PACIFIC groundwater GROUP

REVISED DRAFT CLASS 3 PERMIT MODIFICATION FOR SITE 1 CAMU
TESORO REFINING AND MARKETING COMPANY
ANACORTES REFINERY

DECEMBER 15, 2020

REVISED DRAFT CLASS 3 PERMIT MODIFICATION FOR SITE 1 CAMU
TESORO REFINING AND MARKETING COMPANY ANACORTES REFINERY

Prepared for:

Gregg Stiglic
Tesoro Refining and Marketing Company,
Anacortes Refinery
10200 March's Point Rd
Anacortes, WA 98221

Prepared by:

Pacific Groundwater Group
2377 Eastlake Avenue East, Suite 200
Seattle, Washington 98102
206.329.0141
www.pgwg.com

December 15, 2020
JK8904

TABLE OF CONTENTS

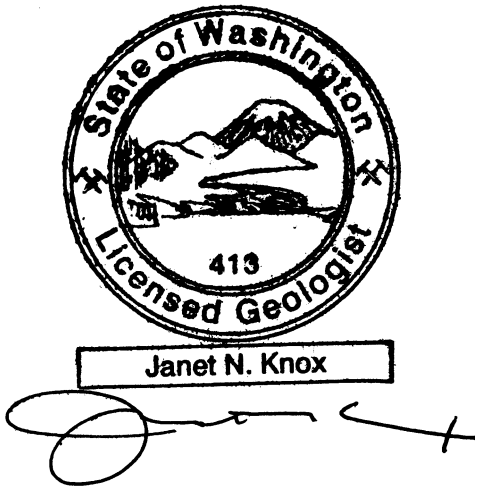
TABLES

FIGURES

APPENDICES

SIGNATURE

This report, and Pacific Groundwater Group's work contributing to this report, were reviewed by the undersigned and approved for release.



Janet N. Knox
Principal Environmental Geochemist
Washington State Geologist No. 413

1.0 INTRODUCTION

The Tesoro Anacortes Refinery (Tesoro), which is located on the northern half of March Point peninsula on Fidalgo Island (Figure 1), is submitting this Class 3 Permit Modification to request early termination of the post-closure care period for Tesoro's Site 1 Corrective Action Management Unit (CAMU). The Washington Department of Ecology (Ecology) approved Site 1 CAMU for closure in 2006 and post-closure groundwater monitoring has taken place since that time. As detailed in Section 4.4, post-closure groundwater monitoring data supports early termination of the post-closure care period and is the basis of this Class 3 Permit Modification.

2.0 BACKGROUND

2.1 SITE 3 LAND TREATMENT FACILITY

The Tesoro Anacortes Refinery and its predecessor (Shell Anacortes Refinery) safely and effectively treated hazardous and non-hazardous wastes in the refinery's Site 3 land treatment unit from the 1970s until 2006. Land treatment relies on the physical, chemical, and biological processes in soil to degrade, immobilize, or transform applied wastes to environmentally acceptable components. Soil, soil pore water, and groundwater were monitored and showed that land treatment was working and that the site was protective. Site 3 received some refinery dangerous wastes for land treatment. The waste was not pre-treated prior to land disposal restrictions. Due to land disposal restrictions, the application of API separator sludge and slop oil emulsion solids ceased in 1990 and the application of tank bottoms and oily wastes ceased at the end of 1998. Analytical data from each strip determined whether wastes could be applied. No further wastes were applied at Site 3 after 1998.

Land treatment facilities are designed to control contaminant migration and exposure by 1) surface features such as topography, erosion, and vegetation; 2) the physical and chemical properties of contaminants; 3) the vadose zone properties such as soil type, pH, porosity, organic content, and exchange capacity; and 4) the aquifer properties such as thickness, aerial extent, saturation, and hydraulic conductivity of the hydrogeologic units underlying the facility. The contaminants may be transformed or transported by the following processes: degradation by bacterial action, photolysis, hydrolysis, and oxidation/reduction; volatilization; dissolution; adsorption; advection; dispersion; and diffusion.

When applied, the original waste contained volatile organic compounds such as benzene, toluene, ethylbenzene, and xylenes (BTEX), semivolatile organic compounds such as polynuclear aromatic hydrocarbons (PAHs) and petroleum hydrocarbons, and metals. BTEX, PAHs, and petroleum hydrocarbons may be transformed during surface application, allowing some degradation, volatilization, and dissolution of soluble components or breakdown products. Waste solids and semi-solids did not appreciably infiltrate as a separate phase in the ground and occurred at or near land surface. Infiltration of dissolved constituents such as BTEX may have occurred, but these soluble compounds also volatilize and are readily degraded by bacterial action. The dissolved constituents are not likely to include significant concentrations of metals and PAHs, which are hydrophobic (PAHs),

have low solubility, or attenuate by sorbing to organics and mineral surfaces in soil. Site 3 land treatment was effective as evidenced by groundwater concentrations for the lifetime of the facility.

From 1988 to 2006, Site 3 was operated and/or monitored as specified in the Permit for Land Treatment of Dangerous Waste (Permit No. WAD009275082). Site 3 treated refinery wastes by tilling, monitoring, and amending the soil to adjust pH and nutrients for optimal degradation of refinery wastes.

In 2006, Tesoro requested a Class 3 Permit Modification as allowed under WAC 173-303-830(4) to reuse Site 3 for potential placement of new refinery process units. The modification was part of a potential project to install a coker at the location of Site 3. The 2006 Permit Modification request (Retec, 2006) was sent to Ecology on February 28, 2006 with updated tables and revisions in response to comments from Ecology submitted on March 2, 2006 and April 28, 2006, respectively. Tesoro requested the use of the closed Solid Waste Management Unit (SWMU) 18, known as Site 1, for placement of soils excavated from Site 3. As discussed in the next section, Ecology approved the 2006 Permit Modification request.

2.2 SITE 1 SOLID WASTE MANAGEMENT UNIT

From 1971 until 1974, Site 1 was used for the land treatment of refinery wastes. In 1992 to 1993, the Anacortes Refinery investigated Site 1 Solid Waste Management Unit (SWMU) 18 as part of its Resource Conservation and Recovery Act (RCRA) Facility Investigation and groundwater monitoring found no exceedances of action levels (Pacific Groundwater Group (PGG), 1995). EPA issued a letter on May 9, 1997 stating that “no further work” was required at Site 1. Site 1 was not subject to Corrective Action.

As introduced in Section 2.1, the 2006 Permit Modification request for placement of Site 3 soils on Site 1 was approved by Ecology in a letter dated May 2, 2006. Hereafter, the 2006 Permit Modification request is referred to as the 2006 Permit Modification. The 2006 Permit Modification incorporated the designation and requirements for a CAMU into the existing permit as required under Washington Administrative Code (WAC) 173-303-64660(8). Site 1 was designated as a CAMU for the purposes of allowing soil transfer from Site 3 to Site 1.

In a letter to Ecology dated September 7, 2006, Tesoro reported completion of the Site 1 CAMU post-closure soil sampling activities as required by the 2006 Permit Modification. The letter also indicated that the Site 1 CAMU construction activities began during June 2006, were ongoing, and the following had been completed:

- Placement of approximately 78,639 cubic yards of hazardous fill excavated and transported from Site 3;
- Collection of 15 post-fill soil samples and laboratory analysis for Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs) by EPA Method 8270 and Total Petroleum Hydrocarbon (TPH) fractions by Ecology Methods Volatile Petroleum Hydrocarbons/Extractable Petroleum Hydrocarbons (VPH/EPH); and
- Placement of approximately 91,841 cubic yards of a clean fill cap.

Tesoro evaluated the soil analytical results against Model Toxics Control Act (MTCA; WAC 173-340) Method C cleanup levels for industrial soil and concluded that they generally met the Method C cleanup levels and complied with the conditions and requirements of the 2006 Class 3 Permit Modification.

In another letter to Ecology dated September 22, 2006, Tesoro certified clean closure of Site 3 as clean closure activities had been completed in accordance with the 2006 Permit Modification. In a letter to Tesoro dated November 8, 2006, Ecology stated that they concurred with Tesoro's determination and Tesoro had adequately demonstrated clean closure of Site 3.

In a second letter to Tesoro dated November 8, 2006, Ecology stated that they also determined that the Site 1 CAMU met MTCA Method C cleanup levels and that to clean close the site, Tesoro would need to demonstrate that the site meets MTCA Method B cleanup levels including the more restrictive TPH levels. Ecology required Tesoro to conduct groundwater monitoring and to maintain the additional institutional and monitoring controls at Site 1 CAMU as required in the 2006 Permit Modification, Section 7.3. Ecology also required a deed restriction for the Site 1 CAMU and requested that a copy of the deed notice, as filed, be submitted. This deed restriction was put in place on December 14, 2006.

Tesoro completed the CAMU construction activities and installed four new groundwater monitoring wells on September 11-12, 2006. The quarterly groundwater monitoring program began with sampling of these wells on December 18, 2006 and has continued on a quarterly basis since then, with replacement of one well needed in 2009 due to seasonal low groundwater.

2.3 2020 PERMIT MODIFICATION GOALS

This 2020 Permit Modification is designed to achieve the following project goals:

- Report 2006-2020 groundwater monitoring data that show Site 1 CAMU is protective of human health and the environment.
- Request Ecology's approval for early termination of the post-closure care period for Tesoro's Site 1 CAMU.

To achieve these goals and per Ecology's suggestion, the 2020 Permit Modification provides Site 1 operational history and presents groundwater data in support of justification for ending the post-closure care period. The request also includes proposed modifications to the post-closure plan and justification to support a reduced post-closure care period (i.e., such that the change will remain protective of human health and the environment).

2.4 PERMIT MODIFICATION REQUIREMENTS

This 2020 Permit Modification meets the requirements of WAC 173-303-830 and contains the two key elements as required by the regulations: 1) this request provides historic and present post-closure data to justify ending the post-closure care period; and 2) this request includes proposed modifications to the post-closure plan and justification to support a

reduced post-closure care period (i.e., such that the change will remain protective of human health and the environment).

This document explains why a Permit Modification is needed and warranted: Site 1 CAMU groundwater quality monitoring shows that groundwater constituents have not exceeded Action Levels since 2006 and constituents are mostly not detected. With the existing and ongoing deed restriction, Site 1 CAMU will remain protective of human health and the environment. Section 4.4 provides more detail.

3.0 REGULATORY FRAMEWORK

3.1 SITE 1 CAMU OPERATIONAL HISTORY

The inactive Land Treatment Unit (LTU) and now CAMU referred to as Site 1 is located in the southeastern part of the Anacortes refinery (Figure 1). It was used from 1971 through 1974 for land treatment of refinery wastes.

Materials disposed at Site 1 in 1971-1974 included:

- 30 barrels (bbls) of Catalytic Cracking Unit (CCU) feed
- 2,400 bbls of slop oil emulsion solids
- 75 bbls of crude oil tank bottom sludges
- 6,670 cubic yards of silts from WWTP final retention ponds
- 250 cubic yards of storm flume silt
- 28,000 bbls of biosludges and API separator sludges

Waste materials were presumably managed at Site 1 using conventional land spreading operations. As described in Sections 1 and 2, Tesoro completed the transfer of Site 3 soils to Site 1, completed CAMU construction, and performed all soil monitoring requirements of the 2006 Permit Modification:

- Placement of approximately 78,639 cubic yards of hazardous fill excavated and transported from Site 3;
- Collection of 15 post-fill soil samples and laboratory analysis for cPAHs by EPA Method 8270 and TPH fractions by Ecology Methods VPH/EPH; and
- Placement of approximately 91,841 cubic yards of a clean fill cap.

Tesoro has sampled the Site 1 CAMU groundwater monitoring wells since 2006 and this report provides tables of the analytical results.

3.2 SITE 1 CAMU REGULATORY HISTORY

The refinery obtained the Part B Permit for management of hazardous waste at the land treatment facility (Site 3) in 1988. Part VI of the permit required "corrective action for continuing releases." EPA consultants conducted a RCRA Facility Assessment (RFA)

(Kearney and SAIC, 1988) in which SWMUs were identified and release potentials for soil, groundwater, surface water, air, and subsurface gas for each SWMU were summarized. Part VI of the permit required Shell Oil Company to perform a RCRA Facility Investigation (RFI) and specified the type of investigation required for each SWMU.

The scope of work for the RFI was detailed in the RCRA Facility Investigation Work Plan, Shell Oil Company, Anacortes, Washington (Pacific Groundwater Group, 1992). The Work Plan was prepared in response to Part VI of the Part B Permit and addresses the requirements therein. The draft RFI guidance dated July 1987 (EPA 530/SW-87-001) and interim final RFI guidance dated May 1989 (EPA 530/SW-89-031) were followed in developing the Work Plan. The final RFI Work Plan was submitted to EPA Region 10 on February 21, 1992. The report was subsequently reviewed by the agency and approved for implementation.

