

EXHIBIT – C

QUIET COVE SITE
FOCUSED SITE INVESTIGATION RESULTS

**Focused Environmental Site Investigation
Data Report**

Quiet Cove Property
Anacortes, Washington

for
Port of Anacortes

October 20, 2014



**Focused Environmental Site Investigation
Data Report**

Quiet Cove Property
Anacortes, Washington

for
Port of Anacortes

October 20, 2014



Plaza 800 Building
600 Stewart Street, Suite 1700
Seattle, Washington 98101
206.728.2674

**Focused Environmental Site Investigation
Data Report**

**Quiet Cove Property
Anacortes, Washington**

File No. 5147-024-01

October 20, 2014

Prepared for:

Port of Anacortes
100 Commercial Avenue
Anacortes, Washington 98221

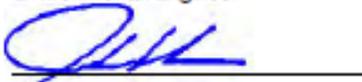
Attention: Jenkins Dossen

Prepared by:

GeoEngineers, Inc.
Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, Washington 98101
206.728.2674



Brian Tracy, PE
Environmental Engineer



John Herzog, PhD, LG
Principal

BIT:AJ:leh

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Copyright© 2014 by GeoEngineers, Inc. All rights reserved.



Table of Contents

1.0 INTRODUCTION	1
1.1. Focused Site Investigation Objectives	1
2.0 BACKGROUND	1
2.1. Site Description.....	1
2.2. Site History	1
2.3. Previous Investigations and Cleanup Adjacent to the Property	2
2.3.1. Results of Soil and Groundwater Sampling, Former Anacortes Terminal, Corner of 3 rd Street and N-Avenue (May 26, 2000).....	2
2.3.2. Removal of Contaminated Soils From the N-Avenue Right-of-Way, Reisner Petroleum Terminal, Corner of 3 rd Street and N-Avenue (May 16, 2001)	2
2.4. Geology and Hydrogeology	3
3.0 FIELD AND ANALYTICAL METHODS	3
3.1. Soil Sampling	3
3.2. Monitoring Well Installation and Development.....	4
3.3. Groundwater Sampling.....	4
4.0 SCREENING LEVELS	4
4.1. Soil Screening Levels.....	5
4.2. Groundwater Screening Levels	5
5.0 FOCUSED SOIL AND GROUNDWATER INVESTIGATION RESULTS	5
5.1. Focused Soil Investigation Results	5
5.1.1. Soil Field Screening Results	5
5.1.2. Soil Chemical Analytical Results.....	5
5.1.3. Deviations from Focused Site Investigation Plan for Soil Investigation.....	6
5.2. Focused Groundwater Investigation Results	7
5.2.1. Monitoring Well Installation and Development	7
5.2.2. Groundwater Flow Direction	7
5.2.3. Groundwater Chemical Analytical Results	7
6.0 NATURE AND EXTENT OF CONTAMINATION	7
7.0 LIMITATIONS	9
8.0 REFERENCES	9

LIST OF TABLES

- Table 1. Summary of Soil Chemical Analytical Data - Petroleum Hydrocarbons and VOCs
- Table 2. Summary of Soil Chemical Analytical Data - HVOCS
- Table 3. Summary of Soil Chemical Analytical Data - Naphthalenes and cPAHs
- Table 4. Summary of Soil Chemical Analytical Data - PCBs and Metals
- Table 5. Summary of Groundwater Chemical Analytical Data - Petroleum Hydrocarbons and VOCs
- Table 6. Summary of Groundwater Chemical Analytical Data - HVOCS
- Table 7. Summary of Groundwater Chemical Analytical Data - Naphthalenes and cPAHs
- Table 8. Summary of Groundwater Chemical Analytical Data - PCBs and Metals

LIST OF FIGURES

- Figure 1. Vicinity Map
- Figure 2. Historical Structures
- Figure 3. Summary of Investigations and Remedial Action at Adjacent Property
- Figure 4. Soil Field Screening Results
- Figure 5. Soil Petroleum Hydrocarbon and BETX Analytical Results
- Figure 6. Soil cPAHs, Metals, PCBs, SVOCs and VOCs Analytical Results
- Figure 7. Groundwater Level Measurements and Flow Direction
- Figure 8. Groundwater Investigation Results - Petroleum Hydrocarbons Benzene and Metals

ATTACHMENTS

- Attachment 1. Boring Logs and Well Installation Logs
- Attachment 2. Laboratory Analytical Results
- Attachment 3. Data Validation Report

1.0 INTRODUCTION

The Port of Anacortes (Port) received an Integrated Planning Grant (IPG) from Washington State Department of Ecology (Ecology) to support planning for cleaning up the site and redevelopment of the Quiet Cove Property (Site) for commercial and/or industrial use. A focused environmental investigation of the Site was conducted by the Port as part of the Integrated Planning Grant.

This Focused Environmental Site Investigation Data Report has been prepared for the Quiet Cove property on behalf of the Port. The purpose of this focused site investigation is to complete a cursory, planning-level environmental evaluation of the Site to identify potential environmental issues that need to be addressed as part of the property redevelopment. This report summarizes the results of soil and groundwater sampling and analysis activities that were completed at the Site and characterizes the nature and extent of the hazardous substance contamination.

1.1 Focused Site Investigation Objectives

The primary objective of the focused environmental investigation is to complete a planning-level study of the Site in support of the potential cleanup and redevelopment of the Site under the IPG. The focused environmental investigation sampling and analysis data serves as a basis to determine if soil or groundwater contamination resulting from historical uses of the property is present. Specific objectives for the focused site investigation include:

- Review results of historical site plans and environmental investigations adjacent to the property that were obtained during the Site study to focus the field sampling on areas with the greatest potential for contamination.
- Collect soil and groundwater field and analytical data to determine the presences and extent of contamination at the Site that is the result of historical site uses.

2.0 BACKGROUND

This section describes the physical description and characteristics of the Site and summarizes the Site history including previous investigations completed adjacent to the Site.

2.1 Site Description

The Quiet Cove property is located at 202 O Avenue (Figure 1) and is part of the Port's plans to expand and improve the Curtis Wharf International Shipping Terminal. The Site is currently used as a storage yard for boats, recreational vehicles and other items and contains several buildings. The majority of the ground surface of the Site is paved.

2.2 Site History

Historical maps and aerial photos were reviewed to determine previous uses of the Site. The October 1925 Sanborn Map shows the northern portion of the Site was operated by the Standard Oil Company. The Port also received a copy of Standard Oil Company Site plans dated May 31, 1921. Figure 2 provides the approximate location of historical structures on and adjacent to the Site. From about the early 1920s until at least 1971 (the date when fuel operations ceased is unknown) the Site

was used as a bulk fuel storage facility. Five steel oil tanks of unknown capacity and an oil pump house were located in the northeast portion of the Site. Historical structures located in the northwest portion of the Site included a filling shed, an office and oil warehouse, an oil staging area and an "autos" shed. The southern portion of the Site was primarily vacant as indicated by the October 1925 Sanborn Map and 1921 Site Plan. A former railroad track and a structure used for coal storage were located west of the Site in the vicinity of the adjacent property currently owned by the Port. The property located to the southwest of the Site is currently owned by Texaco/Reisner and was used as a bulk fuel facility in 1925, consistent with its current use. An aerial photo from 1971 generally confirms the historic structures located on the Site as indicated by the October 1925 Sanborn Map, but the coal shed located west of the Site was not present in 1971.

2.3. Previous Investigations and Cleanup Adjacent to the Property

Previous investigations have not been conducted for the Quiet Cove property, but the City of Anacortes provided documents to the Port for investigations that were conducted adjacent to the Site. Summaries of these investigations and results are summarized below.

2.3.1. Results of Boil and Groundwater Sampling, Former Anacortes Terminal, Corner of 3rd Street and N-Avenue (May 28, 2000)

ThermoRetec completed a soil and groundwater investigation to characterize the type and extent of petroleum contamination located within the N-Avenue right-of-way directly adjacent to the Quiet Cove property to the west. The study was completed because the City of Anacortes was developing a public beach access and parking area. The investigation methods and results included:

- Soil samples were collected using geoprobe drilling methods at six locations (see Figure 3). Soil was field screened and selected samples were collected for chemical analysis of petroleum hydrocarbons. Soil analytical results showed detections of petroleum hydrocarbons at locations B1, B2, B3, B4 and B5 ranging from 4 to 8 feet below ground surface.
- Groundwater was collected from temporary well screen at three of the soil boring locations (B1, B2 and B3) and analyzed for petroleum hydrocarbons (see Figure 3). Analytical results found detections of petroleum hydrocarbons in each groundwater sample.
- Shallow soil samples were collected using hand auger at 13 locations in the beach area (see Figure 3). Samples were field screened and selected samples were collected for chemical analysis of petroleum hydrocarbons. Analytical results found detected concentrations of petroleum hydrocarbons at locations HA-1, HA-2, HA-11 and HA-12.

