STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000
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September 27, 2013

MR. CHARLES CARMEL
ATLANTIC RICHFIELD COMPANY
P.O. BOX 1257
SAN RAMON, CA 94583

Re: No Further Action at the following Site:

- **Site Name:** Budget Rent A Car ARCO (ARCO 5810)
- **Site Address:** 2101 West 6th Street, Bremerton, Washington 98132
- **Facility/Site No.:** 53813326
- **VCP Project No.:** NW2735
- **Cleanup Site ID No.:** 9615

Dear Mr. Carmel:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the **Budget Rent A Car ARCO (ARCO 5810)** facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

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

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

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

Description of the Site

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

- Total petroleum hydrocarbons in the gasoline (TPH-G) and diesel (TPH-D) ranges, benzene, toluene, ethylbenzene and xylenes (BTEX) into the Soil

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

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcels) associated with this Site are affected by other sites.

Basis for the Opinion

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

1. Antea Group, 2013. *Subsurface Investigation Report, ARCO Facility No. 5810, 2101 West 6th Street, Bremerton, Washington 98312.* May 15.

2. Antea Group, 2011. *Subsurface Investigation Report, ARCO Facility No. 5810, 2101 West 6th Street, Bremerton, Washington.* December 29.

3. Antea Group, 2011. *Work Plan for Soil Assessment, Soil Boring Installation, ARCO Facility No. 5810, 2101 West 6th Street, Bremerton, Washington.* April 25.

4. Delta Environmental Consultants, Inc., 2006. *Environmental Oversight during Retail Facility Upgrade Activities, ARCO Facility No. 5810, 2101 West 6th Street, Bremerton, Washington.* February 27.

5. Secor International Incorporated, 2001. *Results of Soil Sampling Report, ARCO Service Station No. 5810, 2101 West 6th Street, Bremerton, Washington.* January 10.

6. Geotech Consultants, 1991. *Geotechnical Engineering Study, Proposed ARCO AM/PM Mini-Market Facility, Southwest Corner – 6th Street and Naval Avenue, Bremerton, Washington.* April 11.

Those documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by calling the NWRO resource contact at (425) 649-7235 or sending an email to: nwro_public_request@ecy.wa.gov.

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

Analysis of the Cleanup

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

1. Characterization of the Site.

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

2. Establishment of cleanup standards.

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

a. Cleanup Levels.

Soil

The Site is situated in a mixed residential/commercial area. The cleanup levels for soil must therefore be set for unrestricted uses, specifically through protection against direct contact (ingestion). Either MTCA Method A or Method B cleanup levels can be used for protection of this use. MTCA Method A cleanup levels were selected. Ecology concurs.

The Site is a commercial property surrounded by commercial and residential land uses. The Site vicinity is covered with pavement, buildings and landscaped areas. There are less than 1.5 contiguous acres of undeveloped land on the Site or within 500 feet of any part of the Site. The Site qualifies for an exclusion from further terrestrial ecological evaluation. Soil cleanup levels protective of terrestrial species are unnecessary.

Ground water is present beneath the Property, and soil cleanup levels protective of leaching to ground water are needed. Method A cleanup levels are also appropriate for this purpose and were selected. Ecology concurs.

Ground Water

Ground water is present at a depth of approximately 70 below the ground surface (bgs). The highest beneficial use for ground water under MTCA is considered to be as a potable source, unless it can be demonstrated that the ground water is non-potable. Cleanup levels protective of potable use are therefore the default. Either Method A or Method B cleanup levels can be used for this purpose. Method A cleanup levels were selected. Ecology concurs.

b. Points of Compliance

Soil

The standard point of compliance for unrestricted land use is all soil to a depth of 15 feet below the ground surface.

Ground Water

The standard ground water point of compliance for ground water is throughout the Site.

3. Selection of cleanup action.

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

In 1989, approximately 8 cubic yards of contaminated soil were removed from the Property. In 2006, approximately 86 cubic yards of soil were removed from the Site but stockpile samples did not indicate petroleum hydrocarbon concentrations above Method A cleanup levels.

Soil vapor extraction (SVE) was selected as the primary remediation method. An SVE system was in operation at various times between 1991 and 1997 with an estimated 1,759 pounds of hydrocarbons removed.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site.

A subsurface investigation conducted in 2011 assessed the current soil conditions in the portion of the Site where an SVE system had operated in the 1990s. Three soil borings (AB-1 through AB-3) were advanced in the northeast corner of the Property. Soil samples collected in soil borings AB-2 and AB-3 yielded contamination exceeding Method A cleanup levels at a maximum depth of 50 feet below the ground surface. Sample No. AB-3-25.0 at a depth of 25 feet bgs contained 8,000 mg/kg TPH-G, 1,300 mg/kg TPH-D and 1.7 mg/kg benzene. Sample No. AB-2-50.0 at a depth of 50 feet, contained TPH-G at 68 mg/kg which exceeded the Method A cleanup level. No soil samples were collected below 50 feet bgs.

