



ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT FACT SHEET – FINAL DRAFT

Permit: AK0036994 - Shoreside Petroleum Inc.,
Cordova Bulk Fuel Facility

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Wastewater Discharge Authorization Program

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Proposed issuance of an Alaska Pollutant Discharge Elimination System (APDES) permit to:

SHORESIDE PETROLEUM, INC.

For wastewater discharges from

BULK FUEL STORAGE FACILITY

The Alaska Department of Environmental Conservation (Department or DEC) proposes to reissue APDES individual permit AK0036994 - Shoreside Petroleum, Inc., Cordova Bulk Fuel Facility (Permit). The Permit authorizes and sets conditions on the discharge of pollutants from this facility to waters of the United States (U.S.). In order to ensure protection of water quality and human health, the Permit places limits on the types and amounts of pollutants that can be discharged from the facility and outlines best management practices to which the facility must adhere.

This fact sheet explains the nature of potential discharges from the facility and the development of the Permit including:

- information on public comment, public hearing, and appeal procedures,
- a listing of proposed effluent limitations and other conditions,
- technical material supporting the conditions in the Permit, and
- proposed monitoring requirements in the Permit.

Appeals Process

The Department has both an informal review process and a formal administrative appeal process for final APDES permit decisions. An informal review request must be delivered within 20 days after receiving the Department's decision to the Director of the Division of Water at the following mail address:

Director, Division of Water
Alaska Department of Environmental Conservation
P.O. Box 111800
Juneau AK, 99811-1800

Interested persons can review 18 AAC 15.185 for the procedures and substantive requirements regarding a request for an informal Department review.

See <http://dec.alaska.gov/commish/review-guidance/informal-reviews> for information regarding informal reviews of Department decisions.

An adjudicatory hearing request must be delivered to the Commissioner of the Department within 30 days of the permit decision or a decision issued under the informal review process. An adjudicatory hearing will be conducted by an administrative law judge in the Office of Administrative Hearings within the Department of Administration. A written request for an adjudicatory hearing shall be delivered to the Commissioner at the following mail address:

Commissioner
Alaska Department of Environmental Conservation
P.O. Box 111800
Juneau AK, 99811-1800

Interested persons can review 18 AAC 15.200 for the procedures and substantive requirements regarding a request for an adjudicatory hearing. See <http://dec.alaska.gov/commish/review-guidance/adjudicatory-hearing-guidance/> for information regarding appeals of Department decisions.

Documents are Available

The Permit, fact sheet, application, and related documents can be obtained by visiting or contacting DEC between 8:00 a.m. and 4:30 p.m. Monday through Friday at the addresses below. The Permit, fact sheet, application, and other information are located on the Department's Wastewater Discharge Authorization Program website: <http://dec.alaska.gov/water/wastewater/>.

Alaska Department of Environmental Conservation Division of Water Wastewater Discharge Authorization Program 555 Cordova Street Anchorage, AK 99501 (907) 269-6285	Alaska Department of Environmental Conservation Division of Water Wastewater Discharge Authorization Program 410 Willoughby Avenue, Suite 310 Juneau, AK 99801 (907) 465-5304	Alaska Department of Environmental Conservation Division of Water Wastewater Discharge Authorization Program 43335 Kalifornsky Beach Road, Suite 11 Soldotna, AK 99615 907-262-5210
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1.0 INTRODUCTION

On January 30, 2019, the Alaska Department of Environmental Conservation (DEC or Department) received an application from Shoreside Petroleum Inc. (SPI) for reissuance of Alaska Pollutant Discharge Elimination System (APDES) Individual Permit AK0036994 – SPI, Bulk Fuel Storage Facility (Permit). This fact sheet was developed based on the application and supplemental information obtained through the application process.

1.1 Applicant

This fact sheet presents information for reissuance of the APDES permit for the following entity:

Name of Facility: Shoreside Petroleum Inc. (SPI), Cordova Bulk Fuel Facility
APDES Permit No.: AK0036994
Facility Location: 100 Ocean Dock Road, Cordova, AK
Mailing Address: P.O. Box 910, Cordova, AK 99574
Facility Contact: Mr. David Simmerman

Outfall Locations

<u>Discharge Description - Outfall#</u>	<u>Receiving Water</u>	<u>Latitude</u>	<u>Longitude</u>
Lower Tank Farm - 001	Orca Inlet	60°33'25"	145°45'16"
Upper Tank Farm - 002	Orca Inlet	60°33'17"	145°45'18"

See Figure 1 – General Vicinity Map and Figure 2 – Bulk Fuel Facility Site Map in Appendix A.

1.2 Authority

The National Pollutant Discharge Elimination System (NPDES) Program regulates the discharge of wastewater to waters of the United States (U.S.). For waters of the U.S. under jurisdiction of the State of Alaska, the NPDES Program is administered by DEC as the APDES Program. This is the second reissuance of the Permit under authority of the APDES Program.

Clean Water Act (CWA) Section 301(a) and Alaska Administrative Code (AAC) 18 AAC 83.015 provide that the discharge of pollutants to waters of the U.S. is unlawful except in accordance with an APDES permit. The Permit is being developed per 18 AAC 83.115 and 18 AAC 83.120. A violation of a condition contained in the Permit constitutes a violation of the CWA and subjects the permittee of the facility with the permitted discharge to the penalties specified in Alaska Statute (AS) 46.03.760 and AS 46.03.761.

1.3 Permit History

Permit Number AK0036994 was originally assigned, although never issued, to Chevron USA, Inc. in May of 1982. Chevron USA, Inc. later sold the Cordova terminal to Orca Oil Co., Inc., which was in turn sold to SPI on April 30, 2007. The permit was reissued by the U. S. Environmental Protection Agency (EPA) and became effective on April 1, 2009. The Permit provided authorization for the discharge of accumulated rain and snowmelt wastewater from secondary containment areas (SCA) surrounding the storage tanks and a truck rack at the facility. The applicant submitted a permit application package to DEC on December 9, 2013 prior to permit expiration on March 31, 2014 resulting in the first APDES permit being issued on June 30, 2014 (2014 Permit).

During reissuance of the Permit, DEC removed technology-based effluent limits (TBELs) that had been developed based on the assumption the effluent would resemble ballast water. Characterization data demonstrated this initial assumption was not appropriate and developed new TBELs based on the working assumption that the effluent would be more similar to that of contaminated runoff from refineries. This working assumption is being reevaluated in this fact sheet using data collected during the term of the 2014 Permit. Note also that the PMS facility currently has a “No Exposure Certificate” for exclusion from the APDES storm water permitting requirements.