2.3.2. Removal of Contaminated Soils From the N-Avenue Right-of-Way, Reisner Petroleum Terminal, Corner of 3rd Street and N-Avenue (May 18, 2001)

Cleanup activities were completed in March 2001 to remove contaminated soil and underground petroleum piping originating from the Reisner Property within the N-Avenue right-of-way. Figure 3 shows the approximate locations and extent of excavation and piping removal. Petroleum piping filled with diesel and kerosene (in separate lines) were capped and removed. Extensive corrosion of the piping was noted during piping removal. Petroleum hydrocarbon contamination was also noted in portions of the piping trench. Contaminated soils from the trench were stockpiled and transported for off-site treatment and disposal. After the piping was removed a total of approximately 580 tons of petroleum contaminated soil was excavated and transported for thermal treatment and disposal. During excavation a 4-inch

diameter metal pipeline was encountered that ran parallel to the shoreline of the Guemes Channel and extended into the Port of Anacortes property. The metal line was maintained in place during excavation because the ownership and location of the pipe could not be verified. During excavation activities approximately 1,300 gallons of water were removed from the excavation, placed in a temporary storage tank and transported for treatment and disposal. Clean backfill material was placed and compacted to construct the parking area for the N-Avenue beach area.

Confirmation samples were collected and analyzed from the sidewalls and bottom of the excavation and results confirmed that petroleum contamination was removed from the excavation bottom and from the south, east and west sidewalls.

2.4. Geology and Hydrogeology

The United States Geological Survey (USGS) map of the Bellingham Quadrangle (Lapen, 2000) was reviewed for geologic information in the vicinity of the Site. Mapped soils in the vicinity of the property include both glacial and non-glacial processes that have occurred during the last 12,000 years. Surface soil deposits are identified as artificial fill and recessional marine (glaciomarine) drift from the Everson interstade of the Fraser glaciation.

Based on previous environmental investigations at nearby locations and this Focused Site Investigation, soil at the Site consists of fill material overlying glaciomarine deposits. Fill deposits consist primarily of fine to coarse sand with gravel and varying silt content. The underlying glaciomarine deposits consist primarily of unsorted, unstratified silt and clay with varying amounts of sands and gravels. The inferred groundwater flow is to the northwest and may be locally affected by tidal intrusion of salt water from Guemes Channel.

3.0 FIELD AND ANALYTICAL METHODS

A focused environmental site investigation was completed to determine the presence of petroleum contamination at the Quiet Cove Property. Soil and groundwater was field screened, sampled and submitted for laboratory analysis consistent with the Focused Site Investigation Plan (GeoEngineers, 2014). The following sections summarize the field activities completed and analytical methods used for the focused site investigation.

3.1. Soil Sampling

A direct-push soil investigation was completed to identify potentially contaminated soil at the Site. Continuous soil cores were obtained from direct-push borings using 2.0- to 2.5-inch diameter sampling rods with acetate liners. The drilling rods were driven with a pneumatic hammer in five foot intervals. Drilling activities were monitored continuously by a technical representative from GeoEngineers who observed and classified the soil encountered and prepare a detailed boring log. Soil samples obtained from the borings were visually classified in general accordance with American Society of Testing and Materials (ASTM) D-2488. The samples also were evaluated for the potential presence of hydrocarbon- and volatile organic compound (VOC) contamination using field screening techniques that include water sheen tests and photoionization (PID) measurements. Observations of soil and groundwater conditions and soil field screening results for each exploration were recorded and documented in field boring logs.

Soil samples were submitted to OnSite Environmental Inc. (OnSite), an Ecology-certified laboratory, for analysis of selected contaminants. In general, three sample intervals were collected at each soil boring location for potential chemical analyses including:

- Sample collected from the fill layer above the water table;
- Sample collected at the water table; and
- Sample collected from native soil at fill/native interface.

In general, samples were collected in 1-foot or 2-foot intervals to provide sufficient material for chemical analysis.

3.2. Monitoring Well Installation and Development

Drilling and construction of the monitoring wells was completed by a Washington State licensed driller in accordance with the Minimum Standards for Construction and Maintenance of Wells (Chapter 173-160 WAC). Installation of the monitoring wells was observed by a GeoEngineers representative who maintained a detailed log of the materials and depths of the wells. Monitoring well borings were completed using a hollow-stem auger drilling rig. Documentation of soil lithology and construction of the monitoring wells was documented in boring logs. Upon completion, each monitoring well was surveyed to obtain the elevation of the top of well casing to determine groundwater elevation. Prior to sampling, each monitoring well was developed to remove water introduced into the well during drilling (if any), stabilize the filter pack and formation materials surrounding the well screen and restore the hydraulic connection between the well screen and the surrounding soil.

3.3. Groundwater Sampling

Groundwater samples were obtained using low-flow/low-turbidity sampling techniques to minimize the suspension of sediment in the samples. Groundwater samples were collected from monitoring wells using a peristaltic pump and disposable polyethylene tubing. Groundwater was pumped at approximately 0.5 liter per minute using a peristaltic pump attached to tubing placed within the screened interval. A Horiba U-22 water quality measuring system with a flow-through-cell was used to monitor the following water quality parameters during purging: electrical conductivity, dissolved oxygen, pH, salinity, total dissolved solids, turbidity, oxidation-reduction potential and temperature. Purging was complete when ambient groundwater conditions varied by less than 10 percent on three consecutive measurements. The stabilized field measurements were documented in the field log. Following well purging, the flow through cell was disconnected and groundwater samples were collected in laboratory-prepared containers. The samples were placed into a cooler with ice and logged on the chain-of-custody using the procedures described in the Quality Assurance Project Plan (QAPP) included as an appendix to the Focused Site Investigation Plan.

4.0 SCREENING LEVELS

Soil and groundwater data collected during the site characterization were evaluated against soil and groundwater screening levels to delineate the extent of detected contamination.

4.1. Soil Screening Levels

For the purposes of this planning-level Focused Site Investigation, soil screening levels will be conservatively based on unrestricted land use. The soil screening levels were selected from Model Toxics Control Act (MTCA) Method A and Method B Soil Cleanup Levels (WAC 173-340-704 and -705). In general the lowest applicable soil criteria were identified as the screening level for comparison to soil analytical results.

4.2. Groundwater Screening Levels

Groundwater at the Site is not used for drinking water at this time and is not a reasonable future source of drinking water due to its proximity to marine waters and likely brackish nature. MTCA Method A Groundwater Cleanup Levels were identified as the screening levels for comparison to groundwater analytical results.

5.0 FOCUSED SOIL AND GROUNDWATER INVESTIGATION RESULTS

5.1. Focused Soil Investigation Results

5.1.1. Soil Field Screening Results

Subsurface soil conditions were evaluated by completing direct-push borings GEI-1 through GEI-28 between March 31 and April 2, 2014. Borings were completed and sampled utilizing field procedures described in the Focused Site Investigation Plan dated February 24, 2014. Subsurface conditions encountered during soil sampling generally consist of fill material ranging from silty sand to coarse sand with gravel overlying marine deposits consisting of silt. Exploration logs are provided in Attachment 1.

Soil sampling cores were screened in the field for evidence of petroleum hydrocarbons and VOCs. Field screening results indicated evidence of petroleum contamination at multiple soil sampling locations throughout the northern part of the investigation area including some locations where petroleum product was observed in subsurface soil. The exploration logs (Attachment 1) provide results of field screening including sheen and headspace vapor testing results. Figure 4 summarizes the results of field screening for each soil boring location.

5.1.2. Soil Chemical Analytical Results

Soil samples were collected consistent with procedures detailed in the Focused Site Investigation Plan (GeoEngineers, 2014) and submitted to OnSite located in Redmond, Washington for analysis of one or more contaminants of potential concern (COPCs). Soil samples were selected for analysis based on field screening results and location relative to potential sources of contamination. A total of 35 soil samples were selected for analysis for one or more COPCs. Gasoline-, diesel-, and heavy oil-range petroleum hydrocarbons and BETX (benzene, ethylbenzene, toluene and xylene) analyses were performed on all 35 soil samples. Three samples with field screening evidence of petroleum contamination were selected for analysis of additional COPCs including carcinogenic polycyclic aromatic hydrocarbons (cPAHs), naphthalenes, halogenated volatile organic compounds (HVOCs), n-hexane, methyl tertiary-butyl ether (MTBE), metals (arsenic, cadmium, chromium, mercury and lead) and polychlorinated biphenyls (PCBs). The objective of these analyses was to determine the general composition of the petroleum contaminated soil in accordance with MTCA testing requirements for petroleum releases (WAC 173-340-900, Table 830-1). Tables 1 through 4 summarize the chemical analytical results for the soil analyses

completed. Figure 5 summarizes the chemical analytical results for gasoline-, diesel-, and heavy oil-range petroleum hydrocarbons and BETX (benzene, ethylbenzene, toluene and xylene) analyses. Figure 6 summarizes the chemical analytical results for rest of the COPCs. Analytical results are compared to screening levels detailed in the Focused Site Investigation Plan.

