

**STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS**



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**Easement Application
AS 38.05.850**

Non-refundable application fee: \$1200

ADL# _____
(to be filled in by state)

SECTION I. APPLICANT INFORMATION	
Applicant Name: Tim Jones	Title: Land Manager
Company: Oil Search (Alaska), LLC	
Mailing Address: PO Box 240927	
City/State/Zip Code: Anchorage, AK 99524	
Phone: 907-375-4624	Email: tim.jones@oilsearch.com
SECTION II. PROJECT LOCATION/LAND STATUS	
State of Alaska Surface Lands:	
Are supplemental pages for Land Status included in Appendix A? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
Meridian, Township, Range, and Section(s): T13N, R9E, Sec. 5, U.M	
Oil and Gas Unit Kuparuk River Unit	
Is there an Oil and Gas Mineral Estate Lease? If yes, list ADL(s) ADL 355024	
Other Considerations (Existing easement and/or leases): Existing Tidelands Lease ADL 403737	
Letter of non-objection or third-party commercial agreement obtained from other interested parties? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If no, please explain OSA is engaged in discussions with interested parties related to access to the proposed easement area and minimizing impacts related to simultaneous use of areas adjacent to the proposed easement area.	
SECTION III. PROJECT INFORMATION	
1. Project Name: Seawater Treatment Plant	
2. Construction Start/End Date: November 2021 – April 2024	Easement Duration: 35 years
3. Project Activities:	

A. Project Description:

OSA is advancing development of the Pikka Unit through construction of the Pikka Project (formerly the Nanushuk Project) in the Pikka Unit on Alaska's North Slope. Production of oil from these reservoirs requires a supply of "make-up" water with sufficient reliability and water quality assurance to allow OSA to optimize production efficiency. Current plans for the Pikka Project are to obtain make-up water from a third party pending commercial agreements, availability of supply, and confirmation that water quality will meet OSA's needs. However, in order to provide a long-term supply of make-up water with sufficient reliability and water quality assurance, OSA is proposing to build a Seawater Treatment Plant (STP) and make-up water pipeline (STP pipeline) (collectively, "the Project"). Developing an STP will provide a reliable and predictable supply of make-up water of sufficient quantity and quality for improved hydrocarbon extraction efficiency from the Pikka Unit reservoirs.

An 18.4-mile-long makeup water pipeline and fuel gas pipeline will be permitted and constructed from the STP to OSA's planned Nanushuk Project Tie-in Pad (TIP) northwest of Kuparuk Central Processing Facility (CPF) 2. The yet-to-be constructed fuel gas pipeline will transport fuel gas from the TIP to the STP. The pipelines will tie into the Pikka Project make-up water and fuel gas pipelines that were permitted with the Pikka Project.

Construction of the Project will involve driving sheet pile, driving piles, trenching, excavating, placing gravel fill, screeding, installing vertical support members (VSMs) and pipelines, and constructing ice roads and pads.

This application requests an exclusive easement authorization for the placement of the STP over an approximately 6.8-acre area (~190,000 cubic yards (yd³)) east of, and adjacent to, the east side of gravel fill at Oliktok Point. The total requested initial construction easement is approximately 30.3 acres. As described more fully below, OSA requests that after the initial winter construction season, the construction easement area be reduced to a smaller, interim construction easement of approximately 14.8 acres. The total requested operations phase easement is approximately 13 acres. As stated in Section II, only the easement for the STP is the subject of this application; another application for a pipeline easement will be forthcoming.

The STP will be constructed off-site on a submersible barge and transported via sealift to the North Slope during the open water season. Upon arrival, the STP barge will be positioned by tugboats into its final location and ballasted down to rest on the ocean floor. Gravel fill will be discharged over the area surrounding the barge. Screeding of the seafloor will occur initially during the open water season when the STP arrives on location; subsequent to STP installation, screeding may occur annually in the same area for maintenance of STP operations. The STP will be fully functional upon arrival following connection to the yet-to-be constructed TIP fuel gas pipeline and the STP pipeline; the STP will be equipped with a seawater intake structure, filtration system, power generation, and heating system.

One standby diesel generator and diesel fuel storage tanks will be located on-site, internal to the STP, for backup power. Backup power will be available to power lights and building heat in case of emergency.

Any waste generated during construction or operation of the STP will be hauled off-site for proper disposal.

B. Methods of Construction

The STP process equipment will be located in modules on a submersible barge constructed off-site and transported via sealift to the North Slope.

Initial Sheet Pile Installation

Prior to STP barge arrival, sheet pile will be installed to form the dock face and enclose the future barge location. Approximately 2,218 linear feet of sheet pile will be installed during winter. All of the sheet piling will be installed below MHW. The approximate water depth where sheet pile will be installed is 3 to 7.25 feet. Once temperatures are cold enough (likely mid- to late December), a six-acre ice pad and an ice road of sufficient depth will be constructed to support pile installation/removal activities and the staging of materials and equipment. Vibratory hammers will be used to install and remove temporary piles for the two 25-foot-long sheet pile templates as well as install the sheet pile to extend the dock face at Oliktok Point. A template will be used to position the piles when the piles are being driven. Four 12-inch-diameter, 25-foot-long, temporary round pipe piles will be utilized to hold the templates in position. Templates will be installed and removed a total of approximately 85 times, so that temporary round pipe piles will be installed and removed a total of 356 times. Sheet pile will be installed over a period of approximately 60 days, with approximately 3 to 6 hours of pile installation and removal occurring each day.

Dolphin/Pile Installation

Also during winter, four mooring dolphins will be installed to help guide and moor the STP barge. Each dolphin will comprise a single 48-inch-diameter 75-foot-long pile, for a total of four 48-inch-diameter round pipe piles. Two dolphins will be installed approximately 300 feet north of the dock face, and two will be located near the southwest and southeast corners of the barge berth. The piles will be installed to a depth of approximately 50 feet below Mean Lower Low Water (MLLW). Installation of each pile will occur over a period of four days using vibratory hammers with an estimated two hours of vibratory driving per day. Pile installation of the two offshore dolphins will require construction of a 0.1-mile-long ice road over the sea ice.

Trenching

During winter, the STP outfall pipe that extends from the sheet pile will also be installed. The 12-16-inch-diameter STP outfall pipe will extend approximately 457 feet from the dock face and will be buried just below the sea floor. An excavator will be used to dig a two-foot-wide, three-foot-deep trench of sufficient length to lay the pipe, and then cover the pipe with native material. The native material will be sidecast on the seafloor during trenching and then placed back over the outfall pipe. The outfall of the pipe will be left uncovered. Excess material will be left in place. It is expected that the duration of trenching activities will be five to ten days.

