

UNITED STATES GOVERNMENT
MEMORANDUM

March 16, 2026

To: Public Information (MS 5030)
From: Plan Coordinator, FO, Plans Section (MS
5231)

Subject: Public Information copy of plan
Control # - S-08217
Type - Supplemental Development Operations Coordinations Document
Lease(s) - OCS-G36118 Block - 324 Eugene Island Area
OCS-G36119 Block - 325 Eugene Island Area
OCS-G36211 Block - 320 Eugene Island Area
Operator - Arena Offshore, LP
Description - Platform B and Wells B002, B003, B004
Rig Type - Not Found

Attached is a copy of the subject plan.

It has been deemed submitted as of this date and is under review for approval.

Leslie Wilson
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
FIXED/B		946 FSL, 2261 FEL	G36211/EI/320
WELL/B002	G36119/EI/325	969 FSL, 2283 FEL	G36211/EI/320
WELL/B003	G36119/EI/325	965 FSL, 2288 FEL	G36211/EI/320
WELL/B004	G36118/EI/324	961 FSL, 2284 FEL	G36211/EI/320



February 18, 2026 (Revised February 25, 2026)

Bureau of Ocean Energy Management
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

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281-681-9501
281-681-9502 Fax

Attention: Michelle Uli-Picou
Chief, Plans Unit

RE: Supplemental Development Operations Coordination Document for Eugene Island Blocks 320/324/325, RUE G30422, Leases OCS-G 36118/36119, OCS Federal Waters, Gulf of America, Offshore, Louisiana

Dear Ms. Picou:

In accordance with the provisions of Title 30 CFR 550, Subpart B, those certain Notice to Lessees (NTL) 2008-G04 and 2009-G27, Arena Offshore, LP (Arena) is requesting review and approval of the following information in support of this Supplemental Development Operations Coordination Document (Plan) for Eugene Island Blocks 320/324/325, RUE G30422, Leases OCS-G 36118/36119, OCS Federal Waters, Gulf of America, Offshore, Louisiana

Enclosed are Proprietary and Public versions of this Plan with the applicable cost recovery fee.

Should you have any questions concerning this matter or require additional information, please contact the undersigned, Aimee Deady at 281-210-3180 or aimee@arenaoffshore.com.

Sincerely,

Arena Offshore, LP

Aimee Deady

Aimee P. Deady
VP, Regulatory

Enclosures



Arena Offshore, LP
2103 Research Forest Drive, Suite 200
The Woodlands, Texas 77380

**Joint Supplemental
Development Operations Coordination Document**

Eugene Island Blocks 320/324/325
RUE G30422/Leases OCS-G 36118/36119

Aimee Deady
281-210-3180
adeady@arenaoffshore.com

February 2026

Public Information

Amendments

Date	Section	Comments	Page No.

TABLE OF CONTENTS

- **Section 1**
 - **Plan Contents..... Page 7**
 - Plan Contents
 - Description and Objective
 - Plan Information Form
 - Location
 - Safety and Pollution Prevention Features
 - Storage Tanks & Production Vessels
 - Pollution Prevention Measures
 - Additional Safety and Pollution Prevention Measures
- **Section 2**
 - **General Information.....Page 11**
 - Applications and Permits
 - Drilling Fluids
 - Production
 - Oil Characteristics
 - New or Unusual Technology
 - Bonding Statement
 - Oil Spill Financial Responsibility
 - Deepwater Control statement
 - Suspension of Production
 - Blow out Scenario
 - Chemical Products
- **Section 3**
 - **Geological & GeophysicalPage 17**
 - Geological Description
 - Structure Contour Maps
 - Interpreted 3-D Seismic Lines
 - Geological Structure Cross Sections
 - Shallow Hazards Report
 - Shallow Hazards Assessment
 - High Resolutions Seismic Lines
 - Stratigraphic Column
 - Time vs. Depth Table
 - Geochemical Information
 - Future G&G Activities
- **Section 4**
 - **Hydrogen Sulfide Classification.....Page 19**
 - Hydrogen Sulfide Concentration
 - Hydrogen Sulfide Classification
 - Hydrogen Sulfide Contingency Plan
 - Hydrogen Sulfide Modeling Report
- **Section 5**
 - **Mineral Resource Conservation Information.....Page 20**
 - Technology and Reservoir Engineering Practices and Procedures
 - Technology and Recovery Practices and Procedures
 - Reservoir Development