The Department received a complete and timely application for reissuance on January 30, 2019 180 days prior to expiration. DEC issued a letter indicating the application was administratively complete and administratively extended the 2014 Permit until it could be reissued.

2.0 BACKGROUND

2.1 Facility Information

SPI owns and operates a marine oil transfer facility located on Orca Inlet approximately one mile north of the community center of Cordova. The facility supplies gasoline, aviation fuel, diesel fuel, and heating oil to both marine and shore-based customers. The facility has a total combined capacity of 32,051 barrels (1,349,166 gallons) of petroleum product among two separate tank farms: the Lower Tank Farms (LTF) and Upper Tank Farm (UTF) (See Figure 3 – LTF Site Plan and Figure 4 – UTF Site Plan, respectively). The LTF includes three above ground bulk fuel storage tanks, a truck rack, and an oil/water separator (OWS) that are part of Outfall 001 (See Figure 3). The UTF has four tanks and no OWS prior to discharge to Outfall 002 (See Figure 4). Table 1 provides a summary of the LTF and UTF nominal shell capacity for the tanks reported in million gallons (mg), the SCA volume in mg, and the products stored in each tank: Ultra-low Sulfur Diesel (ULSD), Aviation Gasoline (AV Gas), Unleaded Gasoline (UNL Gas), or Jet A.

Table 1: Summary of Bulk Fuel Tank Capacities per SCA

Tank Farm (Outfall #)	Tank #	Product	Tank Capacity (mg)	SCA Volume (mg)
LTF (001)	10	ULSD	0.248	0.180
	11	Jet A	0.153	
	12	ULSD	0.180	
UTF (002)	1	AV Gas	0.081	0.218
	4	UNL Gas	0.153	
	8	UNL Gas	0.085	
	9	ULSD	0.274	

Each tank farm and truck rack include an SCA. The purpose of an SCA is to protect the surrounding environment, including waters of the U.S., from a release of hydrocarbons should a tank or pipe failure occur. The SCAs are designed to contain the volume of the largest tank within the SCA and precipitation from a two-year, 24-hour storm event (approximately 110 percent of the largest tank volume in the SCA). Accumulated rain or snowmelt water is periodically discharged from the SCAs to preserve containment volume necessary to capture fuel in the case of a release, the discharge of SCA containment water through Outfall 001 and Outfall 002 is to the nearby marine surface waters of Orca Inlet.

All water within the LTF SCA is inspected for sheen prior to discharge through Outfall 001. If sheen is observed, sorbents are first added prior to routing the discharge to the OWS. If sheen is observed in the UTF SCA, sorbent is added prior to discharge to Outfall 002; treatment using the

OWS is not possible for Outfall 002. Descriptions of the physical operational components of the SCAs are provided in subsequent sections.

2.2 Facility Performance and Wastewater Characterization

Discharge flows from designated outfalls at the facility typically range from 500 to 7,000 gallons depending on the amount of precipitation the area receives. Table 2 gives a characterization of estimated flows in gallons per day (gpd) reported under the existing permit from August 2014 through November 2018 for Outfalls 001 and 002.

Table 2: Discharge Flows

Outfall	Year	Total Annual Discharges (mg)	Daily Flow Ranges (gpd) (Low-High; Average)
Outfall 001	2014	0.01125	750 – 4,000; 2,250
	2015	0.0217	700 – 4,500; 1,808
	2016	0.0275	500 – 4,500; 2,292
	2017	0.0221	0.0 – 5,000; 2,455
	2018	0.0007	0.0 – 167; 77.4
Outfall 002	2014	0.01325	1,000 – 7,000; 2,650
	2015	0.0245	1,000 – 4,500; 2,042
	2016	0.0302	700 – 4,500; 2,517
	2017	0.02366	0.0 – 5,000; 2,618
	2018	0.00091	0.0 – 233; 100.8

2.2.1 Characterization of Discharge Parameters with Limits

DEC examined limited parameters by reviewing Discharge Monitoring Report (DMR) data from August 2014 through November 2018 and comparing it to numeric limits under the Permit; narrative limitations (i.e., sheen observations) were not included. The parameters reviewed include pH, oil and grease, total organic carbon (TOC), total aromatic hydrocarbons (TAH), and total aqueous hydrocarbons (TAqH). Table 3 provides a summary of observed ranges and averages of compliance monitoring results, and a comparison to the existing permit limits, including Maximum Daily Limits (MDL) and Average Monthly limits (AML) given in Standard Units (su), milligrams per liter (mg/L), and micrograms per liter (µg/L).

Table 3: Effluent Characterization of Parameters with Limits

Parameter (Units)	Limits		Observed Range ¹ (Low – High, Average)	
	MDL	AML	Outfall 001	Outfall 002
pH ² (su)	6.5 ≤ pH ≤ 8.5		4.8 – 7.7, 6.9	6.5 – 7.9, 7.3
Oil and Grease (mg/L)	15	8	< 1.01 – 4.2, 1.45	< 01.01 – 4.2, 4.15
TOC (mg/L)	110	--	< 0.15 – 4.37, 1.40	< 0.05, – 5.34, 1.18
TAH (µ/L)	10	--	< 1.05 – 13.33 , 1.52	1.0 – 97.52 , 5.49
TAqH (µ/L)	15	--	0.132 – 14.1, 1.45	0.167 – 97.7 , 5.54
Notes:				
1. Values that exceed limits are shown in bold.				
2. Median values are used instead of average values for pH.				

2.2.2 Discussion

Table 3 shows that the reported values for oil and grease and TOC were low at both outfalls and did not result in an exceedance of limits. The low oil and grease and TOC data suggests the associated limits may not be applicable (See Section 4.1.1).

The limit exceedances for pH and TAH for Outfall 001 and limit exceedances for TAH and TAqH for Outfall 002 were researched. Conversations with facility personnel indicated that maintenance was being performed on steel tanks during these periods of reported exceedances. Given subsequent results eventually returned to typically low concentrations, DEC believes these exceedance are attributable to maintenance activities, which indicates a need for improved best management practices (BMPs) to help ensure compliance.

2.3 Compliance History

2.3.1 Limits Exceedances

A review of facility compliance during the previous permit cycle was conducted by reviewing notices of noncompliance and comparing compliance monitoring data from DMRs to limits required in the 2014 Permit as shown in Section 2.2.1. The comparative review included DMR data from August 2014 through November 2018. Table 4 shows the number of effluent limit exceedances observed during the term of the 2014 Permit.