Seafloor Excavation

Site preparation will continue during summer. The 1.9-acre area designated for STP barge placement will be dewatered and excavated to -9.5 feet MLLW. Pumps, excavators, and a crane will be required for the excavation. The excavated material will be placed within the sheet pile enclosure located to the northeast. Placing the excavated material in this area is designed to reuse the excavated material and reduce the amount of gravel needed, control turbidity at the discharge site, and reduce the footprint associated with fill slopes. Approximately 12,000 yd³ of material will be excavated and placed in the adjacent sheet pile enclosure. Approximately four feet of gravel will be placed on top of the excavated material.

Initial Fill Placement

OSA estimates a total of approximately ~190,000 yd³ of fill will be needed to prepare Oliktok Point for the STP and secure the STP in place. Before the STP barge arrives, approximately 165,000 yd³ of gravel will be placed to backfill the sheet piles and create a berth for the barge, as well as a work surface in anticipation of the STP installation. After the STP barge arrives, an additional 25,000 yd³ of gravel will be placed to fill the gap between the sheet pile and the barge, thereby securing the barge in place. Gravel for the Project will be sourced from one or more existing, permitted gravel mine sites, which operate independently of the Project. Gravel will be hauled from these sources via gravel roads (during the summer); some gravel may be temporarily stockpiled on the gravel pad at Oliktok Point.

During the initial gravel placement, gravel will be placed off the existing east side of Oliktok Point in lifts, using large-capacity dump trucks, and will be spread out with bulldozers or similar heavy earthmoving equipment. Once the gravel is placed, it will be re-graded, farmed, and re-compacted by heavy roller. Side slopes not adjacent to sheet pile will be 3H:1V and armored with geotextile bags (4-yd³ polyester bags), with 50 percent overlap.

Sheet Pile Removal/ Mud Gate Installation

Following the initial placement of gravel, during the ice-covered season in winter, a temporary mud gate will be installed at the entrance of the barge berth. Approximately 182 linear feet of sheet pile will be removed from the entrance of the barge berth using a crane, possibly with the assistance of a vibratory hammer. The mud gate, constructed of I-beams and plate steel, will be installed in place of the removed sheet pile with a crane, and will remain in place until immediately prior to the STP barge arrival during the open-water season.

Re-installation of Sheet Pile

During the ice-covered season following arrival of the STP, approximately 182 linear feet of sheet pile will be installed in front of the barge berth using a crane and a vibratory hammer. This sheet piling will be used to protect the STP from ice damage.

Table 1 - STP Sequence of Site Preparation and Construction Activities

Activity	Notes/Dimensions	Construction Season
Initial Sheet Pile Installation	Approximately 2,218 linear feet of sheet pile will be installed in WOUS to create the dock face, surround the barge berth, and support gravel placement. All of the sheet pile will be installed below MHW. In order to provide sheet pile templates during construction, 356 temporary piles will be installed below MHW.	Winter
Dolphin/Pile Installation	Four 48-inch-diameter piles will be installed in WOUS (below MHW) to guide and moor the STP barge.	Winter
Trenching	Approximately 110 cy of seafloor (below MHW) will be trenched to allow for the 12.- 16-inch-diameter STP outfall pipe. Trenched material will be sidecast on the seafloor and then placed on top of the pipe	Winter
Seafloor Excavation	Approximately 12,000 cy of material below MHW will be excavated within the barge berth enclosed by sheet pile to create a depth of -9.5 feet below MLLW.	Summer
Initial Fill Placement	Gravel fill will be placed to extend the surface of Oliktok Point and create a berth for the STP barge.	Summer
Sheet Pile Removal	Approximately 182 linear feet of sheet pile in front of the barge berth will be removed to create an opening for the STP barge.	Summer
Mud Gate Installation	A temporary mud gate will be installed at the entrance of the barge berth using a crane.	Winter
Screeding	Approximately 17,000 cy of material will be redistributed on the seafloor immediately north of the STP location.	Summer
Mud Gate Removal	The mud gate will be removed by crane to allow for barge placement.	Summer
STP Barge Placement	The barge will be positioned into place by tugboats, then ballasted to the seafloor. Once placed, the barge will raise the bottom elevation of 1.33 acres of the seafloor.	Summer
Second Fill Placement	Fill will be placed around the STP barge to secure it in place.	Summer
Re-installation of Sheet Pile	The 182 linear feet of sheet pile previously removed will be re-installed to protect the STP barge from ice floes and stabilize the gravel pad. Approximately 32 temporary piles will be installed below MHW to provide sheet pile templates.	Winter

C. Easement Parameters:

See Figure 1 for full description. OSA requests an initial construction easement for Season 1 winter construction, and an interim construction easement post-Season 1 winter construction until final operational easement area approval. Gravel pad values in the table below are inclusive of the excavation area and STP module.

Initial Construction Easement (including buffers)				Operation Easement (including buffers)			
Projects	Length (ft)	Width (ft)	Size (acre)	Projects	Length (ft)	Width (ft)	Size (acre)
Gravel Pad	Enter	Enter	6.83	Gravel Pad	Enter	Enter	6.83
Gravel Road	Enter	Enter	Enter	Gravel Road	Enter	Enter	Enter
Pipeline	Enter	Enter	Enter	Pipeline	Enter	Enter	Enter
Wellbore	Enter	Enter	Enter	Wellbore		Enter	Enter
Other	Enter	Enter	23.47	Other	Enter.	Enter	6.17
Total	Enter	Enter	30.3	Total	Enter	Enter	13.0
Interim Construction Easement (including buffers)							
Projects	Length (ft)	Width (ft)	Size (acre)				
Gravel Pad	Enter	Enter	6.83				
Gravel Road	Enter	Enter	Enter				
Pipeline	Enter	Enter	Enter				
Wellbore	Enter	Enter	Enter				
Other	Enter	Enter	7.97				
Total	Enter	Enter	14.8				

A. Waste Management:

A range of wastes would be generated during construction and operation, discussed in more detail in Section I – Fuel and Hazardous Substances. The Project would be incorporated into the Pikka Project Waste Management Plan that is being prepared to address the types and quantities, regulatory controls, and management options for solid and liquid wastes. OSA would also use other resources, such as the Alaska Waste Disposal and Reuse Guide (commonly known as the Redbook), to guide waste management decisions (BP and CPAI 2013). Key elements of the waste management approach would include:

- Full compliance with federal, state, and NSB waste management regulations
- Waste minimization through careful project planning and beneficial reclamation, reuse, and recycling when practicable
- Subsurface disposal of authorized waste streams
- Planning for changing types and volumes of wastes and seasonal transportation restrictions, particularly during construction
- Evaluating opportunities for product substitution to reduce hazardous waste
- Staff training on waste management and spill prevention procedures

Solid Waste

Non-hazardous solid waste would be trucked off-site and disposed of at the NSB landfill. Any waste receptacles stored outside would be managed to avoid potential wildlife interactions, using methods such as waste segregation and the covering of dumpsters, as outlined in the OSA Wildlife Avoidance and Interaction Plan.