Later in 2013, a fourth soil boring, AB-4, was advanced to determine the vertical extent of contamination and to investigate ground water. Soil containing TPH-G at a concentration of 430 mg/kg, in excess of the Method A cleanup level, occurred at a depth of 15 feet at the Point of Compliance for soil. A sample collected 5 feet lower at a depth of 20 feet contained TPH-G at a concentration of 46 mg/kg. Below a depth of 20 feet, no petroleum hydrocarbons, benzene or MTBE were detected in samples collected a five-foot intervals to 65 feet below the ground surface. Toluene, ethylbenzene and xylenes were detected at low levels (well below cleanup levels) at a depth of 30 feet below the ground surface. Total lead was detected in all of the soil samples collected from AB-4 at concentrations below the Method A cleanup level.

Monitoring well MW-1 was installed in soil boring AB-4 which reached a maximum depth of 80 feet bgs. A ground water sample collected from MW-1 in January 2013 contained no detectable petroleum hydrocarbons, BTEX, MTBE, EDB, EDC or dissolved lead.

Listing of the Site

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

Limitations of the Opinion

1. Opinion does not settle liability with the state.

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

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

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

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

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you

performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

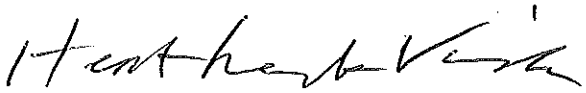
The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#NW2735).

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at (425) 649-7064 or e-mail at hvic461@ecy.wa.gov.

Sincerely,



Heather Vick, LHg
NWRO Toxics Cleanup Program

Enclosures (1): A – Description and Diagrams of the Site

cc: Peter Battuello, Innovex Environmental Management, Inc.
Sonia Fernandez, VCP Coordinator, Ecology
Dolores Mitchell, Financial Manager, Ecology

Enclosure A

Description and Diagrams of the Site

Site Description

This section provides Ecology's understanding and interpretation of site conditions, and is the basis for the opinions expressed in the body of the letter.

Site: The Site is defined as gasoline-range (TPH-G) and diesel-range (TPH-D) petroleum hydrocarbons, benzene, ethylbenzene, toluene and xylenes (BTEX) into the soil at 2101 6th Street in Bremerton, Washington (Property). The Property corresponds to Kitsap County parcel number 142401-3-065-2007 and is 0.81 acre in size. The Property is located in the southwest quarter of Section 14, Township 24 North, Range 1 East.

Area and Property Description: The Site vicinity consists of primarily commercial and residential land uses. The Property is bordered to the north by 6th Street, to the east by Naval Avenue and further east is a Chevron gasoline station that corresponds to Ecology Cleanup Site ID No. 5252. The Property is bordered to the south by 5th Street and residential properties to the west. The Site is fairly level and at an approximate elevation of 105 feet above mean sea level. The Property contains the service station building and convenience store, six dispenser islands under a single canopy, four 10,000-gallon underground storage tanks (USTs) and associated fueling system components. The surface of the Site is covered with asphalt and concrete with some landscaped areas around the perimeter.

Property History and Current Use: The Property was most likely originally developed commercially as a gasoline station although the date is unknown. According to a 1991 report, the previous service station had wood frame and cinder block warehouses in the southeast portion of the Property. A single family residence was located in the southwest portion of the Property. The northern half of the Property was occupied with an abandoned gas station building, canopy and pump islands. These previously existing structures, which are shown on an attached Site diagram, were demolished to allow for construction of a new ARCO gasoline station. The Property is currently an operating ARCO gasoline station with an AM-PM convenience store.

Sources of Contamination: Sources of contamination on the Site include the former USTs, fuel dispensers, related piping and equipment associated with the former gas station that were removed in 1989. These features were located in the northeast portion of the Property.

Physiographic Setting: The Site is located on the Kitsap Peninsula within the Puget Sound Lowland Physiographic Province, a north-south trending structural and topographic depression bordered on its west side by the Olympic Mountains, and to the east by the Cascade Mountain foothills. The Puget Sound Lowland is underlain by Tertiary volcanic and sedimentary bedrock, and has been filled to the present day land surface with Pleistocene glacial and nonglacial sediments.

Surface/Storm Water System: The closest surface water body to the Site is Puget Sound which is located approximately 0.5 mile to the south.

Ecological Setting: The Site is located in a commercial and residential area where the land surface is paved or covered by buildings with less than 1.5 acres of contiguous undeveloped land within 500 feet of any part of the Site.

Geology: The Site is in an area that has been mapped as the Vashon glacial till. Geological materials underlying the Site consist of dense to very dense silty sand to a depth of about 15 feet below the ground surface (bgs) underlain by poorly graded fine sand that extends to a depth of at least 80 feet bgs, the maximum depth explored. The dense silty sand is the Vashon till at the surface; the poorly graded fine sand most likely represents deposits of the Advance outwash.