TABLE OF CONTENTS – CONT'D

➤ Section 6

- *Biological, Physical, Socioeconomic Information.....Page 21*
 - High Density Deepwater Benthic Communities
 - Topographic Features Map
 - Topographic Features Statement (Shunting)
 - Live Bottoms (Pinnacle Trend) Map
 - Live Bottoms (Low Relief) Map
 - Potentially Sensitive Biological Features Map
 - Threatened or Endangered Species, Critical Habitat, and Marine Mammal Information
 - Archaeological Report
 - Air and Water Quality Information
 - Socioeconomic Information

➤ Section 7

- *Waste and Discharge Information.....Page 24*
 - Projected Generated Wastes
 - Projected Ocean Discharges
 - Modeling Reports
 - NPDES Permits
 - Cooling Water Intakes

➤ Section 8

- *Air Emissions Information.....Page 25*
 - Emissions Worksheets
 - Screening Questions
 - Emissions Reduction Measures
 - Verification of Non-Default Emission Factors
 - Non-Exempt Activities
 - Modeling Report

➤ Section 9

- *Oil Spills Information.....Page 26*
 - Oil Spill Response Planning
 - Oil Spill Response Discussion
 - Modeling Report
 - NTL 2015-N01

➤ Section 10

- *Environmental Monitoring Information.....Page 29*
 - Monitoring Systems
 - Incidental Takes
 - Flower Gardens Banks

- Section 11

- *Lease Stipulations & Special Conditions Information.....Page 30*
 - Marine Protected Species
 - Military Warning Area
 - Special Conditions

- Section 12

- *Environmental Mitigation Measures Information.....Page 32*
 - Measures Taken to Avoid, Minimize, and Mitigate Impacts
 - Incidental Takes

TABLE OF CONTENTS-CONT'D

- **Section 13**
 - *Decommissioning Information.....Page 33*
- **Section 14**
 - *Related Facilities & Operations Information.....Page 34*
 - Related OCS Facilities and Operations
 - Transportation System
 - Produced Liquid Hydrocarbon Transportation Vessels
- **Section 15**
 - *Support Vessels and Aircraft Information.....Page 35*
 - General
 - Diesel Oil Supply Vessels
 - Drilling Fluid Transportation
 - Solid & Liquid Waste Transportation
 - Vicinity Map
- **Section 16**
 - *Onshore Support Facilities Information.....Page 37*
 - General
 - Support Base Construction or Expansion
 - Support Base Construction or Expansion Timetable
 - Waste Disposal
 - Air Emissions
 - Unusual Solid and Liquid Wastes
- **Section 17**
 - *Sulphur Operations Information.....Page 38*
 - Bleedwater
 - Subsidence
- **Section 18**
 - *Coastal Zone Management Information.....Page 39*
 - Consistency Certification
 - Other Information
- **Section 19**
 - *Environmental Impact Analysis.....Page 40*
 - Environmental Impact Analysis
 - Impacts on Proposed Activities
 - Environmental Hazards
 - Alternatives
 - Mitigation Measures
 - Consultation
 - Preparer
 - References
- **Section 20**
 - *Administrative Information.....Page 57*
 - Exempted Information for Public Information Copies
 - Bibliography

Attachments

Data	Attachment
OCS Plans Forms	A
Well Location Plats	B
Geological Description	C
Structure Contour Maps	D
Interpreted 2-D and/or Seismic Lines	E
Geological Structure Cross-Sections	F
Stratigraphic Column	G
NOAA Endangered Species List	H
Generated Waste and Discharge Tables	I
Projected Air Emissions Report	J
Oil Spill Response Discussion	K
Vicinity Plat	L

Section 1 - Plan Contents (30 CFR Part 550.241)

Eugene Island Block 320, Platform B was issued a Right-of-Use (RUE G30422) authority with an effective date of November 22, 2024. Arena Offshore, LP is the designated operator of the subject platform. It currently serves as a host facility to production from Wells B002, B003 and B004 from adjacent Leases OCS-G 36118/36119.