Site 1 (SWMU 18) was subsequently investigated per the approved RFI Work Plan and the results were summarized in the RCRA Facility Investigation Report (PGG, January 1995). The Report demonstrated that groundwater concentrations of the constituents of concern did not exceed action levels and no further action was recommended. EPA subsequently reviewed the RFI Report and issued a letter on May 9, 1997 confirming that no further work was required (see Attachment 1 of the 2006 Permit Modification).

As stated, Ecology approved Tesoro's 2006 Permit Modification request and Tesoro satisfied the requirements of the 2006 Permit Modification. This approval was granted in a letter from Ecology dated May 2, 2006. Tesoro has sampled groundwater since 2006 and reports those analytical results in this 2020 Permit Modification for early termination of the post-closure care period for the Site 1 CAMU.

4.0 SITE CHARACTERISTICS

4.1 SITE 1 GEOLOGY

Site 1 is underlain by the following geologic units (in order of descending depth):

- Fill
- Glacial Drift
- Sand
- Glaciomarine Sediments

The fill consists of interbedded fine to coarse silt and very fine to fine sand with occasional gravelly layers. The unit thickens to the east, and ranges in thickness from a few feet to approximately 21 feet.

The glacial drift consists of clayey silt and silty clay, with occasional gravelly zones and lenses of silty fine sand. The unit is dense and compacted and is discontinuous over Site 1; it ranges in thickness from 0 to 14 feet.

The sand consists of interbedded fine- to medium-grained sand and silt, and/or silty sand. The unit contains a thick sand body in the east and central portions of the study area and consists of predominantly silt or silty sand throughout much of the rest of the site. The sand appears to range in thickness from 10 to 31 feet.

The glaciomarine sediments predominantly consist of finely laminated silt and clayey silt. Site investigations show that these sediments are greater than 13 feet thick.

4.2 GROUNDWATER OCCURRENCE AND FLOW DIRECTION

In general, groundwater tends to flow vertically in the low hydraulic conductivity silts and tills and moves laterally when a high hydraulic conductivity layer is encountered. Shallow groundwater generally flows to the northeast at Site 1 CAMU (Figure 1). Depth to water measurements in Site 1 wells ranged from 15.09 to 51.85 feet below the top of casing over the five years from 2015 - 2020.

4.3 SITE 1 CHEMICAL CHARACTERISTICS

Site 1 CAMU (SWMU 18) is an inactive land farm located in the southeastern part of the refinery (Figure 1), covering an area of approximately 7 acres. Site 1 CAMU is covered by a vegetated cap and was used from 1971 through 1974 for land treatment of refinery wastes. Per the approved 2006 Permit Modification, Site 3 soils that did not contain principal dangerous constituents substantially above MTCA Method C levels were transferred from Site 3 to Site 1 and soil sampling confirmed that levels did not exceed Method C levels.

Based on decades of groundwater monitoring data at Site 3 and Site 1 and based on the low permeability hydrogeological setting, no liner or leachate collection was required for Site 1 CAMU construction. Site 1 geology and hydrogeology is similar to that at Site 3. For more than 25 years, Site 3 effectively degraded and immobilized waste constituents. There was no release from Site 3 and Site 3 completed 6 years of post-closure care.

Site 3 soil was cost-effectively treated (land treatment) to a level that was deemed to be sufficiently complete to allow closure. Further, closure of the unlined and uncapped facility was deemed protective of human health and the environment, an objective that was verified during post-closure monitoring.

Site 1 was constructed according to the Ecology-approved 2006 Permit Modification. As stated in Section 2.0, the following CAMU construction activities were completed:

- Placement of approximately 78,639 cubic yards of hazardous fill excavated and transported from Site 3;
- Collection of 15 post-fill soil samples and laboratory analysis for Carcinogenic cPAHs by EPA Method 8270 and TPH fractions by Ecology Methods VPH/EPH; and
- Placement of approximately 91,841 cubic yards of a clean fill cap.

4.4 2006-2020 SITE 1 CAMU GROUNDWATER QUALITY

Following the final placement of soils at Site 1 CAMU, groundwater monitoring occurred quarterly for approximately 14 of the 30-year closure period. The 2006 Permit Modification allowed Tesoro to request a reduction in the monitoring frequency after one year of data collection, however Tesoro did not exercise that option even though monitoring constituents have not been detected or have not exceeded Action Levels.

Four Site 1 CAMU groundwater wells were installed in 2006 following placement of Site 3 soils, clean fill cap, grading, and seeding. The wells include upgradient well 06-1 and downgradient wells 06-2, 06-3, and 06-4. In 2009, a replacement well (09-1) for 06-3 was installed due to seasonal low water that did not allow consistent sampling at 06-3. The well logs for all five wells are included in Appendix A. All wells were installed by a Washington licensed driller in accordance with WAC 173-160 with soil types and hydrogeology documented by a PGG geologist.

In accordance with 2006 Permit Modification requirements, the wells were sampled quarterly for the following constituents, with Groundwater Action Levels (from 2006 Permit Modification Table 6-4) shown. Antimony was not analyzed during some quarters due to insufficient sample volume.

- Antimony 0.4 milligrams per liter (mg/L)
- Benzene 0.005 mg/L
- Toluene 1.0 mg/L
- Ethylbenzene 0.7 mg/L
- Xylenes 10 mg/L

In addition, Tesoro analyzed the following analytes in the specified wells, with MTCA Method A Cleanup Levels listed:

- Gasoline in all wells (except when 06-2 and 06-3 had insufficient sample volume) was not detected. Method A cleanup levels are 0.8 mg/L if benzene is detected and 1.0 mg/L if benzene is not detected.
- Diesel, analyzed in upgradient well 06-1, was detected twice in 2007 and once each in 2011 and 2012, but not detected since 2012. Method A cleanup level is 0.5 mg/L.
- Motor Oil, analyzed in upgradient well 06-1, was not detected. Method A cleanup level is 0.5 mg/L.

Table 1a through 1i provide analytical results for the Site 1 monitoring wells. As shown, Well 06-3 did not yield sufficient water for sampling and thus was replaced in 2009 by Well 09-1. Also as shown, 06-2 did not yield sufficient water for sampling during a few quarters.

This dataset represents a consistent history of no Action Level exceedances from Site 1 CAMU. As no changes to Site 1 are expected in the future, this record supports ending the Post-Closure Period for this CAMU as Site 1 will remain protective of human health and the environment. In addition, this dataset shows that MTCA cleanup levels (Method B except Method A for TPH) have been met, except antimony in one well during low well yield

sampling. Antimony did not exceed the RCRA Action Level but exceeded the MTCA Method B cleanup level (6.4 ug/L) for drinking water in one well (06-2) during seven of 42 monitoring events. Well 06-2 frequently does not yield sufficient water for sampling and these detections from 2012 to 2015 may be due to the presence of soil particles in samples. There have been no exceedances of cleanup levels since 2015.

4.5 FUTURE RISK IS MITIGATED

The Site 1 CAMU is a strong candidate to cease post-closure. The protections for Site 1 are robust. Site 1 is and will be protected from direct contact by vegetative cover, fencing, inspection, security, run-on and run-off control and monitoring, and deed restriction (Section 6). The groundwater monitoring data (2006 to 2020) is consistently below action levels and cleanup levels.

4.5.1 Evaluation Criteria

4.5.1.1 Containment

There is minimal likelihood of release from Site 1 CAMU. The soil containing waste is protected by vegetative cover, fencing, security, signage, and deed restriction. The site is inspected annually to be sure that these protections are maintained and that the site is protective. The vegetative cover serves to stabilize the soil, reduce infiltration of precipitation, retard surface run-off, and minimize wind and water erosion. The refinery's geology and soil types have low permeability and provide natural containment. Water bearing units generally have low hydraulic conductivity. The berms and dikes limit run-on and run-off at Site 1 CAMU and are inspected annually and maintained. Site 1 CAMU has contained wastes since the 1970s and since 2006 and there are no foreseen conditions that would cause containment to change. Changes will be addressed during maintenance of the protective measures (cover, fencing, and security). The design and hydrogeochemical setting have supported and will support long-term protectiveness, as shown in the last decade and a half's monitoring well data. Based on the long record with no exceedances, and no detections for most analytes, no further groundwater monitoring is recommended or warranted for Site 1 CAMU.

4.5.1.2 Detection

Monitoring systems were adequately designed to detect releases. Wells were placed following hydrogeologic characterization at the downgradient edges of Site 1. Well locations, construction, and maintenance are based on best management practices and monitoring occurred from 2006 to 2020, a sufficient period to detect releases.

4.5.1.3 Migration and Attenuation

Wastes were degraded when they were moved to Site 1 CAMU from Site 3 in 2006. The final years of Site 3 application were 1989 to 1998, depending on which application strip. Volatile organic compounds (BTEX) were largely degraded before being brought to Site 1 CAMU. Semivolatile organic compounds (PAHs and petroleum fractions) were largely sorbed in soil and degraded by bacterial action before being brought to Site 1 CAMU.

Metals were largely sorbed in soil. Overall, groundwater concentrations have not exceeded Action Levels or MTCA cleanup levels, except antimony in one low yielding well during a small number of monitoring events. There have been no exceedances of cleanup levels from this well since 2015.

4.5.1.4 Risk Potential

Risks to human health and the environment are minimal and limited. Direct contact is limited by the protective measures of vegetative cover, fencing, security, signage, and deed restriction. The groundwater pathway is limited as demonstrated by no exceedances of Action Levels since 2006 and no exceedances of cleanup levels except antimony in one well and a small number of sampling events. There are no downgradient drinking water wells from the Site 1 CAMU and therefore there is no known risk potential for human health direct contact. Groundwater discharges to Padilla Bay over 2600 distal from Site 1 CAMU.

5.0 SITE 1 CAMU POST CLOSURE MONITORING

Since 2006, monitoring and institutional controls described in the following subsections have been maintained at Site 1 CAMU.

5.1 VEGETATIVE COVER

A permanent vegetative cover has been maintained at Site 1 after final Site 3 soil transfer to Site 1. The vegetative cover serves to stabilize the soil, reduce infiltration of precipitation, retard surface run-off, and minimize wind and water erosion. Quarterly inspections were conducted for one year to assure the vegetative cover is established.

5.2 INSPECTION AND SECURITY

Inspections at Site 1 CAMU were conducted quarterly until the vegetative cover was established and then on an annual basis. Items to be inspected include runon/runoff control berms, security fencing, and signage.

Security at Site 1 CAMU was and is implemented in conjunction with overall refinery security. Site security is maintained by barriers (i.e., signs and fences) to prevent unauthorized entry to the facility.

5.3 RUN-ON AND RUN-OFF CONTROL AND MONITORING

All berms and dikes designated to limit run-on and run-off controls at Site 1 CAMU are inspected annually and maintained.

5.4 DEED RESTRICTION

Tesoro filed with the local zoning authority a survey plat and notice in the deed to the property pursuant to WAC 173-303-610 (9) and (10) on December 14, 2006. The wording

of the deed notice was approved by Ecology prior to filing. A copy of the deed notice is provided in Appendix B.

6.0 SITE 1 CAMU POST-CLOSURE CESSATION REQUEST

Based on a consistent history of groundwater monitoring with no Action Level exceedances, this 2020 Permit Modification requests:

1. Early termination of the Post-Closure care period for Site 1 CAMU. This includes the cessation of groundwater monitoring and other reporting requirements. Monitoring wells may be decommissioned by Tesoro or used voluntarily for monitoring as part of the Anacortes Refinery's perimeter monitoring program. If decommissioned, the work will be performed in accordance with WAC 173-160.

2. Tesoro may continue to voluntarily maintain the Site 1 CAMU vegetative cover, security, and control stormwater in accordance with the refinery's standard practices.

3. The deed restriction will remain in place.

4. No further reporting for the Site 1 CAMU will be required.

Tesoro welcomes further discussion regarding this 2020 Permit Modification for Site 1 CAMU and looks forward to Ecology's response.

7.0 REFERENCES

Kearney and SAIC, 1988. RCRA Facility Assessment. 1988.

Pacific Groundwater Group, 1992. RCRA Facility Investigation Work Plan, Shell Oil Company, Anacortes, Washington. February 21, 1992.

Pacific Groundwater Group, 1995. RCRA Facility Investigation Final Report. January 1995.

Retec, 2006a. Class 3 Permit Modification – Site 3 and Site 1, Tesoro Refining and Marketing Company – Anacortes Refinery, Anacortes, WA. February 28, 2006.

Retec 2006b. Final Tesoro Class 3 Permit Modification – Site 3 and Site 1 – Addendum. March 2, 2006.

Retec 2006c. Final Tesoro Class 3 Permit Modification – Site 3 and Site 1 – Second Addendum. April 28, 2006.