Results show evidence of gasoline-, diesel-, and heavy oil-range petroleum hydrocarbons and benzene contamination in soil throughout the northern area of the Site where the former fuel facility and petroleum storage tanks were located and to the north and west of the former tank farm facility. Ethylbenzene, toluene and xylene were detected at concentrations greater than the screening level in one of 35 samples analyzed. Carcinogenic PAHs (cPAHs) and naphthalene exceeded the screening level in all of the three samples that were analyzed and cadmium exceeded screening levels in one of three samples analyzed. All other analytes were either not detected or detected at concentrations less than their associated screening levels in soil samples submitted for chemical analysis. Laboratory method reporting limits (MRLs) for all analytes were below the associated screening levels with the exception of HVOCs 1,2-dibromoethane (EDB), methylene chloride, tetrachloroethene, and trichloroethene.

Laboratory analytical results are presented in Attachment 2 and a Data Validation Report is included in Attachment 3.

5.1.3. Deviations from Focused Site Investigation Plan for Soil Investigation

The Focused Site Investigation Plan identified Tier 1 and Tier 2 soil sampling locations to provide an approach for determining soil samples for analysis. Based on the results of field screening, deviations were made from the Focused Site Investigation Plan to maximize the use of the data collected during the soil investigation for the purposes of the Integrated Planning Grant. Deviations from the Focused Site Investigation Plan include the following:

- Four (4) additional soil borings were completed (GEI-25 through -28) in 2nd Street right-of-way to improve characterization of the extent of contamination to the north of the Site. GEI-25, GEI-27 and GEI-28 were analyzed for petroleum hydrocarbons and GEI-25 was analyzed for the additional contaminants of potential concern.
- Analysis of soil samples was modified based on results of field screening to delineate the lateral extent of petroleum contamination at the Site. Deviations to the analysis of soil samples include:
 - Representative samples were selected for analysis at locations within the highly contaminated area based on field screening (i.e. locations where product was observed). Tier 1 locations GEI-6, GEI-7 and GEI-15 were not analyzed, but Tier 2 location GEI-10 was analyzed.
 - Tier 2 locations located on the edge of the contaminated area based on field screening were selected for analysis to define the extent of contamination including locations GEI-1, GEI-3, GEI-16, GEI-20 and GEI-21.
 - Tier 1 and Tier 2 locations in the southern portion of the Site that did not show any evidence of contamination were not analyzed including Tier 1 location GEI-24.

5.2. Focused Groundwater Investigation Results

5.2.1. Monitoring Well Installation and Development

The monitoring well locations were determined after review of the soil analytical results and were approved by Ecology prior to installation. Five monitoring wells (MW-1 through MW-5) were installed on June 23 and 24, 2014 in accordance with field procedures described in the Focused Site Investigation Plan. Each monitoring well was developed on June 25 and 26, 2014 prior to sampling.

5.2.2. Groundwater Flow Direction

On August 7, 2014 water levels were collected from each monitoring well during low tide to evaluate the groundwater flow direction. Figure 7 provides the groundwater elevations measured at each monitoring well and presents the estimated groundwater flow direction based on the field measurement data. In general groundwater at the Site flows to the northwest towards Guemes Channel. A concrete bulkhead exists at Curtis Wharf to the north of the Site and may be influencing groundwater flow by forcing water to the west and east of the bulkhead towards Guemes Channel or north along O Avenue, respectively.

5.2.3. Groundwater Chemical Analytical Results

Groundwater samples were collected from five monitoring wells (MW-1 through MW-5) on July 1, 2014 consistent with procedures detailed in the Focused Site Investigation Plan (GeoEngineers, 2014) and submitted to OnSite for analysis of one or more COPCs. Consistent with the soil analytical results, gasoline-, diesel-, and heavy oil-range petroleum hydrocarbons and BETX (benzene, ethylbenzene, toluene and xylene) analyses were performed on groundwater samples collected from each monitoring well. Groundwater samples obtained from an upgradient well (MW-5) and downgradient well (MW-3) were also analyzed for COPCs including oPAHs, naphthalenes, HVOCs, total and dissolved metals (arsenic, cadmium, chromium, mercury and lead) and PCBs. Chemical analytical results for the groundwater analyses completed are tabulated in Tables 5 through 8 and presented on Figure 8. Analytical results are compared to screening levels detailed in the Focused Site Investigation Plan.

Diesel- and/or heavy oil-range petroleum hydrocarbons were detected at concentrations greater than the screening level in groundwater samples obtained from each monitoring well. Total and dissolved arsenic were detected in the groundwater sample obtained from the upgradient monitoring well MW-5 at concentrations greater than the screening level. All other analytes were either not detected or detected at concentrations less than their associated screening levels in groundwater samples submitted for chemical analysis. Laboratory MRLs for all analytes were below the associated screening levels with the exception of HVOC 1,2-dibromoethane (EDB).

Laboratory analytical results are presented in Attachment 2 and a Data Validation Report is included in Attachment 3.

6.0 NATURE AND EXTENT OF CONTAMINATION

The results of the Focused Site Investigation indicate that petroleum-related contamination related to historical use exists in soil and groundwater in the northern portion of the Site. Currently the Site is not on Ecology's hazardous sites list, but as required by MTCA, the Port notified Ecology that contaminated media was encountered at the Quiet Cove Site during the Focused Site Investigation.

The Focused Site Investigation did not fully identify the extent of soil or groundwater contamination at the Site and data gaps exist including the extent to which the downgradient marine sediments may be impacted. The soil and groundwater analytical results provide information to describe the general extent of contamination. Additional investigation is likely to be required to fully define the extent of contamination.

Sampling locations and concentration exceedances over screening levels for soil is shown on Figures 5 and 6. Contaminants of potential concern were identified in soil located primarily above the water level (between 4 and 6 feet below the ground surface [bgs]) and in some near surface soil (0 to 2 feet bgs) at concentrations exceeding screening levels for unrestricted land use. Figure 5 shows the approximate extent of petroleum hydrocarbon contamination at the Site. The extent of petroleum contamination in soil to the north of the Site along O Avenue (north of location GEI-25) and along the Guemes Channel shoreline will require additional investigation.

Contaminants of concern in soil based on results of the Focused Site Investigation include:

- Gasoline-, diesel- and heavy oil-range petroleum hydrocarbons;
- Volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene and xylenes (BETX);
- Polycyclic aromatic hydrocarbons (PAHs) including naphthalenes and total carcinogenic PAHs (cPAHs); and
- Metals including cadmium.

Monitoring well locations and concentration exceedances over MTCA Method A for groundwater is shown in Figure 8. Contaminants of potential concern were identified in groundwater throughout the Site at concentrations exceeding MTCA Method A levels for unrestricted land use and are generally consistent with the soil contamination identified at the Site with the exception of arsenic in the upgradient well. Arsenic was not detected in Site soil thus suggesting that the arsenic detections at the site may be the result of a separate and off-site source. This contamination slightly upgradient of the Site is likely due to tidal influence. Additional investigation will be required to fully define the extent of groundwater contamination at the Site.

Contaminants of concern in groundwater based on the results of the Focused Site Investigation include:

- Diesel- and heavy oil-range petroleum hydrocarbons; and
- Arsenic.

The Focused Site Investigation did not include sampling or analysis of the marine sediment located to the west of to the Site. Future investigation will be required to fully define the extent of contamination in the sediment adjacent to the Site.

7.0 LIMITATIONS

We have prepared this Focused Site Investigation Data Report for the exclusive use of the Port of Anacortes and their authorized agents for the project site. Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

8.0 REFERENCES

- GeoEngineers. 2014. Focused Site Investigation Plan; Quiet Cove Property; Anacortes, Washington. Prepared for Port of Anacortes. February 6, 2014.
- Lapen, Thomas J. 2000. "Geologic Map of the Bellingham 1:100,000 Quadrangle, Washington". Washington State Department of Natural Resources, Division of Geology and Earth Resources. December 2000.

