



Justin R. Black
Land Representative

Union Oil Company of California
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May 20, 2011

Wendy Woolf
Petroleum Land Manager
550 W. 7th Avenue, Suite 1100
Anchorage, AK 99501

Re: IVAN RIVER UNIT GAS STORAGE

Dear Wendy,

Enclosed is Union Oil Company of California's ("Union") Unit Plan of Operations Supplement, the Lease/Unit Plan of Operations Application, the Alaska Department of Fish and Game Special Area Permit Application, and the Coastal Project Questionnaire and Certification Statement for Union's gas storage lease operations in the Ivan River Unit.

This same information is being sent under separate cover letter to the Mat-Su Borough and Fish and Game.

Please contact me at 263-7872 if you have any questions.

Sincerely,

Justin R. Black

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DIVISION OF
OIL AND GAS

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

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LEASE / UNIT* PLAN OF OPERATIONS APPLICATION

Applicant: Union Oil Company of California

Date: 5/18/2011

Contact Person: Dale A. Haines, Ops Manager Telephone #: (907) 263-7951 Fax #: (866) 801-5194

Mailing Address: P.O. Box 196247, Anchorage, AK 99519 E-mail Address: daleah@chevron.com

Is this activity within a Unit? Yes Which Unit? Ivan River Operator: Union Oil Company of CA

Is any part of the proposed project or activity discussed in the approved Unit Plan of Exploration or Development filed with the Division of Oil and Gas? Yes

If no, attach a detailed explanation.

The Applicant is: Unit Operator Lessee* Tract Operator Other*: _____

Project Description: See attached Unit Plan of Ops Supplement for IRU Gas Storage Project

Project Location / Facility Name: Ivan River Unit / Ivan River Pad

ADL # (*mandatory*): ADL-32930, ADL-391556 Oil and Gas Bond #: 086 S 103515241 BCM

Plan of Operations require a \$250.00 permit fee; payable to the State of Alaska, Department of Revenue; and *should* accompany this application.

1. Plan of Operations: See attached Unit Plan of Ops Supplement for IRU Gas Storage Project
(*Attach extra sheets if necessary, include applicable diagrams*)
2. Surface Property Owner: State of Alaska
3. Legal Description: Sections 1 Township 13N, Range 9W, Meridian Seward
(*Include all necessary maps*)
4. Site Access: Barge drill rig and construction equipment and materials to Beluga and truck to site via gravel road system.
5. Proposed Start-up Date: June 14, 2011 6. Expected Completion Date: Undetermined
7. Project Material: N/A (roads/pads exist) 8. Material Source: N/A (roads/pads exist)
 - a) Amount: (pad) _____ cy (road) _____ cy (other) _____ cy
 - b) Acreage Covered: (pad) _____ (road) _____ (other) _____
9. Snow Removal Plan: See approved Ivan River Unit Plan of Operations - Gas Development Program under LO/CI 08-07

* Unit Plan of Operations approvals are not considered complete until the consent of the Unit Operator has been obtained by the applicant.

10. Will Any Off-road (tundra or ice) Travel be Required? No

a) Period of Off-road Travel: _____

b) Equipment to be Utilized: _____

11. Will a Temporary Water Use Permit be Required? No

a) Purpose: _____

b) Sources: _____

c) Access: _____ d) Max. Anticipated Withdrawal: _____

12. Will Fuel or Any Other Hazardous Substances be Stored on Site? Yes

a) Type: Produced Water / Motor Oil / Methanol / Glycol

b) Volume: 1,600 gallons / 200 gallons / 360 gallons / 200 gallons

c) Handling Technique: Safe liquid transfer practices, inspection of liquid storage containers, appropriate secondary containment in place for liquid vessels

d) Access: Via existing gravel roads bearing northeast from Beluga, Alaska

e) Duration of Storage: For the duration of gas storage activities.

13. If a Pipeline is Being Constructed, will the line be a: N/A

Common Carrier Pipeline Field Gathering Line Other: _____

a) Location / Route:

b) Number, Diameter and Length:

c) Type and Use:

d) Construction Access:

14. Plan for Rehabilitation: Upon Abandonment Specific: *see attached plan*

15. Is Any Part of this Application Confidential? No

16. How will Solid Waste be Disposed of? Beluga Landfill or Other Permitted Waste Disposal Facilities if necessary

17. What Infrastructure will be Used to Support the Project? Ivan River or other Westside production facilities, Lewis River D Pad, Ivan River Pad disposal facilities, and existing roads and pads.

18. Additional Comments: _____

The undersigned hereby requests that each page of this application marked confidential be held confidential under AS 38.05.035(a)(9).

Dale Han

Signature

Operations Manager

Title

05/18/2011

Date

LESSEE/SURFACE-OWNER INTERACTION

Statutes and regulation are explicit about how surface and subsurface owners and lessees shall interact; the subsurface estate is controlling. We have paraphrased here the relevant portions of AS 38.05.125 and AS 38.05.130 (a photocopy of the full text may be obtained by calling 269-8775):

AS 38.05.125 Reservation. (a) Each contract for the sale, lease or grant of state land, and each deed . . . is subject to the following reservation:

" . . . Alaska, hereby expressly saves . . . and reserves out of the grant . . . forever, all oils, gases, coal, ores, minerals, fissionable materials, geothermal resources, and fossils of every . . . kind . . . which may be in or upon said land . . . and the right to explore the same . . . , and it expressly saves and reserves . . . the right to enter . . . upon said land, . . . at any and all times for the purpose of opening, developing, drilling, and working mines or wells . . . and taking out and removing . . . oils [and] gases . . . and to that end it further expressly reserves . . . the right to erect, construct, maintain, and use all such buildings, machinery, roads, powerlines, and railroads, sink such shafts, drill such wells, remove such soil, and to remain on said land . . . for the foregoing purposes and to occupy as much of said land as may be necessary or convenient . . . expressly reserving to itself, its lessees, successors, and assigns, . . . all rights and powers in, to, and over said land . . . reasonably necessary or convenient to render beneficial and efficient the complete enjoyment of the property and rights hereby . . . reserved."

That language is part of each deed awarded when the state transfers the surface estate; it retains the subsurface. The reservation includes the right to use the surface to develop the subsurface as well as to use existing facilities such as roads for the benefit of the entire state. Protection from damages is afforded surface owners at AS 38.05.130:

AS 38.05.130. Damages and posting of bond. Rights may not be exercised by the state, its lessees, successors or assigns under the reservation . . . [AS 38.05.125] . . . until the state, its lessees, successors, or assigns make provisions to pay the owners of the land full payment for all damages sustained . . . by reason of entering upon the land. If the owner refuses . . . to settle the damages, the state, its lessees, successors, assigns . . . may enter upon the land in the exercise of the reserved rights after posting a surety bond determined by the director, after notice and an opportunity to be heard, to be sufficient as to form, amount, and security to secure . . . payments for damages, and may institute legal proceedings . . . to determine to damages which the owner may suffer.

In addition, there are general stipulations in the regulations at 11 AAC 96.140 that address the conduct of operations. Most relevant here is (10):

No person may engage in mineral exploratory activity on land, the surface of which has been granted or leased by the State of Alaska . . . until good-faith attempts have been made to agree with the surface owner . . . on settlement for damages If agreement cannot be reached, . . . operation may be commenced . . . only with specific approval of the director, and after making adequate provisions for full payment of any damages

UNIT PLAN OF OPERATIONS SUPPLEMENT

Ivan River Unit Gas Development Program IRU Well 44-36 Gas Storage Project

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PROJECT DESCRIPTION

1.0 INTRODUCTION

Union Oil Company of California (Union Oil) proposes to install a gas storage facility beginning in June 2011 at the Ivan River Pad, located approximately nine miles northeast of Beluga on the west side of Cook Inlet, Alaska (see attached West Side Facilities Figure). The purpose of this project is to facilitate delivery of sufficient quantities of gas at peak demand times (during winter months) to accommodate consumer needs.

Stored natural gas plays a vital role in ensuring that any excess gas supply produced during summer months is available to meet the increased demand in winter months. Gas storage facilities also allow gas wells that might otherwise be shut in during periods of low gas demand to remain operational year-round, which may extend the productive life of the wells. Gas storage also serves as insurance against any unforeseen supply disruptions due to incidents, natural disasters, or other occurrences that may affect the production or delivery of natural gas.

The existing West side non-producing gas wells were evaluated for gas storage potential because of their proximity to the ENSTAR market. The results of the evaluation indicated that besides the existing Pretty Creek Unit (PCU) No. 4 gas storage well, the Ivan River Unit (IRU) Well 44-36 is the only other available well with the required reservoir properties (e.g., high permeability and porosity, manageable size, etc.) necessary to store gas in sufficient quantities to aid in meeting the seasonal demand peaks and unexpected demand surges. Conversion of the IRU Well 44-36 to a gas storage facility will allow gas produced from West side gas sources to be stored for delivery in winter.

The goal of the project is to inject up to three billion cubic feet (bcf) of gas into storage in Well IRU 44-36 over a 3-year period (2011 through 2013), during the summer months. This will fill the storage reservoir to capacity to aid in meeting peak gas demand during the 2012 through 2014 winters. In the following years, gas storage injection will continue each summer to replace the gas storage supply delivered the previous winter. It is essential that the gas storage facility be constructed in summer 2011 in order to minimize the damaging effect of seasonal gas curtailment on Cook Inlet gas producers as well as to provide additional deliverability in time to meet anticipated winter gas demand.

The project involves the conversion of the IRU Well 44-36 to a gas storage well, the installation of compression equipment, and the upgrade of production facilities to support the gas storage facility on the Ivan River Pad. Compression is required to inject sufficient quantities of gas to storage during the limited window of time when gas use is reduced (i.e., summer months), in order to deliver adequate amounts of gas to meet the increased demand in the winter months.

2.0 SCOPE OF WORK

2.1 Gas Storage Well Conversion Task

The gas storage well conversion task involves converting the non-producing gas well IRU 44-36 into a gas storage well. The work consists of pulling the existing completion and plugging and abandoning or isolating the non-productive zones to configure the well for gas storage. The well conversion work will be conducted using a pulling unit. After the well conversion work is completed, the existing compression equipment will be connected to the well to accelerate gas storage injection. The attached site plan shows the location of the IRU Well 44-36 gas storage conversion well and the potential positions for new compression equipment which will be added at a later time to inject gas into and produce from IRU Well 44-36.

At the completion of the gas storage well conversion task, a well work-over is planned on Ivan River Pad's non-producing gas well IRU 41-01 using the pulling unit. The well work-over involves pulling the existing completion, abandoning the non-productive zones and running a new completion to access up-hole zones to initiate gas production in the well. The attached site plan shows the location of IRU Well 41-01.

The existing six well houses on the Ivan River Pad will temporarily be relocated off-pad during the well conversion and well work-over activities. The well houses will be moved and stored temporarily at the Pretty Creek, Stump Lake or Lewis River pads. If the work on wells IRU 44-36 or IRU 41-01 results in changes in wellhead dimensions, new well houses will be set up over the wells following the completion of the well programs. The well houses will be brought back to the Ivan River Pad and reinstalled over the wells at the completion of the well programs.

The Ivan River Pad will be used to store equipment and materials used during the well programs while the pulling unit is active. Several office trailers and equipment and supply CONEXs will be placed on the pad to support the rig activity and provide support for project supervision. If on-pad storage space becomes limited, the emergency trailer currently located on the Ivan River Pad may be moved offsite to the Pretty Creek, Stump Lake or Lewis River pads during the well work and returned following the completion of well programs.

The Pretty Creek, Lewis River and/or Stump Lake pads may be used to store tubulars, timbers and pit liners, work-over chemicals and mud products, mobile equipment including cement/nitrogen/gravel packing equipment and materials, oilfield float flatbed trailers and storage CONEXs if on-pad storage space becomes limited. Some oilfield float flatbed trailers may be temporarily stored on road turn outs in order to expedite the movement of materials on and off well pads.

2.2 Compressor Installation and Facility Upgrade Task

The compressor installation and facility upgrade tasks involve the installation of compression modules and associated piping; communication upgrades including the installation of a communication tower; reactivation of the A-Train glycol dehydration system; and upgrades to existing facilities at the Ivan River Pad in order to facilitate gas injection into and delivery from the IRU Well 44-36. The attached site plan shows the proposed location of the compression equipment and radio tower.

One or two compression modules will be installed as part of this project. The compression equipment will consist of one large compressor with a natural gas-powered engine rated up to 1800 horsepower (HP), or two smaller compressors each with a natural gas-powered engine rated up to 900 HP. Due to the aggressive schedule for this project and the long lead time required to procure permanent compression equipment, a temporary compressor with an engine rated up to 500 HP will be installed initially to support the gas storage facility until permanent compression equipment can be designed, procured, mobilized, installed, inspected, and tested. It is anticipated that the permanent compression equipment would be delivered in late fall 2012 or spring 2013 and would be operational by summer or fall 2013. When the project is complete, the normal mode of operation will be to inject during the summer seasons and produce during the winter seasons. Once the gas storage well is completely full, it is anticipated that seasonal gas production normally will be accomplished without compression. The storage compressor will be configured to allow it to be used as a production compressor if needed.

The permanent compression module(s) either will be placed on a driven pile system or will rest on a pre-cast concrete plank foundation. The temporary compressor will be installed within a trailer-mounted or skid-mounted module that will be placed directly on the gravel pad or on an additional lift of gravel for support, if required. The compression equipment will be equipped with critical-grade mufflers for noise reduction. Placement of compression equipment inside modules will also reduce noise output. The compression modules will be heated with small, gas-fired catalytic heaters.

Communication upgrades at Ivan River Pad will be required as part of the gas storage project and will include supervisory control and data acquisition (SCADA) and programmable logic controller (PLC) electronics and communication equipment necessary to collect and transmit facility operational data. In addition, one new, up to 90-foot-tall, free-standing communications tower will be installed on a concrete base or on pilings to replace the existing tower at the Ivan River Pad for improved relay of facility data to Union Oil's office in Beluga.

The compression modules will be tail-rolled off trucks or lifted by a crane and set into place. If a large compressor is the selected option for the permanent compressor, the equipment will be shipped to the pad in sections and assembled onsite.

Existing site facilities will be upgraded to support the addition of the gas storage compressor. One new 65 kilowatt (kW) microturbine generator will replace the existing 30 kW backup generator within the existing generator building to provide additional power necessary to operate the facility. The existing A-Train glycol dehydration system will be reactivated and the reboiler unit will be replaced with like-in-kind equipment. Catalytic converters will be installed on the

two existing and new permanent compression equipment to control emissions. The produced water pump will be upgraded and new produced water piping will be installed and connected to the existing produced water tank. Site lighting will be also be upgraded as needed.

New gas and produced water piping and electrical, data and communication cables will be installed between the gas storage well and the production modules. The piping will either be buried or will be placed in an above-ground pipe rack that will be added to the existing pipe rack system. In addition, gas meter upgrades, additions, and/or replacements will be performed at the ENSTAR meter building and at the Ivan River and Stump Lake pads to support the gas storage facility.

3.0 SITE LOCATION AND ACCESS

Ivan River Pad Site Location: Section 1, Township 13 North, Range 9 West, Seward Meridian

Union Oil plans to barge the pulling unit, compression modules, and related well conversion, well work-over, and construction equipment and materials to the Beluga barge landing and truck the equipment and materials to the site via existing gravel access roads. The well work-over and construction crews will be housed in Beluga and commute to the site in trucks on a daily basis, except for critical personnel (e.g., Well Supervisors) who monitor the operation 24 hours a day during well work. Quarters and offices for these individuals will be located on the pad. On-site sewage facilities will be self-contained.