Retec, 2006d. Site 1 CAMU Post Construction Data Summary Report, Tesoro Refinery, Anacortes, Washington. September 7, 2006.

Retec, 2006e. Class 3 Permit Modification Clean Closure Certification for Site 3, Tesoro Refinery, Anacortes, WA. September 22, 2006.

Washington Department of Ecology, 2006a. RCRA Class 3 Permit Modification EPA ID # WAD009275082. May 2, 2006.

Washington Department of Ecology 2006b. Certification of Clean Closure for the Land Treatment Unit Site 3. November 8, 2006.

Washington Department of Ecology 2006c. Site 1 Post Construction Status. November 8, 2006.

U.S. Environmental Protection Agency, 1988. RCRA Permit for the Land Treatment of Dangerous Waste (EPA ID # WAD009275082). U.S. Environmental Protection Agency, November 8.

U.S. Environmental Protection Agency, 1997. RCRA Corrective Action Status EPA ID Number: WAD 00927 5082. May 9, 1997.

K:\JANET\Tesoro\GIS\Site1LocationMap.mxd, 5/27/2020

- Active Monitoring Well
- Abandoned Monitoring Well

N

0 Feet 200

Aerial Photo: 2019

Figure 1

Site 1 Monitoring Well Locations

PgG

Table 1a. Site 1 Analytical Results, 2006-2020
Antimony, Dissolved
Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q4 2006	400	6.4		4			
Q1 2007	400	6.4					
Q2 2007	400	6.4					
Q3 2007	400	6.4					
Q4 2007	400	6.4	2 U			2 U	
Q1 2008	400	6.4	2 U	5		2 U	
Q2 2008	400	6.4	2 U	4		2 U	
Q3 2008	400	6.4	0.2 U	3.3		0.4	
Q4 2008	400	6.4	0.2 U	3.9	1.5	0.4	
Q1 2009	400	6.4	0.2 U	2.5	0.6	3.5	
Q2 2009	400	6.4	0.2 U	3.2	3.1	0.4	
Q3 2009	400	6.4	0.2 U	3.1		0.4	1.3
Q4 2009	400	6.4	0.2 U	3.1		0.5	1.1
Q1 2010	400	6.4	0.2 U	2.6		0.4	1.2
Q2 2010	400	6.4	0.2 U	2.4		0.4	1.2
Q3 2010	400	6.4	0.2 U	3.6		0.4	1.4
Q4 2010	400	6.4	0.2 U			0.4	1
Q1 2011	400	6.4	0.2 U	3.9		0.4	1.3
Q2 2011	400	6.4	0.2 U	4.8		0.5	0.9
Q3 2011	400	6.4	0.2 U	5.9		0.6	0.8
Q4 2011	400	6.4	0.2 U			0.5	0.8
Q1 2012	400	6.4	0.2 U	5.1		0.5	0.9
Q2 2012	400	6.4	0.2 U	5.3		0.6	0.8
Q3 2012	400	6.4	0.2 U	**7.3**		0.6	
Q4 2012	400	6.4	0.2 U	**6.6**		0.4	1.1
Q1 2013	400	6.4	0.2 U	5.8		0.5	1.1
Q2 2013	400	6.4	0.2 U	6.3		0.5	1.3
Q3 2013	400	6.4	0.2 U	**6.5**		0.5	1.3
Q4 2013	400	6.4	0.2 U	**7**		0.5	1.9
Q1 2014	400	6.4	0.2 U	6		0.6	2
Q2 2014	400	6.4	0.2 U	5.8		0.7	2.4
Q3 2014	400	6.4	0.2 U	6.2		0.6	2.8
Q4 2014	400	6.4	0.2 U	**6.4**		0.6	3.7
Q1 2015	400	6.4	0.2 U	5.6		0.6	3.8
Q2 2015	400	6.4	0.2 U	5.6		0.6	3.9
Q3 2015	400	6.4	0.2 U	**6.9**		0.5	4.5
Q4 2015	400	6.4	0.2 U	**6.7**		0.5	5.1

Table 1a. Site 1 Analytical Results, 2006-2020
Antimony, Dissolved
Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q1 2016	400	6.4	0.2 U	5.4		0.5	4.4
Q2 2016	400	6.4					
Q3 2016	400	6.4	0.2 U			0.577	4.71
Q4 2016	400	6.4	0.2 U			0.635	5.41
Q1 2017	400	6.4	0.2 U	4.63		0.7	5.41
Q2 2017	400	6.4	0.2 U	4.72		0.63	5.7
Q3 2017	400	6.4	0.2 U	5.6		0.511	5.33
Q4 2017	400	6.4	0.2 U			0.496	4.43
Q1 2018	400	6.4	0.2 U	4.35		0.537	4.13
Q2 2018	400	6.4	0.2 U	4.71		0.602	5.22
Q3 2018	400	6.4	0.2 U	5.34		0.489	4.21
Q4 2018	400	6.4	0.2 U			0.484	4.25
Q1 2019	400	6.4	0.695	0.723		4.82	5.5
Q2 2019	400	6.4	0.2 U	4.57		0.628	5.61
Q3 2019	400	6.4	0.2 U			0.463	5.73
Q4 2019	400	6.4	0.2 U			0.46	5.12
Q1 2020	400	6.4	0.2 U	3.78		0.499	3.97
Q2 2020	400	6.4	0.2 U	4.52		0.709	4.99

U denotes not detected at given detection limit.
J denotes laboratory-estimated value.
Bold and shaded denotes exceedance.
Cleanup Level is MTCA Method B.

Table 1b. Site 1 Analytical Results, 2006-2020
Benzene

Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q4 2006	5	0.8	1 U	1 U		1 U	
Q1 2007	5	0.8					
Q2 2007	5	0.8	1 U	1 U		1 U	
Q3 2007	5	0.8	1 U	1 U		1 U	
Q4 2007	5	0.8	1 U			1 U	
Q1 2008	5	0.8	1 U	1 U		1 U	
Q2 2008	5	0.8	1 U	1 U		1 U	
Q3 2008	5	0.8	1 U	1 U		1 U	
Q4 2008	5	0.8	1 U	1 U	1 U	1 U	
Q1 2009	5	0.8	1 U	1 U	1 U	1 U	
Q2 2009	5	0.8	1 U	1 U	1 U	1 U	
Q3 2009	5	0.8	1 U	1 U		1 U	1 U
Q4 2009	5	0.8	1 U	1 U		1 U	1 U
Q1 2010	5	0.8	1 U	1 U		1 U	1 U
Q2 2010	5	0.8	1 U	1 U		1 U	1 U
Q3 2010	5	0.8	1 U	1 U		1 U	1 U
Q4 2010	5	0.8	1 UJ	1 UJ		1 UJ	1 UJ
Q1 2011	5	0.8	1 U	1 U		1 U	1 U
Q2 2011	5	0.8	1 U	1 U		1 U	1 U
Q3 2011	5	0.8	1 U	1 U		1 U	1 U
Q4 2011	5	0.8	1 U	1 U		1 U	1 U
Q1 2012	5	0.8	1 U	1 U		1 U	1 U
Q2 2012	5	0.8	1 U	1 U		1 U	1 U
Q3 2012	5	0.8	1 U	1 U		1 U	1 U
Q4 2012	5	0.8	1 U	1 U		1 U	1 U
Q1 2013	5	0.8	1 U	1 U		1 U	1 U
Q2 2013	5	0.8	1 U	1 U		1 U	1 U
Q3 2013	5	0.8	1 U	1 U		1 U	1 U
Q4 2013	5	0.8	1 U	1 U		1 U	1 U
Q1 2014	5	0.8	1 U	1 U		1 U	1 U
Q2 2014	5	0.8	1 U	1 U		1 U	1 U
Q3 2014	5	0.8	1 U	1 U		1 U	1 U
Q4 2014	5	0.8	1 U	1 U		1 U	1 U
Q1 2015	5	0.8	1 U	1 U		1 U	1 U
Q2 2015	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2015	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2015	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U

Table 1b. Site 1 Analytical Results, 2006-2020
Benzene

Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q1 2016	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2016	5	0.8					
Q3 2016	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2016	5	0.8	0.2 U			0.2 U	0.2 U
Q1 2017	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2017	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2017	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2017	5	0.8	0.2 U			0.2 U	0.2 U
Q1 2018	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2018	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2018	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2018	5	0.8	0.2 U			0.2 U	0.2 U
Q1 2019	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2019	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2019	5	0.8	0.2 U			0.2 U	0.2 U
Q4 2019	5	0.8	0.2 U				0.2 U
Q1 2020	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2020	5	0.8	0.2 U	0.2 U		0.2 U	0.2 U

U denotes not detected at given detection limit.

J denotes laboratory-estimated value.

Bold and shaded denotes exceedance.

Cleanup Level is MTCA Method B.

PgG

Table 1c. Site 1 Analytical Results, 2006-2020
Toluene

Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q4 2006	1000	640	1 U	1 U		1 U	
Q1 2007	1000	640					
Q2 2007	1000	640	1 U	1 U		1 U	
Q3 2007	1000	640	1 U	1 U		1 U	
Q4 2007	1000	640	1 U			1 U	
Q1 2008	1000	640	1 U	1 U		1 U	
Q2 2008	1000	640	1 U	1 U		1 U	
Q3 2008	1000	640	1 U	1 U		1 U	
Q4 2008	1000	640	1 U	1 U	1 U	1 U	
Q1 2009	1000	640	1 U	1 U	1 U	1 U	
Q2 2009	1000	640	1 U	1 U	1 U	1 U	
Q3 2009	1000	640	1 U	1 U		1 U	1 U
Q4 2009	1000	640	1 U	1 U		1 U	1 U
Q1 2010	1000	640	1 U	1 U		1 U	1 U
Q2 2010	1000	640	1 U	1 U		1 U	1 U
Q3 2010	1000	640	1 U	1 U		1 U	1 U
Q4 2010	1000	640	1 U	1 U		1 U	1 U
Q1 2011	1000	640	1 U	1 U		1 U	1 U
Q2 2011	1000	640	1 U	1 U		1 U	1 U
Q3 2011	1000	640	1 U	1 U		1 U	1 U
Q4 2011	1000	640	1 U	1 U		1 U	1 U
Q1 2012	1000	640	1 U	1 U		1 U	1 U
Q2 2012	1000	640	1 U	1 U		1 U	1 U
Q3 2012	1000	640	1 U	1 U		1 U	1 U
Q4 2012	1000	640	1 U	1 U		1 U	1 U
Q1 2013	1000	640	1 U	1 U		1 U	1 U
Q2 2013	1000	640	1 U	1 U		1 U	1 U
Q3 2013	1000	640	1 U	1 U		1 U	1 U
Q4 2013	1000	640	1 U	1 U		1 U	1 U
Q1 2014	1000	640	1 U	1 U		1 U	1 U
Q2 2014	1000	640	1 U	1 U		1 U	1 U
Q3 2014	1000	640	1 U	1 U		1 U	1 U
Q4 2014	1000	640	1 U	1 U		1 U	1 U
Q1 2015	1000	640	1 U	1 U		1 U	1 U
Q2 2015	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2015	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2015	1000	640	0.2 U	0.2 U		0.2 U	0.2 U

Table 1c. Site 1 Analytical Results, 2006-2020
Toluene

Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q1 2016	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2016	1000	640					
Q3 2016	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2016	1000	640	0.2 U			0.2 U	0.2 U
Q1 2017	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2017	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2017	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2017	1000	640	0.2 U			0.2 U	0.2 U
Q1 2018	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2018	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2018	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2018	1000	640	0.2 U			0.2 U	0.2 U
Q1 2019	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2019	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2019	1000	640	0.2 U			0.2 U	0.2 U
Q4 2019	1000	640	0.2 U			0.2 U	0.2 U
Q1 2020	1000	640	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2020	1000	640	0.2 U	0.2 U		0.2 U	0.2 U

U denotes not detected at given detection limit.

J denotes laboratory-estimated value.

Bold and shaded denotes exceedance.

Cleanup Level is MTCA Method B.