Table 4: Limit Exceedances (8/2014 to 11/2018)

Parameter	Number of Observed Exceedances	
	Outfall 001	Outfall 002
pH	1	None
TAH	1	4
TAqH	None	1

There was one exceedance of pH but there were fewer exceedances overall for the facility than during the previous period of review for the 2014 Permit. Exceedance of the pH limit was at Outfall 001 in January 2015. One elevated TAH value in November 2014 resulted in an exceedance at Outfall 001. TAH exceedances occurred at Outfall 002 in September and November 2014, followed by two more TAH exceedances in October and November 2015. There was one exceedance for TAqH at Outfall 002 also in October 2015. As discussed in Section 2.2.2, these exceedances appear to be associated with maintenance activities that instigated development of improved maintenance procedures.

2.3.2 Reporting Violations

Non-receipt violations for the period of review were limited to the November 2015 DMR for Outfall 002. Parameters included TOC, TAH, Flow, TAqH, and oil and grease. The report was submitted late but the permittee has since returned to compliance.

3.0 RECEIVING WATERBODIES

3.1 Water Quality Standards

Section 301(b)(1)(C) of the CWA requires the development of limits in permits necessary to meet Water Quality Standards (WQS) by July 1, 1977. Regulations in 18 AAC 83.435 require that conditions in permits ensure compliance with WQS. The WQS are composed of waterbody

use classifications, numeric and/or narrative water quality criteria, and an antidegradation policy. The use classification system designates the beneficial uses that each waterbody is expected to achieve. The numeric and/or narrative water quality criteria are the criteria deemed necessary by the state to support the beneficial use classification of each waterbody. The antidegradation policy ensures that the beneficial uses and existing water quality are maintained.

Waterbodies in Alaska are designated for all uses unless the water has been reclassified under 18 AAC 70.230 as listed under 18 AAC 70.230(e). Some waterbodies in Alaska can also have site-specific water quality criterion per 18 AAC 70.235, such as those listed under 18 AAC 70.236(b). The Department has determined that there has been no reclassification nor has site-specific water quality criteria been established at the location of the permitted facility.

3.2 Water Quality Status of Receiving Water

Any part of a waterbody that the water quality does not, or is not expected to, intrinsically meet applicable WQS is defined as a “water quality limited segment” and placed on the state’s impaired waterbody list. For an impaired waterbody, Section 303(d) of the CWA requires states to develop a Total Maximum Daily Load (TMDL) management plan for the waterbody. The TMDL documents the amount of a pollutant a waterbody can assimilate without violating WQS and allocates that load to known point sources and nonpoint sources.

Orca Inlet is not included in the *Alaska’s Final 2014/2016 Integrated Water Quality Monitoring and Assessment Report*, November 2, 2018 (*2014/2016 Integrated Report*) and therefore not listed as being impaired. Accordingly, no TMDLs have been developed for this waterbody.

4.0 EFFLUENT LIMITS AND MONITORING REQUIREMENTS

4.1 Basis for Permit Effluent Limits

The Department prohibits the discharge of pollutants to waters of the U.S. (18 AAC 83.015) unless first obtaining a permit issued by the APDES Program that meets the purposes of AS 46.03 and is in accordance with CWA Section 402. Per these statutory and regulatory provisions, the Permit includes effluent limits that require the discharger to (1) meet standards reflecting levels of technological capability, (2) comply with WQS, (3) and comply with other state requirements that may be more stringent.

The CWA requires that the limits for a particular parameter be the more stringent of either TBELs or water quality-based effluent limits (WQBEL). TBELs are set via EPA-rule makings in the form of Effluent Limitation Guidelines (ELG) and correspond to the level of treatment that is achievable using available technology. In situations where ELGs have not been developed or have not considered specific discharges or pollutants, a regulatory agency can develop TBELs using best professional judgment (BPJ) on a case-by-case basis. A WQBEL is designed to ensure that the WQS codified in 18 AAC 70 are maintained and the waterbody as a whole is protected. WQBELs may be more stringent than TBELs. In cases where both TBELs and WQBELs have been generated, the more stringent of the two limits will be selected as the final permit limit. The Permit contains case-by-case TBELs based on BPJ and three WQBELs for pH, TAH and TAqH that are set equal to the applicable water quality criteria established for the respective parameters.

4.1.1 Technology Based Effluent Limits (TBELs)

EPA has not established ELGs for bulk fuel storage facilities. The discharge consists of rain and snowmelt accumulated in SCAs that has the potential for hydrocarbon

contamination (i.e., contaminated runoff). During the reissuance of the 2014 Permit, DEC conducted a critical evaluation of the preexisting TBELs derived by EPA for chemical oxygen demand, biochemical oxygen demand, and chloride that had been established based on the assumption the wastewater would be similar to ballast water. Based on the analytical results available at the time, DEC concluded discharges from SCAs do not resemble the characteristics of ballast water and DEC replaced these TBELs with ones for oil and grease and TOC based on a new working assumption. After reviewing facility discharge practices and monitoring results, the Department adopted TBELs based on the working assumption that the discharges from the facility could resemble contaminated runoff discharges as described in the following specialized definition from Chapter 40 of the Code of Federal Regulations Part 419 Petroleum Refining Point Source Category (40 CFR 419):

419.11 (g)

The term *contaminated runoff* shall mean runoff which comes into contact with any raw material, intermediate product, finished product, by-product or waste product located on petroleum refinery property.

To reevaluate the existing TBELs for oil and grease and TOC, DEC reviewed analytical results generated from August 2014 through November 2018 for four similar bulk fuel permits including the Shoreside Permit. However, one outfall from the U.S. Coast Guard Permit has been excluded due to unidentified source contributions that make this discharge an outlier in the statistical evaluation. Overall statistics for TOC and oil and grease for all four permits were compared to those of just the Shoreside Permit; Table 5 shows the summary of the statistics used to reevaluate the applicability of the existing TOC and oil and grease TBELs.