Hazardous and Universal Waste

Hazardous and universal waste, as defined by the Resource Conservation and Recovery Act, would be managed on-site in appropriate locations and containers prior to transport off-site for disposal or recycling. All hazardous waste generated by the Project would be handled by qualified persons and disposed of in accordance with regulations.

B. Staging and Storage Areas:

No mining will occur with the STP easement; however, minor quantities of gravel fill may be staged within the STP construction easement. Equipment for driving and installing sheet pile and dolphin piles will be staged within the construction easement.

C. Airstrips and Landing Zones:

An airstrip will not be constructed to support the STP. OSA will use existing airstrips in the area for construction and operation. Helicopters may be used in the event of health or safety emergencies over the life of the STP; however, routine helicopter use is not planned under normal operating conditions.

D. Historical Properties and Cultural Resources:

Cultural resource surveys were conducted in the STP area in 2015, 2016, 2017, and 2019. The surveys and proposed STP locations were coordinated with ADNOR/Office of History and Archaeology (OHA) and the NSB. Concurrent with its NEPA evaluation of OSA's CWA Section 404/ Section 10 permit (404/10 Permit; see Section 7, Table 3 of this permit application) for the STP, the US Army Corps of Engineers (USACE) is conducting a Section 106 consultation with the State Historic Preservation Officer (SHPO). Based on the initial Section 106 consultation for the Pikka Project, we anticipate that no historic properties would be adversely affected by the STP project. OSA will provide the SHPO no adverse effect decision on the Section 106 consultation when received.

E. Anadromous Fish Streams and Other Streams:

No streams are located within the requested easement for the STP.

F. Fuel and Hazardous Substances:

Construction will require the transport of diesel, gasoline, and lubricating oils to the STP location to support mechanical devices during construction, and only occasionally during operations to fuel stand-by generators for back-up power. OSA estimates up to four 15,000-gallon diesel fuel storage tanks will be located internal to the STP and function only as standby fuel support to the main power gas turbines. Fuel storage tanks will have leak detection devices.

During operation of the STP the following chemicals and substances, which at the end of use become universal waste, will be in use and stored within the STP.

- Clarifier chemicals – coagulant, flocculant
- Filtration system – hypochlorite, citric acid and sodium hydroxide
- Deaerator chemicals – antifoam, sodium bisulfate
- Chlorine scavenger – sodium bisulfate
- Other process chemicals – corrosion inhibitor, hypochlorite
- Universal Waste: batteries, light ballasts.

G. Air Quality:

Emission sources during construction and operation phases of the STP would be comprised of equipment that is typical of other recent development activities on the North Slope. The construction and operation activities would result in emissions of nitrogen oxides (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), particulate matter (PM), including both PM₁₀ and PM_{2.5},¹ volatile organic compounds (VOC), and greenhouse gases (GHG) including CO₂, CH₄, and N₂O. The types and amounts of air pollutants generated would vary based on the phases of the Project.

Emissions from construction activities would originate primarily from on-road and non-road heavy equipment used for facilities installation. The potential emissions from the construction equipment would be small in comparison to the potential emissions from the operation phase of the Project, and the potential effects of construction activities to regional air quality would be minor. Because emissions from construction activities would not occur for an extended duration, the effects to regional air quality would also be short-lived in the environment.

Construction of the STP during summer may reduce visibility through emissions of fugitive dust at the STP gravel pad. However, North Slope best management practices would greatly reduce the amount of fugitive dust emitted from construction activities that occur during summer. Fugitive dust would not be emitted during winter because the ground is covered with snow and ice.

The operations phase of the STP would include stationary equipment (i.e., emission units [EUs]), such as gas-fired combustion turbine power generators, gas-fired heaters, and diesel-fired reciprocating internal combustion engines. This equipment would emit combustion emissions such as NO_x, CO, PM₁₀, PM_{2.5}, SO₂, VOC, and GHG.

The estimated peak emissions from operation of the STP in tons per 12-month period are shown in Table 2. The peak emissions in Table 2 are based on the conservative assumption that all emission sources would operate concurrently at their maximum rated capacities. The STP's maximum potential CO emissions would be greater than 100 tons per year, but the Project would not trigger minor permitting requirements for CO under 18 AAC 50.502(c)(1) because the Project

¹ Particulate matter with a diameter of less than 10 micrometers and 2.5 micrometers, respectively.

will not be located within 10 km of a CO nonattainment area. In addition, the STP would not trigger PSD permitting requirements for CO under 40 CFR 52.21 and 18 AAC 50.306. As such, dispersion modeling to assess impacts from STP CO emissions is not required, per 40 CFR 52.21, 18 AAC 50.306 and 18 AAC 50.540(d).

Table 2 - Maximum Potential Annual Emissions

Air Pollutant	Tons per Year
NO _x	151.6
CO	241.5
PM ₁₀	9.5
PM _{2.5}	9.5
VOC	15.9
SO ₂	33.0
GHG (CO ₂ e)	156,727

Note: NO_x: nitrogen oxides; CO: carbon dioxide; PM: particulate matter; VOC: volatile organic compounds; SO₂: sulfur dioxide; GHG: greenhouse gases; CO₂e: carbon dioxide equivalent

Ambient air quality in Alaska is managed by ADEC under Alaska Air Quality Control Regulations (Title 18 Alaska Administrative Code, Chapter 50 (18 AAC 50)) and the EPA-approved state implementation plan (SIP). As part of the air permitting process for the Project, ADEC will review the potential effects due to emissions from the project. ADEC will issue an air quality permit to authorize the installation and operation of the STP only after compliance with all applicable ambient air quality standards is demonstrated and the protection of public health and welfare is assured. If OSA seeks to obtain an air quality permit from ADEC, OSA will be required to submit a complete application for the STP, including a source-specific ambient analysis.