Table 1
 Summary of Soil Chemical Analytical Data - Petroleum Hydrocarbons and VOCs
 Quiet Cove Property
 Anacortes, Washington

Sample Identification	Sample Depth	Sample Date	Field Screening		Petroleum Hydrocarbons ² (mg/kg)			VOCs ² (mg/kg)					
			Sheen	Headspace Vapor (ppm)	Gasoline-Range	Diesel-Range	Heavy Oil-Range	Benzene	Toluene	Ethylbenzene	Xylenes	n-Hexane	Methyl Tertiary Butyl Ether (MTBE)
GB-1-3-033114	4-6 feet	03/31/14	HS	155	7.4 U	5,800	940	0.02 U	0.074 U	0.24	0.64	-	-
GB-1-5-033114	8-10 feet	03/31/14	NS	<1	7.8 U	940	97	0.02 U	0.078 U	0.078 U	0.078 U	-	-
GB-2-1-033114	0-2 feet	03/31/14	NS	<1	3.4 U	48	210	0.055	0.039	0.21	0.31	-	-
GB-2-3-033114	4-6 feet	03/31/14	HS	255	7.7 U	2,400	440	0.02 U	0.077 U	0.077 U	0.077 U	-	-
GB-2-5-033114	8-10 feet	03/31/14	NS	53	3.8 U	510	77	0.02 U	0.038 U	0.038 U	0.038 U	-	-
GB-3-3-033114	8-10 feet	03/31/14	HS	124	7.8 U	750	73	0.02 U	0.078 U	0.30	0.91	-	-
GB-4-1-040114	0-2 feet	04/01/14	NS	<1	3.3 U	170	1,290	0.02 U	0.033 U	0.033 U	0.033 U	-	-
GB-4-2-040114	2-3 feet	04/01/14	HS	7	8.9 U	18,000	21,000	0.02 U	0.089 U	0.089 U	0.089 U	0.089 U	0.085 U
GB-4-3-040114	4-6 feet	04/01/14	NS	<1	9.3 U	730	940	0.02 U	0.093 U	0.093 U	0.093 U	-	-
GB-8-3-033114	4-6 feet	03/31/14	HS	252	260	1,200	810	0.048	0.11 U	0.14	0.28	-	-
GB-8-5-033114	8-10 feet	03/31/14	NS	<1	3.3 U	29 U	58 U	0.02 U	0.033 U	0.033 U	0.033 U	-	-
GB-9-3-040114	5-7 feet	04/01/14	HS	5	5.0 U	30 U	80 U	0.02 U	0.05 U	0.05 U	0.05 U	-	-
GB-9-5-040114	8-10 feet	04/01/14	NS	<1	4.8 U	29 U	59 U	0.02 U	0.048 U	0.048 U	0.048 U	-	-
GB-10-1-033114	0-2 feet	03/31/14	NS	<1	3.3 U	1,800	3,500	0.02 U	0.033 U	0.033 U	0.033 U	-	-
GB-10-3-033114	4-6 feet	03/31/14	HS	123	420	5,600	8,100	0.043	0.083 U	0.21	0.65	0.083 U	0.059 U
GB-10-6-033114	8-10 feet	03/31/14	NS	<1	6.3 U	TBD	TBD	0.02 U	0.063 U	0.063 U	0.063 U	-	-
GB-12-3-040114	5-7 feet	04/01/14	NS	<1	3.5 U	29 U	58 U	0.02 U	0.035 U	0.035 U	0.035 U	-	-
GB-13-2-040114	2-3 feet	04/01/14	HS	382	9.4 U	1,900	80	0.023	0.094 U	0.99	0.71	-	-
GB-13-4-040114	6-8 feet	04/01/14	NS	2	3.7 U	30 U	80 U	0.02 U	0.037 U	0.037 U	0.037 U	-	-
GB-14-3-040114	4-6 feet	04/01/14	NS	<1	5.2 U	34 U	88 U	0.02 U	0.052 U	0.052 U	0.052 U	-	-
GB-16-3-033114	4-6 feet	03/31/14	SS	198	150	1,600	440	0.11	0.43 U	0.85	0.56	-	-
GB-16-5-033114	8-10 feet	03/31/14	NS	<1	5.4 U	30 U	80 U	0.02 U	0.054 U	0.054 U	0.054 U	-	-
GB-17-3-033114	4-6 feet	03/31/14	HS	>1,000	9,400	14,000	2,900	62	16	180	361	-	-
GB-18-1-033114	0-2 feet	03/31/14	NS	<1	3.2 U	270	1,390	0.02 U	0.032 U	0.032 U	0.032 U	-	-
Soil Screening Level ³					30/100	2,000	2,000	0.03	7	6	9	4,800 ⁴	0.1

Sample Identification	Sample Depth	Sample Date	Field Screening		Petroleum Hydrocarbons ¹ (mg/kg)			VOCs ² (mg/kg)					
			Shoen	Headspace Vapor (ppm)	Gasoline-Range	Diesel-Range	Heavy Oil-Range	Benzene	Toluene	Ethylbenzene	Xylenes	n-Hexane	Methyl Tertiary Butyl Ether (MTBE)
GE-18-3-033114	4-6 feet	03/31/14	HS	24	4.0 U	2,200	2,300	0.02 U	0.04 U	0.11	0.23	-	-
GE-18-5-033114	8-10 feet	03/31/14	NS	<1	3.8 U	71	81 U	0.02 U	0.038 U	0.038 U	0.038 U	-	-
GE-19-1-040114	0-2 feet	04/01/14	NS	<1	4.0 U	29 U	58 U	0.02 U	0.04 U	0.04 U	0.04 U	-	-
GE-19-3-040114	4-6 feet	04/01/14	NS	<1	3.8 U	29 U	58 U	0.02 U	0.038 U	0.038 U	0.038 U	-	-
GE-20-3-040114	4-6 feet	04/01/14	NS	<1	3.9 U	29 U	59 U	0.02 U	0.039 U	0.039 U	0.039 U	-	-
GE-21-3-040114	4-6 feet	04/01/14	NS	<1	5.8 U	29 U	59 U	0.02 U	0.058 U	0.058 U	0.058 U	-	-
GE-25-1-040114	0-2 feet	04/01/14	NS	<1	3.3 U	250	1,100	0.02 U	0.033 U	0.033 U	0.042	-	-
GE-25-3-040114	4-6 feet	04/01/14	HS	32	3.9 U	4,300	1,200	0.02 U	0.039 U	0.26	0.16	0.074	0.048 U
GE-25-5-040114	8-10 feet	04/01/14	NS	<1	17 U	76	580	0.033 U	0.17 U	0.17 U	0.17 U	-	-
GE-27-3-040214	6-7.5 feet	04/02/14	NS	<1	4.9 U	32 U	64 U	0.02 U	0.049 U	0.049 U	0.049 U	-	-
GE-28-4-040214	6-6 feet	04/02/14	NS	<1	4.0 U	29 U	58 U	0.02 U	0.04 U	0.04 U	0.04 U	-	-
Soil Screening Level ³					30/100	2,000	2,000	0.03	7	6	9	4,800 ⁴	0.1

Notes:

- ¹ Analyzed using Northwest Total Petroleum Hydrocarbon (NWTPH)-G or NWTPH-Dx.
- ² Analyzed using Environmental Protection Agency (EPA) Method 8260B/8260C.
- ³ Model Toxics Control Act (MTCA) Method A Cleanup Level for unrestricted land use.
- ⁴ Screening level for n-hexane is the MTCA Method B Cleanup Level for non-carcinogenic compounds.
- ⁵ Screening level for EDC is the MTCA Method B Cleanup Level for carcinogenic compounds.
- HS = heavy shoen
- mg/kg = milligrams per kilogram
- NS = no shoen
- SS = slight shoen
- U = not detected above the laboratory reporting limit
- VOCs = Volatile organic compounds
- Bold font** indicates compound was detected.
- Green shading indicates that the compound was detected at concentrations greater than the screening level.