Ground Water: Ground water at the Site occurs under water table conditions in the fine sand of the Advance outwash. Ground water was encountered at a depth of approximately 70 feet below the ground surface in soil boring AB-4 where a monitoring well, MW-1, was installed and screened from 65 to 80 feet bgs. Insufficient information is available to determine the ground water flow direction at the Site however based on topographic contours, ground water most likely flows to the southwest toward Puget Sound.

Water Supply: Surface water from the Union River Reservoir and groundwater from production wells located in the Bremerton area provide the supply for Bremerton's drinking water. According to Ecology's well log database, there are no private drinking water wells within a 0.5 mile of the Property.

Release and Extent of Soil and Ground Water Contamination:

Soil: In June 1989, five gasoline and one heating oil USTs were removed from the Property. Eight soil samples were collected from the excavated tank pit. Two of the soil samples contained total TPH at concentrations of 209 and 742 mg/kg. The area containing the tanks was sampled and then overexcavated. A ninth sample, a composite taken from the overexcavated area, contained non-detectable levels of TPH and BTEX. Approximately 8 cubic yards of contaminated soil were removed from the Property.

Nine geotechnical soil borings (B1 through B9) were advanced in 1991 to a maximum depth of 48.5 feet bgs. Ground water was not encountered. Soil samples collected during the boring installations indicated petroleum hydrocarbons in three of the nine borings at depths ranging from 10 to 30 feet bgs, located in the northeast corner of the Property. No specific sampling results were reported.

A soil vapor extraction (SVE) system was installed at the Site in 1991 that consisted of eight extraction wells located in the northeast corner of the Site and a blower. The system operated for various durations from January 1993 to March 1997. An estimated total of 1,759 pounds of hydrocarbons were removed during system operation. A diagram of the layout of the SVE system is shown in an attached Site diagram.

In December 2000, soil samples collected during a facility upgrade did not contain any petroleum hydrocarbons above Method A cleanup levels.

In September 2005, soil samples were collected beneath two dispenser islands that were being added to the facility. No petroleum hydrocarbons were detected in excess of Method A cleanup levels in soil samples collected from the proposed location of the new dispenser islands or the soil stockpile. Approximately 86 cubic yards of soil was removed from the Site.

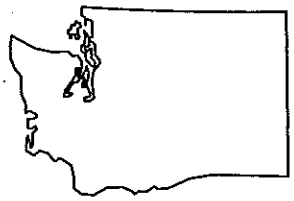
In May 2011, three soil borings were advanced and eleven soil samples collected and submitted for analysis. A sample collected in soil boring AB-3 at a depth of 25 feet bgs contained 1.7 mg/kg benzene, 8,000 mg/kg TPH-G and 1,300 mg/kg TPH-D. A soil sample collected in soil boring AB-2 at a depth of 50 feet bgs contained TPH-G at a concentration of 68 mg/kg which exceeds the Method A cleanup level of 30 mg/kg when benzene is present. Soil boring AB-2 was continued to a depth of 51.5 feet bgs without additional sampling so the vertical extent of contamination had not been delineated.

In January, 2013, a soil boring, AB-4 was advanced to a maximum depth of 80 feet bgs. Soil samples were collected at five-foot intervals to just above the water table which was encountered at a depth of approximately 70 feet. The soil samples were analyzed for TPH-G, TPH-D, TPH-O, BTEX, methyl-tert-butyl-ether (MTBE), ethylene dibromide (EDB) and ethylene dichloride (EDC). TPH-G and TPH-D were present in soil at a depth of 15 feet bgs at concentrations of 430 mg/kg and 40 mg/kg respectively. The TPH-G concentration exceeds the Method A cleanup level. A sample collected 5 feet lower at a depth of 20 feet contained TPH-G at a concentration of 46 mg/kg and no detectable TPH-D indicating the vertical extent of contamination was delineated. All soil samples from the remainder of the borehole contained non-detectable levels of all of the analytes except lead. All of the samples contained total lead at concentrations below the Method A cleanup level.

Ground Water: Ground water on the Site was encountered at a depth of approximately 70 feet bgs in monitoring well MW-1 which was installed on January 21, 2013 and sampled ten days later. The ground water sample from MW-1 contained no detectable TPH-G, TPH-D, TPH-O, BTEX, MTBE, EDB, EDC or dissolved lead.