Table 5: Statistical Evaluation of TOC and Oil and Grease (O&G) in Four Bulk Fuel Permits

Statistical Parameter	Outfall 001		Outfall 002		All Permits	
	TOC	O&G	TOC	O&G	TOC	O&G
Maximum	4.37	4.20	5.34	4.20	23.40	8.48
Minimum	0.15	1.01	0.05	1.01	0.05	1.00
Average	1.00	1.45	1.18	1.45	3.53	2.73
Standard Deviation	0.89	0.82	1.27	0.83	3.45	1.66
Coefficient of Variation	0.89	0.56	1.07	0.57	0.98	0.61
Data Set	45	47	45	47	435	483
Detected Data	30	4	33	4	391	83
Percent Detected	67%	9%	73%	9%	90%	17%

Neither discharges from Outfall 001 or 002 evaluated during this reissuance had results for TOC or oil and grease that indicate the TBELs are applicable; the calculated average concentrations for the outfalls were < 1 % of the 110 mg/L TBEL for TOC and < 10% of the 15 mg/L TBEL for oil and grease. In addition, the results for oil and grease were measured above detection only 9 % of the time. Hence, the effluent does not appear to be impacted by hydrocarbons and the oil and grease and TOC limits do not appear to be applicable, the effluent characteristics resemble storm water. Based on these comparisons, the oil and grease and TOC TBELs are being eliminated from the Permit as a technical mistake realized upon review of recent data. With TBELs essentially eliminated from the Permit, DEC will impose WQBELs to the extent necessary to control discharges and comply with WQS.

4.1.2 Water Quality Based Effluent Limits (WQBELs)

Per 18 AAC 70.020(b)(A)(i), pH must be less than 6.5 or greater than 8.5 at all times ($6.5 \leq \text{pH} \leq 8.5$). Similar to the existing Permit, DEC sets the WQBEL for pH to be equal to the quality criterion based on a determination through characterization that the facility can attain the criteria.

Per 18 AAC 70.020(b)(17)(B)(ii), discharges “may not cause a film, sheen, or discoloration on the surface or the floor of the waterbody or adjoining shoreline.” DEC is imposing this narrative limitation of no discharge of petroleum hydrocarbons as determined by the presence of film, sheen, or a discoloration of the surface of the SCA containment water prior to discharge. An observed sheen must be removed by treatment methods prior to discharge.

Alaska also has numeric water quality criteria for TAH and TAqH of $10\mu\text{g/L}$ and $15\mu\text{g/L}$, respectively. Although the concentrations of TAH and TAqH observed during the term of the 2014 Permit suggest a mixing zone could be authorized, no mixing zone request has been submitted by the applicant. In addition, if the high TAH and TAqH identified in Table 3 are the result of maintenance activities then DEC would impose additional BMPs to control the maintenance activity rather than authorize a mixing zone given the apparent ability to meet criteria otherwise. Therefore, the Department is retaining the limits for TAH and TAqH based on meeting applicable water quality criteria at the point of discharge in order to ensure water quality criteria and existing uses are protected. The TAH and TAqH limits will be initially monitored monthly but if after 12 consecutive monitoring events the limits (criteria) have not been exceeded, the permittee may submit a written request for Department approval for a frequency reduction to quarterly.

Similar to petroleum hydrocarbons, 18 AAC 70.020(b)(20) also requires that discharges “may not, alone or in combination with other substances, cause a film, sheen, or discoloration on the surface of the water or adjoining shorelines; cause leaching of toxic or deleterious substances; or cause a sludge, solid, or emulsion to be deposited beneath or upon the surface of the water, within the water column, on the bottom, or upon adjoining shorelines.” The Permit will contain a general requirement for this narrative to ensure these conditions do not occur from discharges authorized by the Permit.

4.2 Effluent Limits and Monitoring Requirements

Per AS 46.03.110(d), the Department may specify the terms and conditions for discharging wastewater in a permit. The Permit includes monitoring requirements so that compliance with effluent limits can be determined, but may also be required to characterize the effluent and to assess impacts to the receiving water. Sufficiently sensitive methods as required in 40 CFR 136 are required for analyzing collected samples. When appropriate, DEC requires development and implementation of specific BMPs as described in Section 7.3.1.

4.2.1 Effluent Limits and Monitoring Requirements for Outfalls 001 and 002

As discussed in Section 4.1.1, the effluent associated with Outfalls 001 and 002 are consistent with typical SCAs. Because the previous limits for TOC and oil and grease have been determined to be inappropriate for SCAs, these limits have been removed from the Permit. The applicable effluent limits and monitoring requirements are provided in Table 6.

Table 6: Effluent Limits and Monitoring Requirements (Outfalls 001 and 002)

Parameter (Units)	Effluent Limits	Monitoring Requirements	
		Frequency	Sample Type
Flow Volume (gpd) ¹	Report	Daily	Measure or Estimate
Oil and Grease (Sheen) ¹	No Visible Sheen	Daily	Visual
pH (su)	6.5 ≤ pH ≤ 8.5	Monthly	Grab
TAH (µg/L) ²	10 Maximum Daily	Monthly ³	Grab
TAqH (µg/L) ²	15 Maximum Daily	Monthly ³	Grab
Notes:			
<ol style="list-style-type: none"> 1. Flow volumes and visual observations for sheen must be measured daily when discharges occur and recorded in a daily log. Report total monthly flow volumes and average monthly flow volumes determined by dividing the total monthly volume by the number of discharge events for the month. 2. See Section 4.2.2 details for reporting TAH and TAqH results below detection. 3. Monitoring for TAH and TAqH must be conducted monthly initially. After 12 consecutive monitoring events demonstrate compliance with both the TAH and TAqH limits, the permittee may submit a written request to DEC to reduce the monitoring frequency to quarterly. The permittee must have written approval from DEC prior to reducing the monitoring frequency for TAH and TAqH. 			

4.2.2 Reporting TAH and TAqH Results

For purposes of reporting on the DMR for a single sample for TAH or TAqH where the parameter is a summation of results of individual analytes, estimated (e.g., “J” estimates) are considered nondetectable. When all individual analytes are nondetectable, or estimates, the permittee must report the categorical summation of the common method detection limits with a “less than [categorical summation of method detection limits].” If any of the analytes are detectable, the permittee must report the summation of only the detected analytes on the DMR without a less than symbol. See Permit Appendix C for Definition of Categorical Sum.

4.3 Electronic Discharge Monitoring Reports

4.3.1 E-Reporting Rule, Phase I (DMRs)

The permittee must submit a DMR for each month by the 28th day of the following month. DMRs shall be submitted electronically through the EPA Electronic DMR Submittal Portal (NetDMR) per Phase I of the E-Reporting Rule (40 CFR 127). Authorized persons may access permit information by logging into the NetDMR Portal <https://cdxnodengn.epa.gov/net-netdmr/>. DMRs submitted in compliance with the E-Reporting Rule are not required to be submitted as described in Permit Appendix A - Standard Conditions unless requested or approved by the Department. Any DMR data required by the Permit that cannot be reported in a NetDMR field [e.g. full Whole Effluent Toxicity (WET) reports, mixing zone receiving water data, etc.], shall be included as an attachment to the NetDMR submittal. DEC has established an e-Reporting Information website at <http://dec.alaska.gov/water/compliance/electronic-reporting-rule/> that contains general information about this new reporting format. Training materials and webinars for NetDMR can be found at <https://netdmr.zendesk.com/home>.

