between 2/98 and 3/99.

There is very little information in the file concerning the groundwater treatment system at the site. Please provide a summary of the system with information on pumping wells including typical flow rates, potential capture zones, and groundwater contamination trends related to treatment system pumping.

The groundwater contour maps for the site are very confusing. Flow direction appears to be extremely variable. This may indicate a problem with surveyed well head elevations. Please review your survey data for errors. If the next monitoring event still yields confusing data then the Department will require that well heads be resurveyed by a licenced professional surveyor.

Future groundwater contour maps should show the site layout including remediation system components, buildings, former tanks, existing tanks, and pump islands. Please indicate the estimated flow direction on all contour maps. If at all possible, measure groundwater levels during a time when the treatment system has not been operating for at least 12 hours. This will help ensure that an accurate flow direction at the site is measured. The groundwater contour map should be drawn to scale.

DMR forms for reporting are enclosed. These forms need to be filled out monthly and returned, along with supporting data, to Elliot Zais in the Water Quality Section at the Northwest Region Office of the DEQ at 2020 SW 4th Avenue, #900. The forms can be copied or scanned for future use.

The most recent groundwater flow map suggests a northerly flow direction. The high levels of groundwater contamination near the northern border suggest the possibility of offsite migration. If flow is northerly then there is a high possibility for contaminant migration under the Ed's Muffler shop building. Investigation under this building may be required. The existing well on the muffler shop property should not be abandoned and must be included in quarterly sampling.

Due to the high levels of groundwater contamination, the potential for off site contamination, and the existence of a remediation system, a Corrective Action Plan (CAP) will be required for this site. The Department understands that closure for this site will be sought under Risk Based Corrective Action (RBCA) guidance therefore the CAP should incorporate RBCA analysis and documentation. The document entitled "Risk Analysis of Former Jiffy Lube International Store" and dated April 3, 1997 is a start but contains many errors and omissions. Before a CAP can be prepared the flow direction must be established, the potential off site contamination must be addressed, and high concentrations of benzene in groundwater will most likely need to be reduced. Unless data on remaining soil concentrations of benzene, toluene, ethylbenzene, and xylenes (BTEX) and polynuclear aromatic hydrocarbons (PAHs) exists, then this information will also be required before closure.

Please resume quarterly sampling and reporting **by April 15, 1999** and include improved analysis of groundwater flow direction. Wells should be sampled for BTEX in groundwater. A DMR form must be submitted to indicate that discharge has ceased and state when it is likely to resume. During system operation a monthly DMR form is required. These forms will establish the water discharge history for the site. If site plans still include tank upgrade, please provide a work plan for excavation, upgrade, and contaminated soil removal **at least 30 days before work begins**. The work plan should include a discussion of how groundwater remediation will proceed following over-excavation of the tank cavity as well as a map (drawn to scale) showing the proposed excavation area and groundwater contamination in the area.

Devinder Dhillon
March 9, 1999
Page 3

If you have any questions or if I can be of help in any way, please call me at (503) 229-6242.

Sincerely,



Robert Williams
UST Cleanup Specialist

Enclosure for Jeff Jackman

cc: Enforcement Section - NWR
Stephanie Holmes, WM&C - UST Section
UST Facility File #1747

Gurdev Singh Sohi
Delco Petroleum CO LLC
17873 SE McLoughlin Boulevard
Milwaukie, Oregon 97267

Peter Trabusiner
Northwest Envirocon, Inc.
1500 Adair Drive
Richland, Washington 99352

Jeff Jackman
Northwest Envirocon, Inc.
101 East 8th Street, Suite 250
Vancouver, Washington 98660

UST CLEANUP TELEPHONE USE REPORT

CALL (FROM) TO: Peter Trabunier DATE: 3-3 (1999)
WITH: NW Environ TIME: 4:30
TELEPHONE NO: () -
REGARDING: Delco
FILE NO: 03 - 93 - 0008

SUMMARY OF CALL

Peter called with update on Delco site. Apparent NW Environ
had a lumpsum contract with Delco for site cleanup.
Through various billing confusion the money was used up long
before cleanup finished. Delco refused to pay any more so
NW Environ stopped work. Nobody informed DEQ of these
events.

Staff Signature

State of Oregon
Department of Environmental Quality

Memorandum

To: Facility #1747
File #03-93-008

Date: March 1, 1999

From: *[Signature]* Richard Rose/Bob Williams *TLW*
{UST/NWR/WMC}

Subject: Meeting with Gurdey Singh Sohi, Delco Petroleum

*file
copy*

Met with Mr. Sohi and discussed the violations listed in NON. Mr. Sohi submitted OEM tank assessment reports and delivery receipts as requested. OEM records confirmed that the USTs were upgradable with cathodic protection. The delivery receipts confirmed Mt. Hood Oil Co. delivered fuel to Delco USTs from 12-26-98 to the present.

We reviewed tank records to confirm which USTs were specifically upgraded. Four (4), permits numbered #ECBH, ECCCK, ECBJ, ECCA. Dept. questioned Mr. Sohi regarding a 3-day upgrade notice given by OEM on 12/29/98, this notice was after the 12/28/98 submittal of the upgrade checklist indicating that all upgrade work was completed on the USTs. Mr. Sohi couldn't explain the notice. All reports submitted indicate upgrade complete by 12/23/98 as claimed.

Discussion focused on the fuel delivered on 12/26/98. Mr. Sohi read Mr. Pollock's memo indicating that he told Mr. Sohi that he could not receive fuel until Rose returned on 12/28/98 and verified upgrade status. Mr. Sohi indicated that since the USTs were upgraded, he met the regulations.

Further, we discussed that Delco did not have a Certificate to Operate until January 20, 1999, when he signed the registration form. Mr. Sohi claimed he attempted repeatedly by fax to get the correct and complete forms to Stephanie Holmes of the DEQ-UST permitting staff.

Discussion concerning UST compliance concluded with the following understanding;

- 1) Violations are confirmed regarding receipt of fuel to unpermitted USTs.
- 2) Dept. will proceed with enforcement measures on Mt. Hood Oil Co.
- 3) Dept. requested by March 19, 1999, Mr. Sohi provide a written understanding of his compliance status during this time.