PgG

Table 1d. Site 1 Analytical Results, 2006-2020
Ethylbenzene

Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q4 2006	700	800	1 U	1 U		1 U	
Q1 2007	700	800					
Q2 2007	700	800	1 U	1 U		1 U	
Q3 2007	700	800	1 U	1 U		1 U	
Q4 2007	700	800	1 U			1 U	
Q1 2008	700	800	1 U	1 U		1 U	
Q2 2008	700	800	1 U	1 U		1 U	
Q3 2008	700	800	1 U	1 U		1 U	
Q4 2008	700	800	1 U	1 U	1 U	1 U	
Q1 2009	700	800	1 U	1 U	1 U	1 U	
Q2 2009	700	800	1 U	1 U	1 U	1 U	
Q3 2009	700	800	1 U	1 U		1 U	1 U
Q4 2009	700	800	1 U	1 U		1 U	1 U
Q1 2010	700	800	1 U	1 U		1 U	1 U
Q2 2010	700	800	1 U	1 U		1 U	1 U
Q3 2010	700	800	1 U	1 U		1 U	1 U
Q4 2010	700	800	1 U	1 U		1 U	1 U
Q1 2011	700	800	1 U	1 U		1 U	1 U
Q2 2011	700	800	1 U	1 U		1 U	1 U
Q3 2011	700	800	1 U	1 U		1 U	1 U
Q4 2011	700	800	1 U	1 U		1 U	1 U
Q1 2012	700	800	1 U	1 U		1 U	1 U
Q2 2012	700	800	1 U	1 U		1 U	1 U
Q3 2012	700	800	1 U	1 U		1 U	1 U
Q4 2012	700	800	1 U	1 U		1 U	1 U
Q1 2013	700	800	1 U	1 U		1 U	1 U
Q2 2013	700	800	1 U	1 U		1 U	1 U
Q3 2013	700	800	1 U	1 U		1 U	1 U
Q4 2013	700	800	1 U	1 U		1 U	1 U
Q1 2014	700	800	1 U	1 U		1 U	1 U
Q2 2014	700	800	1 U	1 U		1 U	1 U
Q3 2014	700	800	1 U	1 U		1 U	1 U
Q4 2014	700	800	1 U	1 U		1 U	1 U
Q1 2015	700	800	1 U	1 U		1 U	1 U
Q2 2015	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2015	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2015	700	800	0.2 U	0.2 U		0.2 U	0.2 U

Table 1d. Site 1 Analytical Results, 2006-2020
Ethylbenzene

Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q1 2016	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2016	700	800					
Q3 2016	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2016	700	800	0.2 U			0.2 U	0.2 U
Q1 2017	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2017	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2017	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2017	700	800	0.2 U			0.2 U	0.2 U
Q1 2018	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2018	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2018	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2018	700	800	0.2 U			0.2 U	0.2 U
Q1 2019	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2019	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2019	700	800	0.2 U			0.2 U	0.2 U
Q4 2019	700	800	0.2 U			0.2 U	0.2 U
Q1 2020	700	800	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2020	700	800	0.2 U	0.2 U		0.2 U	0.2 U

U denotes not detected at given detection limit.

J denotes laboratory-estimated value.

Bold and shaded denotes exceedance.

Cleanup Level is MTCA Method B.

Table 1e. Site 1 Analytical Results, 2006-2020
o-Xylene
Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q4 2006	10,000[a]	1600	1 U	1 U		1 U	1 U
Q1 2007	10,000[a]	1600					
Q2 2007	10,000[a]	1600	1 U	1 U		1 U	
Q3 2007	10,000[a]	1600	1 U	1 U		1 U	
Q4 2007	10,000[a]	1600	1 U			1 U	
Q1 2008	10,000[a]	1600	1 U	1 U		1 U	
Q2 2008	10,000[a]	1600	1 U	1 U		1 U	
Q3 2008	10,000[a]	1600	1 U	1 U	1 U	1 U	
Q4 2008	10,000[a]	1600	1 U	1 U	1 U	1 U	
Q1 2009	10,000[a]	1600	1 U	1 U	1 U	1 U	
Q2 2009	10,000[a]	1600	1 U	1 U		1 U	
Q3 2009	10,000[a]	1600	1 U	1 U		1 U	
Q4 2009	10,000[a]	1600	1 U	1 U		1 U	1 U
Q1 2010	10,000[a]	1600	1 U	1 U		1 U	1 U
Q2 2010	10,000[a]	1600	1 U	1 U		1 U	1 U
Q3 2010	10,000[a]	1600	1 U	1 U		1 U	1 U
Q4 2010	10,000[a]	1600	1 U	1 U		1 U	1 U
Q1 2011	10,000[a]	1600	1 U	1 U		1 U	1 U
Q2 2011	10,000[a]	1600	1 U	1 U		1 U	1 U
Q3 2011	10,000[a]	1600	1 U	1 U		1 U	1 U
Q4 2011	10,000[a]	1600	1 U	1 U		1 U	1 U
Q1 2012	10,000[a]	1600	1 U	1 U		1 U	1 U
Q2 2012	10,000[a]	1600	1 U	1 U		1 U	1 U
Q3 2012	10,000[a]	1600	1 U	1 U		1 U	1 U
Q4 2012	10,000[a]	1600	1 U	1 U		1 U	1 U
Q1 2013	10,000[a]	1600	1 U	1 U		1 U	1 U
Q2 2013	10,000[a]	1600	1 U	1 U		1 U	1 U
Q3 2013	10,000[a]	1600	1 U	1 U		1 U	1 U
Q4 2013	10,000[a]	1600	1 U	1 U		1 U	1 U
Q1 2014	10,000[a]	1600	1 U	1 U		1 U	1 U
Q2 2014	10,000[a]	1600	1 U	1 U		1 U	1 U
Q3 2014	10,000[a]	1600	1 U	1 U		1 U	1 U
Q4 2014	10,000[a]	1600	1 U	1 U		1 U	1 U
Q1 2015	10,000[a]	1600	1 U	1 U		1 U	1 U
Q2 2015	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2015	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2015	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U

Table 1e. Site 1 Analytical Results, 2006-2020
o-Xylene
Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q1 2016	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2016	10,000[a]	1600					
Q3 2016	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2016	10,000[a]	1600	0.2 U			0.2 U	0.2 U
Q1 2017	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2017	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2017	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2017	10,000[a]	1600	0.2 U			0.2 U	0.2 U
Q1 2018	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2018	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2018	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q4 2018	10,000[a]	1600	0.2 U			0.2 U	0.2 U
Q1 2019	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2019	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q3 2019	10,000[a]	1600	0.2 U			0.2 U	0.2 U
Q4 2019	10,000[a]	1600	0.2 U			0.2 U	0.2 U
Q1 2020	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U
Q2 2020	10,000[a]	1600	0.2 U	0.2 U		0.2 U	0.2 U

[a] Action Level for Xylenes is 10,000 µg/L. Values included in this table are direct lab data, which reports o-Xylenes and m-,p-Xylenes separately.

U denotes not detected at given detection limit.

J denotes laboratory-estimated value.

Bold and shaded denotes exceedance.

Cleanup Level is MTCA Method B.

Table 1f. Site 1 Analytical Results, 2006-2020
m-+ p-Xylene
Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q4 2006	10,000[a]	1600	1 U	1 U		1 U	
Q1 2007	10,000[a]	1600					
Q2 2007	10,000[a]	1600	1 U	1 U		1 U	
Q3 2007	10,000[a]	1600	1 U	1 U		1 U	
Q4 2007	10,000[a]	1600	1 U			1 U	
Q1 2008	10,000[a]	1600	1 U	1 U		1 U	
Q2 2008	10,000[a]	1600	1 U	1 U		1 U	
Q3 2008	10,000[a]	1600	1 U	1 U	1 U	1 U	
Q4 2008	10,000[a]	1600	1 U	1 U	1 U	1 U	
Q1 2009	10,000[a]	1600	1 U	1 U	1 U	1 U	
Q2 2009	10,000[a]	1600	1 U	1 U		1 U	
Q3 2009	10,000[a]	1600	1 U	1 U		1 U	1 U
Q4 2009	10,000[a]	1600	1 U	1 U		1 U	1 U
Q1 2010	10,000[a]	1600	1 U	1 U		1 U	1 U
Q2 2010	10,000[a]	1600	1 U	1 U		1 U	1 U
Q3 2010	10,000[a]	1600	1 U	1 U		1 U	1 U
Q4 2010	10,000[a]	1600	1 U	1 U		1 U	1 U
Q1 2011	10,000[a]	1600	1 U	1 U		1 U	1 U
Q2 2011	10,000[a]	1600	1 U	1 U		1 U	1 U
Q3 2011	10,000[a]	1600	1 U	1 U		1 U	1 U
Q4 2011	10,000[a]	1600	1 U	1 U		1 U	1 U
Q1 2012	10,000[a]	1600	1 U	1 U		1 U	1 U
Q2 2012	10,000[a]	1600	1 U	1 U		1 U	1 U
Q3 2012	10,000[a]	1600	2 U	2 U		2 U	2 U
Q4 2012	10,000[a]	1600	2 U	2 U		2 U	2 U
Q1 2013	10,000[a]	1600	2 U	2 U		2 U	2 U
Q2 2013	10,000[a]	1600	2 U	2 U		2 U	2 U
Q3 2013	10,000[a]	1600	2 U	2 U		2 U	2 U
Q4 2013	10,000[a]	1600	2 U	2 U		2 U	2 U
Q1 2014	10,000[a]	1600	2 U	2 U		2 U	2 U
Q2 2014	10,000[a]	1600	2 U	2 U		2 U	2 U
Q3 2014	10,000[a]	1600	2 U	2 U		2 U	2 U
Q4 2014	10,000[a]	1600	2 U	2 U		2 U	2 U
Q1 2015	10,000[a]	1600	2 U	2 U		2 U	2 U
Q2 2015	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q3 2015	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q4 2015	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U

Table 1f. Site 1 Analytical Results, 2006-2020
m-+ p-Xylene
Marathon Anacortes Refinery

Sample Date	Action Level (µg/L)	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
			06-1	06-2	06-3	06-4	09-1
Q1 2016	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q2 2016	10,000[a]	1600					
Q3 2016	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q4 2016	10,000[a]	1600	0.4 U			0.4 U	0.4 U
Q1 2017	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q2 2017	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q3 2017	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q4 2017	10,000[a]	1600	0.4 U			0.4 U	0.4 U
Q1 2018	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q2 2018	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q3 2018	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q4 2018	10,000[a]	1600	0.4 U			0.4 U	0.4 U
Q1 2019	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q2 2019	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q3 2019	10,000[a]	1600	0.4 U			0.4 U	0.4 U
Q4 2019	10,000[a]	1600	0.4 U			0.4 U	0.4 U
Q1 2020	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U
Q2 2020	10,000[a]	1600	0.4 U	0.4 U		0.4 U	0.4 U

[a] Action Level for Xylenes is 10,000 µg/L. Values included in this table are direct lab data, which reports o-Xylenes and m-,p-Xylenes separately.

U denotes not detected at given detection limit.

J denotes laboratory-estimated value.

Bold and shaded denotes exceedance.

Cleanup Level is MTCA Method B.

Table 1g. Site 1 Analytical Results, 2006-2020
Gasoline

Marathon Anacortes Refinery

Sample Date	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
		06-1	06-2	06-3	06-4	09-1
Q4 2006	1000	250 U	250 U		250 U	
Q1 2007	1000					
Q2 2007	1000	250 U	250 U		250 U	
Q3 2007	1000	250 U	250 U		250 U	
Q4 2007	1000	250 U			250 U	
Q1 2008	1000	250 U	250 U		250 U	
Q2 2008	1000	250 U	250 U		250 U	
Q3 2008	1000	250 U	250 U		250 U	
Q4 2008	1000	250 U	250 U	250 U	250 U	
Q1 2009	1000	250 U	250 U	250 U	250 U	
Q2 2009	1000	250 U	250 U	250 U	250 U	
Q3 2009	1000	250 U	250 U		250 U	250 U
Q4 2009	1000	250 U	250 U		250 U	250 U
Q1 2010	1000	250 U	250 U		250 U	250 U
Q2 2010	1000	250 U	250 U		250 U	250 U
Q3 2010	1000	250 U	250 U		250 U	250 U
Q4 2010	1000	250 U	250 U		250 U	250 U
Q1 2011	1000	250 U	250 U		250 U	250 U
Q2 2011	1000	250 U	250 U		250 U	250 U
Q3 2011	1000	250 U	250 U		250 U	250 U
Q4 2011	1000	250 U	250 U		250 U	250 U
Q1 2012	1000	250 U	250 U		250 U	250 U
Q2 2012	1000	250 U	250 U		250 U	250 U
Q3 2012	1000	250 U	250 U		250 U	250 U
Q4 2012	1000	250 U	250 U		250 U	250 U
Q1 2013	1000	250 U	250 U		250 U	250 U
Q2 2013	1000	250 U	250 U		250 U	250 U
Q3 2013	1000	250 U	250 U		250 U	250 U
Q4 2013	1000	250 U	250 U		250 U	250 U
Q1 2014	1000	250 U	250 U		250 U	250 U
Q2 2014	1000	250 U	250 U		250 U	250 U
Q3 2014	1000	250 U	250 U		250 U	250 U
Q4 2014	1000	250 U	250 U		250 U	250 U
Q1 2015	1000	250 U	250 U		250 U	250 U
Q2 2015	1000	250 U	250 U		250 U	250 U
Q3 2015	1000	250 U	250 U		250 U	250 U
Q4 2015	1000	250 U	250 U		250 U	250 U

Table 1g. Site 1 Analytical Results, 2006-2020
Gasoline

Marathon Anacortes Refinery

Sample Date	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
		06-1	06-2	06-3	06-4	09-1
Q1 2016	1000	100 U	100 U		100 U	100 U
Q2 2016	1000					
Q3 2016	1000	100 U	100 U		100 U	100 U
Q4 2016	1000	100 U			100 U	100 U
Q1 2017	1000	100 UJ	100 UJ		100 UJ	100 UJ
Q2 2017	1000	100 U	100 U		100 U	100 U
Q3 2017	1000	100 U	100 U		100 U	100 U
Q4 2017	1000	100 U			100 U	100 U
Q1 2018	1000	100 U	100 U		100 U	100 U
Q2 2018	1000	100 U	100 U		100 U	100 U
Q3 2018	1000					
Q4 2018	1000	100 U			100 U	100 U
Q1 2019	1000	100 U	100 U		100 U	100 U
Q2 2019	1000	100 U	100 U		100 U	100 U
Q3 2019	1000	100 U			100 U	100 U
Q4 2019	1000	100 U			100 U	100 U
Q1 2020	1000	100 U	100 U		100 U	100 U
Q2 2020	1000	100 U	100 U		100 U	100 U

U denotes not detected at given detection limit.