4.0 WATER SUPPLY

The typical water usage required for the planned well work operations is 1,000 to 2,000 barrels per day. Fresh water for well work will be provided by the two permitted water wells installed on Ivan River Pad. If additional water is required, due to water well limitations, water from the Ivan River reserve pit will be used and/or fresh water will be purchased from local contractors or acquired from other Union Oil permitted water wells. The maximum combined volume expected for the well conversion and well work-over programs is 10,000 barrels.

New compression modules will be tested at the factory prior to shipping. New piping will be assembled and hydro-tested off site whenever possible. Limited hydrotesting is expected to occur on-site. Sources of water used for on-site hydrotests will be from on-lease permitted water wells or hauled to the site from off-lease locations. Any spent hydrotest fluids will be injected in an onsite disposal well or transported off-Refuge to an approved waste disposal facility.

5.0 GENERAL OPERATIONS

Union Oil will act as operator of the construction and well work-over tasks and will be responsible for all surface activities. General operations at the site are described in the following sections.

5.1 Gas Storage Well Conversion Plan

The gas well conversion and well work-over activities involving the use of a pulling unit and associated equipment are planned to be performed mid-June through mid-August 2011.

However, some pad preparation and equipment mobilization associated with well work may take place in early to mid-June 2011. If problems are encountered during the well work due to weather or equipment issues, the well program may extend into late August 2011. The highest level of activity would occur during and just prior to setting up the well work. A work crew of 22 to 25 people will work 12 hours per day, 7 days per week, on pad until the project is completed. During peak activity times, or if well issues exist, the crew size could increase to up to 45 people.

5.1.1 Site Work Equipment and Personnel Requirements

Project equipment and personnel requirements can vary depending on well conditions. However, the following equipment and personnel are planned for the well programs at Ivan River Pad:

- 12-hour days with a 25-man crew (on average);
- Pickup trucks for crew transport;
- Pulling Unit and associated equipment;
- Welding truck (pickup truck with diesel fired welder);
- Loaders;
- Backhoe;
- Excavator;
- Tail-roll truck;
- Flatbed truck;
- Grader;
- Cement pump truck;
- Vacuum truck;
- Manlift;
- Crane;
- Dumpsters;
- Tractor trailers;
- Office trailers;
- Equipment/supply/tool/spill CONEXs;
- Water, test, nitrogen, cement pumps;
- Fluid storage, test, gravel packing and well control tanks;
- Gravel and cement silos;
- Air compressors;
- Heaters; and
- Portable gasoline-fired power and light generators.

5.1.2 Gas Well Conversion Schedule

While specific dates may vary due to changes in the well work schedule or onsite conditions, the current schedule for the well work activities is as follows:

Preparation Work (Early to Mid-June 2011):

- Begin barging equipment and supplies from Nikiski to Beluga; and

- Conduct preparation work at Ivan River Pad.

Gas Well Conversion (Mid-June through July 2011):

- Barge pulling unit and associated equipment and materials;
- Mobilize and set up well work equipment and supplies on Ivan River Pad;
- Convert IRU Well 44-36 to a gas storage well (usual well conversion time is 25 to 30 days);
- Demobilize Pulling Unit off IRU 44-36, connect piping and compression equipment to gas storage well, test gas storage facilities; and
- Begin gas storage injection operations.

Gas Well Work-Over (July through Mid-August 2011):

- Mobilize Pulling Unit onto IRU Well 41-01; and
- Conduct work-over activities on IRU Well 41-01 (usual work-over time is 10 to 12 days).

Demobilization (Mid- to Late August 2011):

- Demobilize well work equipment and supplies off Ivan River Pad and transport to Beluga for transport to Nikiski.

5.2 Compressor Installation and Facility Upgrade Plan

It is anticipated that the construction activities involving the installation of compression and other modules and the upgrade of the facilities will be phased as indicated below. The highest level of activity would occur during and just prior to the placement of the modules. A work crew of between 2 and 15 people (8 people on average) will work 12 hours per day, 7 days per week, on an as-needed basis, until the project is completed.

5.2.1 Site Work Equipment and Personnel Requirements

Project equipment and personnel requirements can vary depending on facility conditions. However, the following equipment and personnel are planned for the construction work at Ivan River Pad:

- 12-hour days with a 2- to 15-man crew (8-man crew on average);
- Pickup trucks for crew transport;
- Welding truck (pickup truck with diesel fired welder);
- Loader for pipe handling, concrete plank installation, miscellaneous equipment installation;
- Backhoe/excavator;
- Tail-roll truck;
- Flatbed truck;
- Grader;
- Truck-mounted pile driver (if pile foundation is required);
- Cement truck(s) (for communications tower foundation -- may be pre-cast, if feasible);

- Boom truck or crane (required for compressor and communications tower installation); and
- Portable gasoline-fired power and light generators.

5.2.2 Construction Schedule

While specific dates may vary due to changes in the construction schedule or onsite conditions, the current schedule for the compression installation and facility upgrade activities is as follows:

Site Preparation and Facility/Piping Upgrades (June to August 2011):

- Equipment mobilization;
- Site preparation;
- Perform minor piping upgrades as necessary to allow existing Ivan River compressors to inject gas into IRU Well 44-36 in summer 2011 and to allow connection of a new temporary compressor to produce gas from IRU Well 44-36 during 2011/2012 winter season;
- Replace existing 30 kW backup generator with new 65 kW microturbine to improve generator reliability and allow switching between the two units every month or two to keep both generators in good operating condition;
- After completion of gas storage well, finish wellhead piping tie-ins, possibly free-flow gas into IRU Well 44-36 or begin gas injection into well using the existing two Ivan River compressors; and
- Equipment demobilization.

Temporary Compressor (August/October 2011):

- Site preparation;
- Equipment mobilization;
- Reconnection of the two existing permanent compressors to IRU Well 11-06 or other well as required to produce gas during 2011/2012 winter season;
- Installation of temporary compression equipment at the end of the gas injection season to produce gas from IRU Well 44-36 during 2011/2012 winter season;
- Installation of new/upgraded metering equipment;
- Installation of pipe/utility rack extension;
- Installation of communications equipment; and
- Equipment demobilization.

Permanent Compressor (Late Spring 2012 through Spring 2013):

- Site preparation;
- Equipment mobilization;
- Disconnection and removal of temporary compressor from site in Spring 2012;
- Reconnection of the two existing compressors to IRU Well 44-36 for gas injection in Spring 2012;
- Ongoing upgrade of existing facilities and piping including retrofitting existing compressors with new emission control devices (catalytic converters, air/fuel ratio controllers, etc.);

- Reactivation of A-Train glycol dehydration system;
- Installation of replacement reboiler unit;
- Installation of radio tower;
- Reconnection of existing two compressors to IRU Well 11-06 or other well as required to produce gas during 2012/2013 and future winter seasons;
- Reconnection of temporary compressor to IRU Well 44-36 in fall 2012 to produce gas during 2012/2013 winter season.
- Installation, testing and commissioning of new permanent compression equipment in fall and winter 2012/2013 for gas injection at IRU Well 44-36 starting in spring 2013;
- Disconnection and permanent removal of temporary compressor from site after permanent compression equipment at IRU Well 44-36 is operational; and
- Demobilization of construction equipment.

5.3 Fuel and Other Hazardous Substances

Fuel for heavy equipment and production equipment, and other hazardous substances necessary to conduct the project work will be stored in containers with appropriate secondary containment in place. Diesel and gasoline will be stored in large tanks off-refuge and the fuel will be trucked to the site as needed and transferred to equipment or smaller containers for use.

Chemicals stored and used on the project can vary depending on well conditions. However, the following chemicals are planned for use on the well programs at Ivan River Pad: freeze protection fluids (e.g., glycol, methanol, diesel), biocides, inhibitors, scavengers, surfactants, cement, dispersants, nitrogen, antifoaming agents, hydraulic oil, grease, salts, acids, pH/iron/gas controlling agents (corrosion inhibitors), isopropyl alcohol, and viscosifier fluids.

Fuel and chemical handling techniques will include safe liquid transfer practices, site inspections, and secondary containment of tanks, gas cans, and chemical totes and other storage containers. Spill response materials (bladders, absorbent pads, etc.) will be kept onsite and used to clean up any spills.

6.0 GENERAL WASTE DISPOSAL

Typical solid wastes that will require disposal from well work-over and construction operations include graywater (wash water), blackwater (sewage), and trash. Portable "Rent-A-Cans" will be used during the project. A local contractor will haul graywater and blackwater to an approved disposal location. Trash will be hauled to the Kenai Peninsula Borough Landfill in Beluga. Down-hole fluids and other Class II exempt wastes will be disposed of via injection in one of the two permitted Class II disposal wells on Ivan River Pad or will be shipped to an approved waste disposal facility.

7.0 CONTINGENCY PLANS

In the event a spill should occur, Union Oil personnel are trained in spill response, and the necessary spill response equipment and materials are maintained at the facilities to respond to minor discharges. Larger spills may require use of emergency response equipment in the spill

response CONEX stored at the Union Oil office in Beluga, or the use of a spill response contractor, such as CISPRI, with whom Union Oil has a contract.

Per Union Oil policy, all spills/leaks – no matter the size – are reported immediately to the Lead Operator (or other designated supervisor), and cleanup is initiated right away. The Alaska health, environmental and safety (HES) team is also notified of all spills in order to ensure compliance with regulatory reporting requirements to agencies and non-governmental organizations and to assist with internal reporting, as required.

Health and safety training, spill prevention training, and wildlife, environmental, social, and cultural awareness training will be required for all construction and operations personnel. Union Oil's bear avoidance plan will be reviewed and followed by all personnel working at the facilities. Union Oil maintains an Emergency Action Plan for onsite response as needed. Safety and medical emergencies will be handled through available resources at Central Peninsula Hospital and/or hospitals in Anchorage, Alaska.

8.0 REHABILITATION PLANS

Upon the termination of the gas storage project, Union Oil will rehabilitate the area per the requirements of Article 20 (RIGHTS UPON TERMINATION) of the Gas Storage Lease ADL 391556.

9.0 COMMUNICATIONS AND SUPERVISION

Cellular phones, vehicle-mounted and portable two-way radios, and three land-based digital phones (Beluga Office and Ivan River and Pretty Creek pads) will be used for communication. A Union Oil representative will be on site at all times during project activities. The following people are designated as main contacts.

Ivan River Facility Operations Superintendents:

Chris Myers, Field Superintendent Union Oil Anchorage Office (907) 263-7654	Johnny Santiago, Base Business Advisor Cook Inlet Field Office, Nikiski (907) 263-7624
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Ivan River Drilling Supervisors:

Tim Brandenburg, Drilling Manager (907) 263-7657
Doug Nienhaus, Drilling Superintendent (907) 263-7840

Ivan River Drilling Engineer

Stan Porhola (907) 263-7640

Ivan River Productions:

Gary Ross, Operations Supervisor (907) 263-7952
Flaco Castillo/Dennis Powell, Lead Operators (907) 776-6602

Ivan River Facility Engineer:

Justus Hinks (907) 263-7814

Union Oil Anchorage Office Address:

3800 Centerpoint Drive, Suite 100
P.O. Box 196247
Anchorage, AK 99503

Cook Inlet Field Office Address:

52300 Nikiski Beach Road
Nikiski, AK 99635

Union Oil 24-hour Switchboard

(907) 276-7600

10.0 EXISTING PERMITS AND AUTHORIZATIONS

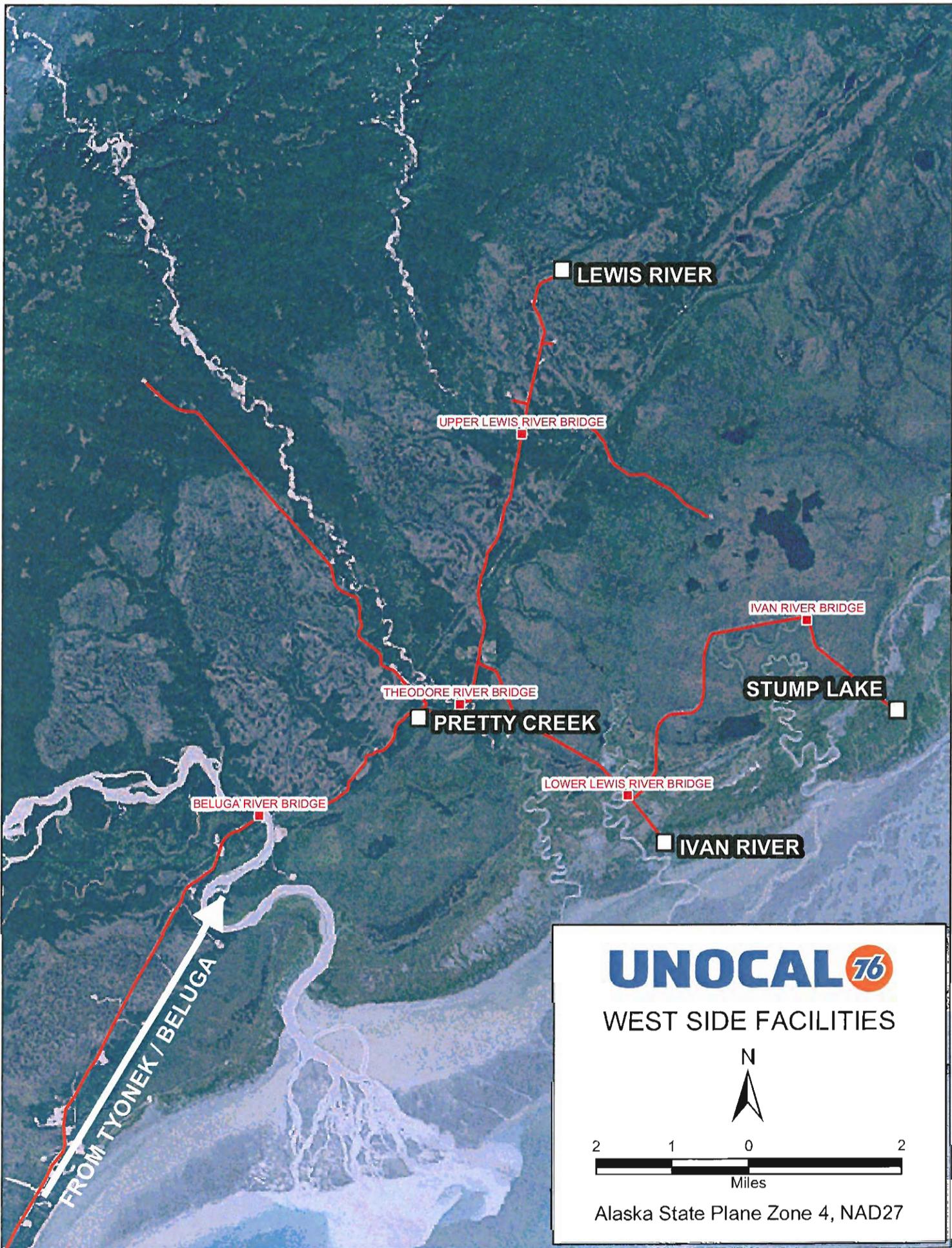
Union Oil will conduct the gas storage well conversion, compression installation, and facility upgrade activities at the Ivan River Pad under the requirements of the following permits and approvals. In addition, see Attachment 1 for the Cook Inlet area oil and gas lease sale mitigation measures analysis.