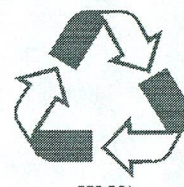
Discussion focus moved to NPDES violations. The Dept. emphasized the importance of DMR sample, testing & submittals. Mr. Sohi claimed that his contractor was paid \$190,000 and was performing the required work.. Dept. advised Mr. Sohi that the only submittal since 1997 was a Quarterly Groundwater Monitoring Report for Fall 1998, and that another was due.

No DMRs had been submitted per NPDES permit. Mr. Sohi agreed to notify the consultants (NW Envirocon) and instruct them to assure compliance. Mr. Sohi informed the Dept. that the



USTs will be decommissioned in May 1999 and limited soil removal will be completed at that time. It was discussed that a Corrective Action Plan maybe needed, at a minimum cleanup efforts should be coordinated between Pacific Northern Environmental, NW Envirocon and DEQ.

Mr Sohi read and understood the enforcement ramifications of violations of the NPDES permit. At conclusion, Mr. Sohi indicated that he would have NW Envirocon contact the Dept. by weeks end, March 5, 1999, and was provided with blank DMR forms which will be submitted monthly as required.





Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

February 17, 1999

DELCO PETROLEUM CO LLC
C/O JAN D. SOKOL, REGISTERED AGENT
1 SW COLUMBIA STREET, SUITE 1700
PORTLAND, OREGON 97258-2097

Re: Flying J-Milwaukie #2
File No. 03-93-0008
NWR-UST-99-0012
NOTICE OF NONCOMPLIANCE

Dear M. Sokol:

This notice is being sent to you as the registered agent for Delco Petroleum Co. LLC. The purpose of the letter is to inform you of violations of the Department's rules concerning the underground storage tank (UST) cleanup and general permitting at 17869 SE McLoughlin Boulevard in Milwaukie, Oregon.

A Notice of Noncompliance (NWR-UST-97-144) was sent to Devinder Dhillon and Gurdev Singh Sohi on October 15, 1997. The violations documented were: 1) Failure to submit required reports from the investigation or cleanup of a UST system and 2) Failure to submit a Discharge Monitoring Report (DMR) by the required time.

A review of the file indicates that the last quarterly cleanup report submitted for the site was dated February 21, 1997. The Department was informed by Cherokee Environmental that the groundwater treatment system at the site has been active (with numerous down periods) until a recent failure. Discharge monitoring data for 1995 and 1996 appears in the above referenced report but it is not reported on approved forms. Jeff Jackman of Northwest Envirocon, Inc. reported that their firm had not done any work on quarterly reports or discharge monitoring reports (DMRs) for a long time. He suggested I talk to Peter Trabusiner (same firm) who would be more informed on project status. Peter said that the treatment system was damaged in the recent cold snap and was currently down. Peter reported that DMRs had been done and he would send them to the Department. As of February 17, 1999 no DMRs have been received.



February 17, 1999

Page 2

No DMR data since 1996 appears in the file. Current violations duplicate those of 1997, with an additional violation for operating an UST without first obtaining a general permit registration certificate.

Violation 1

Failure to submit required reports from the investigation or cleanup of a release from an underground storage tank. This is a Class One violation of Oregon Administrative Rules (OAR) 340-122-0217.

Violation 2

A National Pollutant Discharge Elimination System (NPDES) General Permit Number 1500A was issued in 1995 for this site, under file number 108705. Monitoring and reporting requirements are clearly outlined in the permit. Failure to submit discharge monitoring reports from an operating groundwater treatment system is a Class One violation of Oregon Revised Statutes (ORS) 468B.025.

Violation 3

Operating an UST without first obtaining a General Permit Registration Certificate.

Based on information provided to the Department, between December 22, 1998 and January 20, 1999, Delco operated USTs without first obtaining a General Permit Registration Certificate.

OAR 340-150-0040, requires the any person required to obtain a general permit registration certificate pursuant to OAR 340-150-0020 must submit a general permit registration form provided by the Department. Further, all general permit registration forms must be completed in full, including all required exhibits and information as specified by OAR 340-150-0050.

This is the third NON for this site. Please submit a letter which details how compliance with Oregon environmental law will be ensured and how future violations will be prevented.

By March 1, 1999 please submit all quarterly reports, all DMRs, and all laboratory data from the site treatment system since February 1997. If data for quarterly reports and DMRs has not been collected then please submit a report summarizing all work and treatment system operation details since February 1997.

DELCO PETROLEUM CO LLC

February 17, 1999

Page 3

By March 1, 1999 please provide the Department with copies of fuel delivery receipts for the period December 22, 1998 through January 20, 1999.

These are Class I violations and are considered serious violations of Oregon environmental law. Since this NON includes repeat violations of the reporting requirements we are referring this violation to the Department's Enforcement Section with a recommendation to initiate a formal enforcement action. (See the attached Notice of Noncompliance dated October 15, 1997). A formal enforcement action may include a civil penalty assessment for each day of violation.

If you have any questions concerning Violations 1 & 2 please contact Robert Williams at (503) 229-6242 and for Violation 3, Richard Rose at (503) 229-5472.

Sincerely,



Robert Williams
UST Cleanup Specialist

Sincerely,



Richard Rose
UST Compliance Specialist

Enclosures

cc: Enforcement Section - NWR
Stephanie Holmes, WM&C - UST Section
UST Facility File #1747

Devinder Dhillon
Delco Petroleum CO LLC
14 Longleaf Drive
Hamilton Square, New Jersey 08690

Gurdev Singh Sohi
Delco Petroleum CO LLC
17873 SE McLoughlin Boulevard
Milwaukie, Oregon 97267

Peter Trabusiner
Northwest Envirocon, Inc.
1500 Adair Drive
Richland, Washington 99352

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Devinder Dillon DATE: 2-17-99

WITH: Delco TIME: 1:30

TELEPHONE NO: (609) 584-8695

REGARDING: Former Flying J

FILE NO: 03-93-0009

SUMMARY OF CALL

"Thought they were close to closure." Nw Environ (Consultant) responsible for cleaning up site. They have been paid. I told Devinder we have received no qtrly rpts. or DMRs since 97. He was unaware that treatment system is broken. Informed him of coming NOV. He said he would talk to Nw Environ. and call me again.

T. J. Luthin
Staff Signature

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Ronda Hershall (sp?) DATE: 1-27-99
WITH: Cherokee Environmental TIME: 8:50
TELEPHONE NO: (503) 661 - 1113
REGARDING: Flying J
FILE NO: 03 - 93 - 0008

SUMMARY OF CALL

Working with Delco directly
Have proposed on costs for repairs - Last week
Planning on doing work soon
Has been operating off and on - many problems
lower tier of stopper vandalized
NW EnviroCon does all the monitoring
Cherokee installed system.