J denotes laboratory-estimated value.

Bold and shaded denotes exceedance.

Cleanup level is MTCA Method A.

Table 1h. Site 1 Analytical Results, 2006-2020
Diesel

Marathon Anacortes Refinery

Sample Date	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
		06-1	06-2	06-3	06-4	09-1
Q4 2006	500	250 U				
Q1 2006	500					
Q2 2007	500	250 U				
Q3 2007	500	320				
Q4 2007	500	**1500** [a]				
Q1 2008	500	250 U				
Q2 2008	500	250 U				
Q3 2008	500	250 U				
Q4 2008	500	250 U				
Q1 2009	500	250 U				
Q2 2009	500	250 U				
Q3 2009	500	250 U				
Q4 2009	500	250 U				
Q1 2010	500	250 U				
Q2 2010	500	100 U				
Q3 2010	500	100 U				
Q4 2010	500	100 UJ				
Q1 2011	500	**730 J** [a]				
Q2 2011	500	100 U				
Q3 2011	500	100 U				
Q4 2011	500	100 U				
Q1 2012	500	100 U				
Q2 2012	500	100 U				
Q3 2012	500	110				
Q4 2012	500	100 U				
Q1 2013	500	100 U				
Q2 2013	500	100 U				
Q3 2013	500	100 U				
Q4 2013	500	100 U				
Q1 2014	500	100 U				
Q2 2014	500	100 U				
Q3 2014	500	100 U				
Q4 2014	500	100 U				
Q1 2015	500	100 U				
Q2 2015	500	100 U				
Q3 2015	500	100 U				
Q4 2015	500	100 U				

Table 1h. Site 1 Analytical Results, 2006-2020
Diesel

Marathon Anacortes Refinery

Sample Date	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
		06-1	06-2	06-3	06-4	09-1
Q1 2016	500	100 U				
Q2 2016	500					
Q3 2016	500	100 U				
Q4 2016	500	100 U				
Q1 2017	500	100 U				
Q2 2017	500	100 U				
Q3 2017	500	100 U				
Q4 2017	500	100 U				
Q1 2018	500	100 U				
Q2 2018	500	100 U				
Q3 2018	500	100 U				
Q4 2018	500	100 U				
Q1 2019	500	100 U				
Q2 2019	500	100 U				
Q3 2019	500	100 U				
Q4 2019	500	100 U				
Q1 2020	500	101 U				
Q2 2020	500	102 U				

[a] Samples were not pretreated with silica gel to remove biogenic hydrocarbons.

U denotes not detected at given detection limit.

J denotes laboratory-estimated value.

Bold and shaded denotes exceedance.

Cleanup level is MTCA Method A.

Table 1i. Site 1 Analytical Results, 2006-2020
Motor Oil
Marathon Anacortes Refinery

Sample Date	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
		06-1	06-2	06-3	06-4	09-1
Q4 2006	500	500 U				
Q1 2007	500					
Q2 2007	500	500 U				
Q3 2007	500	500 U				
Q4 2007	500	500 U				
Q1 2008	500	500 U				
Q2 2008	500	500 U				
Q3 2008	500	500 U				
Q4 2008	500	500 U				
Q1 2009	500	500 U				
Q2 2009	500	500 U				
Q3 2009	500	500 U				
Q4 2009	500	500 U				
Q1 2010	500	500 U				
Q2 2010	500	200 U				
Q3 2010	500	200 U				
Q4 2010	500	200 U				
Q1 2011	500	200 U				
Q2 2011	500	200 U				
Q3 2011	500	200 U				
Q4 2011	500	200 U				
Q1 2012	500	200 U				
Q2 2012	500	200 U				
Q3 2012	500	200 U				
Q4 2012	500	200 U				
Q1 2013	500	200 U				
Q2 2013	500	200 U				
Q3 2013	500	200 U				
Q4 2013	500	200 U				
Q1 2014	500	200 U				
Q2 2014	500	200 U				
Q3 2014	500	200 U				
Q4 2014	500	200 U				
Q1 2015	500	200 U				
Q2 2015	500	200 U				
Q3 2015	500	200 U				
Q4 2015	500	200 U				

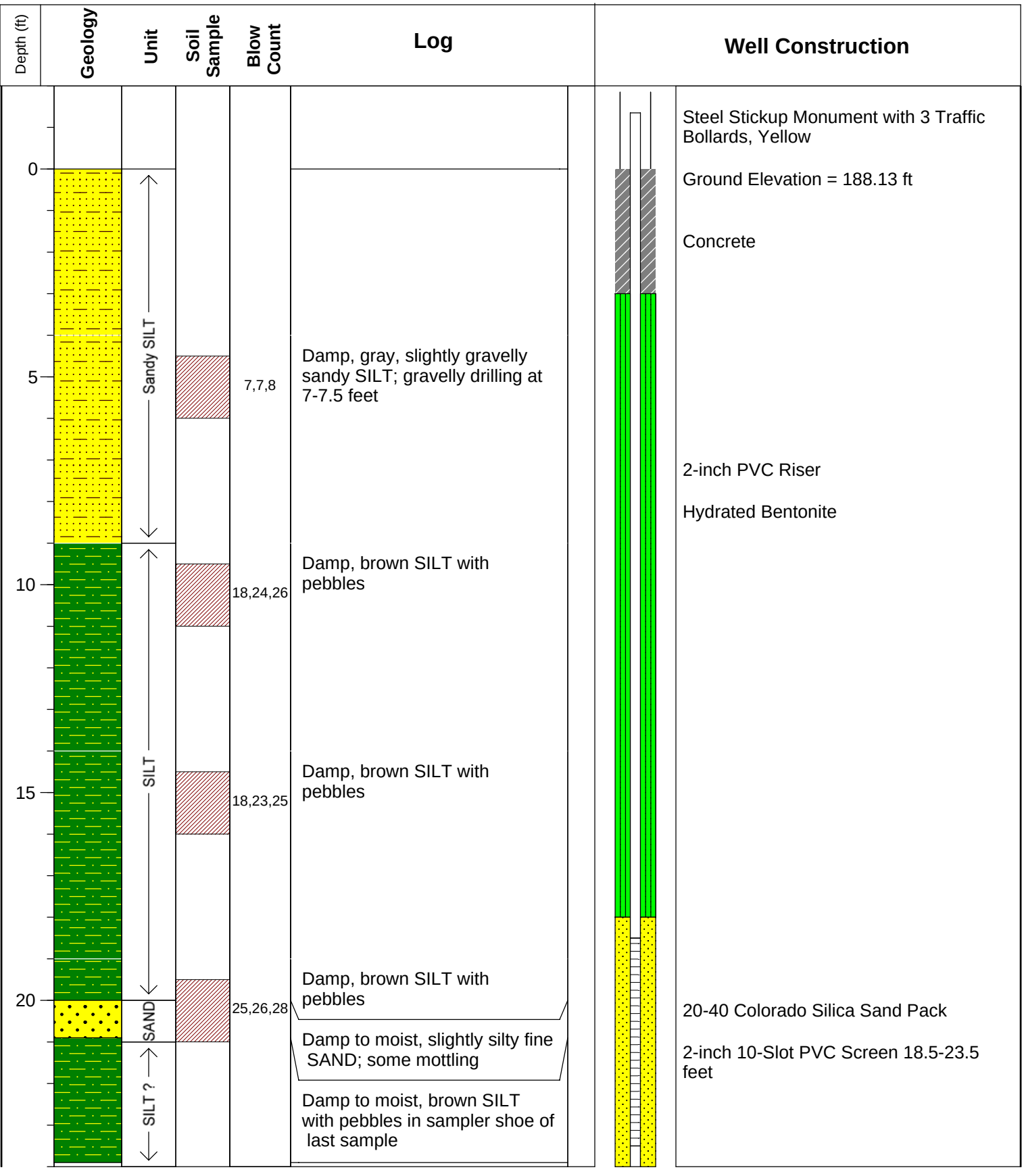
Table 1i. Site 1 Analytical Results, 2006-2020
Motor Oil

Marathon Anacortes Refinery

Sample Date	Cleanup Level (µg/L)	Sample Result by Well (µg/L)				
		06-1	06-2	06-3	06-4	09-1
Q1 2016	500	200 U				
Q2 2016	500					
Q3 2016	500	200 U				
Q4 2016	500	200 U				
Q1 2017	500	200 U				
Q2 2017	500	200 U				
Q3 2017	500	200 U				
Q4 2017	500	200 U				
Q1 2018	500	200 U				
Q2 2018	500	200 U				
Q3 2018	500	200 U				
Q4 2018	500	200 U				
Q1 2019	500	200 U				
Q2 2019	500	200 U				
Q3 2019	500	200 U				
Q4 2019	500	200 U				
Q1 2020	500	200 U				
Q2 2020	500	200 U				

U denotes not detected at given detection limit.
J denotes laboratory-estimated value.
Bold and shaded denotes exceedance.
Cleanup level is MTCA Method A.

APPENDIX A
SITE 1 MONITORING WELL LOGS



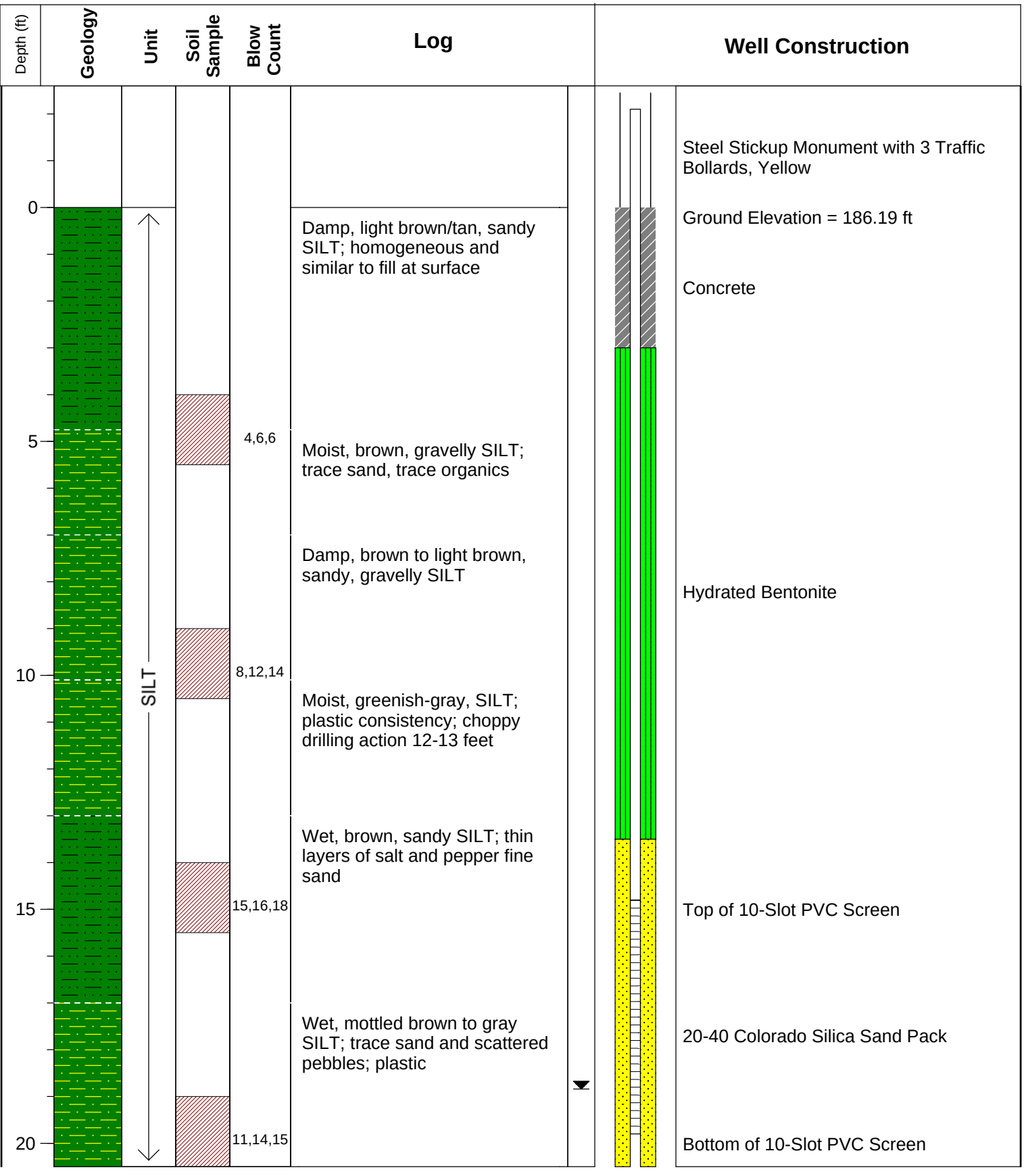
Project Name: Tesoro
Drilling Method: Track Hollow Stem Auger
Driller: Scott Krueger
Firm: Cascade Drilling
Consulting Firm: Pacific Groundwater Group
Logged by: Glenn Mutti
Location: Tesoro Site 1