Lease OCS-G 36118/36119, Eugene Island Blocks 324/325, respectively, were both issued with an effective date of effective November 1, 2017, and primary term ending date of October 31, 2022, with Arena Energy, LLC and Arena Offshore, LP as lessees of record. Effective July 27, 2018, Arena Offshore, LP was sole designated operator of both leases.

Arena successfully completed a drilling campaign based on the N-10175 Initial Development Operations Coordination Document that was approved in 2022; effectively extending the Leases OCS-G 36118/36119 from primary term to held by production. The surface lease, Eugene Island Block 320, OSC-G 36211 was unsuccessful in drilling and therefore the lease expired on June 30, 2023. However, since the surface location, Platform B resides on Eugene Island 320 and is the host facility for the producing wells B002, B003 and B004; Arena requested approval for a Right of Use and Easement on this platform. Eugene Island Block 320, Platform B RUE is OCS-G 30422.

Previous Plans consist of the following post N-10175:

R-7341 - Revised DOCD provides for the sidetrack drilling, completion, and production activities of Wells No. B002 ST00BP00 (API No. 17-710-41695-00) bottomhole location in Eugene Island Block 325 (Lease OCS-G 36119) and B003 ST00BP01 (API No. 17-710-41696-01) bottomhole location in Eugene Island Block 324 (Lease OCS-G 36118) and updating total air emissions for surface location, Eugene Island Block 320, RUE OCS-G 30422, Platform B (Complex ID No. 1855-1).

This DOCD provides for back-up bottomhole locations for the sidetrack drilling, completion, and production of Wells No. B002 ST01BP00, API No. 17-710-41695-01, bottomhole location in Eugene Island Block 325, Lease OCS-G36119, B003 ST02BP00, API No. 17-710-41696-02, bottomhole location in Eugene Island Block 325, Lease OCS-G 36119, and B004 (ST02BP00), API No. 17-710-41697-02, bottomhole location in Eugene Island Block 324, Lease OCS-G 36118.

Arena is not proposing any new pipelines expected to make landfall. Arena expects to commence operations under this Plan in 2026. Proposed operations will be conducted with a typical jack-up rig (WFD 400/450) equipped with surface blowout preventers. WFD rigs do not utilize equipment (e.g. moon pool, flexible lines/ropes) with a potential for entanglement or entrapment of sea turtles or other marine life.

A. Plan Information Form

Included as **Attachment A** is Form BOEM 137 “OCS Plan Information Form” which provides information concerning the activities proposed under this Plan.

B. Location

Included as **Attachment B** is a location plat detailing the existing surface and proposed bottomhole locations as required by NTL 2008-G04.

Section 1 - Plan Contents (30 CFR Part 550.241)

The activities proposed in this Plan will be conducted from the existing surface location of Eugene Island Block 320 Platform B (Control No. N-10038) and therefore does not require an additional bathymetry map.

C. Safety and Pollution Prevention Features

Safety of personnel and protection of the environment during the proposed operations is of primary concern with Arena, and mandates regulatory compliance with the contractors and vendors associated with the proposed operations as follows:

The offices of the Bureau of Ocean Energy Management (BOEM) and Bureau of Safety and Environmental Enforcement (BSEE) mandate the operations in this Plan comply with well control, pollution prevention, construction, welding procedures, safety and environmental related issue, et al; as described in various Sub Parts 250 and 550; and as further clarified by applicable Notices to Lessees (NTL's). BSEE conducts periodic announced and unannounced onsite inspections of offshore facilities to confirm operators are complying with lease stipulations, operating regulations, approved plans, and other conditions; as well as to assure safety and pollution prevention requirements are being met. The National Potential Incident of Noncompliance (PINC) List serves as the baseline for these inspections.