T. S. Williams
Staff Signature

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Jeff Jackman DATE: 1-27-99
WITH: NW Environcon TIME: ~~0279~~ 8:30
TELEPHONE NO: (360) 699-4015
REGARDING: Flying J
FILE NO: 03-93-0008

SUMMARY OF CALL

Have not worked on site for some time!
(Talk to Peter Travasiner) 509-948-0447 cell
Jeff has not done any work on 509-948-6741 cell
DMRs or quarterly rpts for some 509-736-1187 office
time now. There may be 1 more 509-627-4992 home
report we don't have.

System run by Cherokee Environmental 503-661-1113
last called about 1.5 months ago Ronda Hershall (? SP)
Still running they think. NW Environcon did DMRs in the
past

Peter Travasiner:
New repairing treatment system. They would like to close.
Want to replace tanks, upgrade. would like to remove more
soil at same time. Contamination around diesel system.
Currently system is broken due to recent freezing temps.
Have put in cathod protection. Hope to upgrade in April/May
New Tanks. System not well designed.
DMRs certainly have been done - he should be sending along.

Bob Wilkin

Staff Signature

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Jeff Jackman DATE: 10/14/97
WITH: NW EnviroCon TIME: 8:00
TELEPHONE NO: (360) 699-4015
REGARDING: Flying J - Milwaukee
FILE NO: 03 - 93- 0008

SUMMARY OF CALL

mob phone
360-921-9083
pg 503 204 6883

→ Peter Travasiner

His understanding is that

Staff Signature

October 15, 1997

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

DEVINDER DHILLON
GURDEV SINGH SOHI
DELCO PETROLEUM CO LLC
17873 SE MCLOUGHLIN BLVD
MILWAUKIE OR 97267

Re: Flying J Milwaukie #2
File No. 03-93-0008
WQ ID 108705
NWR-UST-97-144
NOTICE OF NONCOMPLIANCE

Dear Mr. Dhillon:

The purpose of this letter is to inform you of violations of the Department's rules concerning the underground storage tank cleanup being conducted at the former Flying J Service Station located at 17873 Southeast McLoughlin Boulevard in Milwaukie, Oregon. The violations were noted during a review of the site files conducted the week of October 13, 1997.

Violation 1

Failure to submit required reports from the investigation or cleanup of a UST system. This is a Class I violation of Oregon Environmental Law.

Investigations conducted to date have documented significant impacts to site soils and groundwater in the vicinity of the UST nest. Oregon Administrative Rules (OAR) 340-122-242(2)(b) requires that groundwater be monitored at quarterly intervals and OAR 340-122(10)(a) requires that the data be submitted to the Department within 45 days of each sampling event. The Department has not received any reports of groundwater monitoring activities since the March 7, 1997 submittal of the report covering the January 1997 monitoring event.

Violation 2

Failure to submit a Discharge Monitoring Report by the required time. This is a Class III violation of Oregon Environmental Law.

The site is currently extracting and treating impacted groundwater from two wells located near the source of the release. The groundwater is treated and

John A. Kitzhaber
Governor



2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471
DEQ-1

DEVINDER DHILLON

October 15, 1997

Page 2

discharged under the authority of a National Pollutant Discharge Elimination System (NPDES) Permit (GEN1500-A) which was issued in August 24, 1995. This permit requires monthly monitoring and the submittal of Discharge Monitoring Reports (DMRs) on EPA Form 3320-1. DMRs are required to be submitted by the 15th day of the month following the monitoring event. Although the information relating to treated water discharges has been forwarded to the Department as an appendix to the Quarterly Monitoring Reports, the Department has not received any information relative to the discharge since March 1997 which contained data pertaining to the January 1997 monitoring event.

Violations of Oregon Environmental Law are subject to civil penalties for each day of violation. The Department requests your cooperation in correcting these violations in accordance with the corrective measures listed below.

Corrective Measures

1. Submit Groundwater Monitoring Reports for the April 1997 and July 1997 monitoring events by **November 7, 1997**. Groundwater monitoring shall continue to be conducted quarterly, with sampling events to be conducted in January, April, July and November. Reports on groundwater monitoring are due at DEQ/NWR within 45 days of the sampling event. Reports shall contain all information required by OAR 340-122-242(10).
2. Submit separate Discharge Monitoring Reports (the form provided may be photocopied) for each month of treatment conducted in 1997 (January through October) by **November 15, 1997**. From this date forward, Discharge Monitoring Reports are due at DEQ/NWR by the 15th of the month following the sampling event. It is suggested that the system be sampled early in the month to allow sufficient time for analysis and report preparation/submittal.

During a meeting held at DEQ/NWR on October 14, 1997, you expressed concerns regarding the length of time required and the costs associated with remediating site groundwater to meet the Numeric Groundwater Cleanup Levels for UST sites. The Department does not have current site information to evaluate at this time. Without additional site data, it is difficult to determine if the groundwater treatment system is operating as designed and in accordance with the effluent discharge limits established by the NPDES permit, or if there are steps which can be taken to increase the recovery of gasoline-phase hydrocarbons from site soils and groundwater.

The Department would encourage you to periodically examine the effectiveness of the system in accomplishing the cleanup of the site. Such an evaluation should consider the rate of decrease for contaminants in site groundwater monitoring wells and the treatment system influent. The capture zone created by the operating treatment system should be determined. The possibility that the cone of depression which has developed around the extraction points is

DEVINDER DHILLON

October 15, 1997

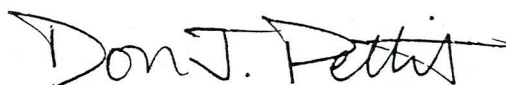
Page 3

stranding hydrocarbons in the non-saturated zone should be evaluated. After this information has been collected, it may then be possible to implement additional remedial actions to increase the recovery of hydrocarbons and expedite cleanup of site soils and groundwater.

Finally, you indicated that an upgrade of the system is to be initiated in coming months. I would encourage you to consider whether the excavation of heavily impacted areas during this process might greatly decrease the overall time required to clean groundwater at the site to acceptable levels.