Ivan River Gas Storage Project

Approval Type	Approval #	Issuance Date	Expiration Date
ADEC-DAQ Owner Requested Limit Permit	Pending	Submitted 5/18/2011	--
ADF&G-Habitat Special Area Permit for Maintenance Operations	FH 09-IV-0655-SA, Amendment I	11/30/2010	12/31/2011
ADF&G-Habitat Special Area Permit for Gas Storage Facility Installation	Pending Approval	Submitted 5/20/2011	--
ADNR-DOG Oil and Gas Lease	ADL-032930	10/01/1956	NA
ADNR-DOG Gas Storage Lease ADL-391556	Pending Approval	Submitted 4/14/2011	--
ADNR-DOG Ivan River Unit Plan of Operations Approval	LO/CI 08-07	10/23/2008	NA
ADNR-DOG Ivan River Unit Plan of Ops Modification Approval for Gas Storage Facility	Pending Approval	Submitted 5/20/2011	--
ADNR-DOG Ivan River Boost Compressor Lease Plan of Operations Approval	LO/CI 05-02	6/28/2005	NA
ADNR-DOG Ivan River Temporary Compressor Approval	LO/CI 05-2002 & LO/CI 08-2007	6/28/2005 & 10/23/2008	NA
ADNR-DMLW Road/Pipeline Right-of-Way Permit	ADL-033939	1/30/1967	NA
ADNR-DMLW Temporary Water Use Permit	TWUP A2006-80	8/14/2006	8/09/2011
AOGCC Gas Storage Injection Order	Pending Approval	Submitted 4/14/2011	--
AOGCC Disposal Injection Order for IRU Well 14-31	Disposal Injection Order No. 23	08/09/2001	NA
AOGCC Disposal Injection Order for IRU Well 13-31	Disposal Injection Order No. 35	12/09/2008	NA

Notes:

ADEC – Alaska Department of Environmental Conservation
ADF&G – Alaska Department of Fish and Game
ADNR – Alaska Department of Natural Resources
AOGCC – Alaska Oil and Gas Conservation Commission
DAQ – Division of Air Quality
DMLW – Division of Mining, Land and Water
DOG – Division of Oil and Gas
IRU – Ivan River Unit
NA – Not Applicable



LEWIS RIVER

UPPER LEWIS RIVER BRIDGE

IVAN RIVER BRIDGE

THEODORE RIVER BRIDGE

STUMP LAKE

PRETTY CREEK

LOWER LEWIS RIVER BRIDGE

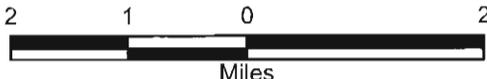
IVAN RIVER

BELUGA RIVER BRIDGE

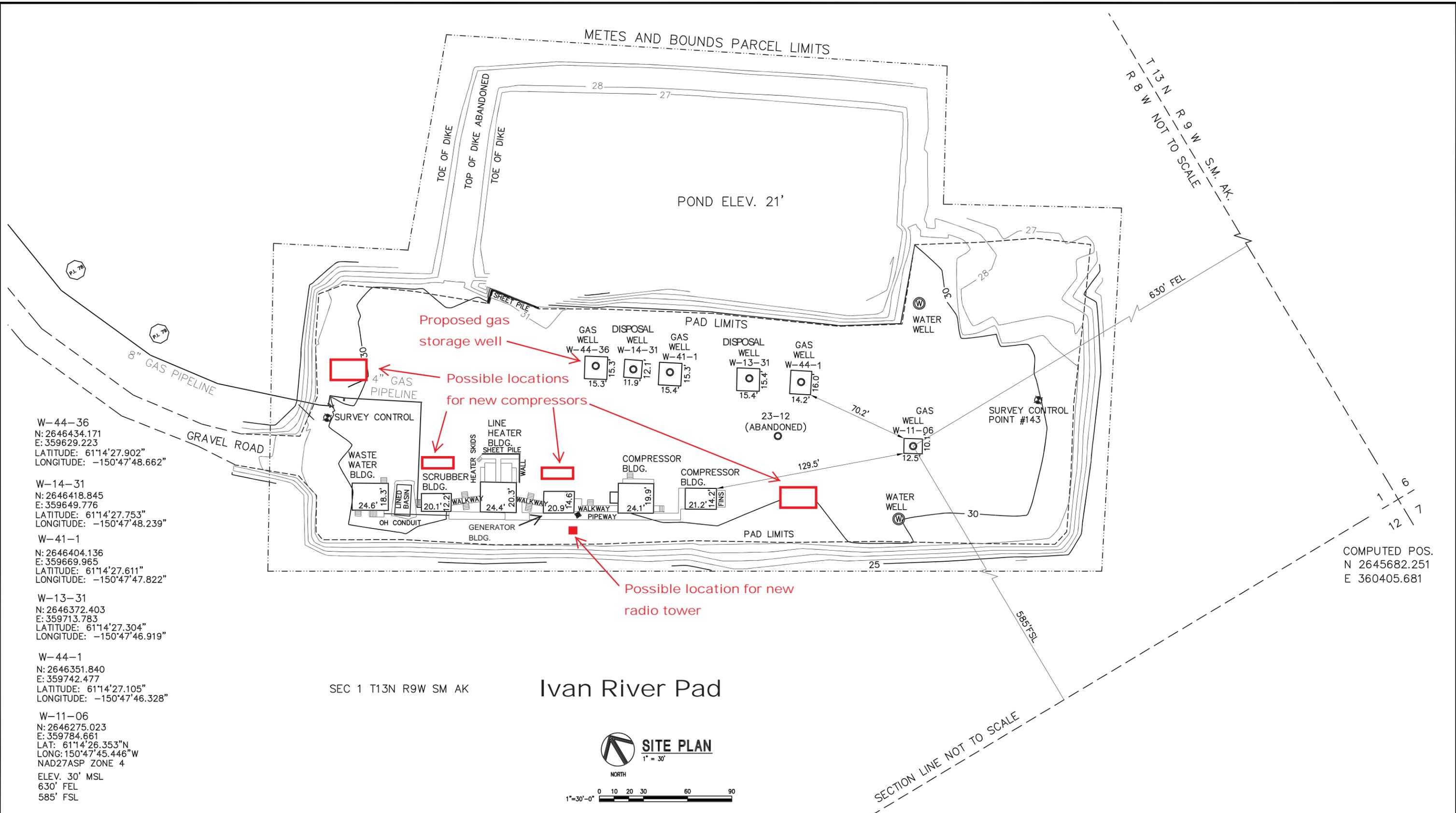
FROM TYONEK / BELUGA

UNOCAL 76

WEST SIDE FACILITIES



Alaska State Plane Zone 4, NAD27



W-44-36
 N: 2646434.171
 E: 359629.223
 LATITUDE: 61°14'27.902"
 LONGITUDE: -150°47'48.662"

W-14-31
 N: 2646418.845
 E: 359649.776
 LATITUDE: 61°14'27.753"
 LONGITUDE: -150°47'48.239"

W-41-1
 N: 2646404.136
 E: 359669.965
 LATITUDE: 61°14'27.611"
 LONGITUDE: -150°47'47.822"

W-13-31
 N: 2646372.403
 E: 359713.783
 LATITUDE: 61°14'27.304"
 LONGITUDE: -150°47'46.919"

W-44-1
 N: 2646351.840
 E: 359742.477
 LATITUDE: 61°14'27.105"
 LONGITUDE: -150°47'46.328"

W-11-06
 N: 2646275.023
 E: 359784.661
 LAT: 61°14'26.353"N
 LONG: 150°47'45.446"W
 NAD27 ASP ZONE 4
 ELEV. 30' MSL
 630' FEL
 585' FSL

SEC 1 T13N R9W SM AK

Ivan River Pad



1"=30'-0"

DWG. NUMBER	SHT	REFERENCE DRAWINGS

NOTES:
 1. SURVEY BY McLANE CONSULTING INC, SEPT 5, 2008.

REV	DATE	REVISED
A	1/20/09	ISSUED FOR FIRE MARSHAL SUBMITTAL

REV. BY	CKD. BY	APP'D BY
HB	WV	

ENGINEERING APPROVAL
 DRAWN BY: HB
 CHD BY: WV
 PROJECT: WV
 STRUCTURAL: SL
 MECHANICAL: TB
 ELECTRICAL:
 INSTRUMENT:
 SCALE: AS NOTED
 DATE: 2009

WEST SIDE - IVAN RIVER UNIT
 COOK INLET ALASKA

WELL W-11-06
 SITE PLAN

UOCC

DRAWING NO. 08058-021-C1
 SHT NO. 001
 REV NO. A

ATTACHMENT #1

IVAN RIVER UNIT GAS STORAGE PROJECT

MITIGATION MEASURES ANALYSIS

To comply with the proposed mitigation measures developed for the Ivan River Pad Gas Storage Project, the following measure by measure analysis is provided based on the 2010 Mitigation Measures and Other Regulatory Requirements (Lessee Advisories) for Cook Inlet, Alaska:

A. Mitigation Measures

1. Facilities and Operations

- a) A plan of operations must be submitted and approved before conducting exploration, development or production activities, and must describe the lessee's efforts to minimize impacts on residential, commercial, and recreational areas, Native allotments and subsistence use areas, and adjacent private lands. At the time of application, lessee must submit a copy of the proposed plan of operations to all surface owners whose property will be entered.

RESPONSE: Project is situated on an existing gravel pad facility on state leased land and is fairly remotely located. The nearest community is Beluga, Alaska. Activities at this location will not significantly change from existing gas production operations. The proposed plan is also being submitted to Alaska Department of Fish and Game and to the Matanuska-Susitna Borough.

- b) Facilities must be designed and operated to minimize sight and sound impacts in areas of high residential, commercial, recreational, and subsistence use and important wildlife habitat. Methods may include providing natural buffers and screening to conceal facilities, sound insulation of facilities, or by using alternative means approved by the director, in consultation with ADF&G.

RESPONSE: Project is located on existing gravel pad facility accessed by existing gravel road system. The project design includes techniques to minimize environmental impacts such as use of existing facility infrastructure, and placement of compression equipment within modules and muffler installation on compression equipment to dampen noise.

- c) The siting of onshore facilities, other than roads, docks, utility or pipeline corridors, or terminal facilities will be prohibited within one-half mile of the mean high water of Cook Inlet, except where land use plans classify an area for development, or established usage and use history show development. The siting of facilities other than docks, roads, utility, and pipeline crossings will also be prohibited within 500 feet of all fish bearing streams and waterbodies and 1,500 feet of all current surface drinking water sources. Additionally, to the extent practicable, the siting of facilities will be prohibited within one-half mile of the banks of the main channel of the Harriet, Alexander, Lake, Deep, and Stariski creeks, and the Drift, Big, Kustatan, McArthur, Chuitna, Lewis, Theodore, Beluga, Susitna, Little Susitna, Kenai, Kasilof, Ninilchik, and Anchor rivers. Facilities may be sited within these buffers if the lessee demonstrates to the satisfaction of the director, in consultation with ADF&G, that site locations outside these buffers are not practicable or that a location inside the buffer is environmentally preferred. Road, utility, and pipeline crossings must be consolidated and aligned perpendicular or near perpendicular to watercourses.

RESPONSE: Project is situated on an existing gravel pad facility accessed by existing gravel road system. The siting of new onshore facilities beyond the existing facility footprint is not proposed.

- d) Impacts to identified wetlands must be minimized to the satisfaction of the director, in consultation with ADF&G and ADEC. The director will consider whether facilities are sited in the least sensitive areas. Further, all activities within wetlands require permission from the U.S. Army Corps of Engineers (see Lessee Advisories).

RESPONSE: Project is situated on an existing gravel pad facility accessed by existing gravel road system. No new facilities are proposed. No off-pad disturbances or work within wetlands is proposed as part of the project.

- e) Exploration activities must be supported by air service, an existing road system or port facility, ice roads, or by off-road vehicles that do not cause significant damage to the vegetation or ground surface. Construction of temporary drill pads, airstrips, and roads may be allowed. Construction of permanent roads may be allowed upon approval by the director. Unrestricted surface travel may be permitted by the director and DMLW, if an emergency condition exists.

RESPONSE: No exploration activities are proposed. Development, storage and production activities will be performed at existing facility accessed by existing gravel road system. No new pad or road construction is proposed as part of this project.

- f) With the exception of drill pads, airstrips, and roads permitted under A1e, exploration facilities must be consolidated, temporary, and must not be constructed of gravel. Use of abandoned gravel structures may be permitted on a case-by-case basis.

RESPONSE: Program does not include exploration facilities, nor are the locations sited on abandoned gravel structures.

- g) Pipelines must utilize existing transportation corridors and be buried where conditions permit. Pipelines and gravel pads must be designed to facilitate the containment and cleanup of spilled fluids. Pipelines, flowlines, and gathering lines must be designed and constructed to assure integrity against climatic conditions and geologic hazards.

In areas with above ground placement, pipelines must be designed, sited, and constructed to allow for the free movement of wildlife. Where practicable, pipelines must be located on the upslope side of roadways and construction pads, unless DMLW determines that an alternative site is environmentally acceptable.

RESPONSE: No new pipelines are planned as part of this project.

- h) Pipelines that must cross marine waters will be constructed beneath the marine waters using directional drilling techniques, unless the director, in consultation with ADF&G and the local borough and Coastal Resource Service Areas, approves an alternative method based on technical, environmental, and economic justification. Offshore pipelines must be located and constructed to prevent obstruction to marine navigation and fishing operations.

RESPONSE: No new pipelines are planned as part of this project.

- i) Gravel mining sites required for exploration and development activities will be restricted to the minimum necessary to develop the field efficiently and to minimize environmental damage. Gravel mine sites required for exploration activities must not be located within an active floodplain of a watercourse unless DMLW, after consultation with ADF&G, determines that there is no practicable alternative, or that a floodplain site would be compatible with fish and wildlife habitat after mining operations are completed and the site

is closed.

RESPONSE: Gravel mining is not proposed for this program.

2. Habitat, Fish, and Wildlife

- a) Detonation of explosives will be prohibited in open water areas of fish bearing streams and lakes. Explosives must not be detonated beneath, or in close proximity to, fish-bearing streams and lakes if the detonation of the explosive produces a pressure rise in the water body of greater than 2.7 pounds per-square-inch, or unless the water body, including its substrate, is solidly frozen. Detonation of explosives within or in close proximity to a fish spawning bed during the early stages of egg incubation must not produce a peak particle velocity greater than 0.5 inches per second. Blasting criteria have been developed by ADF&G and are available from ADF&G upon request. The location of known fish bearing waters within the project area can be obtained from ADF&G.

RESPONSE: The use of explosives is not proposed as part of this project.

- b) Compaction or removal of snow cover overlying fish bearing water bodies is prohibited except for approved crossings. If ice thickness is not sufficient to facilitate a crossing, ice and/or snow bridges may be required.

RESPONSE: No compaction or removal of snow cover overlying fish bearing water bodies is proposed as part of this project.

- c) Removal of water from fishbearing rivers, streams and natural lakes shall be subject to prior written approval by DMLW and ADF&G. Water intake pipes used to remove water from fish bearing waterbodies must be surrounded by a screened enclosure to prevent fish entrainment and impingement. Screen mesh size shall be no greater than 1 mm (0.04 inches), unless another size has been approved by ADF&G. The maximum water velocity at the surface of the screen enclosure may be no greater than 0.4 feet per second, unless an alternative velocity has been approved by ADF&G. Screen material must be corrosion resistant, and must be adequately supported to prevent excessive sagging which could result in unusable intake surface. The intake structure must be designed and installed to avoid excessive fouling from floating debris, and a minimum of eight square feet of effective wetted screen surface must be provided for each multiple of a 450-gallon per minute (one cubic foot per second) pumping rate. The pump intake opening must be placed equidistant from all effective wetted screen surfaces.

RESPONSE: The project will not involve removal of water from fish bearing rivers, streams and natural lakes.