U. S. Coast Guard regulations contained in Title 33 CFR mandate the appropriate life rafts, life jackets, ring buoys, etc., be maintained on the facility at all times.

U. S. Environmental Protection Agency regulations contained in the NPDES General Permit GMG290000 mandate that supervisory and certain designated personnel on-board the facility be familiar with the effluent limitations and guidelines for overboard discharges into the receiving waters.

Arena's activities in this Plan will comply with the existing BOEM/BSEE regulations and NTL's implemented by the above listed agencies and Arena will adhere to the requirements set forth in the following document, as applicable, to avoid or minimize impacts to any of the species listed in the Endangered Species Act (ESA) as a result of the operations proposed in this Plan:

- Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, Appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program, Appendix A

D. Storage Tanks and Production Vessels

The following table details the storage tanks and/or production vessels that will store oil (capacity greater than 25 bbls. or more) and be used to support the proposed activities:

Type of Storage Tank	Type of Facility	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
Fuel Oil	Jack Up Rig	250	2	500	No.2 Diesel

Section 1 - Plan Contents (30 CFR Part 550.241)

E. Pollution Prevention Measures

Additional measures initiated by Arena beyond those measures required by Title 30 CFR Part 250 may include any and/or all the following:

- A preliminary facility inspection by a contractor to ensure facility meets current regulatory requirements prior to commencement of operations
- Obtain historical performance history of the drill rig and/or production facility (if applicable).

F. Additional Measures

- Obtain historical performance history of the drilling and/or production contractor (if applicable).
- Safety and Environmental Briefings with offshore employee and contractor personnel to facility orientation and briefings on current operations.
- Review of Oil Spill Response Plan to ensure personnel are aware of the initial notifications and reporting requirements.
- Review of EPA NPDES General Permit with applicable personnel to ensure awareness of permit effluent limitations and reporting requirements.
- Pre-Spud and/or Pre-Production Start-Up Meetings with field personnel and contractors to discuss regulatory, environmental issues.
- SEMS Contractor Evaluations
- Safety Orientation Meetings
- Job Safety Analyses
- Management of Change Process

Section 2 - General Information (30 CFR Part 550.243)

A. Application and Permits

The following Federal/State applications will be submitted for the activities provided for in this Plan exclusive of EPA and COE general permits.

<i>Application/Permit</i>	<i>Issuing Agency</i>	<i>Status</i>
Applications for Permit to Sidetrack	BSEE District	Pending
Rig Move Reports	USCG and NGA	Pending

B. Drilling Fluids

Arena plans to use the following drilling fluids for the operations proposed under this Plan:

<i>Drilling Fluid Type</i>	<i>Estimated Volume of Drilling Fluid to be used Per Well</i>
Water-based (seawater, freshwater, barite)	5063 bbls
Synthetic-based (internal, olefin, ester)	424 bbls

C. Production

Arena estimates the combined life of reserves for the proposed development activity to as follows:

<i>Hydrocarbon Type</i>	<i>Peak Production Rate</i>	<i>Average Production Rate</i>	<i>Life of Reservoir</i>

D. Oils Characteristics

According to NTL 2008-G04, oil characteristics information is not required for the proposed activities addressed in this Plan.

E. New or Unusual Technology

Arena does not plan or anticipate using any new or unusual technology as defined in Title 30 CFR 250.200 during the proposed activities addressed in this Plan. However, the best available and safest technologies (BAST), as currently referenced in Title 30 CFR Part 250 will be incorporated as a standard operational procedure and Arena will adhere to the requirements set forth in the following document, as applicable, to avoid or minimize impacts to any of the species listed in the Endangered Species Act (ESA) as a result of operations proposed in this Plan:

- Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, Appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program, Appendix A

Section 2 - General Information (30 CFR Part 550.243)

F. Bonding Statement

The general bond requirements for the activities and facilities proposed in this Plan are satisfied by an Areawide Development Bond, furnished and maintained according to Title 30 CFR Part 556, Subpart I; NTL No. 2015-N04, "General Financial Assurance". Additionally, BOEM has recently changed an internal policy and will no longer require additional security prior to the approval of Exploration and Development Plans; and will assess same at the actual permitting phase.