Table 2
Summary of Soil Chemical Analytical Data - HVOCs¹
 Quiet Cove Property
 Anacortes, Washington

HVOCs (µg/kg)	Screening Level ²	Sample ID, Depth and Date		
		GEI-4-2-040114	GEI-10-3-033114	GEI-25-3-040114
		2-3 feet 04/01/14	4-6 feet 03/31/14	4-6 feet 04/01/14
1,1,1,2-Tetrachloroethane	NE	65 U	45 U	37 U
1,1,1-Trichloroethane	2000	65 U	45 U	37 U
1,1,2,2-Tetrachloroethane	NE	65 U	45 U	37 U
1,1,2-Trichloroethane	NE	65 U	45 U	37 U
1,1-Dichloroethane	NE	65 U	45 U	37 U
1,1-Dichloroethene	NE	65 U	45 U	37 U
1,1-Dichloropropene	NE	65 U	45 U	37 U
1,2,3-Trichlorobenzene	NE	65 U	45 U	37 U
1,2,3-Trichloropropane	NE	65 U	45 U	37 U
1,2,4-Trichlorobenzene	NE	65 U	45 U	37 U
1,2-Dibromo-3-Chloropropane	NE	330 U	230 U	190 U
1,2-dibromoethane (EDB)	5	65 U	45 U	37 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	NE	65 U	45 U	37 U
1,2-Dichloroethane (EDC)	NE	65 U	45 U	37 U
1,2-Dichloropropane	NE	65 U	45 U	37 U
1,3-Dichlorobenzene (m-Dichlorobenzene)	NE	65 U	45 U	37 U
1,3-Dichloropropane	NE	65 U	45 U	37 U
1,4-Dichlorobenzene (p-Dichlorobenzene)	NE	65 U	45 U	37 U
2,2-Dichloropropane	NE	65 U	45 U	37 U
2-Chloroethyl vinyl ether	NE	520 U	360 U	290 U
2-Chlorotoluene	NE	65 U	45 U	37 U
4-Chlorotoluene	NE	65 U	45 U	37 U
Bromobenzene	NE	65 U	45 U	37 U
Bromochloromethane	NE	65 U	45 U	37 U
Bromodichloromethane	NE	65 U	45 U	37 U
Bromoform (Tribromomethane)	NE	65 U	45 U	37 U
Bromomethane	NE	65 U	45 U	37 U
Carbon Tetrachloride	NE	65 U	45 U	37 U
Chlorobenzene	NE	65 U	45 U	37 U
Chloroethane	NE	330 U	230 U	190 U
Chloroform	NE	65 U	45 U	37 U
Chloromethane	NE	420 U	290 U	240 U
cis-1,2-Dichloroethene	NE	65 U	45 U	37 U
Cis-1,3-Dichloropropene	NE	65 U	45 U	37 U
Dibromochloromethane	NE	65 U	45 U	37 U
Dibromomethane	NE	65 U	45 U	37 U
Dichlorodifluoromethane (CFC-12)	NE	65 U	45 U	37 U
Methyl iodide (Iodomethane)	NE	330 U	230 U	190 U
Methylene Chloride	20	330 U	230 U	190 U
Tetrachloroethene	50	65 U	45 U	37 U

HVOCs (µg/kg)	Screening Level ²	Sample ID, Depth and Date		
		GEI-4-2-040114	GEI-10-3-033114	GEI-25-3-040114
		2-3 feet 04/01/14	4-6 feet 03/31/14	4-6 feet 04/01/14
Trans-1,2-Dichloroethene	NE	65 U	45 U	37 U
Trans-1,3-Dichloropropene	NE	65 U	45 U	37 U
Trichloroethene	30	65 U	45 U	37 U
Trichlorofluoromethane (CFC-11)	NE	65 U	45 U	37 U
Vinyl Chloride	NE	65 U	45 U	37 U

Notes:

¹ Analyzed using Environmental Protection Agency (EPA) Method 8260B/8260C.

² Model Toxics Control Act (MTCA) Method A Cleanup Level for unrestricted land use.

HVOCs = Halogenated volatile organic compounds

NE = not established

U = not detected above the laboratory reporting limit

µg/kg = micrograms per kilogram

 Blue shading indicates that the laboratory reporting limit was greater than the screening level.

Table 3
Summary of Soil Chemical Analytical Data - Naphthalenes and cPAHs
 Quiet Cove Property
 Anacortes, Washington

Sample Identification	Sample Depth	Sample Date	Naphthalenes ¹ (mg/kg)	cPAHs ¹ (mg/kg)							
				Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene	Total cPAHs - TEQ ²
GEI-4-2-040114	2-3 feet	04/01/14	27.4 T	0.77	1.2	0.22	0.18 U	0.18	0.18 U	0.18 U	0.32 T
GEI-10-3-033114	4-6 feet	03/31/14	18.5 T	3.90	2.80	2.40	1.10	3.00	1.30	0.68	3.97 T
GEI-25-3-040114	4-6 feet	04/01/14	9.3 T	0.19	0.20	0.08	0.05	0.11	0.05	0.039 U	0.15 T
Soil Screening Level ³			5	See TEQ							0.1

Notes:

- ¹ Analyzed using Environmental Protection Agency (EPA) Method 8270SM.
- ² Total carcinogenic Polycyclic Aromatic Hydrocarbon (cPAH) calculated using toxic equivalent (TEQ) methodology relative to benzo(a)pyrene. cPAHs that were not detected were assigned a value of one half of the detection limit for these calculations.
- ³ Model Toxics Control Act (MTRCA) Method A Cleanup Level for unrestricted land use.

cPAHs = Carcinogenic Polycyclic Aromatic Hydrocarbons

mg/kg = milligrams per kilogram

T = total concentration

U = not detected above the laboratory reporting limit

Bold font indicates compound was detected.

Green shading indicates that the compound was detected at concentrations greater than the screening level.

Table 4
 Summary of Soil Chemical Analytical Data - PCBs and Metals
 Quiet Cove Property
 Anacortes, Washington

Sample Identification	Sample Depth	Sample Date	PCBs ¹ (mg/kg)	Metals ² (mg/kg)				
				Arsenic	Cadmium	Chromium ³	Lead	Mercury
GEI-4-2-040114	2-3 feet	04/01/14	0.068 UT	14 U	2.4	13	79	0.34 U
GEI-10-3-033114	4-6 feet	03/31/14	0.059 UT	12 U	0.59 U	34	13	0.29 U
GEI-25-3-040114	4-6 feet	04/01/14	0.062 UT	12 U	0.62 U	52	17	0.31 U
Soil Screening Level ⁴			1	20	2	2,000	250	2

Notes:

¹ Analyzed using Environmental Protection Agency (EPA) Method 8082A.

² Analyzed using EPA Method 8010C/7471B.

³ Reported as total chromium.

⁴ Model Toxics Control Act (MTCOA) Method A Cleanup Level for unrestricted land use.

mg/kg = milligrams per kilogram

PCBs = Polychlorinated Biphenyls

U = not detected above the laboratory reporting limit

UT = not detected for the total PCBs

Bold font indicates compound was detected.

Green shading indicates that the compound was detected at concentrations greater than the screening level.

Table 5
 Summary of Groundwater Chemical Analytical Data - Petroleum Hydrocarbons and VOCs
 Quiet Cove Property
 Anacortes, Washington

Sample Identification	Sample Date	Petroleum Hydrocarbons ¹ (µg/l)			VOCs ² (µg/l)					
		Gasoline-Range	Diesel-Range	Heavy Oil-Range	Benzene	Toluene	Ethyl-benzene	Xylenes	n-Hexane	Methyl Tertiary-Butyl Ether (MTBE)
QC-MW-1-7.1.14	07/01/14	100 U	860	410 U	1 U	1 U	1 U	1 U	-	-
QC-MW-2-7.1.14	07/01/14	110	2,100	980	1 U	1 U	1 U	1 U	-	-
QC-MW-3-7.1.14	07/01/14	480	2,600 J	700	0.2 U	1 U	0.49	1.56	-	-
QC-MW-3-DUP-7.1.14	07/01/14	530	2,400 J	640	1 U	1 U	1 U	1.8	-	0.2 U
QC-MW-4-7.1.14	07/01/14	510	1,300 J	410 U	1 U	1 U	1 U	1 U	-	-
QC-MW-5-7.1.14	07/01/14	440	1,500 J	450 U	0.2 U	1 U	0.2 U	0.22	-	0.2 U
Groundwater Screening Level ³		800/1000	500	500	5	1000	700	1000	NE	20

Notes:

¹ Analyzed using Northwest Total Petroleum Hydrocarbon (NWTPH)-G or NWTPH-Ds.

² Analyzed using Environmental Protection Agency (EPA) Method 8260B/8260C.

³ Model Toxics Control Act (MTC) Method A Cleanup Level for unrestricted land use.

J = estimated value

NE = not established

U = not detected above the laboratory reporting limit

µg/l = micrograms per liter

VOCs = Volatile organic compounds

Bold font indicates compound was detected.

Green shading indicates that the compound was detected at concentrations greater than the screening level.