The Department appreciates your efforts to restore the environmental condition of your property, and your cooperation in complying with the UST and Water Quality Regulations. If you have any questions, or need further assistance in accomplishing the required corrective measures, please call me at (503) 229-6242.

Sincerely,



Don Joseph Pettit
UST Cleanup Specialist
Northwest Region

Attachment: NPDES Discharge Monitoring Report Form

cc: Enforcement Section - DEQ/NWR
Stephanie Holmes - DEQ/HQ/UST

Devinder Dhillon
Delco Petroleum Company, LLC
14 Longleaf Drive
Hamilton Square NJ 08690

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Devinder Dhillon DATE: 7/31/97

WITH: - TIME: 2:30

TELEPHONE NO: () -

REGARDING: -

FILE NO: -

SUMMARY OF CALL

609-896-8464 WORK
609-584-8695 HOME 74:00
Devinder Dhillon
14 Longleaf Drive
Hamilton SQ
NJ 08690 } C.C.'s
only

Billings to Delco - Per Card
1/2 All correspondence

Staff Signature

UST CLEANUP TELEPHONE USE REPORT

Return
CALL FROM/TO: Jeff Jackman DATE: 3/4/97

WITH: TIME: 11:00

TELEPHONE NO: (PDX) 230-0702 TELEPHONE NO: ()

REGARDING: Delco Petroleum

FILE NO: 03-93-0008 FILE NO: ()

SUMMARY OF CALL

Left msg for return call.

→ He wanted to review R/c, made arrange
to do so.

Don J. Pettit

Staff Signature

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Devinder Dillon

DATE: 2/10/97

WITH: _____

TIME: 3:00

TELEPHONE NO: (609) 584-8695

REGARDING: _____

FILE NO: BB-93-0008

SUMMARY OF CALL

Would like info on USTs-
Phone list
Ph/Fax 609-584-8695

2/26/97 9:45 - Relayed tank info to Mr. Dillon.
He says he will plan to visit NW in coming
months. Will have NW Envirocon contact
me regarding direction of cleanup.

Don J. Pettit
Staff Signature

UST Compliance Query

----- Facility -----

Facility ID 9929 SIC 7549 LUST facility N
 Facility Name JIFFY LUBE #1012
 Facility Address 17869 SE MCLOUGHLIN
 City, ST Zip MILWAUKIE OR 97267
 Comments

----- Tanks -----

Tank ID	1	Contents:	
Tank Status	ACTIVE	Empty	
Date Decomm.		Petroleum	NEW OIL
Permit #	BKKAE	Haz. Material	
Permit Status	ACTIVE	Unknown	
Installed	05-SEP-78	Construction	UNKNOWN
Gallons	3000	External Prot	UNKNOWN
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: 1

v

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 9929 SIC 7549 LUST facility N
 Facility Name JIFFY LUBE #1012
 Facility Address 17869 SE MCLOUGHLIN
 City, ST Zip MILWAUKIE OR 97267
 Comments

----- Tanks -----

Tank ID	2	Contents:	
Tank Status	ACTIVE	Empty	
Date Decomm.		Petroleum	NEW OIL
Permit #	BKKAF	Haz. Material	
Permit Status	ACTIVE	Unknown	
Installed	05-SEP-78	Construction	UNKNOWN
Gallons	3000	External Prot	UNKNOWN
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: 2

^ v

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 9929 SIC 7549 LUST facility N
 Facility Name JIFFY LUBE #1012
 Facility Address 17869 SE MCLOUGHLIN
 City, ST Zip MILWAUKIE OR 97267
 Comments

----- Tanks -----

Tank ID	3	Contents:	
Tank Status	ACTIVE	Empty	
Date Decomm.		Petroleum	NEW OIL
Permit #	BKKAG	Haz. Material	
Permit Status	ACTIVE	Unknown	
Installed	05-SEP-78	Construction	UNKNOWN
Gallons	3000	External Prot	UNKNOWN
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: 3

^ v

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 9929 SIC 7549 LUST facility N
 Facility Name JIFFY LUBE #1012
 Facility Address 17869 SE MCLOUGHLIN
 City, ST Zip MILWAUKIE OR 97267
 Comments

----- Tanks -----

Tank ID	4	Contents:	
Tank Status	ACTIVE	Empty	
Date Decomm.		Petroleum	USED OIL
Permit #	BKKAH	Haz. Material	
Permit Status	ACTIVE	Unknown	
Installed	05-SEP-78	Construction	UNKNOWN
Gallons	2000	External Prot	UNKNOWN
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: *4

^

<Replace>

----- Contacts -----
Permitee: Name Market Manager
Organization Jiffy Lube International
Address1 7525 NE Ambassador Place #M
Address2
City, ST Zip Portland OR 97220-1367
Phone1 (503) 287-9224

Owner: Name
Organization Flying J Inc
Address1 50 W 990 S
Address2 PO Box 678
City, ST Zip Brigham City UT 84302
Phone1 (801) 734-9416

Property Owner: Name
Organization Flying J Inc
Address1 50 W 990 S
Address2 PO Box 678
City, ST Zip Brigham City UT 84302
Phone1 (801) 734-9416

Count: 1 v <Replace>

----- Compliance Payments -----

Facility ID 9929

Facility Name JIFFY LUBE #1012

Invoice ID	Status	Billed	Fee Received
UST97-03142	DUE	140	0
UST96-03299	PAID	140	140
UST93-04330	PAID	100	100
UST95-03553	PAID	140	140
UST94-03886	PAID	140	140
UST92-04717	PAID	100	100
UST91-05316	PAID	100	100
UST90-06185	PAID	100	100

Count: *8

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 1747 SIC 5541 LUST facility Y
 Facility Name DELCO PETROLEUM CO LLC
 Facility Address 17873 SE MCLOUGHLIN BLVD
 City, ST Zip MILWAUKIE OR 97222

Comments

94 fees pif - credit from overpay

----- Tanks -----

Tank ID	1REG	Contents:	
Tank Status	ACTIVE	Empty	
Date Decomm.		Petroleum	GASOLINE
Permit #	ECBH	Haz. Material	
Permit Status	ACTIVE	Unknown	
Installed	08-MAY-78	Construction	STEEL
Gallons	12000	External Prot	PAINTED
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: 1

v

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 1747 SIC 5541 LUST facility Y
 Facility Name DELCO PETROLEUM CO LLC
 Facility Address 17873 SE MCLOUGHLIN BLVD
 City, ST Zip MILWAUKIE OR 97222