G. Oil Spill Financial Responsibility (OSFR)

In accordance with Title 30 CFR Part 553 and NTL No. 2008-N05, "Guidelines for Oil Spill Financial Responsibility for Covered Facilities", Leases OCS-G 36118/36119, Eugene Island Blocks 324/325 and Eugene Island Blocks 320 (Platform B RUE 30422) will be covered under Arena's existing Oil Spill Financial Responsibility Certification prior to commencing operations.

H. Deepwater Well Control Statement

According to NTL 2008-G04, a deepwater well control statement is not required for the activities proposed in this Plan.

I. Suspensions of Production

Arena does not anticipate a need to file a suspension of production for the subject leases since they are either being maintained by ongoing production operations or within the primary term.

J. Blowout Scenario

Please note that Arena has determined that proposed Well Location C in Eugene Island Block 324 submitted in Plan N-9691 for 18,834 bbls with an anticipated gravity of 34.5° and accepted by BOEM is still valid and will continue to be the Worst-Case Discharge for the leases covered in this Plan. Arena will drill to the objective sands utilizing a typical structural, conductor, surface, and production casing program. If mandated by wellbore conditions, an intermediate casing string will be set prior to drilling through the objective sands. In the event of a blowout during the course of drilling open hole in the objective sands the wellbore would most likely bridge over in less than 2 days. Arena would immediately activate its Regional Oil Spill Response Plan and Spill Management Team to initiate potential recovery of liquid hydrocarbons on the receiving water and review potential well intervention options. In the event a relief well is initiated, Arena does not anticipate any delays in acquiring a jack-up type rig to conduct the proposed operations. Dependent upon the interval the well was drilled to, and potential interval for bridging over and surface intervention; if required, it could take at approximately 35 days to mobilize equipment and/or a rig to the field and perform a surface intervention or drill the relief well.

Based on well intervention outlined in the potential worse-case discharge scenarios, the potential for drilling a relief well and a rig not being immediately available would be a total of 35 days and a potential total of 659,190 barrels during that time span.

Section 2 - General Information (30 CFR Part 550.243)

- Case 1: **Well Bridging Over** – The Location C in N-9691 is expected to be unconsolidated and require a gravel pack completion to prevent sand production. It is anticipated that a loss of well control from the surface will result in the well bridging over in less than 48 hrs as supported by the BOEM database where 49% of all blowout events during the period from 1992 through 2006 stopped flowing in less than 24 hrs. The drawdown at the sand face that would be experienced during a loss of well control event in this shallow, unconsolidated formation will result in the wellbore collapsing across multiple sand/shale interfaces. (2 Days)
- Case 2: **Conventional Surface Intervention** – It is assumed that a loss of well control from the surface will result in mobilizing 3rd party well control equipment to the rig. It is assumed that the BOP's are compromised, that the rig has not caught fire and is capable of supporting well control efforts with the assistance of a support vessel. As an example, the intervention would consist of top killing the well with kill weight mud or possibly replacing BOP's with another set to contain flow from the breached equipment. (Approximately 10 days)
- Case 3: **Relief Well Intervention** – It is assumed that a rig is immediately available to mobilize to location to commence drilling a relief well. The mobilization and estimated time to drill the relief well is based on offset drilling performance. (Approximately 25 days)
- Case 4: **Relief Well Intervention** – It is assumed that a rig is not immediately available to mobilize to location to commence drilling a relief well. The estimated mobilization time of a rig to location incorporates the suspension of activities by an Operator before the rig can be released for relief well operations. The time to drill the relief well is based on offset drilling performance curves.