4.3.2 E-Reporting Rule, Phase II (Other Reporting)

Phase II of the E-Reporting Rule specifies that permittees will integrate electronic reporting for all other reports required by the Permit (e.g., Annual Reports and Certifications) and implementation is expected to begin during the term of the Permit. Permittees should

monitor the DEC E-Reporting website at: <http://dec.alaska.gov/water/compliance/electronic-reporting-rule/> for updates on Phase II of the E-Reporting Rule and will be notified when they must begin submitting all other reports electronically. Until such time, other reports required by the Permit may be submitted in accordance with Permit Appendix A – Standard Conditions.

4.4 Additional Monitoring

4.4.1 Additional Monitoring Upon DEC Request

DEC may require additional monitoring of effluent or receiving water for facility or site-specific purposes, including, but not limited to: data to support applications, demonstration of water quality protection, obtaining data to evaluate ambient water quality, evaluating causes of elevated concentrations of parameters in the effluent, and conducting chronic WET toxicity identification and reduction. If additional monitoring is required, DEC will provide the permittee or applicant the request in writing.

4.4.2 Optional Additional Monitoring by Permittee

The permittee also has the option of taking more frequent samples than required under the Permit. These additional samples must be used for averaging if they are conducted using the Department approved test methods (generally found in 18 AAC 70 and 40 CFR 136 [adopted by reference in 18 AAC 83.010]). The results of any additional monitoring must be included in the calculation and reporting of the data (e.g., calculation of averages) on eDMRs as required by the Permit and Standard Conditions Part 3.2 and 3.3 (Permit Appendix A).

4.4.3 Sufficiently Sensitive Methods

Monitoring for effluent limitations must use methods with method detection limits that are less than the effluent limitations or are sufficiently sensitive. Monitoring effluent or receiving water for the purpose of comparing to water quality criteria must use methods that are less than the applicable criteria or are sufficiently sensitive. Per 40 CFR 122.21(e)(3)(i), a method approved under 40 CFR 136 is sufficiently sensitive when:

- (A) The method minimum level (ML) is at or below the level of the applicable water quality criterion for the measured parameter, or
- (B) The method ML is above the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in the discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge (e.g., not applicable to effluent or receiving water monitored for characterization), or
- (C) The method has the lowest ML of the analytical methods approved under 40 CFR 136 for the measured pollutant or pollutant parameter (e.g., the receiving water concentration or the criteria for a given pollutant or pollutant parameter is at or near the method with the lowest ML).

The determination of sufficiently sensitive methods discussed above for a single analyte is not applicable to TAH and TAqH due to the summation of multiple analytes. Therefore, for TAH and TAqH, DEC will apply a typical multiplier of 3.2 to the categorical sum of the method detection limits to “estimate” an ML for comparison with water quality criteria for

TAH and TAqH. If the “estimated ML” is greater than the criteria, 10 µg/L and 15 µg/L respectively, DEC may request submittal of the analytical report to conduct a comprehensive review of those particular results.

5.0 ANTIBACKSLIDING

Per 18 AAC 83.480, “effluent limitations, standards, or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the 2012 Permit.” Per 18 AAC 83.480, a permit may not be reissued “to contain an effluent limitation that is less stringent than required by effluent guidelines in effect at the time the Permit is renewed or reissued.”

Effluent limitations may be relaxed as allowed under 18 AAC 83.480(b), CWA Section 402(o) and CWA Section 303(d)(4). 18 AAC 83.480(b) allows relaxed limitations in renewed, reissued, or modified permits when there have been material and substantial alterations or additions to the permitted facility that justify the relaxation, or, if the Department determines that technical mistakes were made.

CWA Section 303(d)(4)(A) states that, for waterbodies where the water quality does not meet applicable WQS, effluent limitations may be revised under two conditions, the revised effluent limitation must ensure the attainment of the WQS (based on the waterbody TMDL or the waste load allocation) or the designated use which is not being attained is removed in accordance with the WQS regulations.

CWA Section 303(d)(4)(B) states that, for waterbodies where the water quality meets or exceeds the level necessary to support the waterbody’s designated uses, WQBELs may be revised as long as the revision is consistent with the State’s Antidegradation Policy. Even if the requirements of CWA Section 303(d)(4) or 18 AAC 83.480(b) are satisfied, 18 AAC 83.480(c) prohibits relaxed limits that would result in violations of WQS or ELGs (if applicable).

State regulation 18 AAC 83.480(b) only applies to effluent limitations established on the basis of CWA Section 402(a)(1)(B), and modification of such limitations based on effluent guidelines that were issued under CWA Section 304(b). Accordingly, 18 AAC 83.480(b) applies to the relaxation of previously established case-by-case TBELs developed using BPJ. To determine if backsliding is allowable, the regulation provides five regulatory criteria in 18 AAC 83.480(b)(1-5) that must be evaluated and satisfied.

5.1 Technology-Based Backsliding

TBELs for TOC and oil and grease have been discontinued at all outfalls due to analytical data from August 2014 through November 2018 being consistently and significantly well below limits and indicating no correlation with hydrocarbon sources (See Section 4.1.1). The basis for removing these TBELs is based on obtaining new data since the first imposition of the limits that indicate assigning the TBELs based on similarity with contaminated runoff from refineries was a technical error. The Department finds the changes outlined above are consistent with 40 CFR 122.44(l) and 18 AAC 83.480 and does not result in a violation of WQS.

6.0 ANTIDEGRADATION

6.1 Legal Basis

Section 303(d)(4) of the CWA states that, for waterbodies where the water quality meets or exceeds the level necessary to support the waterbody's designated uses, WQBELs may be revised as long as the revision is consistent with the State's Antidegradation Policy. Alaska’s current antidegradation regulations are presented in 18 AAC 70.015 Antidegradation Policy and

in 18 AAC 70.016 Antidegradation Implementation Methods for discharges authorized under the federal Clean Water Act (Implementation Methods). The Antidegradation Policy and Implementation Methods have been amended through April 6, 2018; are consistent with 40 CFR 131.12; and were approved by EPA on July 26, 2018.

6.2 Receiving Water Status and Tier Determination

Per the Implementation Methods, the Department determines a Tier 1 or Tier 2 classification and protection level on a parameter by parameter basis. The Implementation Methods also describe a Tier 3 protection level applying to designated waters, although no Tier 3 waters have been designated in Alaska at this time.