Comments

94 fees pif - credit from overpay

----- Tanks -----

Tank ID	2NL	Contents:	
Tank Status	ACTIVE	Empty	
Date Decomm.		Petroleum	GASOLINE
Permit #	ECBJ	Haz. Material	
Permit Status	ACTIVE	Unknown	
Installed	08-MAY-78	Construction	STEEL
Gallons	12000	External Prot	PAINTED
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: 2

^ v

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 1747 SIC 5541 LUST facility Y
 Facility Name DELCO PETROLEUM CO LLC
 Facility Address 17873 SE MCLOUGHLIN BLVD
 City, ST Zip MILWAUKIE OR 97222

Comments

94 fees pif - credit from overpay

----- Tanks -----

Tank ID	3PNL	Contents:	
Tank Status	ACTIVE	Empty	
Date Decomm.		Petroleum	GASOLINE
Permit #	ECCK	Haz. Material	
Permit Status	ACTIVE	Unknown	
Installed	08-MAY-78	Construction	STEEL
Gallons	12000	External Prot	PAINTED
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: 3 ^ v

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 1747 SIC 5541 LUST facility Y
 Facility Name DELCO PETROLEUM CO LLC
 Facility Address 17873 SE MCLOUGHLIN BLVD
 City, ST Zip MILWAUKIE OR 97222

Comments

94 fees pif - credit from overpay

----- Tanks -----

Tank ID	4DIES.	Contents:	
Tank Status	ACTIVE	Empty	
Date Decomm.		Petroleum	DIESEL
Permit #	ECCA	Haz. Material	
Permit Status	ACTIVE	Unknown	
Installed	08-MAY-78	Construction	STEEL
Gallons	8000	External Prot	PAINTED
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: 4

^ v

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 1747 SIC 5541 LUST facility Y
 Facility Name DELCO PETROLEUM CO LLC
 Facility Address 17873 SE MCLOUGHLIN BLVD
 City, ST Zip MILWAUKIE OR 97222

Comments

94 fees pif - credit from overpay

----- Tanks -----

Tank ID	5	Contents:	
Tank Status	REMOVED	Empty	
Date Decomm.	20-DEC-94	Petroleum	BULK
Permit #	ECCB	Haz. Material	
Permit Status	TERMINATED	Unknown	
Installed	08-MAY-78	Construction	STEEL
Gallons	1500	External Prot	UNKNOWN
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: 5

^ v

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 1747 SIC 5541 LUST facility Y
 Facility Name DELCO PETROLEUM CO LLC
 Facility Address 17873 SE MCLOUGHLIN BLVD
 City, ST Zip MILWAUKIE OR 97222

Comments

94 fees pif - credit from overpay

----- Tanks -----

Tank ID	6	Contents:	
Tank Status	REMOVED	Empty	
Date Decomm.	20-DEC-94	Petroleum	BULK
Permit #	ECCC	Haz. Material	
Permit Status	TERMINATED	Unknown	
Installed	08-MAY-78	Construction	STEEL
Gallons	1500	External Prot	UNKNOWN
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: 6 ^ v

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 1747 SIC 5541 LUST facility Y
 Facility Name DELCO PETROLEUM CO LLC
 Facility Address 17873 SE MCLOUGHLIN BLVD
 City, ST Zip MILWAUKIE OR 97222

Comments

94 fees pif - credit from overpay

----- Tanks -----

Tank ID	7	Contents:	
Tank Status	REMOVED	Empty	
Date Decomm.	20-DEC-94	Petroleum	BULK
Permit #	ECCD	Haz. Material	
Permit Status	TERMINATED	Unknown	
Installed	08-MAY-78	Construction	STEEL
Gallons	1500	External Prot	UNKNOWN
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: 7

^ v

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 1747 SIC 5541 LUST facility Y
 Facility Name DELCO PETROLEUM CO LLC
 Facility Address 17873 SE MCLOUGHLIN BLVD
 City, ST Zip MILWAUKIE OR 97222

Comments

94 fees pif - credit from overpay

----- Tanks -----

Tank ID	8	Contents:	
Tank Status	REMOVED	Empty	
Date Decomm.	20-DEC-94	Petroleum	BULK
Permit #	ECCE	Haz. Material	
Permit Status	TERMINATED	Unknown	
Installed	08-MAY-78	Construction	STEEL
Gallons	1500	External Prot	UNKNOWN
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: 8

^ v

<Replace>

UST Compliance Query

----- Facility -----

Facility ID 1747 SIC 5541 LUST facility Y
 Facility Name DELCO PETROLEUM CO LLC
 Facility Address 17873 SE MCLOUGHLIN BLVD
 City, ST Zip MILWAUKIE OR 97222

Comments

94 fees pif - credit from overpay

----- Tanks -----

Tank ID	9	Contents:	
Tank Status	REMOVED	Empty	
Date Decomm.	20-DEC-94	Petroleum	BULK
Permit #	ECCF	Haz. Material	
Permit Status	TERMINATED	Unknown	
Installed	08-MAY-78	Construction	STEEL
Gallons	1500	External Prot	UNKNOWN
Overfill			
Leak Detect	VISUAL, STOCK INVENTORY,		

Count: *9

^

<Replace>

----- Contacts -----
Permitee: Name Devinder Dhillon
Organization
Address1 17873 SE McLoughlin Boulevard
Address2
City, ST Zip Milwaukie OR 97267
Phone1 (503) 654-9812

Owner: Name Devinder Dhillon
Organization
Address1 14 Long Leaf Drive
Address2
City, ST Zip Hamilton NJ 08690
Phone1 (609) 584-8695

Property Owner: Name Devinder Dhillon
Organization
Address1 14 Long Leaf Drive
Address2
City, ST Zip Hamilton NJ 08690
Phone1 (609) 584-8695

Count: 1 v <Replace>

----- Compliance Payments -----

Facility ID 1747
Facility Name DELCO PETROLEUM CO LLC

Invoice ID	Status	Billed	Fee Received
UST97-00658	PAID	140	140
UST96-00686	PAID	140	140
UST95-00740	DUE	315	145
UST91-01061	PAID	225	225
UST93-00881	PAID	225	225
UST92-00957	PAID	225	225
UST90-01176	PAID	225	225
UST89-00543	PAID	225	225

Count: *8

<Replace>

FAX COVER LETTER

DATE: 11/8/96 TIME: 4:00

COVER PAGE PLUS 0 PAGES

TO: GEORGE SCHOLIBO

FAX NUMBER: 636-9396 PH: 799-2147

FROM: DON PETTIT

FAX: (503)229-6945 PH: 229-6242

MESSAGE: NW ENVIROCON - PETER TRABUSINER
CONSULT. 1500 Adair Drive, Richland, WA 99352
(509) 627-4992

RP { DELCO PETROLEUM - DEVINDER DHILLON
14 Langleaf Drive, Hamilton Square, NJ 08690
(609) 896-8464

John A. Kitzhaber
Governor



might check this w/ P. Trabusiner

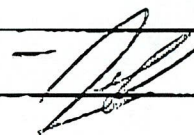
Northwest Envirocon, Inc.