Assess well condition:	2 days
Suspend current operations:	10 days
Mobilize rig:	2 days
<u>Drill relief well:</u>	<u>21 days</u>
Total:	35 days

Relief Rig Availability:

It is planned to drill the Eugene Island Block 320, B wells using a jack-up rig. There are currently three (3) jack up rigs currently marketed in the Gulf of America that are capable of drilling an open water relief well to the Eugene Island Block 320 Platform B.

Should the jack-up rig be damaged during the initial loss of well control, there are no offset platforms in the area that would be able capable of utilizing a platform rig to reach the bottomhole locations of the subject wellbores. Arena does not anticipate any rig package constraints for this project.

Section 2 - General Information (30 CFR Part 550.243)

Blowout Prevention Measures

The purpose of this document is to describe measures that Arena will take, above and beyond what is detailed in BSEE Title 30 CFR Part 250, to enhance its ability to prevent a blowout, to reduce the likelihood of a blowout, and conduct effective and early intervention in the event of a blowout on the proposed well locations.

The following measures will be taken in attempt to ensure the proposed well locations are kept under control at all times:

- An Arena onsite representative will witness and review all BOP tests, casing tests and formation integrity tests.
- An Arena Superintendent in the office will review all FIT tests prior to moving forward with drilling operations
- Prior to commencing cementing operations on any casing string, a minimum of 1½ bottoms up will be circulated with drilling mud, so long as full returns are maintained, in order enhance the ability of achieving a successful cement job.
- A liner top packer, in addition to cement, will be utilized in order to ensure the pressure integrity of the liner lap of any liner run in the well.
- All production casing strings will be centralized across hydrocarbon bearing zones in order to ensure the proper isolation of individual pay sands by cementation and to prevent the transmission of hydrocarbons up the annulus behind the production casing.
- The proposed well will be drilled on a mud weight schedule utilizing extensive offset data from offset wells in the field. Proposed drilling mud weights will allow for at a minimum, the known hydrostatic pressures required to drill the known hydrocarbon zones encountered in the original development of the field.
- Lost circulation material in the form of properly distributed particle sized mud additives (PSDs) will be added to the mud system in the form of sweeps while drilling both the intermediate and production hole sections. PSD additives will be utilized to prevent uncontrolled mud losses in the case that lower than anticipated pore pressures or fracture gradients are encountered.
- Wiper trips will be performed as hole conditions dictate in order to quantify the stability of the wellbore and determine if sufficient mud weights are being utilized to prevent influx of formation fluids, prevent swabbing of wellbore fluids while pulling pipe and prevent losses of wellbore fluids to the formation.
- Connections will be simulated while drilling into pressure transition areas in order to properly assess the current wellbore conditions.
- Mudloggers will be utilized during the drilling of the well in order to specifically evaluate wellbore conditions including, but not limited to weights of returning drilling fluids as compared to that of the fluid entering the hole, gas content of mud returns, formation characteristics and abnormalities of cuttings and estimated paleo aging of cuttings.
- Logging while drilling tools (LWD) will be utilized to evaluate and estimate lithology, formation pressures and fluid content from surface casing point to wellbore total depth. This will enable the real time identification of any changes in anticipated formation pressures and assist in the picking of intermediate casing points and wellbore total depth, potentially eliminating the possibility of drilling into unexpected formations that could cause dangerous well control situations. Log data will be regularly provided to the office for evaluation.

Section 2 - General Information (30 CFR Part 550.243)

- Pressure While Drilling (PWD) data will be utilized to ensure the stability of, and to maintain constant monitoring of hydrostatic pressures applied to, the wellbore.