- d) Surface entry will be prohibited in parcels that are within the Kenai River Special Management Area.

Surface entry, other than access, will be prohibited on state lands within the Kenai National Wildlife refuge.

Lessees are prohibited from placing drilling rigs and lease-related facilities and structures within an area near the Kenai River composed of: all land within Section 36 in T6N, R11W that is located south of a line drawn from the protracted NE corner to the protracted SW corner of the section; all land within the western half of Section 31 in T6N, R10W and Section 6 in T5N, R10W; and all land within Section 1 in T5N, R11W.

RESPONSE: Project is not located within the Kenai River Area or Kenai National Wildlife Refuge.

- e) Surface entry into the critical waterfowl habitat along the Kasilof River is prohibited. Directional drilling from adjacent sites may be allowed.

RESPONSE: Project is not located along the Kasilof River.

- f) Surface entry will be prohibited within one-quarter mile of trumpeter swan nesting sites between April 1 and August 31. The siting of permanent facilities, including roads, material sites, storage areas, powerlines, and above ground pipelines will be prohibited within one-quarter mile of known nesting sites. Trumpeter swan nesting sites will be identified by ADF&G at the request of the lessee.

RESPONSE: Project is located on existing facility accessed by existing gravel roads within the SFSGR. No new facilities are planned as part of this project beyond the current facility footprint. Proposed project activities at this location will not significantly change from existing gas production operations.

- g) The director, in consultation with ADF&G, shall restrict or modify lease related activities if scientific evidence documents the presence of Steller's eiders from the Alaska breeding population in the lease area and it is determined that oil and gas exploration and development will impact them or their over-wintering habitat in the near-shore waters of Cook Inlet.

RESPONSE: Project is located on existing facility accessed by existing gravel roads within the SFSGR. No new facilities are planned as part of this project beyond the current facility footprint. Proposed project activities at this location will not significantly change from existing gas production operations.

- h) The director, in consultation with ADF&G, may impose seasonal restrictions on activities located in and adjacent to important waterfowl and shorebird habitat during the plan of operations approval stage.

RESPONSE: Project is located on existing facility accessed by existing gravel roads within the SFSGR. No new facilities are planned as part of this project beyond the current facility footprint. Proposed project activities at this location will not significantly change from existing gas production operations.

Bears

- i) Lessees are required to prepare and implement a human-bear interaction plan designed to minimize conflicts between bears and humans. The plan shall include measures to:
- i. minimize attraction of bears to facility sites, including garbage and food waste;
 - ii. organize layout of buildings and work areas to minimize interactions between humans and bears such as including the use of electric fencing;
 - iii. warn personnel of bears near or on facilities and the proper actions to take;
 - iv. if authorized, deter bears from the drill site;
 - v. provide contingencies in the event bears do not leave the site;
 - vi. provide for proper storage and disposal of materials that may be toxic to bears; and
 - vii. document and communicate the sighting of bears onsite or in the immediate area to all shift employees.

RESPONSE: A Bear Avoidance Plan for Cook Inlet Facilities has been prepared and will be provided to all project employees and contractors working. In addition, all employees and contractors receive applicable environmental and cultural awareness and wildlife avoidance training prior to start up of oil and gas projects or as is otherwise appropriate.

- j) Before commencement of any activities, lessees shall consult with ADF&G to identify the

locations of known bear den sites that are occupied in the season of proposed activities. Exploration and development activities started between November 15 and March 31 may not be conducted within one-half mile of known occupied brown bear dens, unless alternative mitigation measures are approved by the ADF&G. A lessee who encounters an occupied den not previously identified by ADF&G must report it to the Division of Wildlife Conservation, ADF&G, within 24 hours. Mobile activities shall avoid such discovered occupied dens by one-half mile unless alternative mitigation measures are approved by DO&G with concurrence from ADF&G. Non-mobile facilities will not be required to be relocated.

RESPONSE: Project is situated on existing facility that is located outside bear den areas.

- k) Recognizing the importance of sufficient vegetative cover and access by Kenai Peninsula brown bears feeding at streams, the director, in consultation with ADF&G, may require lessees to locate exploration and development facilities beyond the 500-foot buffer along anadromous streams during the plan of operations approval stage, except as provided in A1c.

RESPONSE: Project is situated on an existing facility that is not located within the Kenai Peninsula.

Caribou

- l) Surface entry within the core calving area of the Kenai Lowlands Caribou Herd is prohibited, except that surface entry for seismic exploration will be allowed from October 16 to March 31.

RESPONSE: Project is situated on an existing facility that is located outside Kenai Lowlands Caribou Herd core calving area.

- m) Exploration and development activities will be restricted or prohibited between April 1 and October 15 within the core summer habitat of the Kenai Lowlands Caribou Herd, except that maintenance and operation of production wells will be allowed year-round. Permanent roads, or facilities other than production wells, will also be restricted or prohibited within this area. Facilities within the core summer habitat of the Kenai Lowlands Caribou Herd that require year-round access must be located in forested areas, where practical.

RESPONSE: Project is situated on existing facility that is located outside the Kenai Lowlands Caribou Herd core summer habitat areas.

- n) Pipelines must be buried within the core summer habitat of the Kenai Lowlands Caribou Herd.

RESPONSE: Pipelines are not proposed as part of this project. Project is situated on existing facility that is located outside the Kenai Lowlands Caribou Herd core summer habitat areas.

- o) The director, in consultation with ADF&G, may impose seasonal restrictions on activities located in, or requiring travel through or overflight of, important moose or caribou calving and wintering areas during the plan of operations approval stage.

RESPONSE: Project is situated on existing gravel roads and pads that are located outside important moose or caribou calving and wintering areas.

Beluga Whales

- p) No permanent or temporary oil and gas exploration or development may occur within High

Value/High Sensitivity (Type 1) beluga whale habitat areas, unless it occurs on upland areas (above Mean Higher Water datum). Type 1 habitat areas include the following tracts: 320-334, 391-409, 410, 462, 464-475, 476-481, 483, 484, 485, 486, 493, 494, 497, 498, 522, 524-537, 538, 539, 540, 541, 542, 543, 544, 547-552, 559, 575-577, 579, 581, 582, 585, 586, 590, 593, 594, 598, 616-618, 620-623, 627, 655-658, and 662.

RESPONSE: Project is situated at an existing facility on a raised gravel pad that is above Mean Higher Water Datum in Type 1 habitat area. Proposed project activities at this location will not significantly change from existing gas production operations.

- q) The director will assess oil and gas-related activities within all High Value (Type 2) beluga whale habitat areas on a case-by-case basis. No permanent surface entry or structures are allowed, and temporary activities and structures, for example exploration drilling, will only be allowed between November 1 and April 1 of each year, unless it occurs on upland areas, within the following tracts: 021, 022, 126, 127, 129-132, 161, 162, 175, 177, 211, 218, 257, 301, 302, 373, 376, 377, and 384.

RESPONSE: Project is situated on existing facility that is not located within Type 2 habitat area.

- r) The director will assess oil and gas-related activities within the remaining tracts (Type 3 habitat areas) on a case-by-case basis.

RESPONSE: Project is situated on existing facility that is not located within Type 3 habitat area.

3. Subsistence, and Other Fish and Wildlife Uses

- a) Lease-related use will be restricted when DO&G determines it is necessary to prevent unreasonable conflicts between lease-related activities and subsistence, and commercial, sport, personal use, and educational harvest activities. In enforcing this term DO&G, during review of plans of operation, will consult with other agencies, the affected local borough(s) and the public to identify and avoid potential conflicts. In order to avoid conflicts with subsistence, commercial, sport and educational harvest activities, restrictions may include alternative site selection, requiring directional drilling, seasonal drilling restrictions, and other technologies deemed appropriate by DO&G.

RESPONSE: Project is situated on existing facility and does not conflict with subsistence or other harvest activities. Proposed project activities at this location will not significantly change from existing gas production operations.

4. Fuel, Hazardous Substances, and Waste

- a) Secondary containment (see definitions) shall be provided for the storage of fuel or hazardous substances.
- b) Containers with an aggregate storage capacity of greater than 55 gallons which contain fuel or hazardous substances shall not be stored within 100 feet of a waterbody, or within 1,500 feet of a current surface drinking water source.
- c) During equipment storage or maintenance, the site shall be protected from leaking or dripping fuel and hazardous substances by the placement of drip pans or other surface liners designed to catch and hold fluids under the equipment, or by creating an area for storage or maintenance using an impermeable liner or other suitable containment mechanism.
- d) During fuel or hazardous substance transfer, secondary containment or a surface liner must be placed under all container or vehicle fuel tank inlet and outlet points, hose connections,

and hose ends. Appropriate spill response equipment, sufficient to respond to a spill of up to 5 gallons, must be on hand during any transfer or handling of fuel or hazardous substances. Trained personnel shall attend transfer operations at all times.

- e) Vehicle refueling shall not occur within the annual floodplain, except as addressed and approved in the plan of operations. This measure does not apply to water-borne vessels.
- f) All independent fuel and hazardous substance containers shall be marked with the contents and the lessee's or contractor's name using paint or a permanent label.
- g) A freshwater aquifer monitoring well, and quarterly water quality monitoring, may be required down gradient of a permanent above-ground liquid hydrocarbon storage facility.
- h) Waste from operations must be reduced, reused, or recycled to the maximum extent practicable. Garbage and domestic combustibles must be incinerated or disposed of at an approved site in accordance with 18 AAC 60. (See also Section B2, below.)
- i) New solid waste disposal sites will not be approved or located on state property during the exploratory phase. Exceptions may be provided for drilling waste if the facility will comply with the applicable provisions of 18 AAC 60.
- j) Wherever practicable, the preferred method for disposal of muds and cuttings from oil and gas activities is by underground injection. Other methods of disposal shall be allowed only upon approval by the director, in consultation with ADEC and ADF&G.

RESPONSE: Project is situated on existing facility which meets Items A-J requirements. Future work at the facility, including this project, will continue to meet these fuel, hazardous substances and waste requirements where applicable.

5. Access

- a) Public access to, or use of, the lease area may not be restricted except within the immediate vicinity of drill sites, buildings, and other related facilities. Areas of restricted access must be identified in the plan of operations. Lease facilities and operations shall not be located so as to block access to or along navigable or public waters as defined in AS 38.05.965.

RESPONSE: Project is situated on existing facility where posted signs limit facility access to appropriate personnel. Access to water bodies or the road system is not restricted. Future facility access may be restricted for security reasons through the use of physical barriers; however, no additional restrictions are proposed for this project.

6. Prehistoric, Historic, and Archeological Sites

- a) Before the construction or placement of any gravel, or other structure, road, or facility resulting from exploration, development, or production activities, the lessee must conduct an inventory of prehistoric, historic, and archeological sites within the area affected by an activity. The inventory must include consideration of literature provided by the affected borough and local residents; documentation of oral history regarding prehistoric and historic uses of such sites; evidence of consultation with the Alaska Heritage Resources Survey and the National Register of Historic Places; and site surveys. The inventory must also include a detailed analysis of the effects that might result from the activity.
- b) The inventory of prehistoric, historic, and archeological sites must be submitted to the director, and to DPOR Office of History and Archaeology, who will coordinate with the affected borough for review and comment. If a prehistoric, historic, or archeological site or area could be adversely affected by a lease activity, the director, after consultation with DPOR Office of History and Archaeology and the affected borough, will direct the lessee as to the course of action to take to avoid or minimize adverse effects.

- c) If a site, structure, or object of prehistoric, historic, or archaeological significance is discovered during lease operations, the lessee must report the discovery to the director as soon as possible. The lessee must make reasonable efforts to preserve and protect the discovered site, structure, or object from damage until the director, after consultation with DPOR Office of History and Archaeology and the affected borough, has directed the lessee as to the course of action to take for its preservation.

RESPONSE: Project is located on existing gravel pad accessed by existing gravel roads. No construction is planned beyond the existing facility footprint. However, in the event a cultural resource is discovered during operations, work will immediately stop and SHPO will be consulted for direction.

7. Local Hire, Communication, and Training

- a) Lessees are encouraged to employ local and Alaska residents and contractors, to the extent they are available and qualified, for work performed in the lease area. Lessees shall submit, as part of the plan of operations, a proposal detailing the means by which the lessee will comply with the measure. The proposal must include a description of the operator's plans for partnering with local communities to recruit, hire, and train local and Alaska residents and contractors. The lessee is encouraged, in formulating this proposal, to coordinate with employment and training services offered by the State of Alaska and local communities to train and recruit employees from local communities.
- b) A plan of operations application must describe the lessee's past and prospective efforts to communicate with local communities and interested local community groups.
- c) A plan of operations application must include a training program for all personnel including contractors and subcontractors. The program must be designed to inform each person working on the project of environmental, social, and cultural concerns that relate to that person's job. The program must use methods to ensure that personnel understand and use techniques necessary to preserve geological, archeological, and biological resources. In addition, the program must be designed to help personnel increase their sensitivity and understanding of community values, customs, and lifestyles in areas where they will be operating.

RESPONSE: Alaska residents and contractors are currently employed on this program. In the future, to the extent possible, Alaska residents and contractors will be recruited and hired. Employees and contractors receive applicable training prior to start up of oil and gas projects or as is otherwise appropriate, including environmental and cultural awareness and wildlife avoidance training.

B. Other Regulatory Requirements (Lessee Advisories)

Lessees must comply with all applicable local, state and federal codes, statutes and regulations, as amended. Lessee advisories alert lessees to additional restrictions that may be imposed at the permitting stage of a proposed project or activity where entities other than DO&G have regulatory, permitting, or management authority.

RESPONSE: Lessee Advisories 1-7 have been reviewed and requirements and restrictions will be followed on the project as applicable.

1. Alaska Department of Natural Resources,

- a) Pursuant to AS 46.40, projects are required to comply with all policies and enforceable standards of the Alaska Coastal Management Program, including the District Coastal

Management Plans.

- b) Lessees must include in their seismic permit applications a plan for notifying the public of their activities (11 AAC 96).
- c) Forest clearing for seismic exploration must have prior approval by DO&G in consultation with the Division of Forestry and ADF&G.
- d) Removal of gravel from state land must have prior approval from DMLW. Lessees must submit a material sale application (AS 38.05.110-120, AS 38.05.810, 11 AAC 71.045) as well as a development plan, environmental risk questionnaire, and Alaska Coastal Management Plan questionnaire. Applicants are required on state, federal, municipal, and private land to submit a reclamation plan or letter of intent per AS 27.19.030-050.

2. Alaska Department of Environmental Conservation

- a) Pursuant to AS 46.04.030, lessees are required to have an approved oil discharge prevention and contingency plan (C-Plan) before commencing operations. The plan must include a response action plan to describe how a spill response would occur, a prevention plan to describe the spill prevention measures taken at the facility, and supplemental information to provide background and verification information.
- b) Pursuant to state regulations administered by ADEC and the Clean Air Act administered by EPA, lessees are required to obtain air quality permits before construction and operation. The permits will include air quality monitoring, modeling, and emission control obligations.
- c) Unless authorized by an ADEC permit, surface discharge of reserve pit fluids and produced waters is prohibited.
- d) Unless authorized by National Pollutant Discharge Elimination System or state permits, disposal of wastewater into freshwater bodies is prohibited.