The marine waters of Orca Inlet, covered under the Permit, are not listed as impaired (Categories 4 or 5) in the *2014/2016 Integrated Report*. Therefore, no parameters have been identified where only the Tier 1 protection level applies. Accordingly, this antidegradation analysis conservatively assumes that the Tier 2 protection level applies to all parameters, consistent with 18 AAC 70.016(c)(1).

Per 18 AAC 70.015(a)(2), if the quality of water exceeds levels necessary to support propagation of fish, shellfish, wildlife, and recreation in and on the water, that quality must be maintained and protected, unless the Department authorizes a reduction in water quality.

Prior to authorizing a reduction of water quality, the Department must first analyze and confirm the findings under 18 AAC 70.015(a)(2)(A-D) are met. The analysis must be conducted with implementation procedures in 18 AAC 70.016(b)(5)(A-C) for Tier 1 protection, and under 18 AAC 70.016(c)(7)(A-F) for Tier 2 protection. These analyses and associated findings are summarized below.

6.3 Tier 1 Analysis of Existing Use Protection

The summary below presents the Department's analyses and findings for the Tier 1 analysis of existing use protections per 18 AAC 70.016(b)(5) finding that:

(A) existing uses and the water quality necessary for protection of existing uses have been identified based on available evidence, including water quality and use related data, information submitted by the applicant, and water quality and use related data and information received during public comment;

The Department reviewed water quality data and information on existing uses in the vicinity of Outfalls 001 and 002, secondary containment discharges submitted by the applicant. The Department finds the information reviewed as sufficient to identify existing uses and water quality necessary for Tier 1 protection.

(B) existing uses will be maintained and protected;

Per 18 AAC 70.020 and 18 AAC 70.050, marine waters are protected for all uses. Therefore, the most stringent water quality criteria found in 18 AAC 70.020 and in the *Alaska Water Quality Criteria Manual for Toxic and Other Deleterious Organic and Inorganic Substances* (DEC 2008) have been applied where appropriate. The Permit includes WQBELs that are based on meeting water quality criteria at the point of discharge. Because the criteria are developed such that meeting the criteria protects the uses of the waterbody and all applicable criteria are met at the point of discharge, then the uses of the waterbody as a whole are being maintained and protected.

(C) the discharge will not cause water quality to be lowered further where the department finds that the parameter already exceeds applicable criteria in 18 AAC 70.020(b), 18 AAC 70.030, or 18 AAC 70.236(b).

The Permit will require that the discharges shall not cause or contribute to a violation of WQS. As previously stated the marine waters of Orca Inlet covered under this Permit are not listed as impaired; therefore, no parameters were identified as already exceeding the applicable criteria in 18 AAC 70.020(b) or 18 AAC 70.030.

The Department concludes the terms and conditions of the Permit will be adequate to fully protect and maintain the existing uses of the water and that the findings required under 18 AAC 70.016(b)(5) are met.

6.4 Tier 2 Analysis for Lowering Water Quality Not Exceeding Applicable Criteria

6.4.1 Scope of Tier 2 Analysis

Per 18 AAC 70.016(c)(2), an antidegradation analysis is only required for those waterbodies needing Tier 2 protection and which have any new or existing discharges that are being expanded based on permitted increases in loading, concentration, or other changes in effluent characteristics that could result in comparative lower water quality or pose new adverse environmental impacts. Additionally, per 18 AAC 70.016(c)(3), DEC is not required to conduct an antidegradation analysis for a discharge the applicant is not proposing to expand.

Given this fact sheet is the basis for reissuing a 2019 permit authorizing two discharges, DEC reviewed the information provided by the applicant to determine if any of the discharges require a Tier 2 evaluation. The review indicates the information provided is sufficient and credible per 18 AAC 70.016(c)(4) and does not identify there is an expanded limit or introduction of a new discharge. Based on this analysis, there is no increase in limited loadings, concentrations, or other effluent changes that would result in a comparative lower water quality or pose new adverse environmental impacts to trigger Tier 2 analysis. Accordingly, a Tier 2 analysis has not been performed.

7.0 OTHER PERMIT CONDITIONS

7.1 Standard Conditions

Appendix A of the Permit contains standard regulatory language that must be included in all APDES permits. These requirements are based on the regulations and cannot be challenged in the context of an individual APDES permit action. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements.

7.2 Quality Assurance Project Plan

The permittee is required to develop and implement a facility-specific Quality Assurance Project Plan (QAPP) that ensures all monitoring data associated with the Permit are accurate and to explain data anomalies if they occur. The permittee is required to develop and implement procedures in a QAPP that documents standard operating procedures the permittee must follow for collecting, handling, storing and shipping samples; laboratory analysis (e.g., most sensitive methods); and data reporting. If a QAPP has already been developed and implemented, the

permittee must review and revise the existing QAPP to ensure it includes the necessary content. The permittee must submit a letter to the Department within 90 days of the effective date of the Permit certifying that the QAPP has been revised and implemented. The QAPP shall be retained onsite and made available to the Department upon request.

7.3 Best Management Practices Plan

A BMP Plan presents operating and housekeeping measures intended to minimize or prevent the generation and potential release of pollutants from a facility to the waters of the U.S. during normal operations and additional activities. Per 18 AAC 83.475(4), “A permit must include best management practices to control or abate the discharge of pollutants and hazardous in a permit when the practices are reasonably necessary to achieve effluent limitations and standards...”

Within 90 days of the effective date of the Permit, the permittee must review, revise as necessary, implement the BMP Plan to address current activities at the terminal and submit written certification of the review, revision and implementation to DEC.

In each subsequent year of the Permit, the permittee must establish a committee to review and revise the BMP Plan as necessary to address any modifications or changes to operational practices at the terminal and to continue to meet the objectives and specific requirements of the Permit. The permittee must submit written certification to DEC that the BMP Plan review committee has reviewed the BMP Plan, and modified if necessary, by January 31st of each year the Permit remains in effect.

7.3.1 Outfalls 001 and 002 Specific BMP Plan Requirements

In addition to implementing and updating a BMP Plan that achieves the overall objectives and specific requirements to prevent or minimize the generation and release of pollutants from the facility, the permittee must develop and implement a specific BMP for both outfalls that provide procedures to address maintenance activities taking place that may cause an elevation in TAH and TAqH, leading to consistent compliance with these parameters at both outfalls.