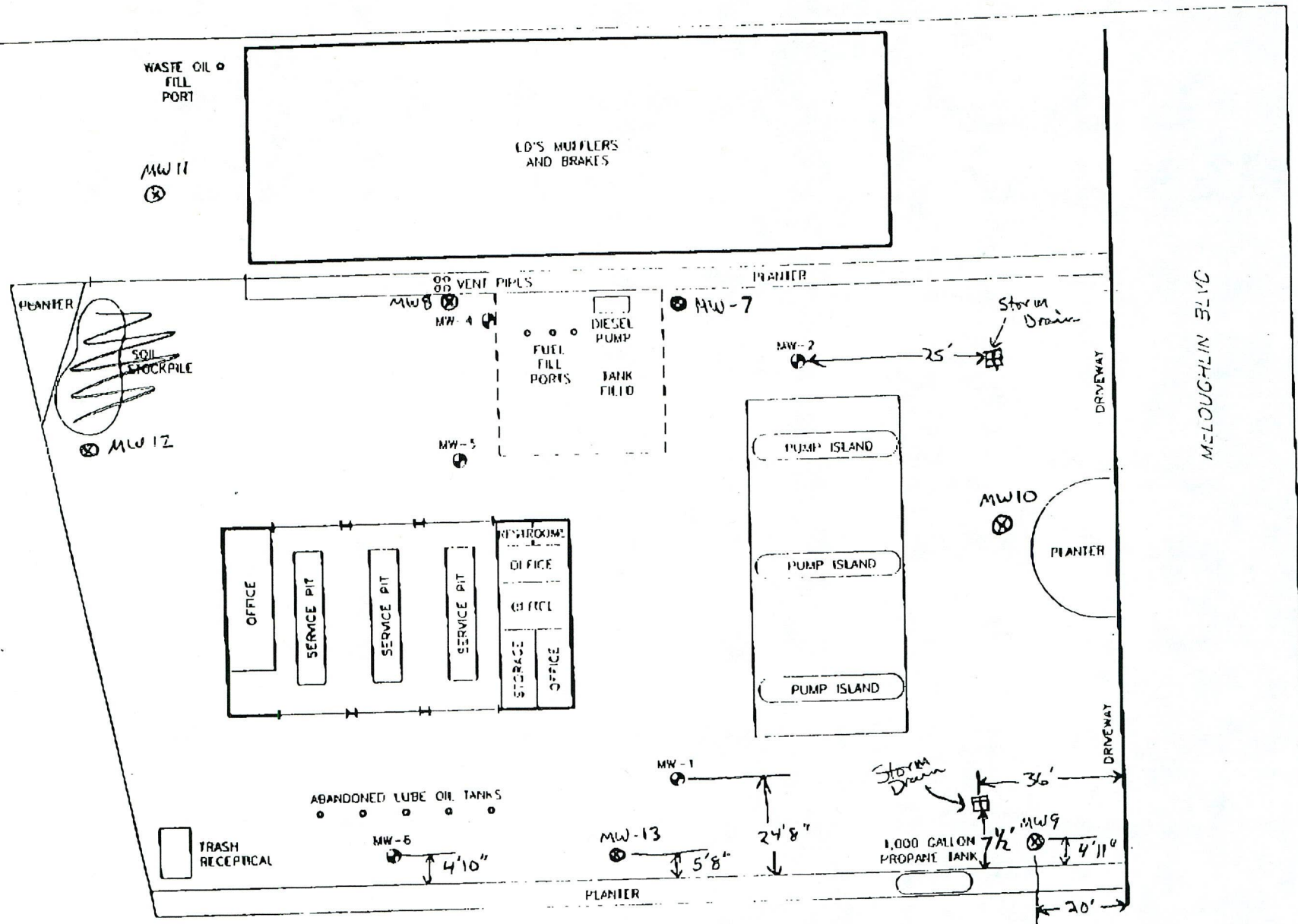
Date: 10/31/96Time: 2:45 pmTo: Don Pettit
6242 WSTFrom: Jeff JackmanFax Number: (503) 229-6945

Fax Cover Sheet

Number of pages including cover sheet: 3

Re: _____

Comments: Please call if you have any questionsNorthwest Envirocon, Inc.
7410 Delaware Lane
Vancouver, WA 98664Attention: _____
(360) 699-4015 (503) 230-0702
Fax: (360) 699-5223



MW6 - 4'10" from planter
MW13 - 5'8" from planter
MW1 - 24'8" from planter
MW9 - 4'11" from planter

Busters

Wy'East*Wy'East Environmental Sciences, Inc.***LABORATORY REPORT**

Northwest Envirocon
7410 Deleware Lane
Vancouver WA 98664

PROJECT NAME/SITE: Delco
PROJECT NUMBER: 38-000002
EXTRACTION DATE: 10-29-96

REPORT NUMBER: 17693
REPORT DATE: 10-30-96
PAGES: 1 of 1

EPA 8020

Analyte: BTEX for water (Benzene, Toluene, Ethylbenzene, Xylenes)

Field ID	Lab ID	Identification & Quantification µg/L (ppb)				Surrogate Recovery (%)
		Benzene	Toluene	Ethyl-Benzene	Xylenes	
MW-1	29156	231	5	18	15	106
MW-2	29157	54	ND	ND	ND	96
MW-4	29158	490	15	123	442	100
MW-5	29159	350	2	23	49	98
MW-6	29160	ND	ND	ND	ND	89
MW-7	29161	298	5	16	35	92
MW-8	29162	ND	ND	ND	ND	97
MW-9	29163	ND	ND	ND	ND	86
MW-10	29164	ND	ND	ND	ND	90
MW-11	29165	ND	ND	ND	ND	90
MW-12	29166	ND	ND	ND	ND	84
MW-13	29167	ND	ND	ND	ND	82
BLANK	-	ND	ND	ND	ND	-
Quantification Limits	-	2	2	2	2	-

Surrogate is p-Bromofluorobenzene

ND = Not Detected (below reporting limit or detection limit)

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: JEAF Jackman DATE: 10/28/96

WITH: NW Envirocon TIME: 11:15

TELEPHONE NO: (360) 921-9083 mob.