3. Alaska Department of Fish and Game

- a) Under the provisions of Title 16 of the Alaska Statutes, the measures listed below may be imposed by ADF&G below the ordinary high water mark to protect designated anadromous waterbodies and to ensure the free and efficient passage of fish in all fish-bearing waterbodies. Specific information on the location of anadromous water bodies in and near the area may be obtained from ADF&G.
 - i) Alteration of riverbanks may be prohibited.
 - ii) The operation of equipment, excluding boats, in open water areas of rivers and streams may be prohibited.
 - iii) Bridges or non-bottom founded structures may be required for crossing fish spawning and important rearing habitats.
 - iv) Culverts or other stream crossing structures must be designed, installed, and maintained to provide free and efficient passage of fish.
- b) Removal of water from fish-bearing water bodies is subject to the provisions of Regulations for Appropriation and Use of Water (11 AAC 93.035 - 11 AAC 93.147).
- c) The use of explosives for seismic activities with a velocity of greater than 3000 feet-per-second in marine waters is prohibited.

Game Refuges and Critical Habitat Areas

- d) Management of legislatively designated state game refuges and critical habitat areas is the co-responsibility of ADF&G, per AS 16.20.050-060 and AS 16.20.500-530, and ADNR, per

AS 38.05.027. For activities occurring within a refuge or critical habitat area, the lessee will be required to obtain permits from both ADNDR and ADF&G. The following requirements are established by, and exceptions may only be granted by, ADF&G.

- e) Five state game refuges (SGR) and four critical habitat areas (CHA) are located within or partially within the Cook Inlet lease sale area: Goose Bay SGR, Palmer Hay Flats SGR, Anchorage Coastal Wildlife Refuge, Susitna Flats SGR, Trading Bay SGR, Redoubt Bay CHA, Kalgin Island CHA, Clam Gulch CHA, and Anchor River and Fritz Creek CHA.

Operations within these refuges and critical habitat areas must comply with the terms and conditions of the lease sale, the regulations contained within 5 AAC 95, and the measures listed below.

- i. Surface entry for drilling and above ground lease-related facilities and structures will be prohibited within the Palmer Hay Flats SGR, Anchorage Coastal Wildlife Refuge, Clam Gulch CHA, Anchor River and Fritz Creek CHA, within the core Tule goose and trumpeter swan nesting and molting corridors along the Big, Kustatan, and McArthur rivers in the Trading Bay SGR and Redoubt Bay CHA, on tidelands and wetlands in the Goose Bay SGR and Kalgin Island CHA and within the primary shorebird area in Susitna Flats SGR, Trading Bay SGR, and Redoubt Bay CHA.

Surface entry may be allowed on uplands within the Goose Bay SGR and Kalgin Island CHA; and surface entry for seismic surveys and similar temporary activities may be allowed in all of these areas, consistent with the Special Area regulations and applicable Special Area management plans. Directional drilling from adjacent sites may be allowed. Similar provisions will be imposed by the DO&G to protect primary shorebird habitat in Redoubt Bay south of the CHA.

- ii) Exploration, development, and major maintenance within important Tule goose and trumpeter swan habitat in Trading Bay SGR, Redoubt Bay CHA, and Susitna Flats SGR, and the primary waterfowl area above mean high tide within the Susitna Flats SGR and Trading Bay SGR will be allowed only between November 1 and March 31, unless an extension is approved by ADF&G and DO&G.

Routine maintenance and emergency repairs will be permitted on a year-round basis during the production phase. A detailed plan describing routine maintenance activities to be conducted between April 1 and October 31 must be submitted to ADF&G and DO&G for review and approval.

- iii) Gravel pads and wellheads are the only above ground structures that will be allowed within the primary waterfowl area above mean high tide in the Susitna Flats SGR and the Trading Bay SGR and important Tule goose and trumpeter swan habitat in the Trading Bay SGR, Redoubt Bay CHA and Susitna Flats SGR. Gravel roads will not be allowed in a SGR or CHA during exploration.

iv)

(a) Aircraft flying over the primary shorebird habitat within Susitna Flats SGR, Trading Bay SGR and Redoubt Bay CHA should maintain a minimum altitude of 1,500 feet above ground level or a horizontal distance of 1 mile.

(b) Aircraft flying over Goose Bay SGR and Palmer Hay Flats SGR, the primary waterfowl habitat above mean high tide within Susitna Flats and Trading Bay SGR, and the core Tule goose and trumpeter swan molting and nesting corridors in Trading Bay SGR and Redoubt Bay CHA should maintain a minimum altitude of 1,500 feet above ground level or a horizontal distance of 1 mile from April 1 to

October 31. Human safety will take precedence over this provision.

- v) Construction, operation, and maintenance activities shall minimize the visual, biological, and physical impacts to the SGR or CHA.
- vi) Surface discharge of produced waters will be prohibited.
- vii) Disposal of drilling mud and cuttings will be allowed only at upland sites approved by the DO&G and ADF&G, after consultation with DMLW and ADEC.
- viii) Facilities must be designed to minimize the risk of spills or fires resulting from vandalism or accidents.

4. Alaska Department of Labor and Workforce Development

- a) The lessee shall facilitate Alaska resident hire monitoring by reporting project wages on a quarterly basis for each individual employed by the lessee in the lease area, through electronic unemployment insurance reporting, and by requiring the same of the lessee's contractors and subcontractors.

5. U.S. Army Corps of Engineers

- a) A U.S. Army Corp of Engineers permit is required when work is anticipated on, in, or affects navigable waters or involves wetland-related dredge or fill activities. A Section 10 Permit is required for construction, excavation, or deposition of materials in, over, or under navigable waters, or for any work which would affect the course, location, condition, or capacity of navigable waters (U.S.C. 403). Oil and gas activities requiring this type of permit include, but are not limited to, exploration drilling from a jackup drill rig and installation of a production platform. A Section 404 Permit is required for the discharge of dredged and fill material into waters and wetlands of the United States (33 U.S.C. 1344). The process and concerns are similar for both permits and, at times, both may be required.

6. U.S. Fish and Wildlife Service and National Marine Fisheries Service

- a) The lessee is advised that the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 et seq.) protects the following endangered or threatened species and candidate species for listing that may occur in the lease sale area:

Migratory birds, sea otters, polar bears, and Pacific walrus are managed by the U.S. Fish and Wildlife Service. The National Oceanic and Atmospheric Administration, National Marine Fisheries Service is responsible for management of all other marine mammals.

- b) NMFS, USFWS, and ADF&G will continue annual monitoring efforts to further delineate the presence and distribution of species administered under the ESA and Marine Mammal Protection Act (MMPA). The lessee is advised to annually acquire updated information from these agencies.
- c) The USFWS has determined that oil and gas exploration and development activities within 3 miles seaward or within one-half mile landward of the eastern shore of Cook Inlet, from Clam Gulch to the southern bounds of the lease sale area, are likely to adversely affect (take) Steller's eiders. Each operator is advised to consult with the USFWS well in advance of any activities in this area.
- d) The lessee is advised that off-shore activity (particularly seismic geophysical surveys) may result in the taking of beluga whales and other marine mammals. Such taking is prohibited by the federal MMPA unless otherwise authorized. The incidental taking of marine mammals may be authorized under the MMPA, and each operator should be advised to discuss this matter with NMFS well in advance of any geophysical survey activity.

- e) The lessee is advised that the Cook Inlet beluga whale is listed as a depleted stock under the MMPA. In October 2008, NMFS listed the whale population as endangered under the ESA; critical habitat designations are pending. The lessee is advised to review the Federal Register and contact NMFS for additional information.
- f) The lessee is advised that the Magnuson-Stevens Fishery Conservation and Management Act requires identification of Essential Fish Habitat (EFH) for all species managed under a federal Fisheries Management Plan. Subsequent exploration and/or development activities associated with the lease sale may be subject to consultation under EFH. EFH information, consultation, guidance, and species life history information are available on the NMFS website at <http://www.fakr.noaa.gov/habitat>.
- g) The lessee is advised that the description of the techniques used to drill and conduct seismic operations should be thorough and assess potential effects of fish and their spawning substrate, migratory corridors, and over-wintering areas.
- h) The lessee is advised that the response technologies and geographic response strategies have been prepared for Cook Inlet by state and federal planning teams in which NMFS has participated. However, the application of these plans in fast-moving Cook Inlet waters, especially during ice-laden times, could prove difficult. Further, mechanical recovery in estuaries, anadromous streams, and adjacent continuous wetlands can potentially disrupt these habitats and degrade water quality conditions. Thus, recovery and containment plans will need to address habitat effects within the site and areas where tidal currents may deposit or entrain spilled product. These assessments are needed before development.
- i) Lessees are advised of the need to comply with the Migratory Bird Treaty Act (MBTA; 16 U.S.C. 703) which is administered by the USFWS. Under the MBTA, it is illegal to "take" migratory birds, their eggs, feathers or nests. "Take" is defined (50 CFR 10.12) to include "pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting." The MBTA does not distinguish between "intentional" and "unintentional" take. Migratory birds include songbirds, waterfowl, shorebirds, and raptors. In Alaska, all native birds except grouse and ptarmigan (which are protected by the State of Alaska) are protected under the MBTA.
- j) In order to ensure compliance with the MBTA, it is recommended that the lessees survey the project area before construction, vegetation clearing, excavation, discharging fill, or other activities which create disturbance, and confirm there are no active migratory bird nests. It is recommended that lessees contact the USFWS for assistance and guidance on survey needs, and other compliance issues under the MBTA. While the Service can recommend methods (such as surveys and timing windows) to avoid unintentional take, responsibility for compliance with the MBTA rests with lessees. In the lease sale area, the USFWS normally recommends that to prevent impacts to nesting migratory birds, no vegetation clearing, fill placement, excavation, or other construction activities be conducted between May 1 and July 15.
- k) Bald eagles are protected under the Bald Eagle Protection Act (16 U.S.C. 668-668c) and the MBTA. Lessees are responsible to ensure their actions do not take bald eagles. The Bald Eagle Protection Act defines "take" to include disturbing birds. A survey for bald eagle nests is necessary before beginning exploration or development activities during the nesting period (March 1 through August 31). Any nests located within one-half mile of the project site must be mapped, and destruction of nest trees or locations is prohibited. If any nests are located within one-half mile of a project site, lessees shall meet with the USFWS before construction to review any site-specific concerns regarding the subject nest. USFWS generally recommends no clearing of vegetation within 330 feet of any nest. No activity should occur within 660 feet of any nests between March 1 and June 1. Between June 1

and August 31, no activity should occur within 660 feet of active eagle nests until after juvenile birds have fledged, unless specifically authorized by the USFWS. While the USFWS can recommend ways to avoid the take of eagles, final accountability lies with the party responsible for the action.

7. Matanuska-Susitna Borough

- a) The lessee is advised that all development in the Point MacKenzie Port Special Use District must comply with Matanuska-Susitna Borough Code Chapter 17.23: Point MacKenzie Port Special Use District.
- b) The lessee is advised that any exploration work on borough-owned tidelands or uplands in the area will require a land use permit from the borough's land management division.

ALASKA DEPARTMENT OF FISH AND GAME
SPECIAL AREA PERMIT APPLICATION

FH# _____

(OFFICE USE ONLY)

RECEIVED

MAY 23 2011

(For approval of a project or activity within a
state game refuge, game sanctuary, or critical habitat area)
Pursuant to 5 AAC 95

DIVISION OF
OIL AND GAS

This application must be completely filled out in order for the department to consider approval of a proposed project or activity. Please type or print clearly in ink. If a question is not applicable to your project, or you do not know the answer, please so indicate on the appropriate line.

A. APPLICANT

Name: Dale A. Haines, Alaska Operations Manager

Company: Union Oil Company of California

Address: 3800 Centerpoint Drive, Suite 100

Anchorage, Alaska 99503 Phone (day): (907) 263-7951

Name of Responsible Party in the Field: Gary Ross, Operations Supervisor

B. LOCATION OF PROJECT SITE

Name of Special Area: Susitna Flats State Game Refuge

Specific Project Location: Ivan River Pad

Township 13 North Range 9 West Meridian Seward Section 1

Quarter Section _____ USGS Map _____

Is the project on: private land _____ state land X

federal land _____ municipal land _____ ownership unknown _____

Waterbodies crossed or otherwise affected: None

Is the project in the coastal zone? *Yes X No _____

If yes, attach a completed Coastal Project Questionnaire to this application.

C. DESCRIPTION OF THE PROJECT OR ACTIVITY

On separate, attached sheets provide complete plans and specifications and all other details necessary to fully describe the scope of the proposed project or activity. Include, at a minimum, the following information:

The purpose of the project or activity.

★ If you are uncertain as to whether your proposed project lies within the coastal zone, please contact ADF&G.

The timeframe for the project or activity, including the specific time periods for any inwater work or other activities which may disturb fish or wildlife.

A description of construction methods, types, and quantities of equipment and number of people involved.

A description of water use including methods of withdrawal, rate of withdrawal, and the total quantity of water required.

A list of fill and excavation quantities, including the types of material and the source.

A map and description showing how access will be gained to the project area (use USGS 1:63,360 scale maps where available).

A detailed map or plan view, drawn to scale, and any cross-sectional views necessary to show project features and local topography including the location of all facilities and project dimensions.

A current aerial photograph of the project location (if available).

D. OTHER PERMITS

Identify other state or federal permits or authorizations obtained or applied for: ADEC-AQ Owner Requested Limit, AOGCC Gas Storage Injection Order, DOG Gas Storage Lease, DOG Gas Storage Lease Plan of Ops

MITIGATION: As a condition of project approval, applicants will be required to compensate fully for damage to fish and wildlife and their habitat by employing the most appropriate techniques. Where determined necessary by the department, a mitigation plan pursuant to 5 AAC 95 will be required.

I HEREBY CERTIFY THAT ALL INFORMATION PROVIDED ON OR IN CONNECTION WITH THIS APPLICATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.



Signature of Applicant

May 16, 2011

Date

Dale A. Haines

Name of Applicant (please print)

SUBMIT APPLICATION BY MAIL OR IN PERSON TO THE NEAREST DEPARTMENT OF FISH AND GAME, DIVISION OF HABITAT OFFICE.

ANCHORAGE
333 Raspberry Rd
Anchorage, AK 99518

FAIRBANKS
1300 College Rd
Fairbanks, AK 99701

JUNEAU
PO Box 110024
Juneau, AK 99811

KENAI
514 Funny River Rd
Soldotna, AK 99669

MAT-SU/PALMER
1800 Glenn Highway
Palmer, AK 99645

PETERSBURG
PO Box 667
Petersburg, AK 9983

POW
PO Box 668
Craig, AK 99921

RECEIVED

MAY 23 2011

DIVISION OF OIL AND GAS

State of Alaska, Department of Natural Resources, Division of Coastal & Ocean Management

Coastal Project Questionnaire and Certification Statement

The Coastal Project Questionnaire (CPQ) is a diagnostic tool that will identify the state and federal permit requirements for your project that are subject to a consistency review. You must answer all questions. If you answer "Yes" to any of the questions, please call that specific department for further instructions to avoid delay in processing your application. You can find an agency contact list online at <http://alaskacoast.state.ak.us/Contacts/PRCregcont.html>.

A complete project packet includes accurate maps and plan drawings at scales large enough to show details, copies of your state and federal permit applications, your answers to this questionnaire, and a complete consistency evaluation. DCOM will notify you within 21 days of receipt if the packet is incomplete and what information is still required.

For additional information or assistance, you may call or email the [Juneau Project Review](#) at (907) 465-2142, or the [Anchorage Project Review](#) at (907) 269-7478. This CPQ document contains numerous hyperlinks (underlined text that has a connection to an internet web page) and is best viewed on-line. Additional instructions are available at <http://www.alaskacoast.state.ak.us/Projects/pcpq.html>

■ APPLICANT INFORMATION

1. <u>Union Oil Company of California</u> Name of Applicant <u>P.O. Box 196247</u> Address <u>Anchorage, AK 99519-6247</u> City/State/Zip <u>(907) 263-7951 (phone) / (866) 801-5194 (fax)</u> Daytime Phone _____ Fax Number E-mail Address	2. <u>Dale A. Haines, Operations Manager</u> Agent (or responsible party if other than applicant) <u>Same</u> Address <u>Same</u> City/State/Zip <u>Same</u> Daytime Phone <u>Same daleah@chevron.com</u> Fax Number E-mail Address
--	--

■ PROJECT INFORMATION

1. This activity is a: new project modification or addition to an existing project Yes No
2. If this is a modification or an addition, do you currently have any State, federal or local approvals for this activity?