Site Diagrams

GENERAL NOTES:
BASE MAP FROM U.S.G.S.
EDMONDS EAST, WA.
7.5 MINUTE TOPOGRAPHIC
PHOTOREVISED 1983



QUADRANGLE LOCATION

North

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, BREMERTON QUADRANT

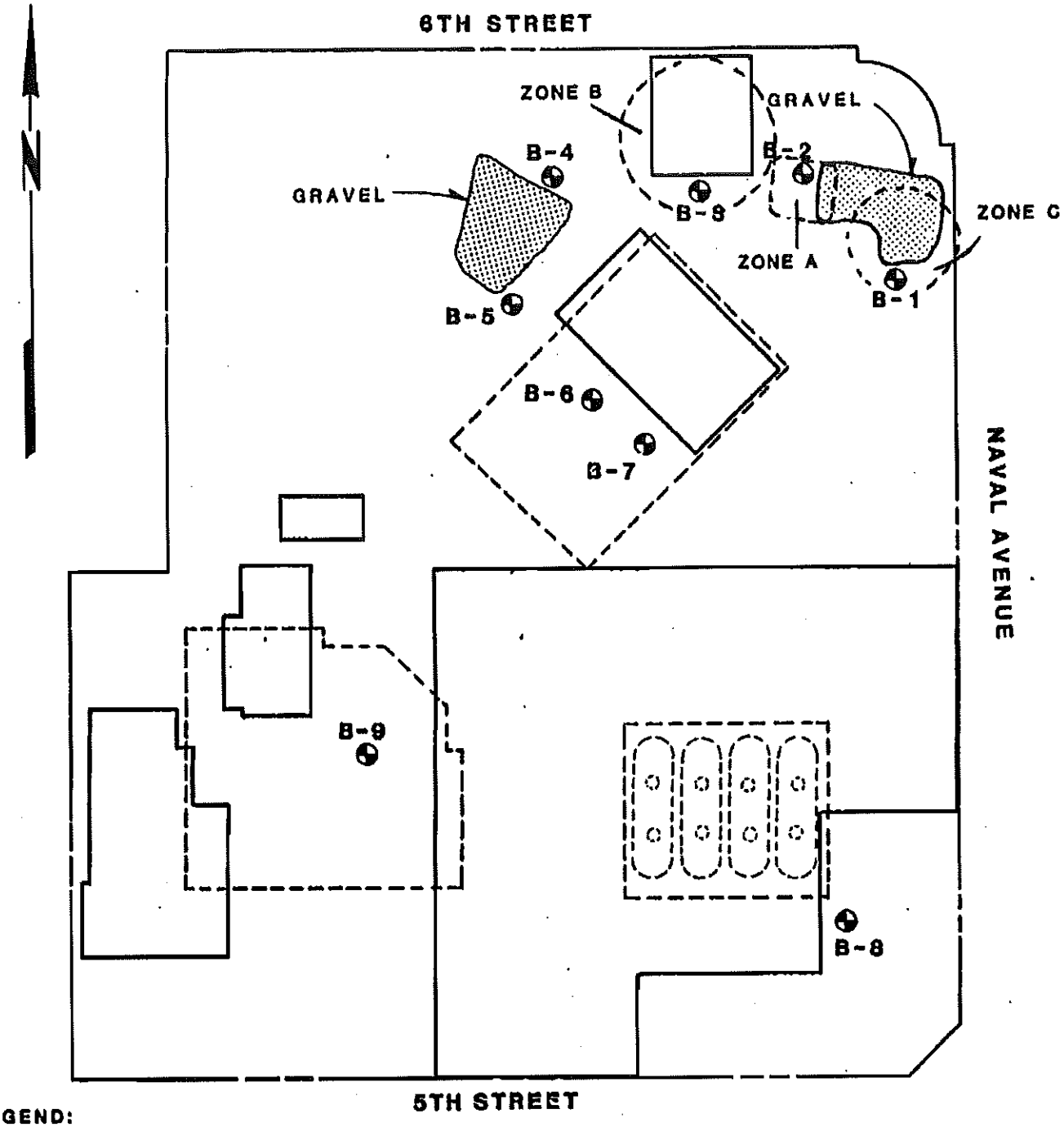
FIGURE 1

SITE LOCATION MAP

ARCO FACILITY NO. 5810
2101 6TH STREET
BREMERTON, WA.

PROJECT NO. 05810DA111	DRAWN BY DGR 3/22/11
FILE NO. Site Locator 5810	PREPARED BY SBM
REVISION NO. 2	REVIEWED BY

anteagroup



LEGEND:

B-1 APPROXIMATE BORING LOCATIONS

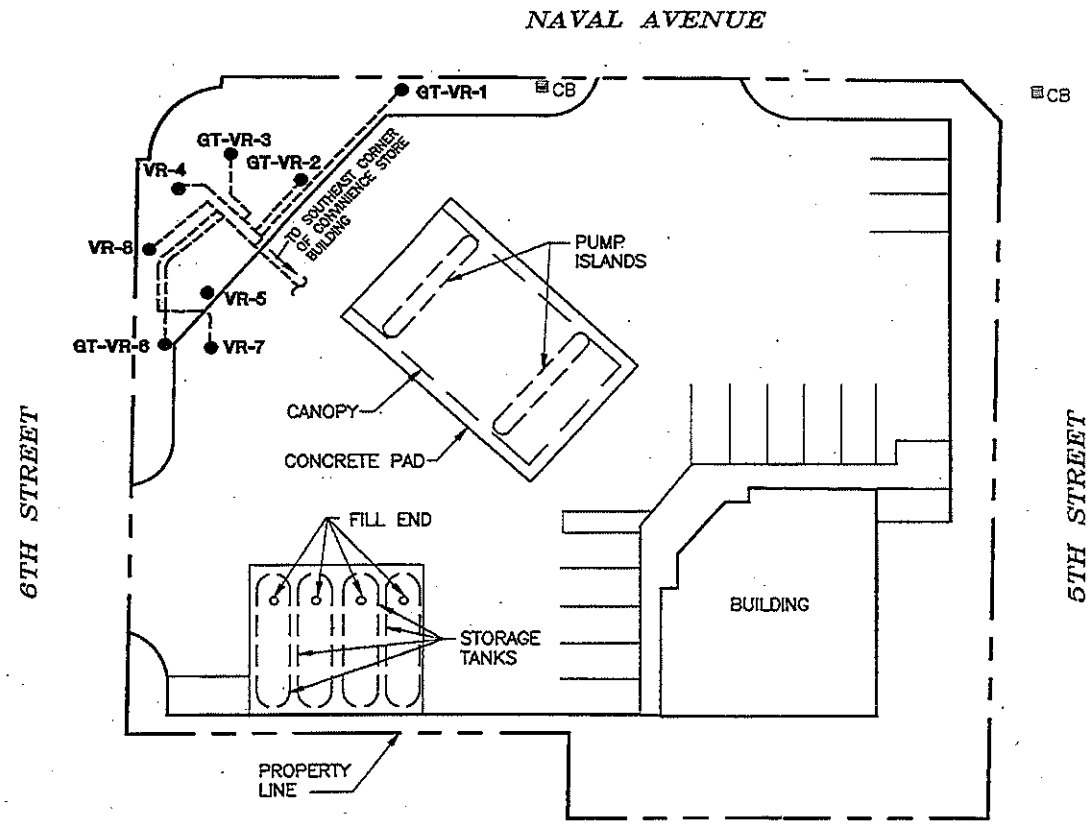
EXISTING BUILDINGS

PROPOSED BUILDINGS

GEOTECH CONSULTANTS

SITE EXPLORATION PLAN
AM/PM MINI-MARKET
SWC. 6TH STREET
& NAVAL AVENUE
BREMERTON, WASHINGTON

Job No.:	Date:		Plate:
1056	MAR 1991	1" ≅ 30'	2



LEGEND

GT-VR-3 ● Soil Vapor Extraction Well

CB ⊟ Catch Basin

——— Piping Line

0 30 60

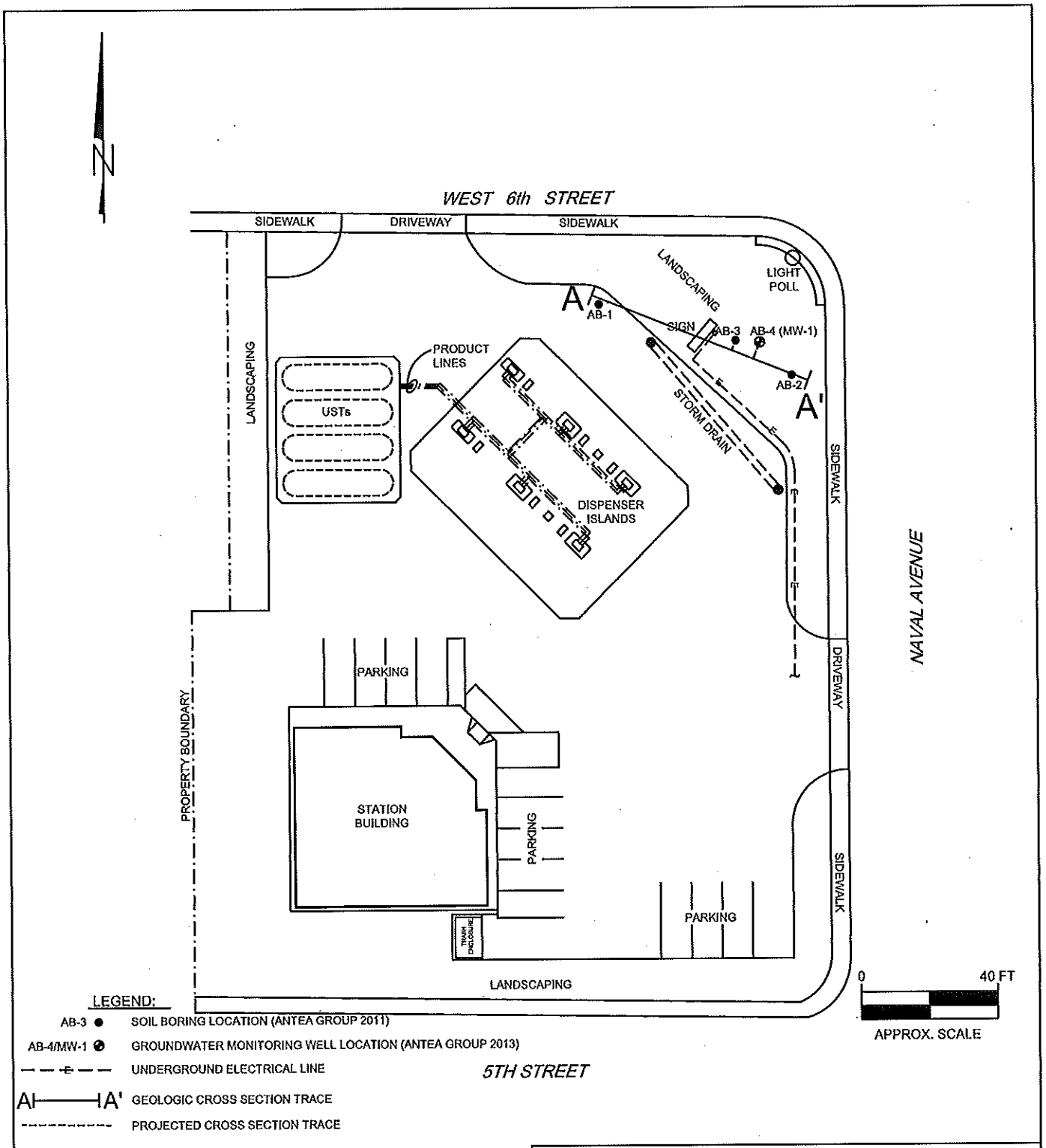
SCALE (ft)