The operations of the EUs at the STP are anticipated to trigger the requirement to obtain a minor air quality permit for NO_x under 18 AAC 50.502(c)(1). Pursuant to 18 AAC 50.540(c)(2)(A), dispersion modeling will be required to show that air pollutant emissions from the STP and other nearby stationary sources will not cause or contribute to an exceedance of the annual NO₂ NAAQS/AAQS. The results in Table 4-1 show potential emissions from the STP will not exceed PSD permitting applicability thresholds under 40 CFR 52.21 and 18 AAC 50.306.

H. Water Quality

Potential water quality impacts from the STP would largely be limited to the nearshore marine environment. Construction and operation of the STP would not impact or need rely on freshwater sources. During the operation phase, drinking water will be hauled to the STP from an offsite source, such as the Nanushuk Operations Pad (NOP), and graywater and sanitary water generated at the STP will be disposed offsite.

The STP would impact marine water quality during the construction and operation of the STP and gravel pad. Activities such as screeding, trenching, and gravel placement would cause temporary increases in turbidity and concentration of total suspended solids (TSS). Sediments in Simpson Lagoon are primarily silt and sand (Drake 1977; ADEC 2016a), which, under average current velocities for the area (Okkonen and Weingartner 2003), would likely settle within 2,000 feet of the gravel placement area. Impacts to water quality from sedimentation due to gravel placement would be limited because most of the gravel fill would be placed within the sheet pile enclosure.

Impacts on marine water quality from the STP outfall are expected to be minimal. The effluent from the proposed STP outfall would be required to meet the effluent limits set by ADEC in an Alaska Pollutant Elimination Discharge System (APDES) discharge permit. APDES discharge permits do not place antidegradation restrictions on the waters into which the STP outfall would discharge. Neither Simpson Lagoon nor the Beaufort Sea are currently listed as Alaska 303(d) Category 5 Impaired waters.

It is probable that the APDES permit acquired by OSA for the STP would have similar requirements as the Kuparuk STP Discharge Authorization Permit (Permit Number AK0043354). Accordingly, total residual chlorine (TRC) and temperature are likely the primary pollutants of concern for the STP during normal operations. The Kuparuk STP outfall currently requires mixing zones in order to meet the current APDES effluent limit requirements. It is possible that the OSA STP would also require a mixing zone. OSA has begun a mixing zone analysis for the proposed filter backwash water outfall and preliminary results from CORMIX and Visual Plume modeling, recommended by ADEC, indicate the OSA STP outfall will be at a sufficient distance from the existing KRU STP outfall, an overlap is unlikely, and the discharge will not impinge on the nearshore. Due to the requirements of ADEC regulations, including the antidegradation policy, the effluent limits in the OSA STP discharge permit would protect all beneficial uses, including use for aquatic life.

The STP would require screeding of approximately 8.32 acres for the barge approach and pad site preparation. Screeding would be regulated by conditions of a CWA Section 404/10 Permit, including conditions of the CWA Section 401 water quality certification issued by ADEC. Sediment disturbed by screeding would likely settle within 2,000 feet of the screeding area as described above. Annual screeding may occur in a limited area at the front of the STP intake structure.

Fuels and other petroleum products would be transported from Deadhorse along existing gravel roads and stored at Oliktok Point during construction and operation of the STP. Fuel and hazardous substance storage would comply with state and federal oil pollution and contingency requirements. This would include implementation of a Spill Prevention, Control and Countermeasure Plan. Handling and transport of waste would comply with a project-specific waste management plan. Please see Section C. Waste Management and Section I. Fuel and Hazardous Substances for more details.

A spill or accidental release of fuel or other petroleum products could occur during construction or operation of the STP. The impacts on waterbodies in the event of a spill depend on the size of the spill, the season in which the spill occurs, and where the spill occurs. A spill occurring in a body of freshwater during summer would have a higher potential for migration and distribution of the contaminant. In this scenario, all contaminated water may need to be treated or removed, depending on the nature of the hazardous materials. In this case, the affected area could expand beyond the area of the spilled contaminant because of the higher potential for migration and distribution from dispersion, and entrainment in surface water flow.

I. Utilities:

The STP will be fully functional upon arrival at Oliktok Point and following connection to a fuel gas pipeline and the STP pipeline; the STP will be equipped with an intake structure, filtration system, power generation, and heating system. The STP will not house sanitary waste treatment; all sanitary wastes will be disposed off-site. Communication infrastructure will include a connection via fiber optic cable and a communications tower. Two gas turbine generators internal to the STP will generate ~10MW electricity for the STP facility and communication infrastructure.

J. Material Sites:

An estimated 190,000 yd³ of gravel will be needed for construction of the STP. Clean gravel material for development will be obtained from one or more of the existing mine sites located on the North Slope within 25 miles of the STP area. Likely sources include Mine Sites C, E, and F. Permitting and operation of existing mine sites will be conducted by the mine owner or designated operator.

All gravel mining, overburden and gravel stockpiling, and mine rehabilitation activities will be evaluated as part of the permitting and operation of the gravel mine, independent of the STP Project. Gravel will be loaded onto dump trucks for transport to the STP. No gravel will be stockpiled in WOUS outside of the permitted footprint boundary. Small amounts of gravel may be temporarily stockpiled in upland portions of Oliktok Point prior to placement within the permitted footprint boundary.

K. Water Supplies:

No supplies of freshwater are needed for installation of the STP. During construction, ice roads and pads will be built using seawater to create the sea ice pad (6.0 acres) and road (0.1 mile long) that will provide access to the sheet pile and dolphin locations. The sea ice pad and ice road will require approximately 5 million gallons (MG) of seawater for grounding the ice.