8.0 OTHER LEGAL REQUIREMENTS

8.1 Endangered Species Act

The Endangered Species Act (ESA) requires federal agencies to consult with the National Oceanic and Atmospheric Administration (NOAA) and National Marine Fisheries Service and the US Fish and Wildlife Service (FWS) if their actions could beneficially or adversely affect any threatened or endangered species. As a state agency, DEC is not required to consult with these federal agencies regarding permitting actions. DEC did however voluntarily send an email to both the FWS and NOAA May 20, 2019 notifying the agencies of current permit development activities and requesting critical habitat listings in the vicinity of the terminal and has not received a response from either agency.

DEC consulted the NOAA Marine Mammal Species Range and Critical Habitat Interactive map located online at <https://alaskafisheries.noaa.gov/esa-consultations> and accessed the ESA Species interactive map to identify ESA species of concern in the waters adjacent to the facility.

DEC also accessed the FWS Information, Planning, and Conservation System website at <https://ecos.fws.gov/ipac/location>. The Department used this website to gain an approximate determination that the greater area surrounding the facility that the Steller Sea Lion (*Eumetopias*

jubatus), Fin Whale (*Balaenoptera physalus*), and Humpback Whale (*Megaptera novaeangliae*) may occur in the area.

8.2 Essential Fish Habitat

Essential fish habitat (EFH) includes waters and substrate (sediments, etc.) necessary for fish from commercially-fished species to spawn, breed, feed, or grow to maturity. The Magnuson-Stevens Fishery Conservation and Management Act (January 21, 1999) requires federal agencies to consult with NOAA when a proposed discharge has the potential to adversely affect (reduce quality and/or quantity of) EFH. As a state agency, DEC is not required to consult with these federal agencies regarding EFH; DEC did however voluntarily send an email request to FWS on May 20, 2019 notifying the agency of current permit development activities and requesting critical habitat listings in the vicinity of the terminal and has not received a response.

DEC additionally accessed EFH information at NOAA's Alaska EFH Mapper located at <https://www.fisheries.noaa.gov/resource/map/alaska-essential-fish-habitat-efh-mapper>. The tool identified habitat areas of particular concern in the vicinity of the discharge and reported EFH for 4 species of sole, (*Solea spp.*), 5 species of salmon (*Onchorhynchus spp.*), the Pacific cod (*Gadus macrocephalus*), the Walleye Pollock (*Theragra chalcogramma*), 2 species of Sculpin (*Myoxocephalus spp.*) and (*Hemitripterus spp.*), the Arrowtooth flounder (*Atheresthes stomias*), the Sable fish (*Anoplopoma fimbria*), Sculpin (*Cottoidea spp.*)

8.3 Ocean Discharge Criteria Evaluation

CWA Section 403(a), Ocean Discharge Criteria, prohibits the issuance of a permit under CWA Section 402 for a discharge into the territorial sea, the water of the contiguous zone, or the oceans except in compliance with Section 403. Permits for discharges seaward of the baseline on the territorial seas must comply with the requirements of Section 403, which include development of an Ocean Discharge Criteria Evaluation (ODCE).

The Permit requires compliance with Alaska WQS. Consistent with 40 CFR 125.122(b), adopted by reference at 18 AAC 83.010(C)(8), discharges in compliance with Alaska WQS shall be presumed not to cause unreasonable degradation of the marine environment. EPA made the connection between the similar protections provided by ODCE requirements and WQS when promulgating ocean discharge criteria rules in 1980, as stated, "the similarity between the objectives and requirements of [state WQS] and those of CWA Section 403 warrants a presumption that discharges in compliance with these [standards] also satisfy CWA Section 403." (Ocean Discharge Criteria, 45 Federal Register 65943.). As such, given the Permit requires compliance with Alaska WQS, unreasonable degradation to the marine environment is not expected and further analysis under 40 CFR 125.122 is not warranted for this permitting action.

An Ocean Discharge Criteria Evaluation (ODCE) is not required for the reissued permit. 40 CFR 125, Subpart M requires an ODCE for a point source that occurs seaward of the baseline of the territorial sea. Because Shoreside Petroleum Inc.-Cordova Bulk Fuel Facility is located landward of the baseline, development of an ODCE is not required.

8.4 Permit Expiration

The Permit will expire five years from the effective date of the permit.

9.0 REFERENCES

1. Alaska Department of Environmental Conservation, *Alaska's Final 2014-2016 Integrated Water Quality Monitoring and Assessment Report*.
2. Alaska Department of Environmental Conservation, 2003. *Alaska Water Quality Criteria Manual for Toxics and Other Deleterious Organic and Inorganic Substances*, as amended through December 12, 2008.
3. Alaska Department of Environmental Conservation. *Alaska's Final 2010 Integrated Water Quality Monitoring and Assessment Report*.
4. Alaska Department of Environmental Conservation. *18 ACC 70. Water Quality Standards*, as amended through June 26, 2003.
5. Alaska Department of Environmental Conservation. *18 ACC 70. Water Quality Standards*, as amended through July 1, 2006.
6. Alaska Department of Environmental Conservation. *18 ACC 70. Water Quality Standards*, as amended through April 8, 2012.
7. Alaska Department of Environmental Conservation. *18 ACC 70. Water Quality Standards*, as amended through February 19, 2018.
8. Alaska Department of Environmental Conservation. *18 AAC 83. Alaska Pollutant Discharge Elimination System Program*. As amended Through October 23, 2008.
9. Alaska Department of Environmental Conservation. *18 ACC 72. Wastewater Disposal*, as amended through December 23, 2009.
10. Alaska Department of Environmental Conservation. *Interim Antidegradation Implementation Methods*. Division of Water. Policy and Procedure No. 05.03.103. July 14, 2010.
11. Shoreside Petroleum Inc. Oil discharge Prevention and Contingency Plan., September 21, 2016
12. U.S. EPA, *Technical Support Document for Water Quality-based Toxics Control*. Office of Water, EPA/505/2-90-001, PB91-127415. Washington D.C., March 1991.
13. U.S. EPA, *Interim Guidance for Performance-Based Reduction of NPDES Monitoring Frequencies*. Office of Water, EPA 833-B-96-001, Washington D.C., April 1998.
14. United States Fish and Wildlife Service, 2013. *List of Endangered, Threatened, Proposed Candidate and Delisted Species*, May 24, 2013.