Table 6
Summary of Groundwater Chemical Analytical Data - HVOCs¹
 Quiet Cove Property
 Anacortes, Washington

HVOCs (µg/l)	Screening Level ²	Sample ID and Date					
		QC-MW-1-7.1.14	QC-MW-2-7.1.14	QC-MW-3-7.1.14	QC-MW-3-DUP-7.1.14	QC-MW-4-7.1.14	QC-MW-5-7.1.14
		07/01/14	07/01/14	07/01/14	07/01/14	07/01/14	07/01/14
1,1,1,2-Tetrachloroethane	NE	-	-	0.2 U	-	-	0.2 U
1,1,1-Trichloroethane	200	-	-	0.2 U	-	-	0.2 U
1,1,2,2-Tetrachloroethane	NE	-	-	0.2 U	-	-	0.2 U
1,1,2-Trichloroethane	NE	-	-	0.2 U	-	-	0.2 U
1,1-Dichloroethane	NE	-	-	0.2 U	-	-	0.2 U
1,1-Dichloroethene	NE	-	-	0.2 U	-	-	0.2 U
1,1-Dichloropropene	NE	-	-	0.2 U	-	-	0.2 U
1,2,3-Trichlorobenzene	NE	-	-	0.2 U	-	-	0.2 U
1,2,3-Trichloropropane	NE	-	-	0.2 U	-	-	0.2 U
1,2,4-Trichlorobenzene	NE	-	-	0.2 U	-	-	0.2 U
1,2-Dibromo-3-Chloropropane	NE	-	-	1 U	-	-	1 U
1,2-dibromoethane (EDB)	0.01	-	-	0.2 U	-	-	0.2 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	NE	-	-	0.2 U	-	-	0.2 U
1,2-Dichloroethane (EDC)	5	-	-	0.2 U	-	-	0.2 U
1,2-Dichloropropane	NE	-	-	0.2 U	-	-	0.2 U
1,3-Dichlorobenzene (m-Dichlorobenzene)	NE	-	-	0.2 U	-	-	0.2 U
1,3-Dichloropropane	NE	-	-	0.2 U	-	-	0.2 U
1,4-Dichlorobenzene (p-Dichlorobenzene)	NE	-	-	0.2 U	-	-	0.2 U
2,2-Dichloropropane	NE	-	-	0.2 U	-	-	0.2 U
2-Chloroethyl vinyl ether	NE	-	-	1 U	-	-	1 U
2-Chlorotoluene	NE	-	-	0.2 U	-	-	0.2 U
4-Chlorotoluene	NE	-	-	0.2 U	-	-	0.2 U
Bromobenzene	NE	-	-	0.2 U	-	-	0.2 U
Bromochloromethane	NE	-	-	0.2 U	-	-	0.2 U
Bromodichloromethane	NE	-	-	0.2 U	-	-	0.2 U
Bromoform (Tribromomethane)	NE	-	-	1 U	-	-	1 U
Bromomethane	NE	-	-	0.2 U	-	-	0.2 U
Carbon Tetrachloride	NE	-	-	0.2 U	-	-	0.2 U
Chlorobenzene	NE	-	-	0.2 U	-	-	0.2 U
Chloroethane	NE	-	-	1 U	-	-	1 U
Chloroform	NE	-	-	0.2 U	-	-	0.2 U
Chloromethane	NE	-	-	1 U	-	-	1 U
cis-1,2-Dichloroethene	NE	-	-	0.2 U	-	-	0.2 U
Cis-1,3-Dichloropropene	NE	-	-	0.2 U	-	-	0.2 U
Dibromochloromethane	NE	-	-	0.2 U	-	-	0.2 U
Dibromomethane	NE	-	-	0.2 U	-	-	0.2 U
Dichlorodifluoromethane (CFC-12)	NE	-	-	0.26 U	-	-	0.26 U
Methyl Iodide (Iodomethane)	NE	-	-	1 U	-	-	1 U
Methylene Chloride	5	-	-	1 U	-	-	1 U
Tetrachloroethene	5	-	-	0.2 U	-	-	0.2 U

HVOCs (µg/l)	Screening Level ²	Sample ID and Date					
		QC-MW-1-7.1.14	QC-MW-2-7.1.14	QC-MW-3-7.1.14	QC-MW-3-DUP-7.1.14	QC-MW-4-7.1.14	QC-MW-5-7.1.14
		07/01/14	07/01/14	07/01/14	07/01/14	07/01/14	07/01/14
Trans-1,2-Dichloroethene	NE	–	–	0.2 U	–	–	0.2 U
Trans-1,3-Dichloropropene	NE	–	–	0.2 U	–	–	0.2 U
Trichloroethene	5	–	–	0.2 U	–	–	0.2 U
Trichlorofluoromethane (CFC-11)	NE	–	–	0.2 U	–	–	0.2 U
Vinyl Chloride	0.2	–	–	0.2 U	–	–	0.2 U

Notes:

¹ Analyzed using Environmental Protection Agency (EPA) Method 8260B/8260C.

² Model Toxics Control Act (MTCA) Method A Cleanup Level for unrestricted land use.

HVOCs = Halogenated volatile organic compounds

NE = not established

U = not detected above the laboratory reporting limit

µg/l = micrograms per liter

Bold font indicates compound was detected.

Blue shading indicates that the laboratory reporting limit was greater than the screening level.

Table 7
 Summary of Groundwater Chemical Analytical Data - Naphthalenes and cPAHs
 Quiet Cove Property
 Anacortes, Washington

Sample Identification	Sample Date	Naphthalene ¹ (µg/l)	cPAHs ¹ (µg/l)							Total cPAHs - TEQ ²
			Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-c,d)pyrene	Dibenz(a,h)anthracene	
QC-MW-1-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-
QC-MW-2-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-
QC-MW-3-7.1.14	07/01/14	56	0.015	0.017	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0083 T
QC-MW-3-DUP-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-
QC-MW-4-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-
QC-MW-5-7.1.14	07/01/14	18.8	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0072 U ³
Groundwater Screening Level ³		150	See TEQ							0.1

Notes:

¹ Analyzed using Environmental Protection Agency (EPA) Method 8270SM.

² Total carcinogenic Polycyclic Aromatic Hydrocarbon (cPAH) calculated using toxic equivalent (TEQ) methodology relative to benzo(a)pyrene. cPAHs that were not detected were assigned a value of one half of the detection limit for these calculations.

³ Model Toxics Control Act (MTCOA) Method A Cleanup Level for unrestricted land use.

cPAHs = Carcinogenic Polycyclic Aromatic Hydrocarbons

T = total concentration

U = not detected above the laboratory reporting limit

µg/l = micrograms per liter

Bold font indicates compound was detected.

Table 8
 Summary of Groundwater Chemical Analytical Data - PCBs and Metals
 Quiet Cove Property
 Anacortes, Washington

Sample Identification	Sample Date	PCBs ¹ (µg/l)	Metals ² (µg/l)										
			Total					Dissolved					
			Arsenic	Cadmium	Chromium ³	Lead	Mercury	Arsenic	Cadmium	Chromium ³	Lead	Mercury	
QC-MW-1-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-	-	-	-
QC-MW-2-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-	-	-	-
QC-MW-3-7.1.14	07/01/14	0.047 UT	4.9	4.4 U	11	1.1 U	0.5 U	4.5	4 U	10 U	1 U	0.5 U	
QC-MW-3-DUP-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-	-	-	
QC-MW-4-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-	-	-	
QC-MW-5-7.1.14	07/01/14	0.054 UT	10	4.4 U	46	7.1	0.5 U	6.6	4 U	10 U	1 U	0.5 U	
Groundwater Screening Level ⁴		0.1	5	5	50	15	2	5	5	50	15	2	

Notes:

¹ Analyzed using Environmental Protection Agency (EPA) Method 8082A.

² Analyzed using EPA Method 8010C/7471B.

³ Reported as total chromium.

⁴ Model Toxics Control Act (MTC) Method A Cleanup Level for unrestricted land use.