<p>L. Roads: OSA plans to use existing road infrastructure and temporary ice roads for construction and operation of the STP.</p>																														
<p>4. Associated Structures: OSA envisions no permanent associated structures at this time. During construction of the STP, workers will reside at the Nanushuk Operations Pad (NOP) or at a temporary construction camp. No new permanent camps are planned as part of the STP Project. Seasonal peak workforce during construction will vary from 50-350 individuals. Once the STP is in operation, the full-time dedicated workforce will consist of 6-7 individuals, likely housed at the NOP.</p> <p>If an off-site temporary camp is used to support the STP it will have power, communications, and water/wastewater systems.</p>																														
<p>5. Is this an existing use?: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, provide documentation verifying existing use, such as easement atlas, affidavits attesting to use and existence, pictures, etc.</p> <p>The STP is new construction and not an existing use. The STP is not being authorized under an existing Unit Plan of Operations, since it will be located on Alaska state tidelands outside of the Pikka Unit.</p>																														
<p>6. Are you applying to be granted a Private Easement? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>																														
<p>7. Other permits or authorizations applied in conjunction with this proposed project:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #d3d3d3;"> <th colspan="3">Table 3. Potential Permits, Authorizations, and Approvals</th> </tr> <tr style="background-color: #d3d3d3;"> <th style="width: 15%;">Agency</th> <th style="width: 40%;">Permits/Authorizations/Plans</th> <th style="width: 45%;">Scope and Jurisdiction</th> </tr> </thead> <tbody> <tr style="background-color: #d3d3d3;"> <td colspan="3">FEDERAL</td></tr> <tr> <td>USACE</td><td>Department of the Army CWA Section 404/Rivers and Harbors Act Section 10 Permit Consultation with USFWS and NMFS under Section 7 of the Endangered Species Act</td><td>Section 404: discharge of fill into WOUS, including wetlands Section 10: structures or work in navigable waters</td></tr> <tr> <td>USEPA</td><td>CWA Section 404/10 Permit</td><td>Reviews during the USACE permitting process</td></tr> <tr> <td>USEPA</td><td>SPCC Plan required under Section 311 of the CWA</td><td>Authorization required for storage of over 660 gallons of fuel in a single container or over 1,320 gallons in aggregate in tanks above ground</td></tr> <tr> <td>USFWS</td><td>Marine Mammal Protection Act</td><td>Authorization when action may result in incidental and intentional "take" of a marine mammal</td></tr> <tr> <td>USFWS</td><td>Endangered Species Act Section 7 Consultation</td><td>Consultation regarding threatened and endangered species under USFWS jurisdiction</td></tr> <tr> <td>NMFS</td><td>Marine Mammal Protection Act</td><td>Letter of Concurrence that action, as mitigated, will not result in incidental "take" of a marine mammal</td></tr> <tr> <td>NMFS</td><td>Endangered Species Act Section 7 Consultation</td><td>Consultation regarding threatened and endangered species under NMFS jurisdiction</td></tr> </tbody> </table>	Table 3. Potential Permits, Authorizations, and Approvals			Agency	Permits/Authorizations/Plans	Scope and Jurisdiction	FEDERAL			USACE	Department of the Army CWA Section 404/Rivers and Harbors Act Section 10 Permit Consultation with USFWS and NMFS under Section 7 of the Endangered Species Act	Section 404: discharge of fill into WOUS, including wetlands Section 10: structures or work in navigable waters	USEPA	CWA Section 404/10 Permit	Reviews during the USACE permitting process	USEPA	SPCC Plan required under Section 311 of the CWA	Authorization required for storage of over 660 gallons of fuel in a single container or over 1,320 gallons in aggregate in tanks above ground	USFWS	Marine Mammal Protection Act	Authorization when action may result in incidental and intentional "take" of a marine mammal	USFWS	Endangered Species Act Section 7 Consultation	Consultation regarding threatened and endangered species under USFWS jurisdiction	NMFS	Marine Mammal Protection Act	Letter of Concurrence that action, as mitigated, will not result in incidental "take" of a marine mammal	NMFS	Endangered Species Act Section 7 Consultation	Consultation regarding threatened and endangered species under NMFS jurisdiction
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FEDERAL																														
USACE	Department of the Army CWA Section 404/Rivers and Harbors Act Section 10 Permit Consultation with USFWS and NMFS under Section 7 of the Endangered Species Act	Section 404: discharge of fill into WOUS, including wetlands Section 10: structures or work in navigable waters																												
USEPA	CWA Section 404/10 Permit	Reviews during the USACE permitting process																												
USEPA	SPCC Plan required under Section 311 of the CWA	Authorization required for storage of over 660 gallons of fuel in a single container or over 1,320 gallons in aggregate in tanks above ground																												
USFWS	Marine Mammal Protection Act	Authorization when action may result in incidental and intentional "take" of a marine mammal																												
USFWS	Endangered Species Act Section 7 Consultation	Consultation regarding threatened and endangered species under USFWS jurisdiction																												
NMFS	Marine Mammal Protection Act	Letter of Concurrence that action, as mitigated, will not result in incidental "take" of a marine mammal																												
NMFS	Endangered Species Act Section 7 Consultation	Consultation regarding threatened and endangered species under NMFS jurisdiction																												

NMFS	Magnuson-Stevens Act EFH Consultation	Consultation regarding areas designated as EFH
USAF	Land authorization	Authorization for the STP Pipeline to travel over land owned by USAF and selected by the NSB.
STATE		
ADEC DAQ	Minor Air Permit	Required for construction and operation of stationary sources of air pollutants.
ADEC DW	CWA Section 401 Water Quality Certificate	Water quality concurrence/waiver needed for USACE Section 404 permit and ADEC APDES permit
ADEC DW	CWA Section 402 APDES Permit and General Construction Permit	For discharges into surface water including the ocean. This includes stormwater discharges from construction activities as well as filter backwash discharge from industrial activities.
ADNR SHPO	National Historic Preservation Act Section 106 Consultation	Consultation to consider effects on historic, prehistoric, or archeological sites
ADNR DMLW	Tidelands Permit and Land Use Permit	Activities on state-owned land, including screening in state waters, ice road construction, and off-road travel
ADNR DOG	AS 38.05.850 Easement	For project components located on state lands outside of a state oil and gas lease (i.e., the STP site)
LOCAL		
NSB	Master Plan Rezone Amendment (Pikka Development)	Amendment to include STP in Description
NSB	Industrial Development & Use Permit	Approval for development project in NSB
NSB	Right-of-way and/or easements	Activities on land owned by the NSB
NSB	Certificate of Inupiat History, Language, and Culture/ TLUI Clearance (Form 500)	Confirmation that Project area does not have identified TLUI sites/establishment of buffer zones for identified TLUI sites
<p>Notes: USACE: U.S. Army Corps of Engineers; WOUS: Waters of the U.S.; EPA: U.S. Environmental Protection Agency; USFWS: U.S. Fish and Wildlife Service; NMFS: National Marine Fisheries Service; EFH: Essential Fish Habitat; USAF: U.S. Air Force; ADEC: Alaska Department of Environmental Conservation; DAQ: (ADEC) Division of Air Quality; DW: ADEC Division of Water; APDES: Alaska Pollutant Discharge Elimination System; SPCC: Spill Prevention, Containment, and Countermeasure; ADF&G DH: Alaska Department of Fish and Game Division of Habitat; ADNR: Alaska Department of Natural Resources; SHPO: State Historic Preservation Officer; DMLW: ADNR Division of Mining Land & Water; DOG: ADNR Division of Oil and Gas; AS: Alaska Statute; SPCS: ADNR State Pipeline Coordinator's Section; NSB: North Slope Borough; TLUI: Traditional Land Use Inventory</p> <p>In association with the USACE CWA 404/10 Permit process, when a project's development may impact wildlife species listed as threatened or endangered under the Endangered Species Act (ESA), the Federal permitting agency and applicant engage in consultation with NMFS and USFWS under Section 7(a)(2) of the ESA. USACE and OSA are proceeding with the requisite ESA Section 7 consultation process with NMFS and USFWS. The process began with separate OSA-led pre-consultations with NMFS and USFWS. OSA described the STP project from construction to operation and discussed the potential impacts from project construction and operation that may affect trust species of each agency; NMFS (whales and seals) and USFWS (polar bear and ESA-protected waterfowl). OSA prepared biological assessments (BAs) for both agencies and provided these to USACE in April 2020. USACE, as the federal permitting agency, initiates ESA Section 7 consultations with NMFS and USFWS beginning with the transmittal of the BAs.</p> <p>The BA prepared for NMFS-trust species (NMFS BA) has determined that the proposed STP project and its proposed activities may affect, but are not likely to adversely affect ESA-listed species (whales and seals) under the terms of Section 7 of the ESA and requests concurrence and informal consultation based on these findings. The NMFS BA also determined that the proposed project will not destroy or adversely modify critical habitat for ringed or bearded seals.</p>		