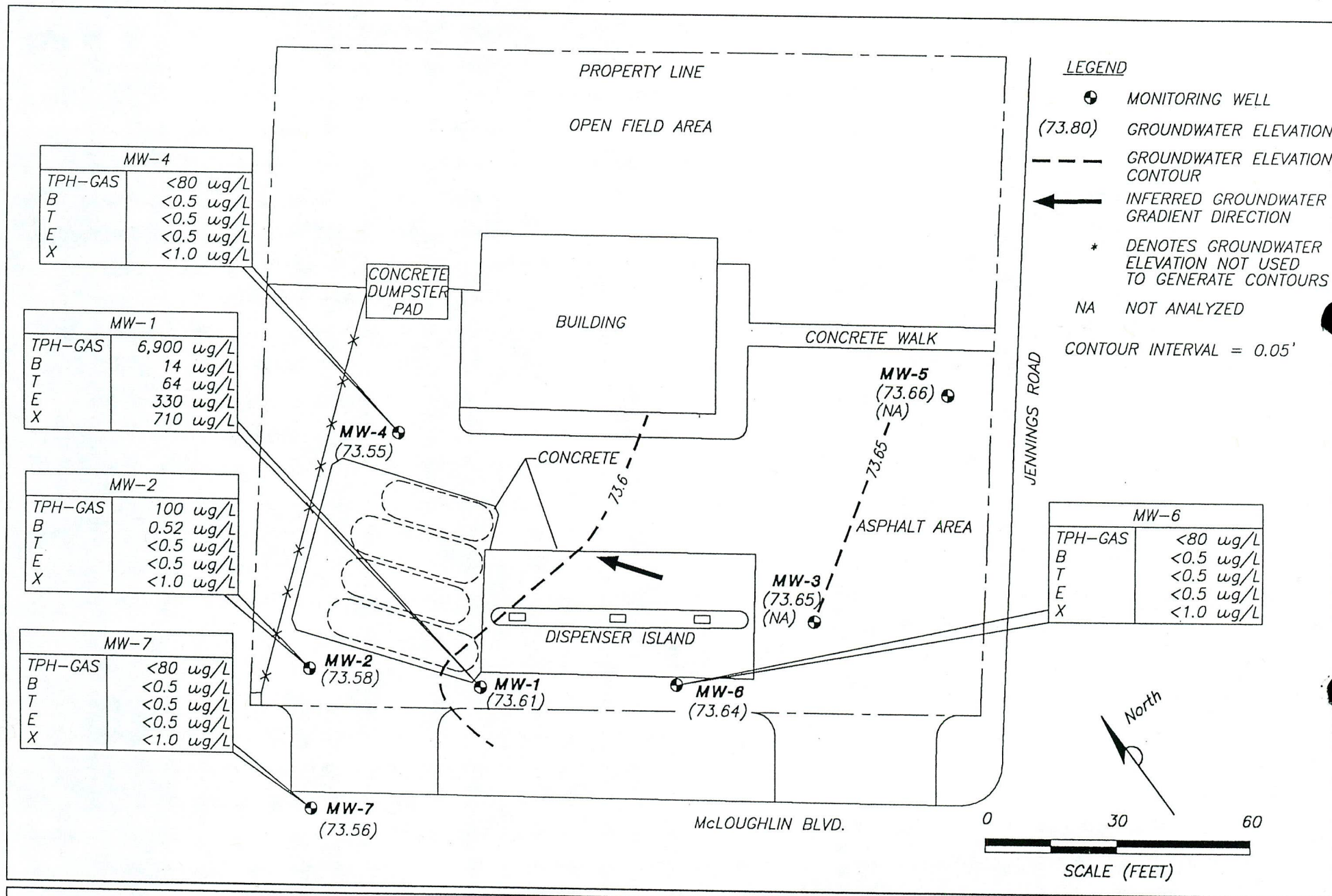
REGARDING: Flying J - Milwaukee

FILE NO: 03-93-0008

SUMMARY OF CALL 230-0702

JEAF will sample wells tomorrow AM.
Should have results back Wed. PM.
Will fax results & map Thursday.

Don J. Pellet
Staff Signature



SECOR
International Incorporated

**GROUNDWATER ELEVATION/ANALYTICAL
RESULTS MAP (8/1/98)
TEXACO STATION NO. 63-183-0048
18122 S.E. McLOUGHLIN BLVD.
MILWAUKIE, OREGON**

FIGURE:

2

JOB#: F0002-030-02

APPR: *BCP*

DWN: DJM

DATE: 8/9/98

DWG: F0002002

03-92-242

03-93-0008

Northwest Envirocon, Inc.

Date: 10/24/96
To: Don Pettit

Time: 10:45 am
From: Jeff Jackman
Fax Number: (503) 229-6945

Fax Cover Sheet

Number of pages including cover sheet: 10

Re: Delco

Comments: Results from 4 new wells
at Delco (Flying J)

[Signature]

Northwest Envirocon, Inc.
7410 Delaware Lane
Vancouver, WA 98664



Attention: _____
(360) 699-4015 (503) 230-0702
Fax: (360) 699-5223

**OnSite
Environmental Inc.**

Analytical Testing and Mobile Laboratory Services

September 27, 1996

Peter Trabusiner
Northwest Envirocon
1500 Adair Drive
Richland, WA 99352

Re: Analytical Data for Project 38-000-002
Laboratory Reference No. 9609-047

Dear Peter:

Enclosed are the results of the analyses, and associated quality control data, of samples submitted on September 20, 1996.

The standard policy of OnSite Environmental Inc., is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Chemist

Enclosures

Chain Of Custody

Page 1 of 1

OnSite Environmental Inc.