Well Name: 06-1
Ecology ID: ALN 150
MP Elevation: 189.14 ft
Datum: Tesoro
Installed: 9/12/2006
DTW:17.45 (Q4 2006)

GEOLOGIC LOG AND AS-BUILT FOR WELL 06-1

Tesoro Anacortes Refinery Site 1
Anacortes, Washington
JK8904, 9/2006

PgG

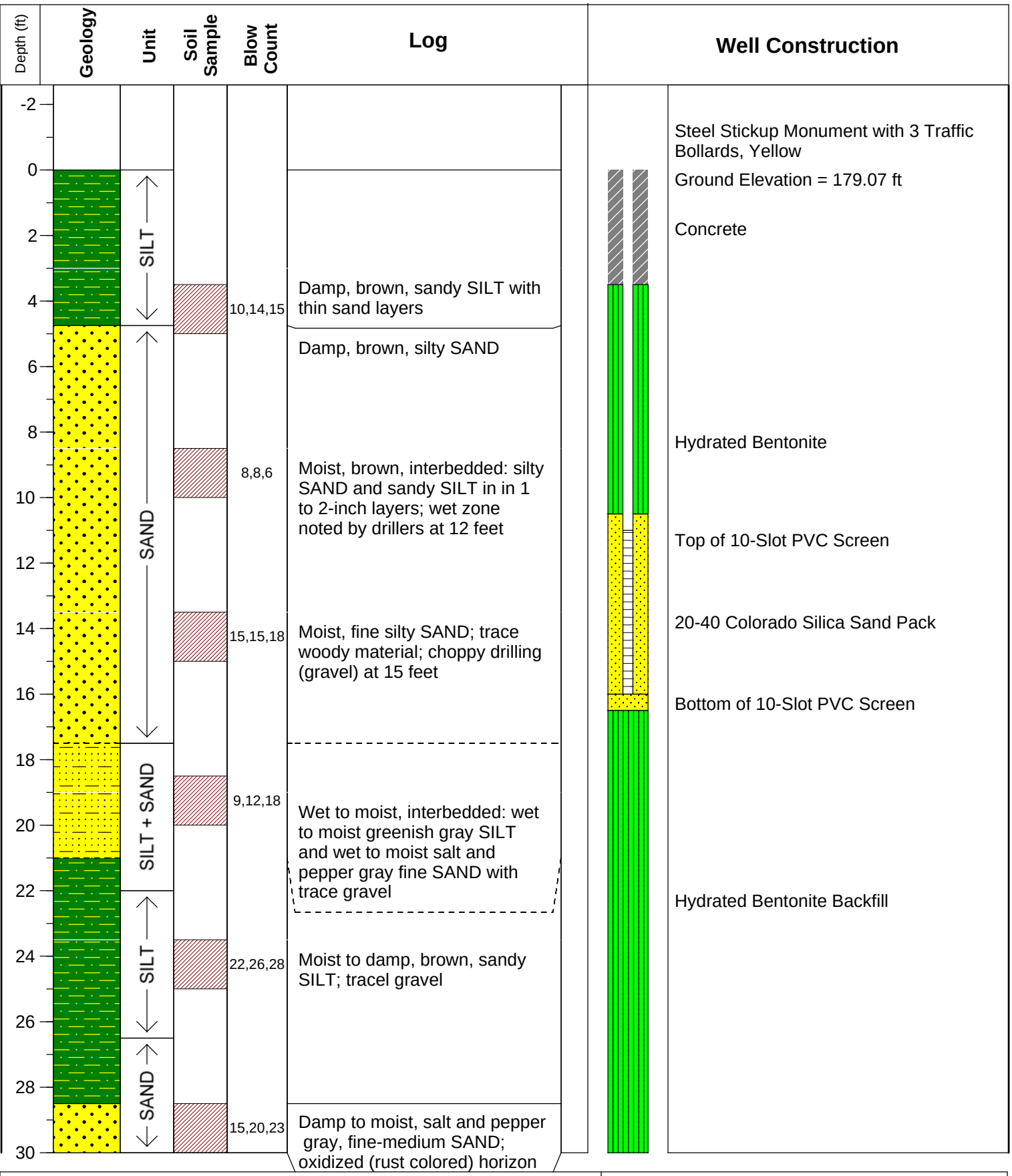


Project Name: Tesoro
Drilling Method: Track Hollow Stem Auger
Driller: Scott Krueger
Firm: Cascade Drilling
Consulting Firm: Pacific Groundwater Group
Logged by: Glen Wallace
Location: Tesoro Site 1

Well Name: 06-2
Ecology ID: ALN 147
MP Elevation: 188.30 ft
Datum: Tesoro
Installed: 9/11/2006
DTW: 18.84 (4Q 2006)

GEOLOGIC LOG AND AS-BUILT FOR WELL 06-2
Tesoro Anacortes Refinery Site 1
Anacortes, Washington
JK8904, 9/2006

PgG



Project Name: Tesoro
Drilling Method: Track Hollow Stem Auger
Driller: Scott Krueger
Firm: Cascade Drilling
Consulting Firm: Pacific Groundwater Group
Logged by: Glen Wallace
Location: Tesoro Site 1

Well Name: 06-3
Ecology ID: ALN 148
MP Elevation: 180.99 ft
Datum: Tesoro
Installed: 9/11/2006
DTW: Dry As-Built

GEOLOGIC LOG AND AS-BUILT FOR WELL 06-3

Tesoro Anacortes Refinery Site 1
Anacortes, Washington
JK8904, 9/2006

PgG

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE06903

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner TESORO Refinery

Site Address 10200 W. March Pt. Rd.

Consulting Firm PACIFIC GROUNDWATER GROUP

City ANACORTES County SKAGIT

EWM

Unique Ecology Well ID
Tag No. ALN 145

Location 1/4 SE 1/4 NE Sec 29 Twn 35N R 2E or ___ WWM

Lat/Long (s,t,r still Required) Lat Deg _____ Lat Min/Sec _____ Long Deg _____ Long Min/Sec _____

Tax Parcel No. _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief

☒ Driller ☐ Trainee Name (Print) DAVID GOSE

Driller/Trainee Signature x _____

Driller/Trainee License No. 2744

Cased or Uncased Diameter 2" Static Level —

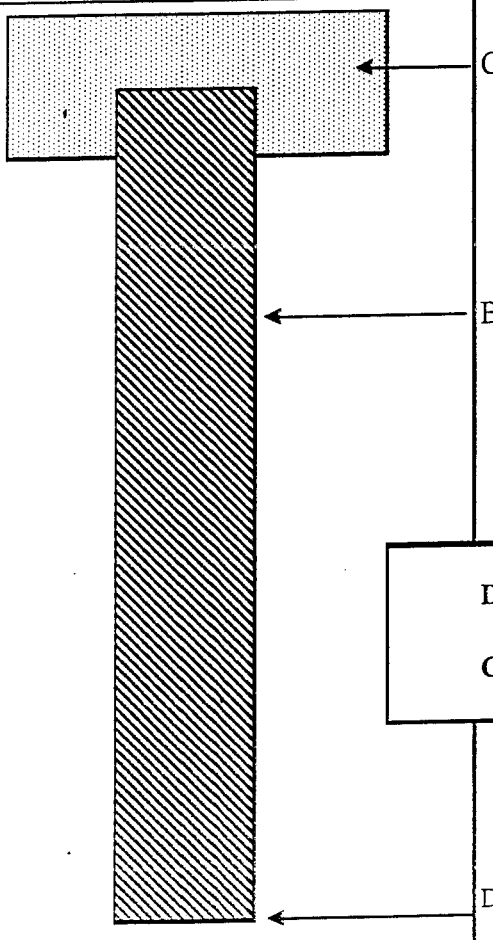
Work/Decommission Start Date 8/31/09

Work/Decommission Completed Date 8/31/09

If trainee, licensed driller's Signature and License No. _____

Well Data W09-437

Construction/Design



			Formation Description
CONCRETE SURFACE SEAL	2'	FT	0 - — FT
BACKFILL	14' hydrated bentonite	FT	0 - — FT
DEPTH OF BORING	16'	FT	

REQUIRED INFORMATION
(Must get one or both if available)

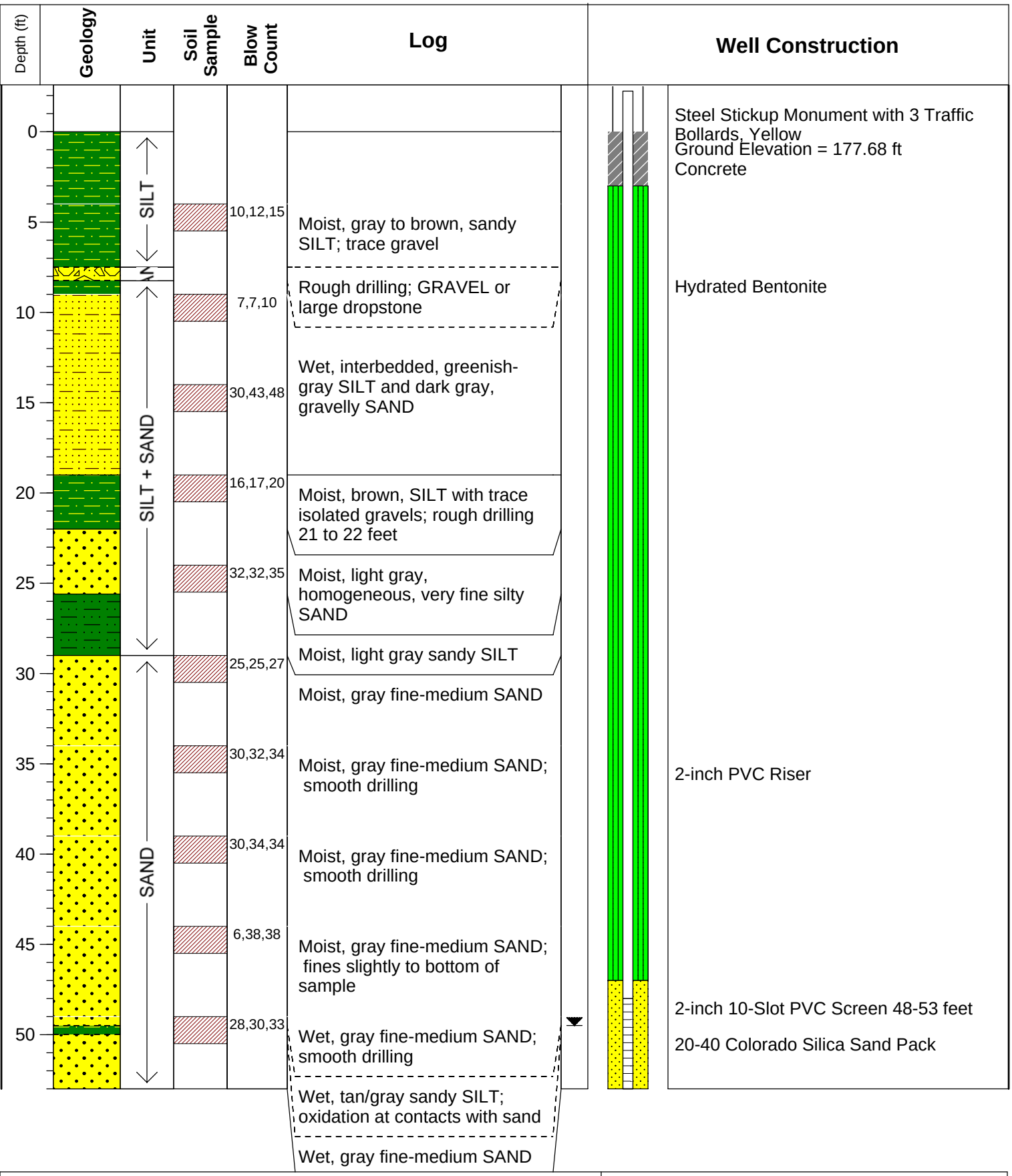
DEPT OF ECOLOGY WELL TAG # : _____

CLIENT WELL ID #: ALN 145

Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2/01)