PCBs = Polychlorinated Biphenyls

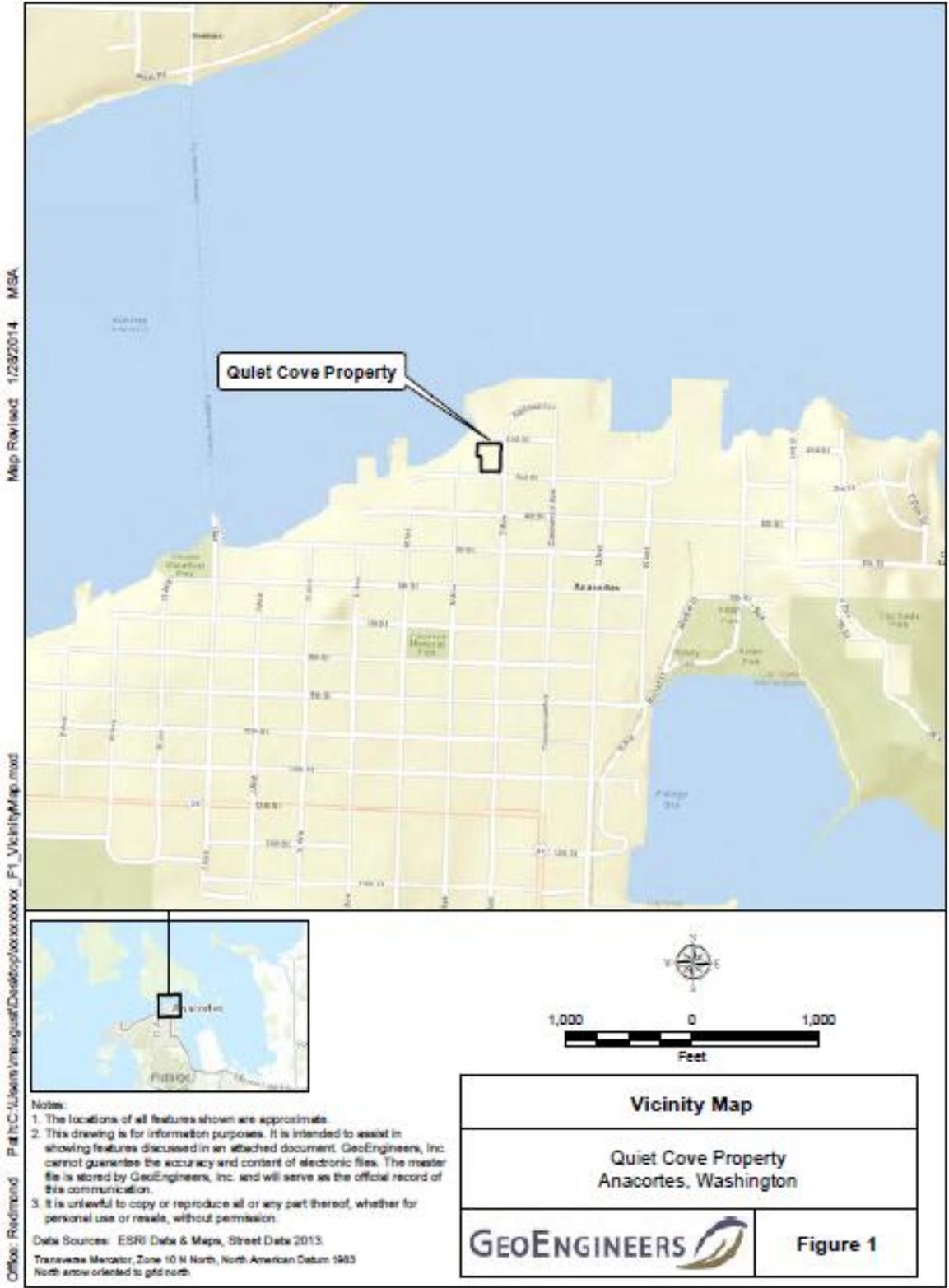
U = not detected above the laboratory reporting limit

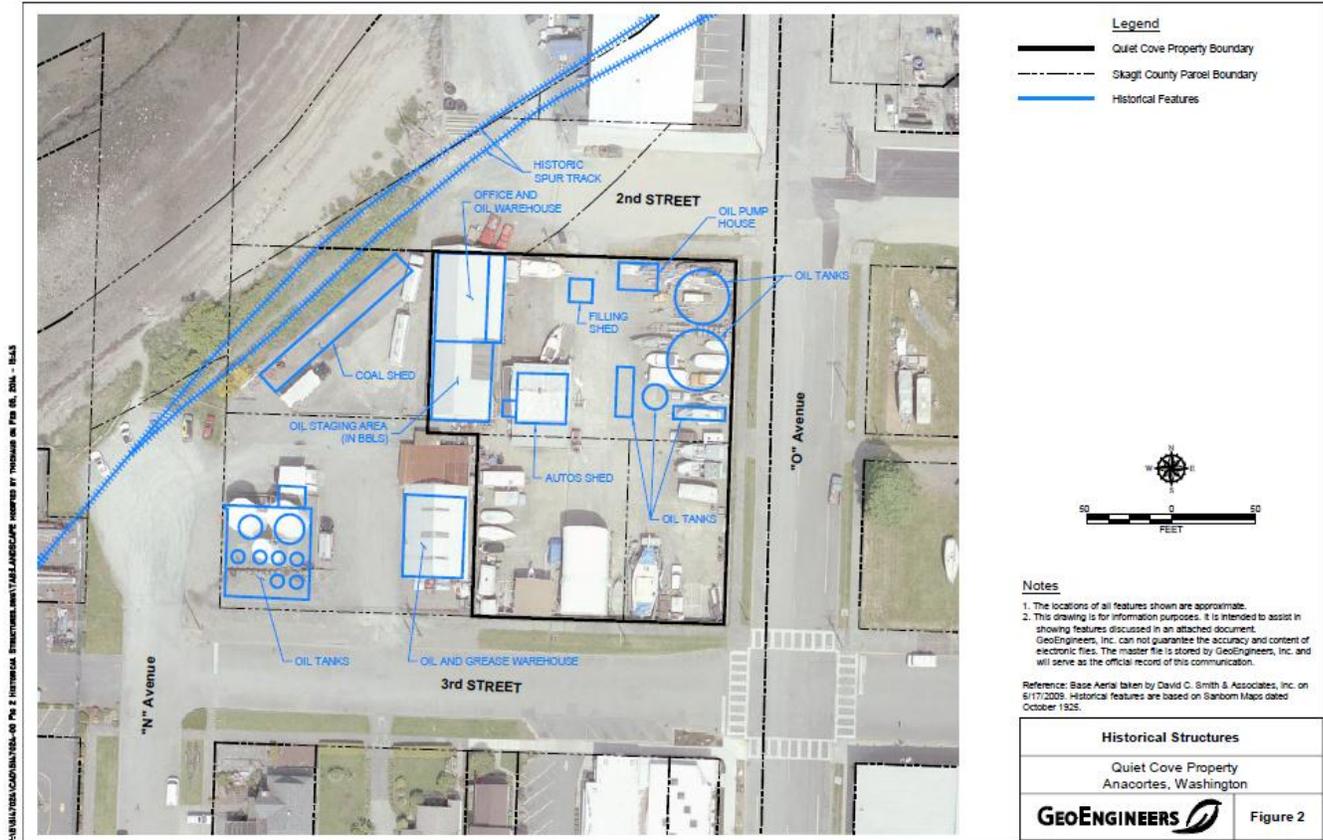
µg/l = micrograms per liter

UT = not detected for the total PCBs

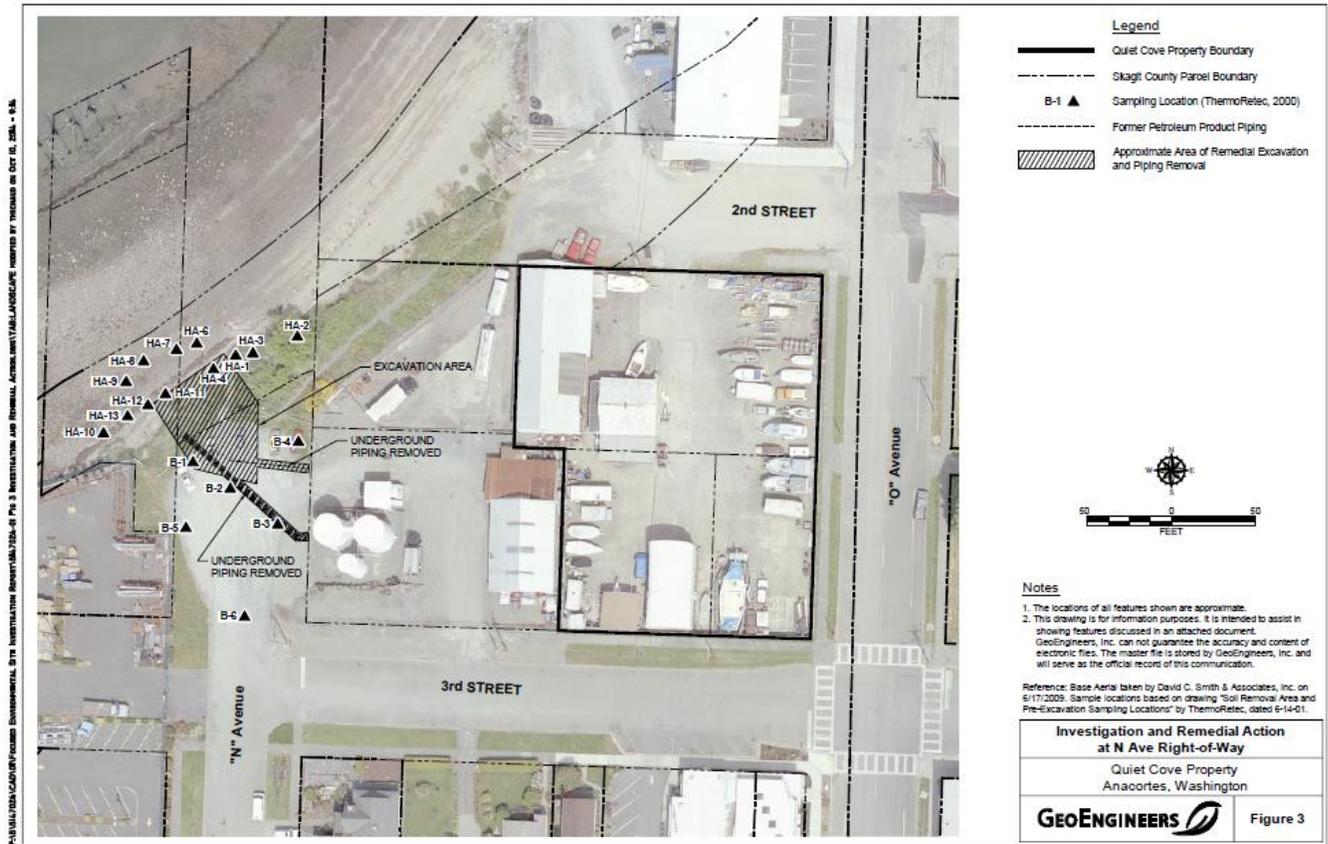
Bold font indicates compound was detected.