NOTE: Approval means any form of authorization. If "yes," please list below:

Approval Type	Approval #	Issuance Date	Expiration Date
ADNR-DOG Oil&Gas Lease	ADL 32930	10/01/1956	N/A
DOG IRU Unit POO Approval	LO/CI 08-07	10/23/2008	N/A
DOG IRU Lease POO Approval	LO/CI 05-02	06/28/2005	N/A
ADF&G Boost Compressor SAP	FG 05-II-0027	01/09/2005	12/31/2005
ADF&G Temp Compressor SAP	FH 09-IV-0580-SA	10/23/2009	12/31/2011
ADF&G Temp Compressor SAP	FH 08-IV-0397-SA	10/17/2008	03/31/2009

3. If this is a modification, was this original project reviewed for consistency with the Alaska Coastal Management Program?
- Previous ACMP I.D. Number: AK 0808-04OG (example: AK 0706-05AA or ID2004-0505JJ)
- Previous Project Name: IRU Gas Develop Prog Previous Project Applicant: Union Oil Company of CA

■ PROJECT DESCRIPTION

Attach a complete and detailed narrative description of your new project or of your modification/addition including ALL associated facilities and changes to the current land or water use (if not already attached as part of an agency application). Clearly delineate the project boundaries and all property owners, including owners of adjacent land, on the site plan. The scale of the maps and plan drawings must be large enough to show pertinent details. Identify your proposed footprint or

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disturbed area. If this project is a modification to an approved project, identify existing facilities and proposed changes on the site plan.

Proposed starting date for project: 6/14/2011 Proposed ending date for project: Undetermin

PROJECT LOCATION and LAND OWNERSHIP

Yes No

4. Describe/identify the project location on a map (Including nearest community, the name of the nearest land feature or body of water, and other legal description such as a survey or lot number.)

Township 13 North Range 9 West Section 1 Meridian Seward

Latitude/Longitude _____ / _____ (specify Decimal Degrees or Degrees, Minutes, Seconds)

USGS Quad Map _____

5. The project is located on: State land or water* Federal land Private land Municipal land
(Check all that apply) Mental Health Trust land University of Alaska land

Contact the applicable landowner(s) to obtain necessary authorization. State land ownership can be verified using [Alaska Mapper](#). *State land can be uplands, tidelands or submerged lands to 3 miles offshore.

6. Is the project within or associated with the Trans Alaska Pipeline corridor? Yes No

COASTAL DISTRICT

Yes No

7. Is the project located in a coastal district? Yes No

If yes, identify the applicable coastal district(s) Mat-Su Borough and contact them to ensure your project conforms with district policies and zoning requirements. Coastal districts are a municipality or borough, home rule or first class city, second class municipality with planning powers, or coastal resource service area. A coastal district is a participant in the State's consistency review process. Early interaction with the district can benefit you significantly; please contact the district representative listed on the contact list at <http://www.alaskacoast.state.ak.us/Contacts/PRCregcont.html>

DEPARTMENT OF NATURAL RESOURCES (DNR) APPROVALS

DNR DIVISION OF MINING, LAND & WATER- LAND SECTION

Yes No

1. Is the proposed project on State-owned land or water or will you need to cross State-owned land for access? (NOTE: State land includes the land below the ordinary high water line of navigable streams, rivers and lakes, and in marine waters, below the mean high tide line seaward for three miles. State land does not include Alaska Mental Health Trust Land or University of Alaska Land.) Yes No

2. If you answered yes to the question above, indicate the person you contacted at the appropriate [Division of Mining, Land and Water](#) regional office for information.

a) Name/date of Contact: _____

b) Is an application required for the proposed activity? Yes No

c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: Project is located within Ivan River Unit and on existing O&G Lease ADL 32930

DNR DIVISION OF MINING, LAND & WATER- MATERIALS SECTION

Yes No

3. Do you plan to dredge or otherwise excavate or remove materials such as rock, sand, gravel, peat, or overburden from any land regardless of ownership? Yes No

a) Location of excavation site if different than the project site: _____
Township _____ Range _____ Section _____ Meridian _____

4. At any one site (regardless of land ownership), do you plan any of the following? Yes No

- Excavate five or more acres over a year's time
- Excavate 50,000 cubic yards or more of materials (rock, sand, gravel, soil, peat, overburden, etc.) over a year's time
- Have a cumulative, un-reclaimed, excavated area of five or more acres

5. Do you plan to place fill or excavated material on State-owned land? Yes No

a) Location of fill or material disposal site if different than the project site: _____
Township _____ Range _____ Section _____ Meridian _____

6. If you answered yes to any question above, indicate the person you contacted at the appropriate [Division of Mining,](#)

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Land and Water regional office for information.

- a) Name/date of Contact: _____
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

DNR DIVISION OF MINING, LAND & WATER- MINING SECTION

Yes No

- 7. Do you plan to mine for locatable minerals such as silver, gold, or copper?
- 8. Do you plan to explore for or extract coal?
- 9. If you answered yes to any question above, indicate the person you contacted at the appropriate Division of Mining, Land and Water regional office for information.
 - a) Name/date of Contact: _____
 - b) Is an application required for the proposed activity?
 - c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

DNR DIVISION OF MINING, LAND & WATER- WATER SECTION

Yes No

- 10. Will this project or development divert, impound, withdraw, or use any fresh water (regardless of land ownership)?
(NOTE: If you know of other water users who withdraw from the same source or any potential conflicts affecting this use of water, contact the Water Section. If you are obtaining water exclusively from either an existing Public Water Supply or from a rainwater catchment system, you are not required to contact the DNR Water Section regional office.)
 - a) Check all points-of-withdrawal or water sources that apply:
 - Public Water system (name): _____
 - Stream or Lake (name): _____
 - Well
 - Rain catchment system
 - Other: _____
 - b) Intended use(s) of water: _____
 - c) Amount (maximum daily, not average, in gallons per day): _____
 - d) Is the point of water withdrawal on property you own?
- 11. Do you plan to build or alter a dam (regardless of land ownership)?
- 12. If you answered yes to any question above, indicate the person you contacted at the appropriate Division of Mining, Land and Water regional office for information.
 - a) Name/date of Contact: _____
 - b) Is an application required for the proposed activity?
 - c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

DNR DIVISION OF FORESTRY

Yes No

- 13. Does your operation meet **both** of the following criteria on any land, regardless of ownership?
 - a) The project will commercially harvest timber on 10 or more acres, or commercially harvest timber that intersects, encompasses, or borders on surface waters, **and**
 - b) The project involves one or more of the following: site preparation, thinning, slash treatment, construction and maintenance of roads associated with a commercial timber harvest, or any other activity leading to or connected to a commercial timber harvest operation.
- 14. If you answered yes to any question above, indicate the person you contacted at the appropriate Division of Forestry regional office for information.
 - a) Name/date of Contact: _____
 - b) Is an application required for the proposed activity?
 - c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

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DNR DIVISION OF OIL & GAS

- | | | |
|---|-------------------------------------|-------------------------------------|
| | Yes | No |
| 15. a) Will you be exploring for or producing oil and/or gas? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Will you conduct surface use activities on/within an oil and gas lease or unit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| If yes, please specify: <u>Install Compression within Ivan River Unit on O&G Lease #ADL32930</u> | | |
| 16. Do you plan to drill a geothermal well (regardless of land ownership)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 17. If you answered yes to any question above, indicate the person you contacted at the appropriate Division of Oil & Gas office for information. | | |
| a) Name/date of Contact: <u>Brian Havelock / 01-21-2010, 05-16-2011</u> | | |
| b) Is an application required for the proposed activity? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____ | | |
| Visit the Division of Oil & Gas website for application forms and additional information. | | |

DNR OFFICE OF HISTORY & ARCHAEOLOGY

- | | | |
|---|--------------------------|-------------------------------------|
| | Yes | No |
| 18. Will you investigate, remove, or impact historical, archaeological or paleontological resources (anything over 50 years old) on State-owned land? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 19. If you answered yes to the question above, indicate the person you contacted at the State Historic Preservation Office for information. | | |
| a) Name/date of Contact: _____ | | |

DNR DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

- | | | |
|---|--------------------------|-------------------------------------|
| | Yes | No |
| 20. Is the proposed project located within a natural hazard area designated by a coastal district in the approved district plan? (Refer to the district plan or contact the coastal district office .) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| a) If "yes", describe the measures you will take in the siting, design, construction, and operation of the proposed activity to protect public safety, services, and the environment from potential damage caused by the designated natural hazard(s) in the Natural Hazards portion of the attached Coastal Consistency Evaluation (11 AAC 112.210). | | |
| 21. If you have contacted someone, please indicate the person you contacted at the Coastal District or the State for information. The Division of Geological & Geophysical Survey may have additional information on hazards for the area. | | |
| a) Name/date of Contact: _____ | | |

DNR DIVISION OF PARKS & OUTDOOR RECREATION

- | | | |
|--|--------------------------|-------------------------------------|
| | Yes | No |
| 22. Is the proposed project located in a unit of the Alaska State Park System including navigable waters, tidelands or submerged lands to three miles offshore? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 23. If you answered yes to any question above, indicate the person you contacted at the appropriate DNR Division of Parks & Recreation office for information. | | |
| a) Name/date of Contact: _____ | | |
| b) Is an application required for the proposed activity? | <input type="checkbox"/> | <input type="checkbox"/> |
| c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____ | | |

DNR APPROVALS

List the Department of Natural Resources permits or authorizations required for your project below:

Types of project approvals or permits needed.	Date application submitted
ADNR-DOG IRU Pad Temp Compressor Approval LO/CI 08-07, 05-02	Approval Received 10/29/09, 9/1/10
ADNR-DOG Ivan River Unit Gas Storage Lease	Application Submitted 4/14/2011
ADNR-DOG Ivan River Pad Boost Compressor Approval LO/CI 05-02	Approval Received 6/28/2005

■ DEPARTMENT OF FISH AND GAME (DFG) APPROVALS

- | | | |
|--|-------------------------------------|-------------------------------------|
| | Yes | No |
| 1. Is your project located in a designated State Game Refuge, Critical Habitat Area or State Game Sanctuary? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Does your project include construction/operation of a salmon hatchery? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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3. Does your project affect, or is it related to, a previously permitted salmon hatchery?
4. Does your project include construction of an aquatic farm?
5. Will you work in, remove water or material from, or place anything in, a stream, river or lake? *(NOTE: This includes work or activities below the ordinary high water mark or on ice, in the active flood plain, on islands, in or on the face of the banks, or, for streams entering or flowing through tidelands, above the level of mean lower low tide. If the proposed project is located within a special flood hazard area, a municipal floodplain development permit may be required. Contact the affected city or borough planning department for additional information and a floodplain determination.)*
- a) If yes, name of waterbody: _____
6. If you answered yes to any questions above, indicate the person you contacted at the appropriate Department of Fish and Game office for information. *(For projects involving Hatcheries or Aquatic Farms, please contact the Division of Commercial Fisheries. Other projects should contact the Division of Habitat.)*
- a) Name/date of Contact: Mike Bethe & Ken Bouwens / 12-10-2009, 04-27-2011
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

DFG APPROVALS

List the Department of Fish and Game permits or authorizations required for your project below:

Types of project approvals or permits needed.

Date application submitted

Types of project approvals or permits needed.	Date application submitted
ADF&G Special Area Permit for Ivan River Unit Gas Storage Project	5/16/2011
ADF&G SAP #FH 09-IV-0580-SA for IRU Temporary Compression	Approval Received 10/23/2009

■ DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) APPROVALS

DEC DIVISION OF WATER

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 1 a) Will a discharge of non-domestic wastewater to lands, waters, or the subsurface of the state occur? <i>(NOTE: Non-domestic wastewater includes wastewater from commercial or industrial facilities, excavation projects, wastewater from man-made containers or containment areas, or any other non-domestic wastewater disposal activities see 18 AAC 72.990 for definitions.)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Will a discharge of domestic wastewater or septage to lands, waters or the subsurface of the state occur? <i>(see 18 AAC 72.990 for definitions.)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Will the wastewater disposal activity require a mixing zone or zone of deposit to meet Water Quality Standards (WQS)? <i>(Many disposal activities require a mixing zone to meet WQS, contact DEC if unsure.)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Will the project include a stormwater collection/discharge system? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Will the project include placing fill in wetlands? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Is the surrounding area inundated with water at any time of the year? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Do you intend to construct, install, modify or use any part of a domestic or non-domestic wastewater treatment or disposal system? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Does your project qualify for a general permit for wastewater? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. If you answered yes to any questions above, indicate the person you contacted at the <u>DEC-Division of Water</u> for information. | | |
| a) Name/date of Contact: _____ | | |
| b) Is an application required for the proposed activity? | <input type="checkbox"/> | <input type="checkbox"/> |
| c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____ | | |

State of Alaska, Department of Natural Resources, Division of Coastal & Ocean Management

DEC DIVISION OF ENVIRONMENTAL HEALTH

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 4 a) Will your project result in construction, modification, or operation of a facility for solid waste disposal? <i>(NOTE: Solid waste means drilling wastes, household garbage, refuse, sludge, construction or demolition wastes, industrial solid waste, asbestos, and other discarded, abandoned, or unwanted solid or semi-solid material, whether or not subject to decomposition, originating from any source. Disposal means placement of solid waste on land.)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Will your project result in treatment of solid waste at the site? <i>(Examples of treatment methods include, but are not limited to: incineration, open burning, baling, and composting.)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Will your project result in storage or transfer of solid waste at the site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Will the project result in storage of more than 50 tons of materials for reuse, recycling, or resource recovery? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Will any sewage solids or biosolids be disposed of or land-applied to the site? <i>(NOTE: Sewage solids include wastes that have been removed from a wastewater treatment plant system, such as a septic tank lagoon dredge, or wastewater treatment sludge that contain no free liquids. Biosolids are the solid, semi- solid or liquid residues produced during the treatment of domestic septage in a treatment works which are land applied for beneficial use.)</i> .. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Will your project require application of oil, pesticides, and/or any other broadcast chemicals? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. Does your project qualify for a general permit for solid waste? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. If you answered yes to any question above, indicate the person you contacted at the DEC- Division of Environmental Health for information. | | |
| a) Name/date of Contact: _____ | | |
| b) Is an application required for the proposed activity? | <input type="checkbox"/> | <input type="checkbox"/> |
| c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____ | | |

DEC DIVISION OF AIR QUALITY

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 8 a) Will you have an asphalt plant designed to process no less than <i>five tons per hour</i> of product? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Will you have a thermal remediation unit with a rated capacity of at least five tons per hours of untreated material? .. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Will you have a rock crusher with a rated capacity of at least five tons per hour? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Will you have one or more incinerators with a cumulative rated capacity of 1,000 pounds or more per hour? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Will you have a coal preparation plant? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Will you have a Port of Anchorage stationary source? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Will you have a facility with the potential to emit no less than 100 tons per year of any regulated air contaminant?..... | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Will you have a facility with the potential to emit no less than 10 tons per year of any hazardous air contaminant or 25 tons per year of all hazardous air contaminants?..... | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Will you be constructing a new stationary source with a potential to emit greater than: | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> 15 tons per year (tpy) of PM-10 | | |
| <input type="checkbox"/> 40 tpy of nitrogen oxides | | |
| <input type="checkbox"/> 40 tpy of sulfur dioxide | | |
| <input type="checkbox"/> 0.6 tpy of lead; or | | |
| <input type="checkbox"/> 100 tpy of CO within 10 km of a nonattainment area | | |
| j) Will you be commencing construction, or <i>(if not already authorized under 18 AAC 50) relocating a portable oil and gas operation? (answer "yes" unless you will comply with an existing operating permit developed for the portable oil and gas operation at the permitted location; or you will operate as allowed under AS 46.14.275 without an operating permit)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| k) Will you be commencing construction or <i>(if not already authorized under 18 AAC 50) relocating an emission unit with a rated capacity of 10 million Btu or more per hour in a sulfur dioxide special protection area established under 18 AAC 50.025?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| l) Will you be commencing a physical change to or a change in the method of construction of an existing stationary source with a potential to emit an air pollutant greater than an amount listed in g) that will cause for that pollutant an emission increase (calculated at your discretion) as either an increase in potential to emit that is greater than: | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> 10 tpy of PM-10 | | |
| <input type="checkbox"/> 10 tpy of sulfur dioxide | | |
| <input type="checkbox"/> 10 tpy of nitrogen oxides; or | | |
| <input type="checkbox"/> 100 tpy of CO within 10 km of a nonattainment area; or | | |
| actual emissions and a net emissions increase greater than: | | |

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- 10 tpy of PM-10
- 10 tpy of sulfur dioxide
- 10 tpy of nitrogen oxides; or
- 100 tpy of CO within 10 km of a nonattainment area

- m) Will you be commencing construction or making a major modification of a Prevention of Significant Deterioration stationary source under 18 AAC 50.306?
- n) Will you be commencing construction or making a major modification of a nonattainment area major stationary source under 18 AAC 50.311?
- o) Will you be commencing construction or reconstructing a major stationary source under 18 AAC 50.316, for hazardous air pollutants? Definition of Regulated Air Pollutants can be found at <http://www.epa.gov/ttn/oarpg/t5/memoranda/rapdef.pdf>
9. If you answered yes to any questions above, indicate the person you contacted at the [DEC- Division of Air Quality](#) for information.
- a) Name/date of Contact: _____
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: An ORL has been filed with ADEC; an air permit is not required for this project.