EMCON Northwest, Inc.

DATE 12-94
DWN. MLP
REV.
APPR.
PROJECT NO. WA

Figure 2
ARCO SERVICE STATION 5810
2101 SIXTH AVENUE
BREMERTON, WASHINGTON
SITE PLAN

1= 30 12-15-94 G:\DWG\P194\C10\00BLC26



LEGEND:

AB-3 ● SOIL BORING LOCATION (ANTEA GROUP 2011)

AB-4/MW-1 ⊘ GROUNDWATER MONITORING WELL LOCATION (ANTEA GROUP 2013)

— — E — — UNDERGROUND ELECTRICAL LINE

A|——|A' GEOLOGIC CROSS SECTION TRACE

- - - - - - - - - - PROJECTED CROSS SECTION TRACE

FIGURE 3
SITE MAP

ARCO FACILITY NO. 5810
2101 WEST 6th STREET
BREMERTON, WA.

PROJECT NO. 05810EA131	DRAWN BY KYM 5/14/13
FILE NO. AR-5810 -XS	PREPARED BY MR
REVISION NO. 2	REVIEWED BY

antea group

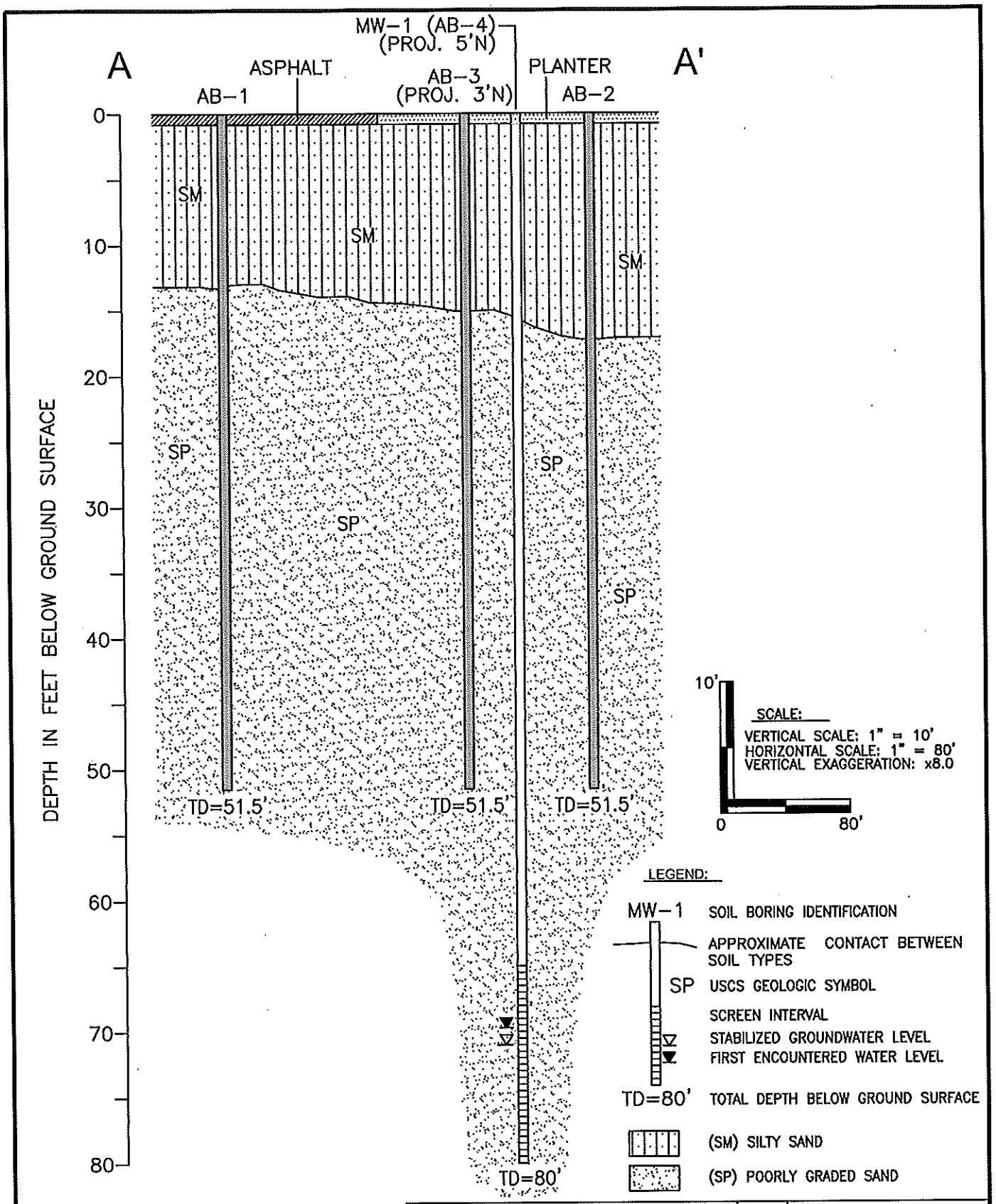


FIGURE 4
GEOLOGIC CROSS SECTION A-A'

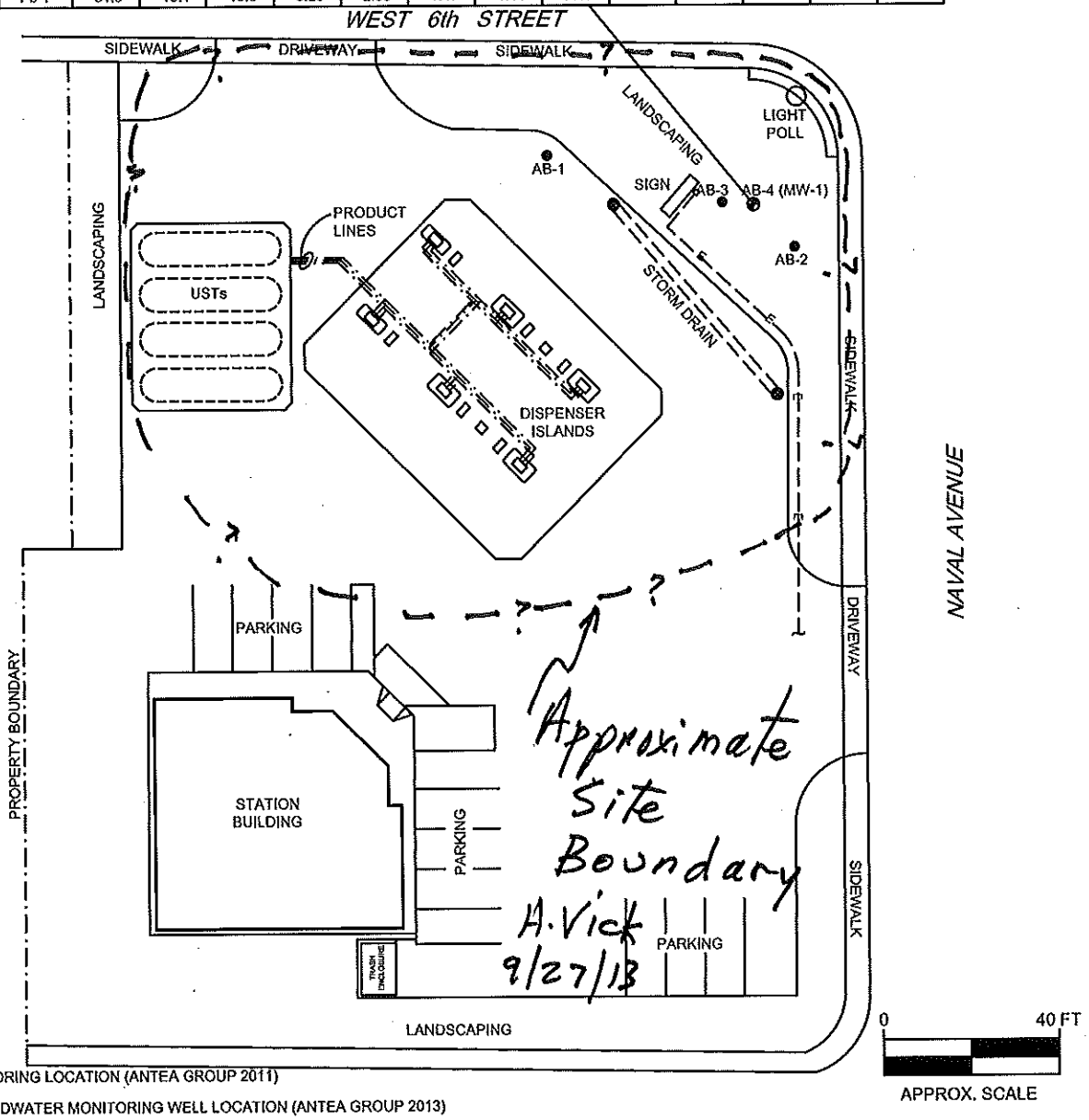
ARCO FACILITY NO. 5810
2101 WEST 6th STREET
BREMERTON, WA.