APPENDIX A. FIGURES

Figure 1: SPI Cordova Bulk Fuel Storage Facility, General Vicinity Map

General Vicinity Map

Current to: 1/7/2019
 Author: Integrity Environmental LLC
<http://www.integrity-environmental.com>



Cordova Terminal
 Within: Section 21,
 Township 15 South, Range 3 West,
 Copper River Meridian, Alaska.
 Coordinate System: NAD 1983 Alaska Albers

 Bulk Plant Site

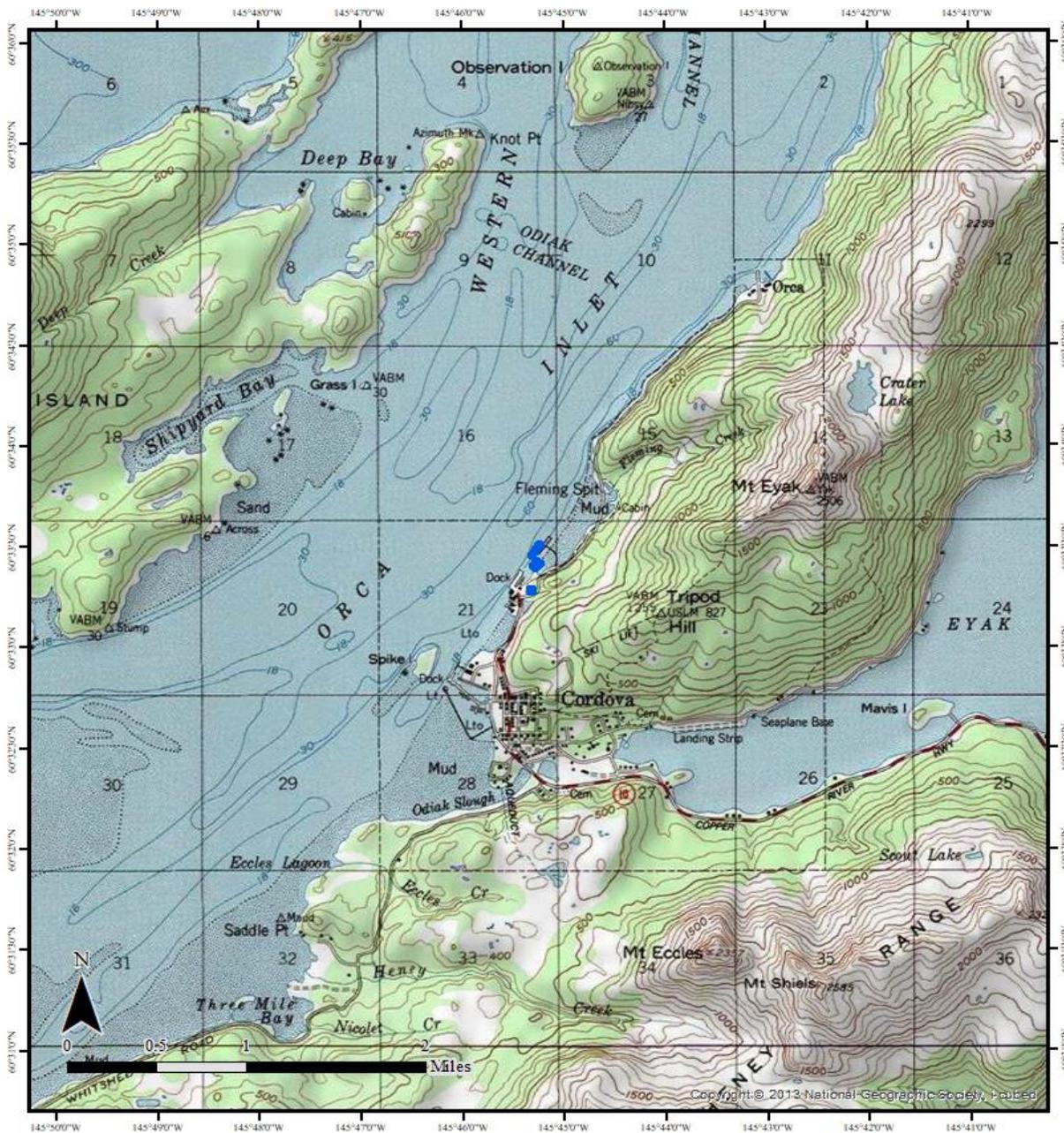


Figure 2: SPI Cordova Bulk Fuel Facility, Site Map

Cordova Bulk Facility Site Map

Current to: 1/7/2019
 Author: Integrity Environmental LLC
<http://www.integrity-environmental.com>



Cordova Terminal
 Within: Section 21,
 Township 15 South, Range 3 West,
 Copper River Meridian, Alaska.
 Address: 100 Ocean Dock Road,
 Cordova, Alaska
 Coordinate System:
 NAD 1983 Alaska Albers

- Outfall Location
- Tank
- P Parking Area
- W Warehouse
- L TTLR
- Secondary Containment Area
- Bulk Plant Site Boundaries

Outfall #1 Location: 60 33.390'N 145 45.282'W
Outfall #2 Location: 60 33.316'N 145 45.334'W



Figure 3: SPI Cordova Bulk Fuel Lower Tank Farm, Site Plan

Lower Tank Farm Site Map

Current to: 1/7/2019
 Author: Integrity Environmental LLC
<http://www.integrity-environmental.com>



Cordova Terminal
 Within: Section 21,
 Township 15 South, Range 3 West,
 Copper River Meridian, Alaska.
 Address: 100 Ocean Dock Road,
 Cordova, Alaska
 Coordinate System:
 NAD 1983 Alaska Albers

Outfall #1 Location: 60 33.390'N 145 45.282'W

- Outfall Location
- Catch Basin
- ▲ Drain
- Oil/Water Separator
- PVC Pipe
- Sump
- Tank
- ✳ Seasonal Snow Storage
- L Tank Truck Loading Rack
- W Warehouse
- Strip Drain
- Drain Pipe
- ➔ Site Drainage
- ▭ Secondary Containment Area
- ▭ Lower Tank Farm Site Boundary



Figure 4: SPI Cordova Bulk Fuel Upper Tank Farm, Site Plan

Upper Tank Farm Site Map

Current to: 1/7/2019
 Author: Integrity Environmental LLC
<http://www.integrity-environmental.com>



Cordova Terminal
 Within: Section 21,
 Township 15 South, Range 3 West,
 Copper River Meridian, Alaska.
 Address: 100 Ocean Dock Road,
 Cordova, Alaska
 Coordinate System:
 NAD 1983 Alaska Albers

- Outfall Location
- Sump
- Tank
- Seasonal Snow Storage
- Parking Area
- Drain Pipe
- Site Drainage
- Secondary Containment Area
- Upper Tank Farm Site Boundary

Outfall #2 Location: 60 33.316'N 145 45.334'W