DEC DIVISION OF SPILL PREVENTION AND RESPONSE

- | | | |
|--|-----|----|
| | Yes | No |
|--|-----|----|
- 10 a) Will your project involve the operation of waterborne tank vessels or oil barges that carry crude or non crude oil as bulk cargo, or the transfer of oil or other petroleum products to or from such a vessel or a pipeline system?
- b) Will your project require or include onshore or offshore oil facilities with an effective aggregate storage capacity of greater than 5,000 barrels of crude oil or greater than 10,000 barrels of non-crude oil?
- c) Will you operate facilities on land or water for exploration or production of hydrocarbons?
11. If you answered yes to any questions above, indicate the person you contacted at the [DEC-Division of Spill Prevention and Response](#) office for information.
- a) Name/date of Contact: _____
- b) Is a plan required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed Oil Discharge Prevention & Contingency Plan to the DCOM. If "No", explain why an application isn't required. Explanation: Gas storage project - oil storage <10,000 gals

DEC APPROVALS

List the Department of Environmental Conservation permits or authorizations required for your project below:

Types of plan approvals or permits needed	Date application submitted
ADEC-DAQ Owner Requested Limit	5/18/2011

■ FEDERAL APPROVALS

U.S. ARMY CORPS OF ENGINEERS (USACE)

- | | | |
|--|-----|----|
| | Yes | No |
|--|-----|----|
1. Will you discharge dredged and/or fill material or perform dredging activities in waters of the U.S? Section 404 of the Clean Water Act requires that a Department of the Army permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands (33 U.S.C. 1344). (Your application to the USACE would also serve as application for DEC Water Quality Certification.)
2. Will you place fill or structures or perform work in waters of the U.S? Section 10 of the Rivers and Harbors Act of 1899 requires that a Department of the Army permit be obtained for structures or work in or affecting navigable waters of the U.S. (33 U.S.C. 403) (Waters of the U.S. include marine waters subject to the ebb and flow of the tide, rivers, streams, lakes tributaries, and wetlands. If you are not certain whether your proposed project is located within a wetland, contact the USACE Regulatory Division to request a wetlands determination. For additional information about the Regulatory Program, visit www.poa.usace.army.mil/reg)

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3. If you answered yes to the question above, indicate the person you contacted at the [US Army Corps of Engineers](#) for information.
- a) Name/date of Contact: _____
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

BUREAU OF LAND MANAGEMENT (BLM)

Yes No

4. Is the proposed project located on BLM land, or will you need to cross BLM land for access?
5. If you answered yes to the question above, indicate the person you contacted at the [Bureau of Land Management](#) for information.
- a) Name/date of Contact: _____
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

U.S. COAST GUARD (USCG)

Yes No

- 6 a) Do you plan to construct a bridge or causeway over tidal (ocean) waters, or navigable rivers, streams or lakes?
- b) Does your project involve building an access to an island?
- c) Do you plan to site, construct, or operate a deepwater port?
7. If you answered yes to any question above, indicate the person you contacted at the appropriate [US Coast Guard](#) office for information.
- a) Name/date of Contact: _____
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

Yes No

- 8 a) Will the proposed project have a discharge to any waters?
- b) Will you dispose of sewage sludge?
- c) Will construction of your project expose 1 or more acres of soil? (NOTE: This applies to the total amount of land disturbed, even if disturbance is distributed over more than one season, and also applies to areas that are part of a larger common plan of development or sale.)
- d) Is your project an industrial facility that will have stormwater discharge directly related to manufacturing, processing, or raw materials storage areas at an industrial plant? If you answered yes to c) or d), your project may require an NPDES Stormwater permit
9. If you answered yes to any question above, indicate the person you contacted at the [US Environmental Protection Agency](#) for information.
- a) Name/date of Contact: _____
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

FEDERAL AVIATION ADMINISTRATION (FAA)

Yes No

- 10 a) Is your project located within five miles of any public airport?
- b) Will you have a waste discharge that is likely to decay within 5,000 feet of any public airport?
11. If you answered yes to the question above, indicate the person you contacted at the [Federal Aviation Administration](#) for information.
- a) Name/date of Contact: _____

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FEDERAL ENERGY REGULATORY COMMISSION (FERC)

- | | Yes | No |
|---|--------------------------|-------------------------------------|
| 12 a) Does the project include any of the following: | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 1) a non-federal hydroelectric project on any navigable body of water | | |
| 2) locating a hydro project on federal land (including transmission lines) | | |
| 3) using surplus water from any federal government dam for a hydro project | | |
| b) Does the project include construction and operation, or abandonment of interstate natural gas pipeline facilities under sections 7 (b) and (c) of the Natural Gas Act (NGA)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Does the project include construction and operation of natural gas or liquefied natural gas importation or exportation facilities under section 3 of the NGA? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Does the project include construction for physical interconnection of electric transmission facilities under section 202 (b) of the FPA? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 13. If you answered yes to any question above, indicate the person you contacted at the appropriate Federal Energy Regulatory Commission office for information. | | |
| a) Name/date of Contact: _____ | | |
| b) Is an application required for the proposed activity? | <input type="checkbox"/> | <input type="checkbox"/> |
| c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____ | | |

U.S. FOREST SERVICE (USFS)

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 14 a) Does the proposed project involve construction on USFS land? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the proposed project involve the crossing of USFS land with a water line? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) The current list of Forest Service permits that require ACMP consistency review are online at http://alaskacoast.state.ak.us/Clawhome/handbook/pdf/11_AAC_110.pdf in Article 4, 11 AAC 110.400, pages 28-30. Does your proposed project include any of Forest Service authorizations found on pages 28-30 of the ACMP Handbook? | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. If you answered yes to any question above, indicate the person you contacted at United States Forest Service for information. | | |
| a) Name/date of Contact: _____ | | |
| b) Is an application required for the proposed activity? | <input type="checkbox"/> | <input type="checkbox"/> |
| c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____ | | |

U.S. FISH AND WILDLIFE SERVICE (USFWS)

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 16 a) Is your proposed project on land managed by the USFWS? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does your project require a Right of Way from the USFWS under 50 C.F.R. 29 and 50 C.F.R 36? | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. If you answered yes to any question above, indicate the person you contacted at the US Fish and Wildlife Service for information. | | |
| a) Name/date of Contact: _____ | | |
| b) Is an application required for the proposed activity? | <input type="checkbox"/> | <input type="checkbox"/> |
| c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____ | | |

OTHER FEDERAL AGENCY APPROVALS

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 18 a) Other Federal agencies with authorizations reviewable under the Alaska Coastal Management Program are posted online at http://alaskacoast.state.ak.us/Clawhome/handbook/pdf/11_AAC_110.pdf in Article 4, 11 AAC 110.400, pages 28-30. Does your proposed project include any of the Federal agency authorizations found on pages 28-30 of the ACMP Handbook? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) If yes, which federal authorizations? _____ | | |

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19. Have you applied for any other federal permits or authorizations?

Agency	Approval Type	Date Submitted

Note: The Coastal Project Questionnaire (CPQ) identifies state and federal permits subject to a consistency review. You may need additional permits from other agencies or the affected city and borough government to proceed with your activity. Attach the documentation requested under the Project Description.

ACMP Consistency Evaluation & Certification Statement

Pursuant to [11 AAC 110.215 \(a\)\(1\)\(c\)](#), the applicant shall submit an evaluation of how the proposed project is consistent with the statewide standards at 11 AAC 112.200 - 11 AAC 112.990 and with the applicable district enforceable policies, sufficient to support the consistency certification. Evaluate your project against each section of the state standards and applicable district enforceable policies using the template below or by submitting a narrative description in letter or report form. District enforceable policies are available on the ACMP website at <http://www.alaskacoast.state.ak.us>. Definitions of key terms can be found at: [11 AAC 110.990](#), [11 AAC 112.990](#) and [11 AAC 114.990](#).

If you need more space for an adequate explanation of any of the applicable standards, please attach additional pages to the end of this document. Be sure to include references to the specific sections and subsections that you are evaluating.

STATEWIDE STANDARDS

11 AAC 112.200. Coastal Development

Standard:

- (a) In planning for and approving development in or adjacent to coastal waters, districts and state agencies shall manage coastal land and water uses in such a manner that those uses that are economically or physically dependent on a coastal location are given higher priority when compared to uses that do not economically or physically require a coastal location.
- (b) Districts and state agencies shall give, in the following order, priority to
 - (1) water-dependent uses and activities;
 - (2) water-related uses and activities; and
 - (3) uses and activities that are neither water-dependent nor water-related for which there is no practicable inland alternative to meet the public need for the use or activity.
- (c) The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with the standards contained in [33 CFR Parts 320 - 323](#), revised as of July 1, 2003.

Evaluation:

- (a) How is your project economically or physically dependent on a coastal location? Why are you proposing to place the project at the selected location?
The project exists on an already established site within the coastal flats of the Susitna Flats SGR adjacent to Cook Inlet. The site already exists and is within a unitized area. Moving the site is not feasible or prudent.
- (b) Evaluation of development priority.
 - (1) How is the proposed project water-dependent? Explain.
 - (2) How is the proposed project water-related? Explain.
 - (3) If the proposed project is neither water-dependent nor water-related, please explain why there is not a practicable inland alternative that meets the public need for the use or activity. Explain.
Site already exists and is within a unitized area. Moving the site is not feasible or prudent. Significant public need exists for domestic gas development and storage and needs cannot be met without these programs.
- (c) *DCOM defers to the United States Corps of Engineers (USACE) to interpret compliance with the referenced standards.* If you plan to discharge or fill waters of the US, have you applied to the Corps of Engineers for the appropriate authorization?
Not applicable.

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11 AAC 112.210. Natural hazard areas.

Standard:

(a) In addition to those identified in 11 AAC 112.990, the department, or a district in a district plan, may designate other natural processes or adverse conditions that present a threat to life or property in the coastal area as natural hazards. Such designations must provide the scientific basis for designating the natural process or adverse condition as a natural hazard in the coastal area, along with supporting scientific evidence for the designation.

(b) Areas likely to be affected by the occurrence of a natural hazard may be designated as natural hazard areas by a state agency or, under 11 AAC 114.250(b), by a district.

(c) Development in a natural hazard area may not be found consistent unless the applicant has taken appropriate measures in the siting, design, construction, and operation of the proposed activity to protect public safety, services, and the environment from potential damage caused by known natural hazards.

(d) For purposes of (c) of this section, "appropriate measures in the siting, design, construction, and operation of the proposed activity" means those measures that, in the judgment of the coordinating agency, in consultation with the department's division of geological and geophysical surveys, the Department of Community and Economic Development as state coordinating agency for the National Flood Insurance Program under 44 C.F.R. 60.25, and other local and state agencies with expertise,

(1) satisfy relevant codes and safety standards; or

(2) in the absence of such codes and standards;

(A) the project plans are approved by an engineer who is registered in the state and has engineering experience concerning the specific natural hazard; or

(B) the level of risk presented by the design of the project is low and appropriately addressed by the project plans.

Evaluation:

(a) Describe the natural hazards designated in the district plan as they affect this site.

(b) Describe how the proposed project is designed to accommodate the designated hazards. How will you use site design and operate the proposed activity to protect public safety, services and the environment from potential damaged caused by known natural hazards?

No hazards were identified. Site already exists, is at a low elevation and is not likely to influence erosion or incur flooding, landslides, mass wasting or avalanche to such a degree that mitigation or relocation is needed.

(d)(1) Describe the measures you will take to meet relevant codes and safety standards in the siting, design, construction and operation of the proposed activity.

(d)(2)(A) If your project is located in an area without codes and safety standards, how is your project engineered for the specific natural hazard? Give the name of the appropriately qualified registered engineer who will approve the plans for protecting public safety, services, and the environment from damage caused by hazards OR

(d)(2)(B) If the level of risk presented by the design of the project is low, how do the project plans and project design address the potential natural hazard?

No hazards were identified. Site already exists. Catastrophic failure is unlikely to occur in this area during occupancy to make additional siting, design, and construction measures necessary.

11 AAC 112.220. Coastal access.

Standard:

Districts and state agencies shall ensure that projects maintain and, where appropriate, increase public access to, from, and along coastal water.

Evaluation:

Please explain how the proposed project will maintain and, where appropriate, increase public access to, from and along coastal water.

The project is on an established gravel pad that does not have ready access to coastal water. Roads leading to site have access to water systems that flow to coastal waters. These roads are not blocked by the project.