PREPARED	DRAWN	REV	DATE
SK	KM	0	01 MAR 13

antea group

PROJECT NO.	FILE NO.
AR-5810-XS	SEATTLE\QTRY

AB-4 (1/21/13)													
	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0
B	<0.0051	<0.0046	<0.0062	<0.0053	<0.0059	<0.0057	<0.0058	<0.0056	<0.0054	<0.0056	<0.0051	<0.0051	<0.0061
T	<0.0051	<0.0046	<0.049	<0.0053	<0.0059	0.0096	<0.0058	<0.0056	<0.0054	<0.0056	<0.0051	<0.0051	<0.0061
E	<0.0051	<0.0046	0.13	<0.0053	<0.0059	0.0096	<0.0058	<0.0056	<0.0054	<0.0056	<0.0051	<0.0051	<0.0061
X	<0.0102	<0.0092	2.71	0.067	<0.0118	0.047	<0.0116	<0.0112	<0.0108	<0.0112	<0.0102	<0.0102	<0.0122
MTBE	<0.0051	<0.0046	<0.049	<0.0053	<0.0059	<0.0057	<0.0058	<0.0056	<0.0054	<0.0056	<0.0051	<0.0051	<0.0061
EDB	NA	NA	<0.010	<0.000095	<0.00011	NA	NA	NA	NA	NA	NA	NA	NA
EDC	NA	NA	<0.049	<0.0053	<0.0059	NA	NA	NA	NA	NA	NA	NA	NA
TPH-G	<3.3	<2.6	**430****	**46****	<3.6	<3.6	<3.2	<3.3	<3.2	<3.2	<3.1	<3.8	<4.3
TPH-D	<30	<28	40	<29	<29	<30	<28	<27	<27	<29	<27	<29	<30
TPH-O	<120	<120	<120	<120	<120	<120	<110	<110	<110	<120	<110	<120	<120
Pb-T	31.9	15.1	13.8	9.20	2.58	1.47	1.44	2.46	1.37	1.90	1.46	2.13	1.79



LEGEND:

AB-3 ● SOIL BORING LOCATION (ANTEA GROUP 2011)

AB-4/MW-1 ⊕ GROUNDWATER MONITORING WELL LOCATION (ANTEA GROUP 2013)

— — ⊕ — — UNDERGROUND ELECTRICAL LINE

SOIL ANALYTICAL DATA

AB-4 (1/21/13)		WELL DESIGNATION WITH SAMPLING DATE
5.0		SAMPLING DEPTH IN FEET
B	<0.0051	BENZENE
T	<0.0051	TOLUENE
E	<0.0051	ETHYLBENZENE
X	<0.0102	XYLENES
MTBE	<0.0051	METHYL TERT-BUTYL ETHER
EDB	NA	1,2 DIBROMOETHANE
EDC	NA	1,2 DICHLOROETHANE
NWTPH-G	<3.3	GASOLINE-RANGE HYDROCARBONS
NWTPH-D	<30	DIESEL-RANGE HYDROCARBONS
NWTPH-O	<120	OIL-RANGE HYDROCARBONS
Pb-T	31.9	TOTAL LEAD
	NA	NOT ANALYZED
	**	THE CHROMATOGRAPHIC FINGERPRINT DOES NOT RESEMBLE A PETROLEUM PPRODUCT.
	<0.0051	CONCENTRATIONS WERE NOT DETECTED ABOVE THE METHOD REPORTING LIMIT AND/OR METHOD DETECTION LIMIT.

NOTES: 1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER KILOGRAM (mg/Kg)
2. BOLD TEXT INDICATES CONCENTRATIONS IN EXCESS OF MODEL TOXICS CONTROL ACT METHOD A CLEANUP LEVELS.

FIGURE 5
SOIL ANALYTICAL DATA MAP
1/21/13

ARCO FACILITY NO. 5810
2101 WEST 6th STREET
BREMERTON, WA.

PROJECT NO. 05810EA131	DRAWN BY KYM 5/14/13
FILE NO. AR-5810-SoilSamp	PREPARED BY MR
REVISION NO. 2	REVIEWED BY

antea group