The NMFS BA also determines that the transit of the STP to Alaska's North Slope, through the Bering Sea would have no effect on proposed critical habitat for the Western North Pacific and Mexico DPS of humpback whale. Section 9 of this application identifies mitigations to be employed by OSA to avoid incidental take and impacts to whales and seals.

The BA prepared for the USFWS-trust species (USFWS BA) concludes that the proposed STP project may affect, but is not likely to adversely affect, Steller's eiders. In addition, the USFWS concludes the proposed project may affect polar bear and spectacled eider. As such, an incidental take statement for potential incidental take of polar bears and spectacled eiders as a result of the proposed project will be requested. Finally, the USFWS BA concludes that the proposed project may affect but is not likely to adversely affect designated polar bear critical habitat and the proposed project will have no effect on designated critical habitat for spectacled or Steller's eiders.

8. Generally outline your plans for rehabilitating the affected project area after completion of operations.

Any dismantlement, removal and rehabilitation activities will be conducted in conjunction with the DNR and completed to the satisfaction of the Commissioner.

Since the STP is a self-contained barge, at the end of the useful life on the North Slope (e.g., decommissioning), the gravel surrounding the STP within its sheet pile enclosure could be excavated, and the STP barge floated free. The barge could then be wet- or dry-towed to another location for reuse or recycling. Given the nearshore location in an industrial area of the marine environment at Oliktok Point, OSA does not foresee rehabilitation or restoration activities for vegetation, habitat, impacted wildlife, or other applicable resources, but rather foresees the prospect of beneficial reuse of the location and remaining facilities.

9. Operating procedures designed to mitigate, minimize, or avoid adverse effects

Describe operating procedures designed to prevent or minimize adverse effects on other natural resources and other uses of the project area and adjacent areas, including fish and wildlife habitats, historic and archaeological sites, and public use areas. Any training related to minimizing adverse effects. i.e. cultural awareness, wildlife awareness etc. should be included. Describe project specific procedures.

- i. Sheet pile installation only in the winter – avoids in-water sound during open water season when more marine mammals (whales and seals) likely are present
- ii. Sheet pile enclosure to receive excavated sediments from STP berth – isolate turbidity to on-site sheet pile enclosure during excavation and collect excavated sediments for beneficial reuse
- iii. Grounding ice for sheet pile and dolphin installation - mitigate impacts to mobile aquatic life by minimizing potential for entrapment in sheet pile enclosure
- iv. Screened pump intakes during dewatering
- v. Vessel transit through the Bering Sea, delivering the STP, will avoid transiting the North Pacific right whale critical habitat
- vi. STP operating intake screens and velocity less than 0.4 feet/sec, minimize entrainment of fish
- vii. STP operating – inlet bars – minimize the risk of impingement of fish and mammals
- viii. Intake and outfall lines located in waters of sufficient depth to minimize dredging or screening requirements
- ix. Siting sufficiently offset from existing facilities at Oliktok Point to allow for movement of sealift modules between the STP and existing facilities
- x. Siting of STP outfall line sufficiently distant from existing outfalls and intakes to avoid impairment to water quality

SECTION IV. PERFORMANCE GUARANTY		
Bonded Company: Pending		
Type: Pending	Bond Number: pending	Amount: pending
Bonding Company: Enter corporate surety		
Mailing Address: Enter bonding company mailing address		
Phone: Enter bonding company phone number	Fax: Enter bonding company fax number	Email: Enter bonding company email
SECTION V. INSURANCE		
Comprehensive General Liability Insurance:		
Amount of Insurance: No less than \$1,000,000 per occurrence and \$2,000,000 per annual aggregate		
Insurer Name: Marsh & McLennan Agency LLC		
Mailing Address: 1031 W.4th Avenue, Suite 400		
Phone: 907-276-5617	Fax: N/A	Email: N/A

If this authorization is granted, I agree to construct and maintain the improvements authorized in a workmanlike manner, and to keep the area in a neat and sanitary condition; to comply with all the laws, rules, and regulations pertaining thereto; and provided further that upon termination of the easement for which application is being made, I agree to remove or relocate the improvements and restore the area without the cost to the state and to the satisfaction of the Director of the Division of Oil and gas.

Stephen Luna
Applicant's signature

June 22, 2020
Date

INSTRUCTIONS:

Maps

Attach a USGS map (scale of 1:63,360) or a state status plat showing the location of the proposed easement. Please see the easement guidance document for further map requirements.

The final granting of easement will be contingent upon our receipt of as-built depicting the post construction location of the improvements. If your application is approved, instructions for the completion of the as-built will be provided by the Survey Section in the Division of Mining, Land, and Water.

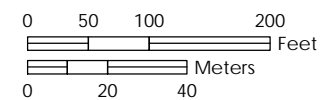
AS 38.05.035 (a) authorizes the director to decide what information is needed to process an application for the sale or use of state land and resources. This information is made a part of the state public land records and becomes public information under AS 40.25.110 and 40.25.120 (unless the information qualifies for confidentiality under AS 38.05.035(a)(9) and confidentiality is requested). Public information is open to inspection by you or any member of the public. A person who is subject of the information may challenge its accuracy or completeness under AS 44.99.310, by giving a written description of the challenged information, the changes needed to correct it, and a name and address where the person can be reached. False statements made in an application for a benefit are punishable under AS 11.56.210.