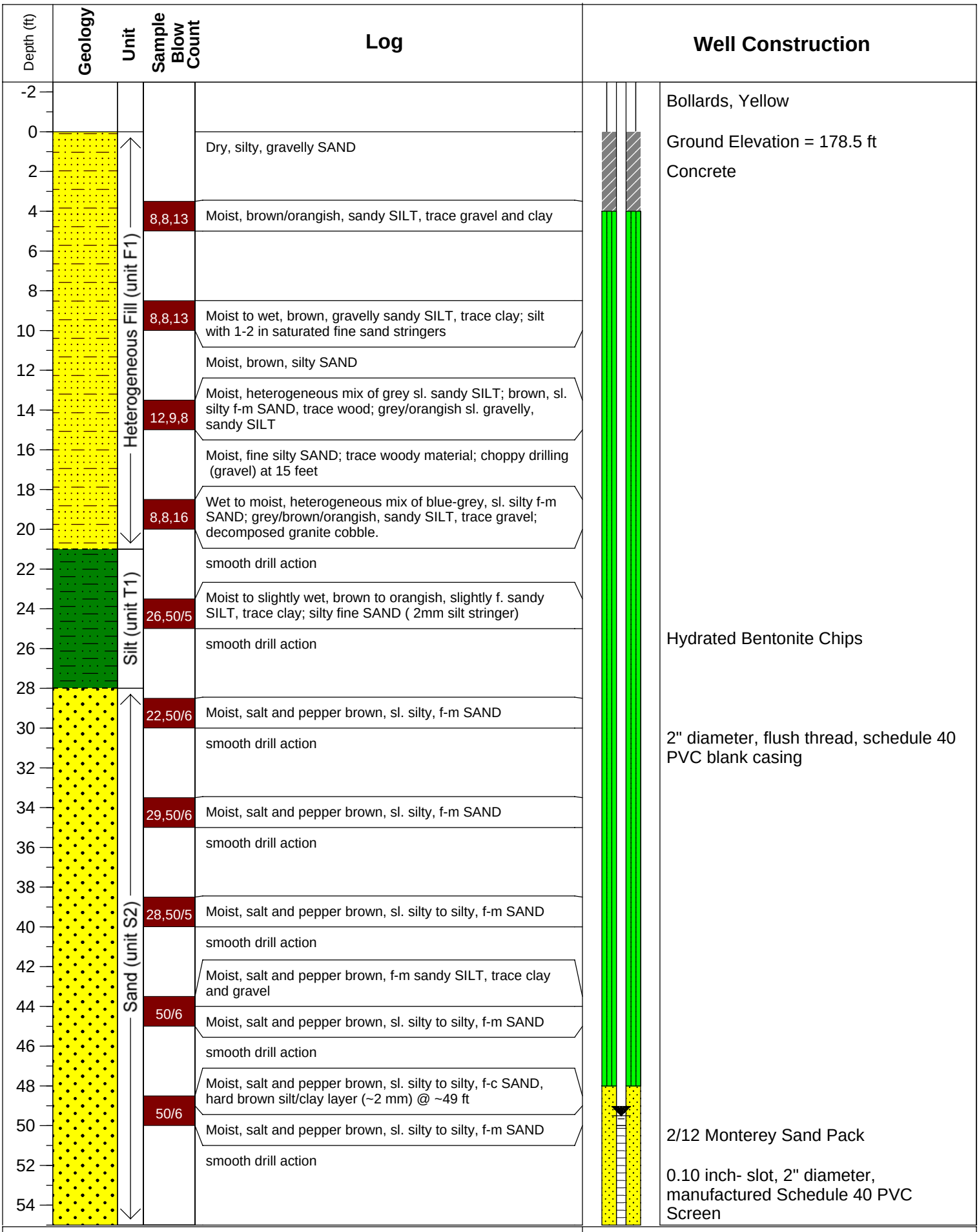
Project Name: Tesoro
Drilling Method: Track Hollow Stem Auger
Driller: Scott Krueger
Firm: Cascade Drilling
Consulting Firm: Pacific Groundwater Group
Logged by: Glen Wallace
Location: Tesoro Site 1

Well Name: 06-4
Ecology ID: ALN 149
MP Elevation: 179.35 ft
Datum: Tesoro
Installed: 9/11/2006
DTW: 49.49 (4Q 2006)

GEOLOGIC LOG AND AS-BUILT FOR WELL 06-4

Tesoro Anacortes Refinery Site 1
Anacortes, Washington
JK8904, 9/2006

PgG



Project Name: Tesoro
Drilling Method: Track Hollow Stem Auger
Driller: David Gose
Firm: Cascade Drilling
Consulting Firm: Pacific Groundwater Group
Logged by: J. Parker
Location: Tesoro Site 1

Well Name: 09-1
Ecology ID: BBM482
MP Elevation: 181.02 ft
Datum: Tesoro
Installed: 9/1/2009
DTW: 51.33 ft bmp

GEOLOGIC LOG AND AS-BUILT FOR WELL 09-1
Tesoro Anacortes Refinery Site 1
Anacortes, Washington
JK8904, 9/2009

PgG

APPENDIX B
PROPERTY DEED NOTICE AND RESTRICTION

EC File : 300 RCRA/Solid Waste - Permits

Tesoro File No: FR40A15-2
Equipment No: SITE-1

Document Title: Deed Notice

Reference Number :

Grantor(s): [_] additional grantor names on page __.

1. Tesoro Refining & Marketing Co.
2.

Grantee(s): [_] additional grantee names on page__.

1. public
2.

Abbreviated legal description: [_] full legal on page(s) __.

NW NE NE NW 33-35-2
Survey 9603260001

Assessor Parcel / Tax ID Number: [_] additional tax parcel number(s) on page ___.

P 32993
P 32994

AFTER RECORDING MAIL TO:

Tesoro Refining and Marketing Company
P. O. Box 700
Anacortes, WA 98221

Attn: Ed Hsu

Tesoro File No: FP40A15-2
Equipment No: SITE-1

SKAGIT COUNTY WASHINGTON
REAL ESTATE EXCISE TAX

JAN 04 2007

Amount Paid $ 0
Skagit Co. Treasurer
By Deputy

TESORO

DEED NOTICE

SITE 1 CORRECTIVE ACTION MANAGEMENT UNIT

TESORO REFINING AND MARKETING COMPANY

The undersigned, Tesoro Refining and Marketing Company, is the fee simple owner of real properties described in Exhibit A in Skagit County, Washington, hereafter referred to as the Site 1 Corrective Action Management Unit.

To allow clean closure of Site 3 Land Treatment Area (real properties described in Exhibit B), treatment zone soil from Site 3 was excavated and transported to Site 1. This soil contain concentrations of benzo(a)pyrene and total polynuclear aromatic hydrocarbons (PAH) (together referred to as dangerous constituents) that are above the the Washington Model Toxics Control Act (MTCA) Methods A/B levels.

Tesoro Refining and Marketing Company makes the following declarations as to limitations, restrictions and uses for the Site 1 Corrective Action Management Unit.

Any activity on Site 1 that may interfere with the viability of the containment of or may result in the release of dangerous constituents is prohibited.

No redevelopment of the property other than for street or industrial use, environmental monitoring or post-closure care needs shall be undertaken unless thirty days' prior notice has been provided to the Department of Ecology. For purposes of this restriction, "industrial use" means and includes any industrial use described or defined in, or allowed under, the Washington Model Toxics Control Act (MTCA), MTCA Regulations, or Skagit County zoning standards. Any development of Site 1 shall ensure the containment of dangerous constituents that are exposed or ensure proper management and disposal.

The owner reserves the right, with the Department of Ecology's prior approval, to record an instrument terminating this Deed Notice and rendering it null and void and of no further force or effect.

Dated this 14 day of December, 2006

TESORO REFINING AND MARKETING COMPANY

BY: D. Reed
Signature

Dave W. Reed
Printed Name

Vice President, Refining
Title

200701040109
Skagit County Auditor
1/4/2007 Page 2 of 6 2:42PM

TESORO

STATE OF Washington)
) §
COUNTY OF Skagit)

On this 14th day of December, 2006 before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared David W. Reed to me known to be the person who signed as Vice President, Refining for the Tesoro Refining and Marketing Company, the company who executed the foregoing instrument, and acknowlege said instrument to be a free and voluntary act and deed of the Tesoro Refining and Marketing Company, for the uses and purposes mentioned therein, and on oath stated that he was duly elected, qualified and acting as said officer of the corporation, that he was authorized to execute said instrument.

IN WITNESS WHEREOF I have hereunto set hand and official seal the day and year first above written.

Kim Lee Mannen

NOTARY PUBLIC in and for the State of Washington,

Residing at Bow, WA.

My Appointment Expires: 9-30-08.

December 4, 2006

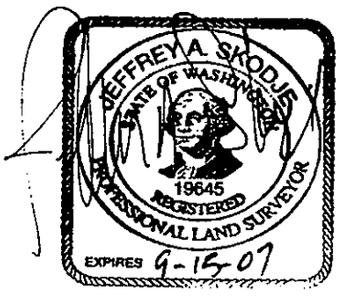
LEGAL DESCRIPTION FOR TESORO CORPORATION

SITE 1 CORRECTIVE ACTION MANAGEMENT UNIT, TESORO REFINERY, ANACORTES, WASHINGTON

All those portions of the Northwest ¼ of the Northeast ¼ and of the Northeast ¼ of the Northwest ¼, all in Section 33, Township 35 North, Range 2 East, W.M., as said Section 33 is shown on that certain Record of Survey recorded in Book 18 of Surveys at page 43, under Auditor's File No. 9603260001, records of Skagit County, Washington, said portions being more particularly described as follows:

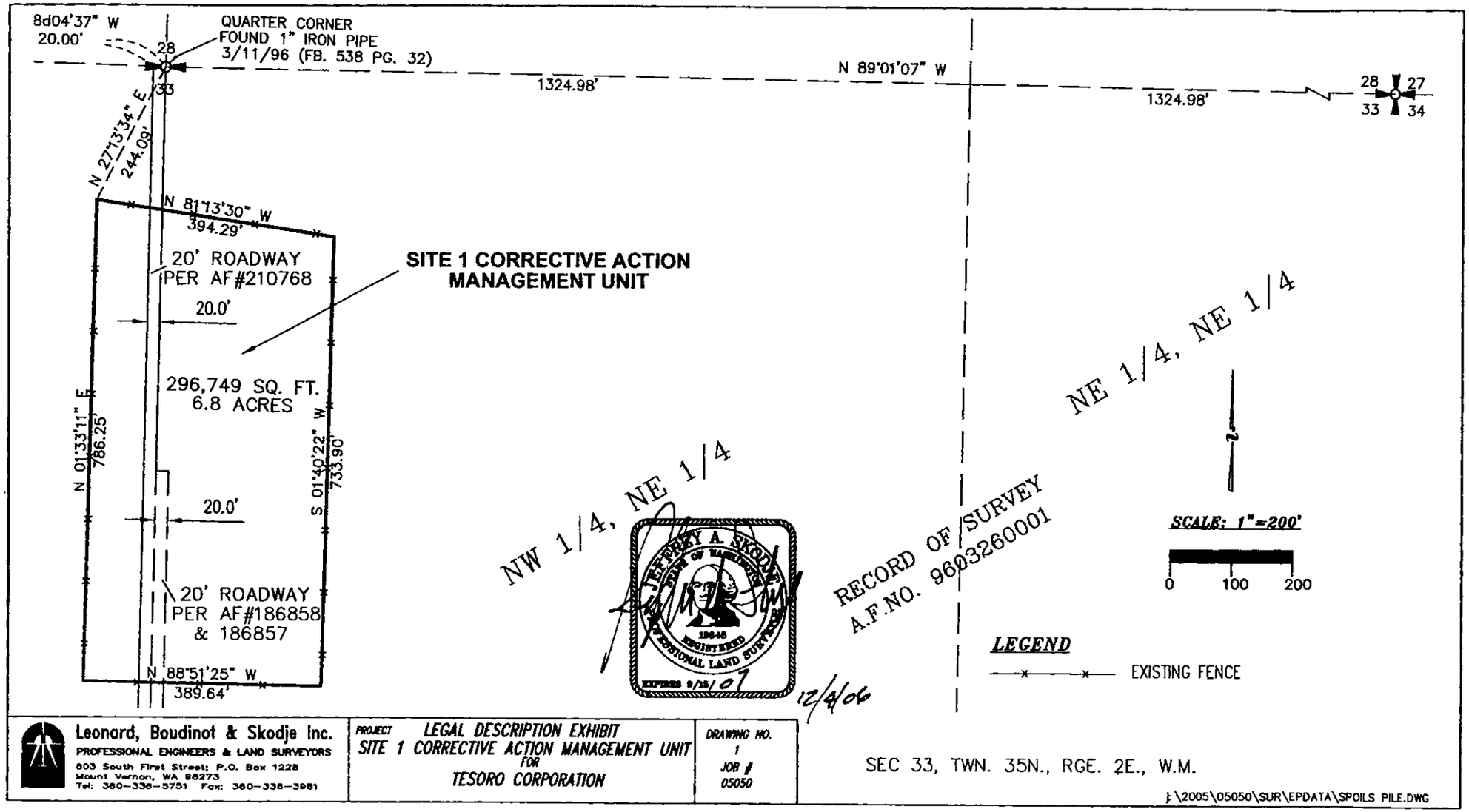
Commencing at the Northeast corner of said Section 33 as shown on said Record of Survey filed under Auditor's file no. 9603260001; **Thence** North 89°01'07" West along the North line of said Section, a distance of 2649.96 feet to the North ¼ corner thereof;
Thence South 27° 13' 34" West a distance of 244.09 feet to the **TRUE POINT OF BEGINNING;**
Thence South 81° 13' 30" East a distance of 394.29 feet;
Thence South 01° 40' 22" West a distance of 733.90 feet;
Thence North 88° 51' 25" West a distance of 389.64 feet;
Thence North 01° 33' 11" East a distance of 786.25 feet to the **TRUE POINT OF BEGINNING.**