Green shading indicates that the compound was detected at concentrations greater than the screening level.

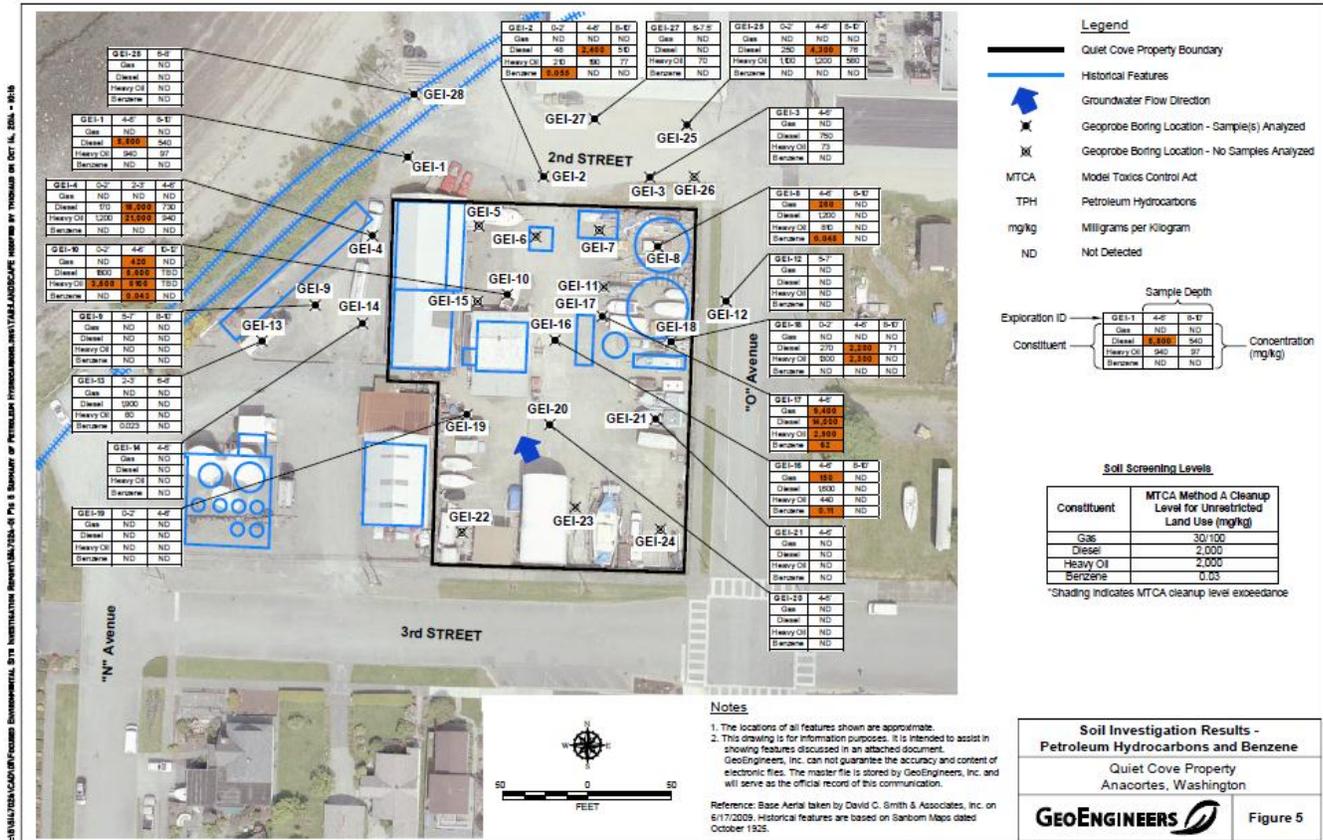




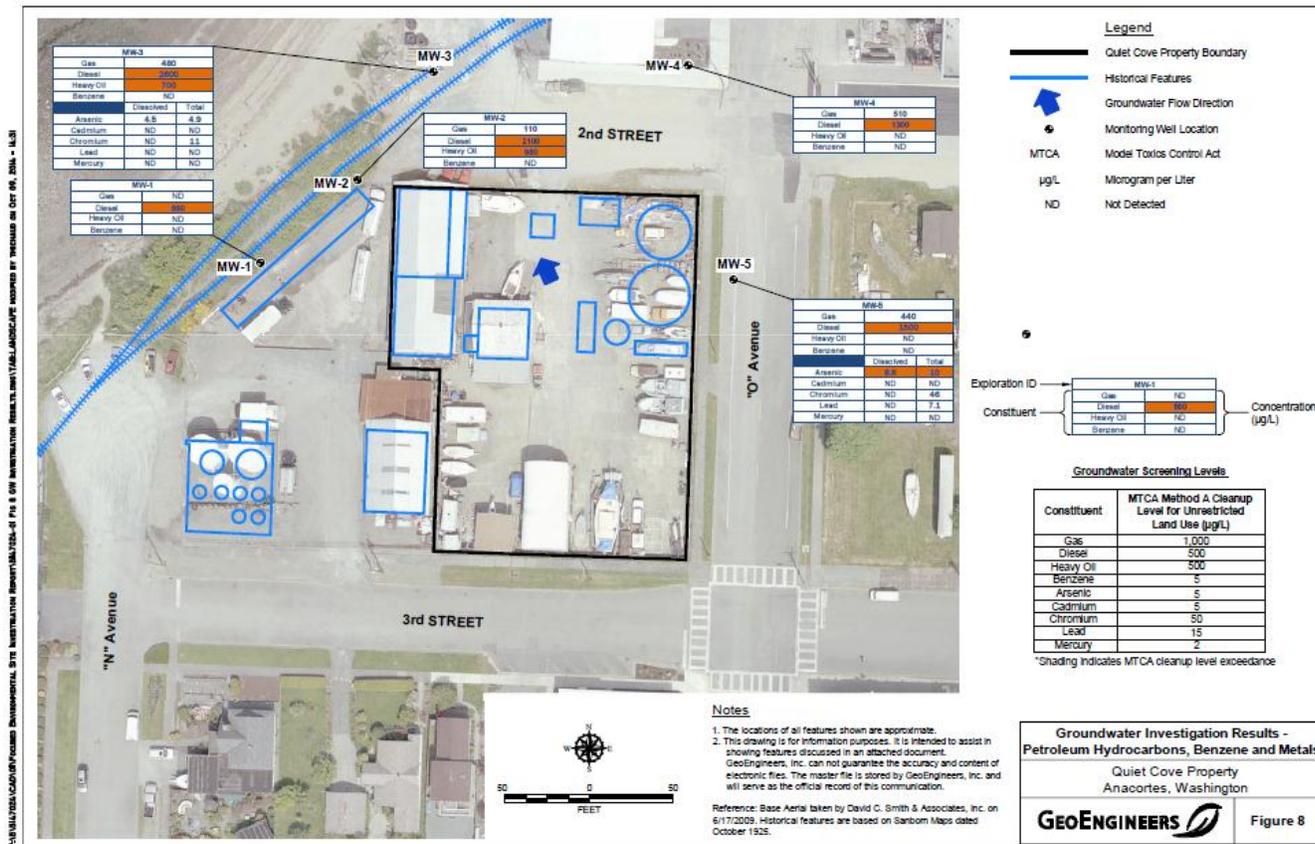
P:\PROJECTS\CAD\2010\2010-08-25\2010-08-25-01.dwg - 10/15/2010



PUBLIC RELEASE UNDER E.O. 13526 - 004



P:\151624\CAD\DWG\Figures\Environmental_Site_Information\Report\081524-01_P18_SiteMap_of_Petroleum_Hydrocarbons_and_Benzene_Soil_Screening_Results.mxd (151624-01_P18_SiteMap_of_Petroleum_Hydrocarbons_and_Benzene_Soil_Screening_Results.mxd)



P:\B\115251\CAD\DWG\Facilities_Environmental_SIT_Instructional_Support\115251-01_P18_009_Instructional_Support\115251-01_P18_009_Instructional_Support.dwg (Issue on Oct 09, 2010 - 14:31)