- Winter 1 Construction Easement
- Post Winter 1 Construction Easement
- Land Use Easement (Post-construction)
- Excavation Area

- Proposed Outfall Line Location
- Proposed Piles
- Sheetpile

- OSA PROPOSED GRAVEL FOOTPRINT
- Gravel Toe
 - Gravel Shoulder

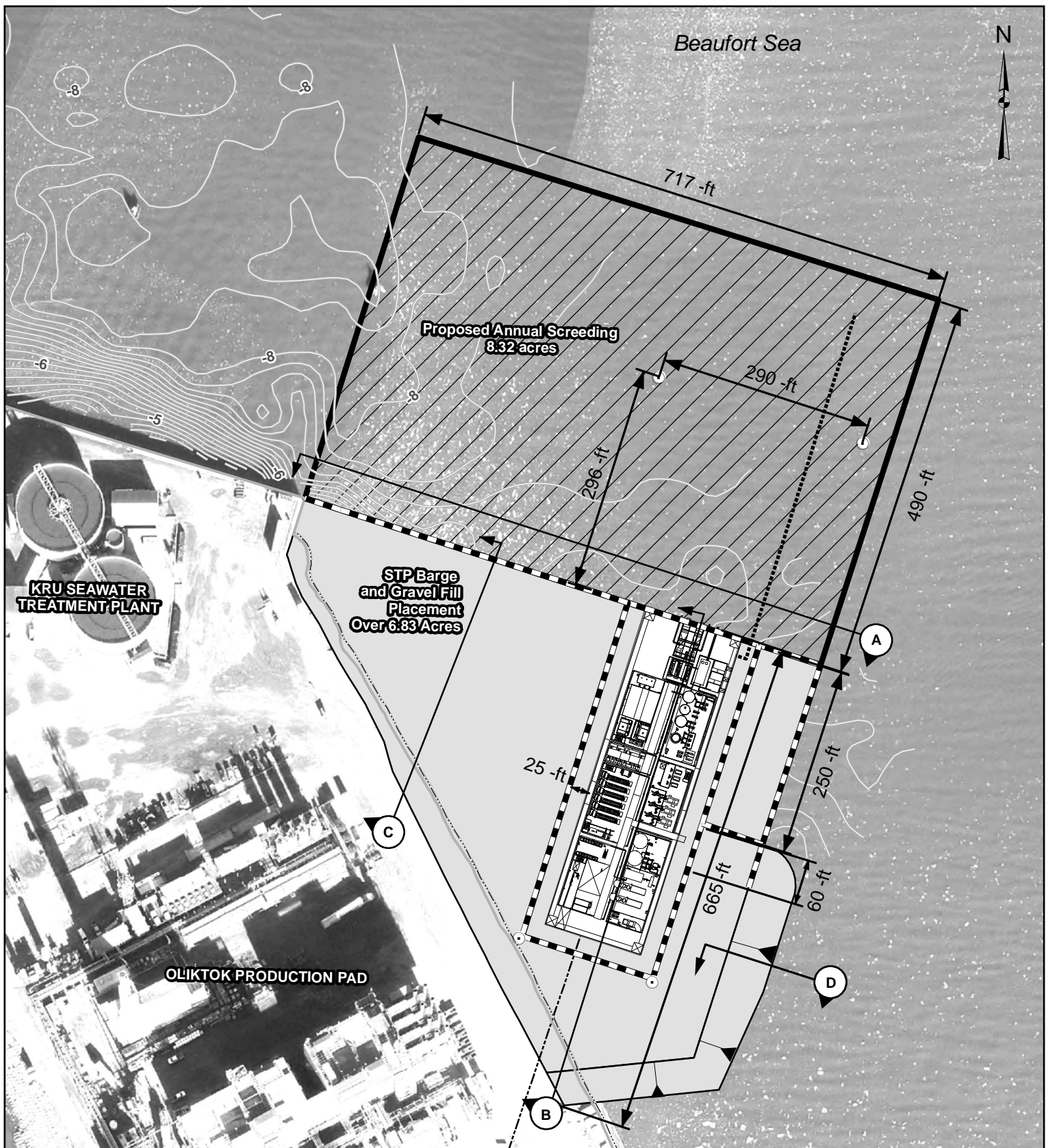


OIL SEARCH ALASKA LLC.
ALASKA NORTH SLOPE
PROPOSED SEAWATER TREATMENT PLANT
EASEMENT AREA

Figure 1

GCS: NAD 1983 StatePlane Alaska 4 FIPS 5004 Feet
DATE: 6/12/2020. REV.3.2. Created By: DJE/JB
Document name: DEV-ST-ENG-M_STP_Proposed_Easement.v2





OIL SEARCH ALASKA LLC.
PIKKA DEVELOPMENT

PROPOSED SEAWATER TREATMENT PLANT PLOT PLAN

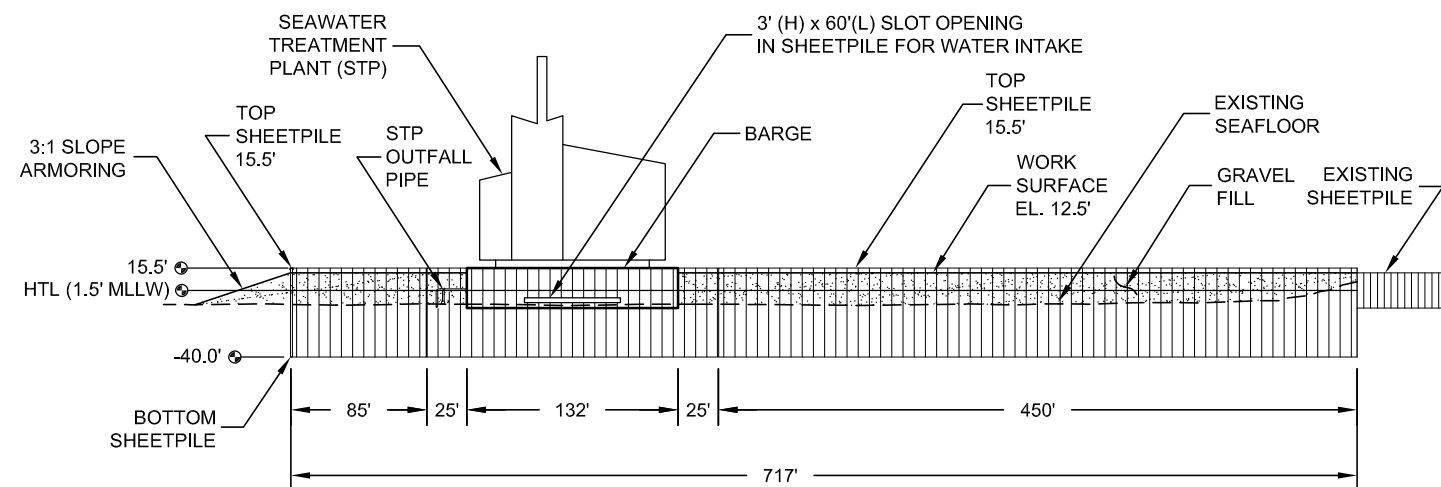
Figure 2

GCS: NAD 1983 StatePlane Alaska 4 FIPS 5004 Feet
DATE: 06/11/2020, REV: 1.0, By: JB