14924 NE 31st Circle • Redmond, WA 98052
Fax: (206) 885-4603 • Phone: (206) 883-3881

Company: Northwest Envirocon
Project No: 38-000-002
Project Name: Delco/Milwaukee
Project Manager: P. Trabustner

Check One)
☐ Same Day
☐ 24 Hours
☐ 48 Hours
☒ Standard
☐ (other)

Project Chemist: DB Laboratory No. >

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	WTPH-HCID	WTPH-G/BTEX	WTPH-D	WTPH-418.1	Volatiles by 8240/824	Volatiles by 8280	Chlorinated Volatiles by 8240/8280/824	Semivolatiles by 8270/825	PAHs by 8270/825	PCBs by 8080/608	Total RCRA Metals (8)	TCLP Metals	PH EPA 150.1/9045	% Moisture
1	HW-DEL-10A HW-DEL-10A	9-17	9:45	H2O	1		X												
2	HW-DEL-10B	9-17	9:45	-	1														
3	HW-DEL-11A	9-17	9:32	-	1		X												
4	HW-DEL-11B	9-17	9:32	-	1														
5	HW-DEL-12A	9-18	8:30	-	1		X												
6	HW-DEL-12B	9-18	8:30	-	1														
7	HW-DEL-13A	9-18	9:00	-	1		X												
8	HW-DEL-13B	9-18	9:00	-	1														
9	DEL-DISCHARGE	9-18	9:30	-	2		X										X		

RELINQUISHED BY <i>P. Trabustner</i>	DATE 9-19-96	RECEIVED BY <i>[Signature]</i>	DATE 9/20/96
FIRM NWE	TIME 3:32	FIRM OnSite Envirocon	TIME 9:00
RELINQUISHED BY	DATE	RECEIVED BY	DATE
FIRM	TIME	FIRM	TIME
REVIEWED BY	DATE REVIEWED		

COMMENTS:

8

Date of Report: September 27, 1996
Samples Submitted: September 20, 1996
Lab Traveler: 09-047
Project: 38-000-002

EPA 150.1**Date Analyzed: 9-20-96****Matrix: Water****Client ID****Lab ID****pH****DEL-DISCHARGE****09-047-1****8.48**

7

Date of Report: September 27, 1996
Samples Submitted: September 20, 1996
Lab Traveler: 09-047
Project: 38-000-002

**EPA 602 & WTPH-G
MS/MSD QUALITY CONTROL**

Date Extracted: 9-13-96
Date Analyzed: 9-13-96

Matrix: Water
Units: ug/L (ppb)

Lab ID	09-033-1		09-033-1		
spiked @ 50 ppb	MS	Percent	MSD	Percent	
Dilution Factor	1	Recovery	1	Recovery	RPD
Benzene	50.7	101%	50.5	101%	0.4
Toluene	51.4	103%	50.8	102%	1.2
Ethyl Benzene	51.1	102%	51.3	103%	0.39
m,p-Xylene	50.0	100%	49.9	100%	0.2
o-Xylene	50.8	102%	50.6	101%	0.39
4-BFB					
Surrogate Recovery	99%		98%		

8

Date of Report: September 27, 1996
Samples Submitted: September 20, 1996
Lab Traveler: 09-047
Project: 38-000-002

**EPA 802 & WTPH-G
DUPLICATE QUALITY CONTROL**

Date Extracted: 9-13-96
Date Analyzed: 9-13-96

Matrix: Water
Units: ug/L (ppb)

Lab ID:	09-033-1 Original	09-033-1 Duplicate	RPD
Dilution Factor	1	1	
Benzene	ND	ND	NA
Toluene	ND	ND	NA
Ethyl Benzene	ND	ND	NA
m,p-Xylene	ND	ND	NA
o-Xylene	ND	ND	NA
TPH-Gas	ND	ND	NA
4-BFB			
Surrogate Recovery	94%	96%	

5

Date of Report: September 27, 1996
Samples Submitted: September 20, 1996
Lab Traveler: 09-047
Project: 38-000-002

**EPA 602 & WTPH-G
METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-26-96
Date Analyzed: 9-26-96

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0026W1

Dilution Factor 1

	Result	Flags	PQL
Benzene	ND		1.0
Toluene	ND		1.0
Ethyl Benzene	ND		1.0
m,p-Xylene	ND		1.0
o-Xylene	ND		1.0
TPH-Gas	ND		100

4-BFB
Surrogate Recovery 86%

Date of Report: September 27, 1996
Samples Submitted: September 20, 1996
Lab Traveler: 09-047
Project: 38-000-002

EPA 802 & WTPH-G

Date Extracted: 9-26-96
Date Analyzed: 9-26-96

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-047-9
Client ID: DEL-DISCHARGE

Dilution Factor

1

	Result	Flags	PQL
Benzene	ND		1.0
Toluene	ND		1.0
Ethyl Benzene	ND		1.0
m,p-Xylene	ND		1.0
o-Xylene	ND		1.0
TPH-Gas	ND		100
4-BFB			
Surrogate Recovery	90%		

3

Date of Report: September 27, 1996
Samples Submitted: September 20, 1996
Lab Traveler: 09-047
Project: 38-000-002

EPA 802 & WTPH-G

Date Extracted: 9-26-96
Date Analyzed: 9-26-96

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-047-6
Client ID: MW-DEL-12A

Dilution Factor

1

Result Flags PQL

Benzene

ND

1.0

Toluene

ND

1.0

Ethyl Benzene

ND

1.0

m,p-Xylene

ND

1.0

o-Xylene

ND

1.0

TPH-Gas

ND

100

4-BFB

Surrogate Recovery 89%

09-047-7
MW-DEL-13A

1

Result Flags PQL

ND

1.0

ND

1.0

ND

1.0

ND

1.0

ND

1.0

ND

100

90%

Date of Report: September 27, 1996
Samples Submitted: September 20, 1996
Lab Traveler: 09-047
Project: 38-000-002

EPA 602 & WTPH-G

Date Extracted: 9-26-96
Date Analyzed: 9-26-96

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-047-1
Client ID: MW-DEL-10A

09-047-3
MW-DEL-11A

Dilution Factor

1

1

	Result	Flags	PQL
Benzene	ND		1.0
Toluene	ND		1.0
Ethyl Benzene	ND		1.0
m,p-Xylene	ND		1.0
o-Xylene	ND		1.0
TPH-Gas	ND		100

	Result	Flags	PQL
	ND		1.0
	ND		1.0
	ND		1.0
	ND		1.0
	ND		1.0
	ND		100

4-BFB
Surrogate Recovery 90%

90%