11 AAC 112.230. Energy facilities.

Standard:

(a) The siting and approval of major energy facilities by districts and state agencies must be based, to the extent practicable, on the following standards:

(1) site facilities so as to minimize adverse environmental and social effects while satisfying industrial requirements;

(2) site facilities so as to be compatible with existing and subsequent adjacent uses and projected community needs;

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- (3) consolidate facilities;
 - (4) consider the concurrent use of facilities for public or economic reasons;
 - (5) cooperate with landowners, developers, and federal agencies in the development of facilities;
 - (6) select sites with sufficient acreage to allow for reasonable expansion of facilities;
 - (7) site facilities where existing infrastructure, including roads, docks, and airstrips, is capable of satisfying industrial requirements;
 - (8) select harbors and shipping routes with least exposure to reefs, shoals, drift ice, and other obstructions;
 - (9) encourage the use of vessel traffic control and collision avoidance systems;
 - (10) select sites where development will require minimal site clearing, dredging, and construction;
 - (11) site facilities so as to minimize the probability, along shipping routes, of spills or other forms of contamination that would affect fishing grounds, spawning grounds, and other biologically productive or vulnerable habitats, including marine mammal rookeries and hauling out grounds and waterfowl nesting areas;
 - (12) site facilities so that design and construction of those facilities and support infrastructures in coastal areas will allow for the free passage and movement of fish and wildlife with due consideration for historic migratory patterns;
 - (13) site facilities so that areas of particular scenic, recreational, environmental, or cultural value, identified in district plans, will be protected;
 - (14) site facilities in areas of least biological productivity, diversity, and vulnerability and where effluents and spills can be controlled or contained;
 - (15) site facilities where winds and air currents disperse airborne emissions that cannot be captured before escape into the atmosphere;
 - (16) site facilities so that associated vessel operations or activities will not result in overcrowded harbors or interfere with fishing operations and equipment.
- (b) The uses authorized by the issuance of state and federal leases, easements, contracts, rights-of-way, or permits for mineral and petroleum resource extraction are uses of state concern.

Evaluation:

(a) If this standard applies to your project, please describe in detail how the proposed project is designed to meet each applicable section of this standard:

- (1) Site already exists and is designed to minimize adverse environmental and social effects.
- (2) Site is compatible with existing and subsequent adjacent uses and project community needs.
- (3) Site consolidates production facilities by taking advantage of existing facilities.
- (4) Site will not preclude concurrent use/development of facilities for public or economic reasons.
- (5) UOCC has cooperated with landowners/developers/federal agencies in development of the site.
- (6) Site allows adequate reasonable expansion, if needed.
- (7) Site is located on existing infrastructure.
- (8) Not applicable.
- (9) Not applicable.
- (10) Site is located on existing infrastructure.
- (11) Site is located on existing infrastructure.
- (12) Site is located on existing infrastructure.
- (13) Site is located on existing infrastructure.
- (14) Site is located on existing infrastructure.
- (15) Site is located on existing infrastructure.
- (16) Site is located on existing infrastructure.

(b) List the authorizations for state and federal leases, easements, contracts, rights-of-way, water rights, or permits for mineral and petroleum resource extraction you have applied for or received.

DOG ADL 32930/33939;DOG LO/CI 08-07,05-02;DOG Gas Storage Lease;AOGCC Injection Order

11 AAC 112.240. Utility routes and facilities.

Standard:

- (a) Utility routes and facilities must be sited inland from beaches and shorelines unless
 - (1) the route or facility is water-dependent or water related; or
 - (2) no practicable inland alternative exists to meet the public need for the route or facility.

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- (b) Utility routes and facilities along the coast must avoid, minimize, or mitigate
- (1) alterations in surface and ground water drainage patterns;
 - (2) disruption in known or reasonably foreseeable wildlife transit;
 - (3) blockage of existing or traditional access.

Evaluation:

(a) If the proposed utility route or facility is sited adjacent to beaches or shorelines, explain how the route or facility is water dependent water related or why no practical inland alternative exists.

The project is located on an existing pad within a unitized area. Moving the site is not feasible or prudent.
Significant public need exists for domestic gas development and cannot be met without these develop prgms.

(b) If the proposed utility route or facility is sited along the coast, explain how you will avoid, minimize or mitigate:

(1) alterations in surface and ground water drainage patterns;
The project is located on the surface of existing infrastructure and will not alter surface or ground water drainage patterns.

(2) disruption in known or reasonably foreseeable wildlife transit;
The project is located on an existing pad and will not disrupt wildlife transit.

(3) blockage of existing or traditional access.
Project site is located on existing infrastructure that will not block existing or traditional access to coastal resources.

11 AAC 112.250. Timber harvest and processing.

Standard:

AS 41.17 (Forest Resources and Practices Act) and the regulations adopted under that chapter with respect to the harvest and processing of timber are incorporated into the program and constitute the components of the program with respect to those purposes.

Evaluation:

Does your activity involve harvesting or processing of timber? Yes _____ No

If yes, please explain how your proposed project meets the standards of the State Forest Resources and Practices Act.

11 AAC 112.260. Sand and gravel extraction.

Standard:

Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits if there is no practicable alternative to coastal extraction that will meet the public need for the sand or gravel.

Evaluation:

If your proposed project includes extracting sand or gravel from coastal waters, intertidal areas, barrier islands or spits, please explain why there is no practicable alternative to coastal extraction that meets the public need for sand or gravel.
Not applicable. Sand and gravel extraction is not part of this project.

11 AAC 112.270. Subsistence.

Standard:

- (a) A project within a subsistence use area designated by the department or under 11 AAC 114.250(g) must avoid or minimize impacts to subsistence uses of coastal resources.
- (b) For a project within a subsistence use area designated under 11 AAC 114.250(g), the applicant shall submit an analysis or evaluation of reasonably foreseeable adverse impacts of the project on subsistence use as part of
- (1) a consistency review packet submitted under 11 AAC 110.215; and
 - (2) a consistency evaluation under 15 C.F.R. 930.39, 15 C.F.R. 930.58, or 15 C.F.R. 930.76.
- (c) Repealed 10/29//2004, Register 172.

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(d) Except in nonsubsistence areas identified under AS 16.05.258, the department may, after consultation with the appropriate district, federally recognized Indian tribes, Native corporations, and other appropriate persons or groups, designate areas in which a subsistence use is an important use of coastal resources as demonstrated by local usage.

(e) For purposes of this section, "federally recognized Indian tribe," "local usage", and "Native corporation" have the meanings given in 11 AAC 114.990.

Evaluation:

(a) Is your proposed project located within a subsistence use area designated by a coastal district?

Yes _____ No

If yes, please describe how the proposed project is designed to "avoid or minimize impacts to subsistence uses of coastal resources:"

(b) If your project is located in a subsistence use area designated by the coastal district, provide an analysis or evaluation of its reasonably foreseeable adverse impacts to the subsistence uses.

(c) No response required.

(d) If your project is not located in a designated subsistence use area, please describe any subsistence uses of coastal resources within the project area. Please be advised that subsistence use areas may be designated by the department during a review.

The project site is situated on an existing gravel pad accessed by gravel roads on a state lease and will not conflict with or impair access to coastal subsistence resources.

(e) No response required.

11 AAC 112.280. Transportation routes and facilities.

Standard:

Transportation routes and facilities must avoid, minimize, or mitigate

- (1) alterations in surface and ground water drainage patterns;
- (2) disruption in known or reasonably foreseeable wildlife transit; and
- (3) blockage of existing or traditional access.

Evaluation:

If your proposed project includes transportation routes or facilities, describe how it avoids, minimizes, or mitigates

(1) alterations in surface and ground water drainage patterns;

The project does not involve transportation routes or facilities.

The project is located on an existing gravel pad and will not alter surface or ground water drainage patterns.

(2) disruption in known or reasonably foreseeable wildlife transit; and

The project does not involve transportation routes or facilities.

The project is located on an existing gravel pad and will not disrupt wildlife transit.

(3) blockage of existing or traditional access.

The project does not involve transportation routes or facilities.

The project is located on an existing gravel pad and will not block existing or traditional access.

11 AAC 112.300. Habitats.

Standard:

(a) Habitats in the coastal area that are subject to the program are

- (1) offshore areas;
- (2) estuaries;
- (3) wetlands;

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- (4) tideflats;
- (5) rocky islands and sea cliffs;
- (6) barrier islands and lagoons;
- (7) exposed high-energy coasts;
- (8) rivers, streams, and lakes and the active floodplains and riparian management areas of those rivers, streams, and lakes; and
- (9) important habitat.
- (b) The following standards apply to the management of the habitats identified in (a) of this section:
 - (1) offshore areas must be managed to avoid, minimize, or mitigate significant adverse impacts to competing uses such as commercial, recreational, or subsistence fishing, to the extent that those uses are determined to be in competition with the proposed use;
 - (2) estuaries must be managed to avoid, minimize, or mitigate significant adverse impacts to
 - (A) adequate water flow and natural water circulation patterns; and
 - (B) competing uses such as commercial, recreational, or subsistence fishing, to the extent that those uses are determined to be in competition with the proposed use;
 - (3) wetlands must be managed to avoid, minimize, or mitigate significant adverse impacts to water flow and natural drainage patterns;
 - (4) tideflats must be managed to avoid, minimize, or mitigate significant adverse impacts to
 - (A) water flow and natural drainage patterns; and
 - (B) competing uses such as commercial, recreational, or subsistence uses, to the extent that those uses are determined to be in competition with the proposed use;
 - (5) rocky islands and sea cliffs must be managed to
 - (A) avoid, minimize, or mitigate significant adverse impacts to habitat used by coastal species; and
 - (B) avoid the introduction of competing or destructive species and predators;
 - (6) barrier islands and lagoons must be managed to avoid, minimize, or mitigate significant adverse impacts (A) to flows of sediments and water;
 - (B) from the alteration or redirection of wave energy or marine currents that would lead to the filling in of lagoons or the erosion of barrier islands; and
 - (C) from activities that would decrease the use of barrier islands by coastal species, including polar bears and nesting birds;
 - (7) exposed high-energy coasts must be managed to avoid, minimize, or mitigate significant adverse impacts
 - (A) to the mix and transport of sediments; and
 - (B) from redirection of transport processes and wave energy;
 - (8) rivers, streams, and lakes must be managed to avoid, minimize, or mitigate significant adverse impacts to
 - (A) natural water flow;
 - (B) active floodplains; and
 - (C) natural vegetation within riparian management areas; and
 - (9) important habitat
 - (A) designated under 11 AAC 114.250(h) must be managed for the special productivity of the habitat in accordance with district enforceable policies adopted under 11 AAC 114.270(g); or
 - (B) identified under (c)(1)(B) or
 - (C) of this section must be managed to avoid, minimize, or mitigate significant adverse impacts to the special productivity of the habitat.
- (c) For purposes of this section,
 - (1) "important habitat" means habitats listed in (a)(1) – (8) of this section and other habitats in the coastal area that are
 - (A) designated under 11 AAC 114.250(h);
 - (B) identified by the department as a habitat
 - (i) the use of which has a direct and significant impact on coastal water; and
 - (ii) that is shown by written scientific evidence to be biologically and significantly productive; or
 - (C) identified as state game refuges, state game sanctuaries, state range areas, or fish and game critical habitat areas under AS 16.20;
 - (2) "riparian management area" means the area along or around a waterbody within the following distances, measured from the outermost extent of the ordinary high water mark of the waterbody:
 - (A) for the braided portions of a river or stream, 500 feet on either side of the waterbody;
 - (B) for split channel portions of a river or stream, 200 feet on either side of the waterbody;

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- (C) for single channel portions of a river or stream, 100 feet on either side of the waterbody;
- (D) for a lake, 100 feet of the waterbody.

Evaluation:

(a) List the habitats from (a) above that are within your proposed project area or that could be affected by your proposed project.

(9) Important habitat - SFSGR. The project is located on an existing gravel pad adjacent to tidal flats, and accessed by existing gravel roads and no adverse effects to important habitat are expected.

(b) Describe how the proposed project avoids, minimizes, or mitigates impacts to each of the identified habitat(s) in section (a) above.

The project is on an existing gravel pad and compressors will have critical-grade mufflers to mitigate noise impacts to habitat while satisfying industrial requirements. No adverse effects to important habitat expected.

(c) No response required.

11 AAC 112.310. Air, land and water quality

Standard:

Notwithstanding any other provision of this chapter, the statutes and regulations of the Department of Environmental Conservation with respect to the protection of air, land, and water quality identified in AS 46.40.040(b) are incorporated into the program and, as administered by that department, constitute the exclusive components of the program with respect to those purposes.

Evaluation: No response required.

11 AAC 112.320. Historic, prehistoric, and archeological resources.

Standard:

(a) The department will designate areas of the coastal zone that are important to the study, understanding, or illustration of national, state, or local history or prehistory, including natural processes.

(b) A project within an area designated under (a) of this section shall comply with the applicable requirements of AS 41.35.010 – 41.35.240 and 11 AAC 16.010 – 11 AAC 16.900.

Evaluation:

(a) Have you contacted the State Historic Preservation Office (SHPO) to see if your project is in a designated area of the coastal zone that is important to the study, understanding, or illustration of national, state, or local history or prehistory, including natural processes?

An ACMP coastal zone review was already performed and deemed consistent for gas development activities including compression on Ivan River Pad; project activities will be located on the surface of the existing pad.

(b) If your project is within an area designated under (a) of this section, how will you comply with the applicable requirements in the statutes and regulations listed in (b)?

Project is on the surface of established gravel pad with an access road. In the event that cultural or paleontological resources are revealed during the project, work will be stopped and SHPO will be contacted directly.

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Affected Coastal District Enforceable Policies

Evaluate each applicable district enforceable policy using a format similar to the one you completed above for the State Standards. District enforceable policies are available at <http://alaskacoast.state.ak.us/>. If you need more space for an adequate explanation of any of the applicable district enforceable policies, please attach additional pages to the end of this document.

Applicable District Plan(s) Mat-Su Borough CMP

Enforceable Policy: All Matanuska-Susitna Enforceable Policies

Evaluation:

Not applicable. Project is a surface use activity on an established gravel pad accessed via an established gravel road system. No new off-pad construction is planned. Public access is not restricted on road system.

Enforceable Policy: _____

Evaluation:

Enforceable Policy: _____

Evaluation:

Certification Statement

The information contained herein is true and complete to the best of my knowledge. I certify that the proposed activity complies with, and will be conducted in a manner consistent with, the Alaska Coastal Management Program.

Signature of Applicant or Agent

Dale Han

May 16, 2011
Date

Note: Federal agencies conducting an activity that will affect the coastal zone are required to submit a federal consistency determination, per 15 CFR 930, Subpart C, rather than this certification statement. ACMP has developed a guide to assist federal agencies with this requirement. Contact ACMP to obtain a copy.

This certification statement will not be complete until all required State and federal authorization requests have been submitted to the appropriate agencies.

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Project Description: Please provide or attach a brief description of your project including the planned work, any effects to coastal uses and resources and how your project is being designed to avoid, minimize and mitigate those effects.

The project involves the installation of a gas storage facility beginning in summer 2011 at Ivan River Pad. The purpose is to deliver sufficient gas quantities at peak demand times (during winter months) to accommodate consumer needs. The project involves conversion of IRU Well 44-36 to a gas storage well and installation of compression equipment, communications equipment, a communications tower, and upgrades to the existing Ivan River facilities. Gas storage compression is necessary to facilitate gas injection into and delivery from the IRU 44-36 well. One or two compressors with a maximum combined 1800-HP engine will be installed as part of this project. A temporary compressor with a maximum 500-HP engine will be installed in fall 2011 and operated in winter until the permanent compression equipment is commissioned (fall 2013). Critical-grade mufflers will be installed on compressors to dampen noise. Placement of compression equipment on existing infrastructure at Ivan River Pad will minimize effects to coastal uses and resources. Other compressor installation projects have been approved for Ivan River Pad in the past, including a 215-HP compressor (1990s), a 325-HP boost compressor (August 2005) under DOG Lease POO #LO/CI 05-02, and ACMP #AK0504-02OG, and a 270-HP temporary compressor (winters 2009/2010 & 2010/2011). Proposed installation and operation of the gas storage compressors is similar to the boost and temporary compressor projects, which were determined to be consistent with ACMP and the MSB Enforceable Policies.

Project Area: Please provide or attach a map of your project location and your proposed work. (Including nearest community, the name of the nearest land feature or body of water, and other legal description such as a survey or lot number.)

Nearest Community: Beluga

Nearest Waterbody: Lewis River

Legal Survey Description: Section 1, Township 13N, Range 9W, Seward Meridian