Situate in the County of Skagit, State of Washington.



12/4/06

J:\2005\05050\Sur\05050 legal description - SpoilsArea Nov2806.doc



DEED NOTICE
SITE 3 LAND TREATMENT AREA
TESORO WEST COAST COMPANY, DBA TESORO NORTHWEST COMPANY

THE UNDERSIGNED, TESORO WEST COAST COMPANY, DOING BUSINESS AS THE TESORO NORTHWEST COMPANY, IS THE FEE SIMPLE OWNER OF REAL PROPERTIES DESCRIBED ON THIS SURVEY PLAT IN SKAGIT COUNTY, WASHINGTON, HEREAFTER REFERRED TO AS THE SITE 3 LAND TREATMENT AREA. DANGEROUS WASTES WERE MANAGED IN THE SITE 3 LAND TREATMENT AREA SINCE ABOUT 1975. THE SITE 3 LAND TREATMENT AREA RECEIVED ITS LAST WASTE IN DECEMBER 1998.
THE TESORO WEST COAST COMPANY, DOING BUSINESS AS THE TESORO NORTHWEST COMPANY, MAKES THE FOLLOWING DECLARATIONS AS TO LIMITATIONS, RESTRICTIONS AND USES FOR THE SITE 3 LAND TREATMENT AREA:
NO REDEVELOPMENT OF THE PROPERTY OTHER THAN FOR STREET OR INDUSTRIAL USE, ENVIRONMENTAL MONITORING OR POST-CLOSURE CARE NEEDS SHALL BE UNDERTAKEN UNLESS THIRTY DAYS' PRIOR NOTICE HAS BEEN PROVIDED TO THE DEPARTMENT OF ECOLOGY. FOR PURPOSES OF THIS RESTRICTION, "INDUSTRIAL USE" MEANS AND INCLUDES ANY INDUSTRIAL USE DESCRIBED OR DEFINED IN, OR ALLOWED UNDER, THE WASHINGTON MODEL TOXICS CONTROL ACT (MTCA), MTCA REGULATIONS, OR SKAGIT COUNTY ZONING STANDARDS.
THE OWNER RESERVES THE RIGHT, WITH THE DEPARTMENT OF ECOLOGY'S PRIOR APPROVAL, TO RECORD AN INSTRUMENT TERMINATING THIS DEED NOTICE AND RENDERING IT NULL AND VOID AND OF NO FURTHER FORCE OR EFFECT.

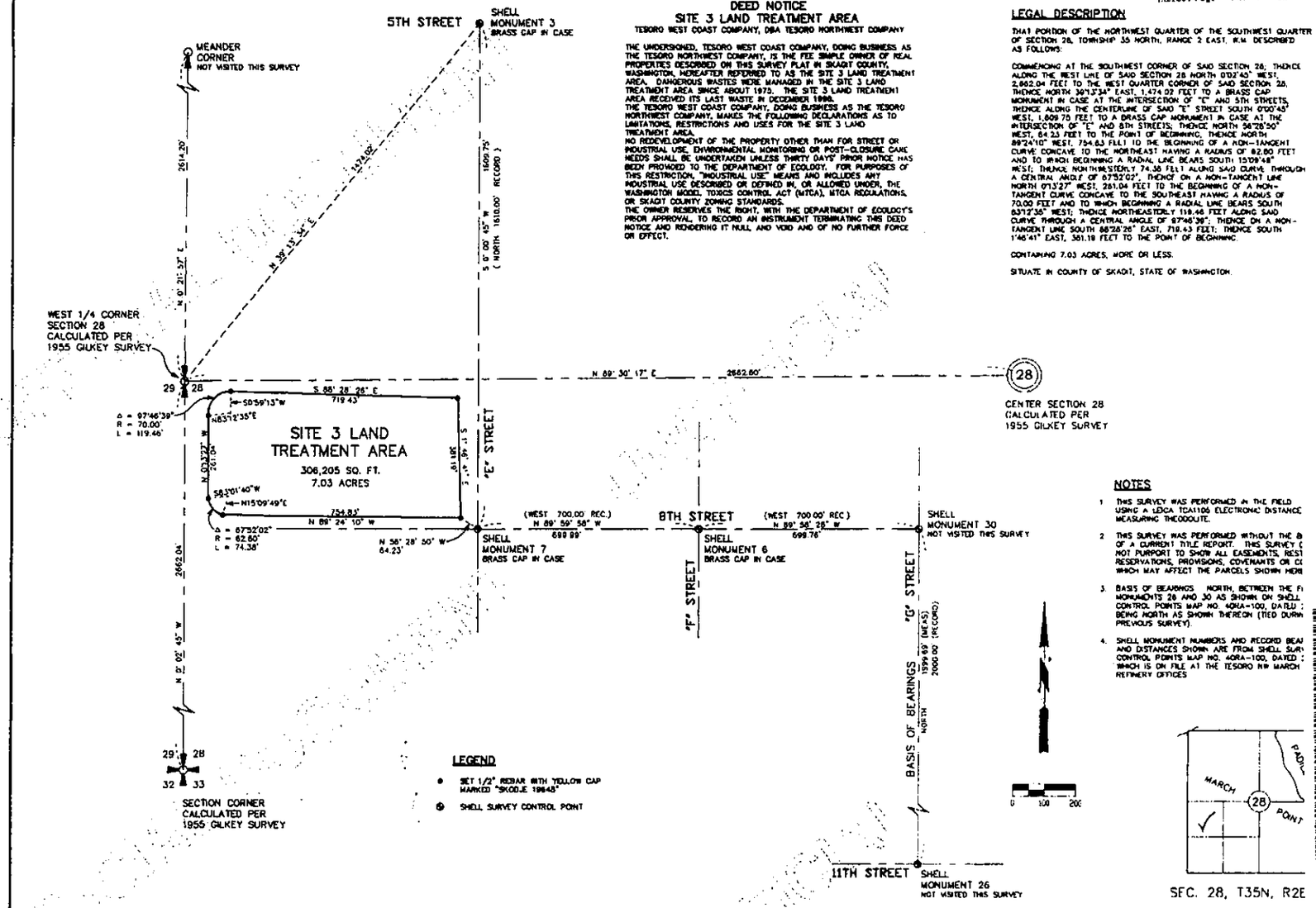
LEGAL DESCRIPTION

THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 35 NORTH, RANGE 2 EAST, W.M. DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 28; THENCE ALONG THE WEST LINE OF SAID SECTION 28 NORTH 0°02'45" WEST, 2,652.04 FEET TO THE WEST QUARTER CORNER OF SAID SECTION 28; THENCE NORTH 36°13'34" EAST, 1,474.02 FEET TO A BRASS CAP MONUMENT IN CASE AT THE INTERSECTION OF "E" AND 5TH STREETS; THENCE ALONG THE CENTERLINE OF SAID "E" STREET SOUTH 0°00'45" WEST, 1,609.75 FEET TO A BRASS CAP MONUMENT IN CASE AT THE INTERSECTION OF "E" AND 8TH STREETS; THENCE NORTH 56°28'50" WEST, 64.23 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89°24'10" WEST, 754.83 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 62.60 FEET AND TO WHICH BEGINNING A RADIAL LINE BEARS SOUTH 15°09'48" WEST; THENCE NORTHWESTERLY 74.38 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 67°32'02"; THENCE ON A NON-TANGENT LINE NORTH 01°37'27" WEST, 261.04 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 70.00 FEET AND TO WHICH BEGINNING A RADIAL LINE BEARS SOUTH 83°12'35" WEST; THENCE NORTHEASTERLY 119.46 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 97°46'39"; THENCE ON A NON-TANGENT LINE SOUTH 88°28'26" EAST, 719.43 FEET; THENCE SOUTH 1°46'41" EAST, 361.18 FEET TO THE POINT OF BEGINNING.

CONTAINING 7.03 ACRES, MORE OR LESS.

SITUATE IN COUNTY OF SKAGIT, STATE OF WASHINGTON.



NOTES

1. THIS SURVEY WAS PERFORMED IN THE FIELD USING A LEICA TCA1105 ELECTRONIC DISTANCE MEASURING THEODOLITE.
2. THIS SURVEY WAS PERFORMED WITHOUT THE B OF A CURRENT TITLE REPORT. THIS SURVEY D NOT PURPORT TO SHOW ALL EASEMENTS, REST RESERVATIONS, PROVISIONS, COVENANTS OR CO WHICH MAY AFFECT THE PARCELS SHOWN HERE
3. BASIS OF BEARINGS NORTH, BETWEEN THE FI MONUMENTS 28 AND 30 AS SHOWN ON SHELL CONTROL POINTS MAP NO. 40RA-100, DATED BEING NORTH AS SHOWN THEREON (TIED DURIN PREVIOUS SURVEY).
4. SHELL MONUMENT NUMBERS AND RECORD BEA AND DISTANCES SHOWN ARE FROM SHELL SURV CONTROL POINTS MAP NO. 40RA-100, DATED WHICH IS ON FILE AT THE TESORO NW MARCH REFINERY OFFICES

SEC. 28, T35N, R2E

SURVEYOR'S CERTIFICATE
THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT, AT THE REQUEST OF
TESORO NORTHWEST COMPANY
JEFFREY A. SKODJE, P.L.S.
CERTIFICATE NO. 19648 DATE 12-5-2000

JEFFREY A. SKODJE — STATE OF WASHINGTON — 19648 — REGISTERED PROFESSIONAL LAND SURVEYOR — EXPIRES 9-15-01

AUDITOR'S CERTIFICATE
FILED FOR RECORD THIS 8 DAY OF Jan 20 01, AT 234 PM, AT THE REQUEST OF LEONARD, BOUDINOT AND SKODJE INC. UNDER AUDITOR'S FILE NUMBER 200101040077
SKAGIT COUNTY AUDITOR BY DEPUTY

RECORD OF SURVEY
FOR
TESORO NORTHWEST COMPANY
SKAGIT COUNTY, WASHINGTON
PORTION OF THE NW 1/4 OF THE SW 1/4 OF SECTION 28, TWP 35 N., RGE 2 E., W.M.

DWN BY JJB DATE: DECEMBER 2000	LEONARD, BOUDINOT and SKODJE, INC. CIVIL ENGINEERS AND LAND SURVEYORS 1421 SOUTH FIRST ST. MOUNT VERNON, WA 98273 (360) 336-5751	SCALE 1" = 200'
FIELD BOOK 611, PGS 1-2		JOB NO. 00201

P 206.329.0141 | **F** 206.329.6968

2377 Eastlake Avenue East | Seattle, WA 98102

P 360.570.8244 | **F** 360.570.0064

1627 Linwood Avenue SW | Tumwater, WA 98512

www.pgwg.com

PgG