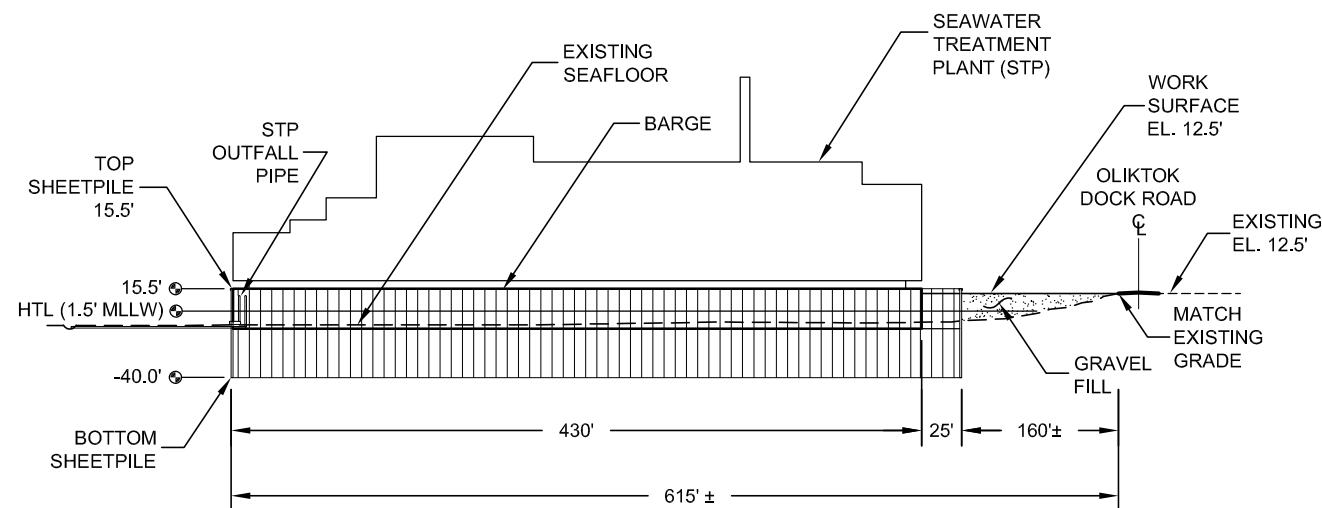


Oil Search

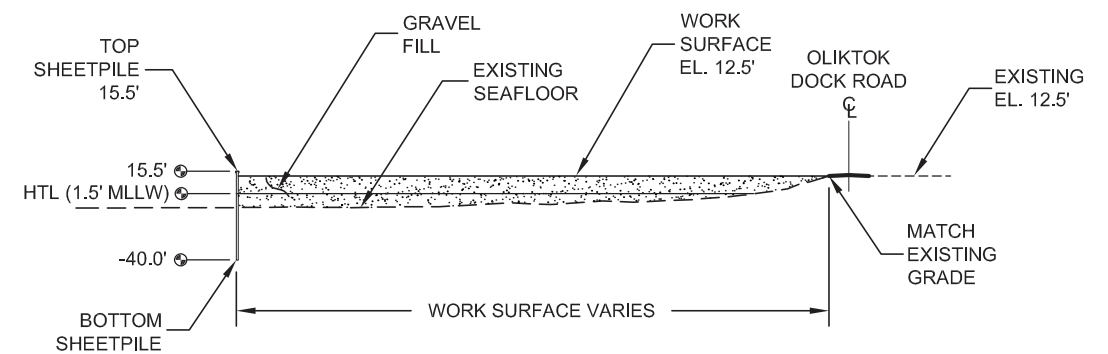
- | | |
|----------------------------------|------------------------------------|
| — Bathymetric Contours | --- Buried STP Pipeline |
| ○ Dolphin Piles | ▬ Sheetpile |
| — High Tide Line | ▭ Proposed Gravel Pad |
| — Mean High Water Line | ▨ Proposed Screeding |
| --- STP Outfall Pipe | ▭ Proposed STP Barge (430' x 132') |
| A Cross-section reference | |



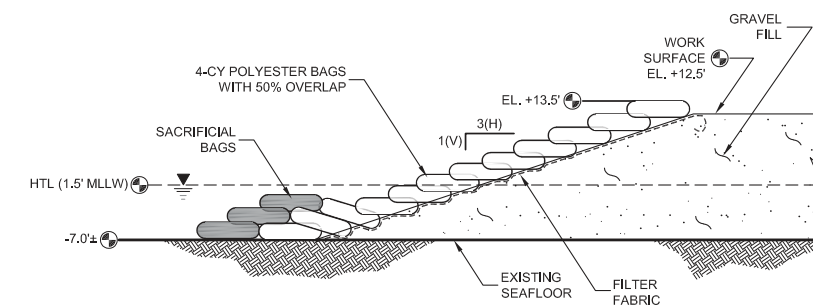
SECTION A-A



SECTION B-B

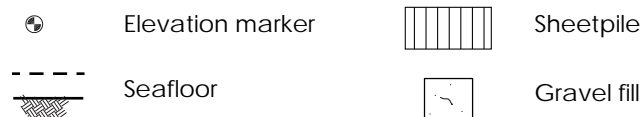
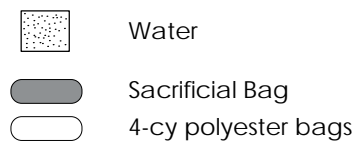


SECTION C-C



SECTION D-D

NOT TO SCALE
Vertical Datum = MLLW



OIL SEARCH ALASKA LLC.
PIKKA DEVELOPMENT
**PROPOSED SEAWATER TREATMENT PLANT
SECTION PLAN**
Figure 3

DATE: 06/11/2020. REV: 1.0. By: JB