Blowout Intervention

In the event of an uncontrolled flow of hydrocarbons from the Eugene Island Block 320 well prospects, the Regional Oil Spill Response Plan (OSRP) as described in this Plan will be activated. In addition to the activation of this Plan, two scenarios of well intervention have been described in the attached documentation and current availability of equipment to enact both well intervention scenarios identified:

- Assuming in an uncontrolled flow situation, the MODU is intact and not sufficiently damaged, along with the Prospect wellbore and surface equipment, wellbore intervention would be performed from the MODU itself, or a barge mobilized nearby. Master Service Agreements (MSAs) have been established with Cudd Pressure Control and Wild Well Control in order to expedite response in the case of an uncontrolled flow situation. As an example, flow could be controlled from either a “top kill” method or from the removal of the surface BOP stack and subsequent replacement of the stack and the wellbore shut in.
- In the event that the MODU and/or the wellbore is irreparably damaged during a blowout scenario, wellbore intervention would be performed by contracting an additional MODU, mobilizing it to location and the subsequent spudding and drilling of a relief well. Arena currently has in place established contracts with all contractors that operate jack-up rigs in the Gulf of America. Such contracts would be utilized to expedite the contracting of a rig in order to drill a relief well.

In the case of an uncontrolled flow of hydrocarbons, Arena would simultaneously pursue multiple wellbore intervention methods in an attempt to mitigate and terminate the spill, until the wellbore is brought under control.

K. Chemical Products

According to NTL 2008-G04 information regarding products is not required to accompany EP’s and DOCD’s in the Gulf of America.

Section 3 - Geological & Geophysical Information (30 CFR Part 550.244)

A. Geological Description

Included as *Attachment C* are the details of the geological targets and associated trapping features for the proposed well locations.

B. Structure Contour Maps

Included as *Attachment D* are current structure maps depicting the proposed bottomhole locations and applicable geological cross sections for the proposed well locations.

C. Interpreted 2-D and/or Seismic Lines

Included as *Attachment E* are deep seismic lines depicting the proposed well locations.

D. Geological Structure Cross-Sections

Interpreted geological cross sections depicting the proposed well locations and depths are included *Attachment F*.

E. Shallow Hazards Report

The activities proposed in this Plan will be conducted from the existing Eugene Island Block 320 B Platform (Plan Control No. N-8227), and therefore does not require an additional shallow hazards survey and report.

F. Shallow Hazards Assessment

The activities proposed in this Plan will be conducted from the existing Eugene Island Block 320 B Platform (Plan Control No. N-8227), and therefore does not require an additional shallow hazards assessment

G. High Resolution Seismic Lines

The activities proposed in this Plan will be conducted from the existing Eugene Island Block 320 B Platform, and therefore does not require additional high resolution seismic lines.

H. Stratigraphic Column

Included as *Attachment G* are generalized biostratigraphic/lithostratigraphic columns depicting the proposed well locations from the seafloor to total depth with each objective horizon labeled.

I. Time vs. Depth Tables

Arena feels there is sufficient well control data for the target sand objectives provided for in this Plan as such seismic time vs. depth tables are not required.

J. Geochemical Information

According to NTL 2008-G04, this Section of the Plan is not applicable to the proposed operations.

K. Future G&G Activities

According to NTL 2008-G04, this Section of the Plan is not applicable to the proposed operations.

Section 4 - Hydrogen Sulfide Information (30 CFR Part 550.245)

A. Concentration

Arena does not anticipate encountering H₂S above the 20-ppm atmospheric level while conducting the proposed development operations provided under this Plan as detailed on *Attachment C*.

B. Classification

In accordance with Title 30 CFR 250.490(c), Arena received a classification of “H₂S absent” from BOEM under Plan Control No. N-10038 for the area in which proposed drilling activities are to be conducted.

C. H₂S Contingency Plan

According to NTL 2008-G04, this Section of the Plan is not applicable to the proposed operations.

D. Modeling Report

According to NTL 2008-G04, this Section of the Plan is not applicable to the proposed operations.

Section 5 - Mineral Resource Conservation Information (30 CFR Part 550.246)

A. Technology and Reservoir Engineering Practices and Procedures

Proprietary Information

B. Technology and Recovery Practices and Procedures

Proprietary Information

C. Reservoir Development

Proprietary Information

Section 6 - Biological, Physical & Socioeconomic Information

(30 CFR Part 550.247)

A. High Density Deepwater Benthic Communities Information

NTL 2009-G40 broadened the scope of a chemosynthetic communities report to cover all high density deepwater benthic communities, changed the definition of deepwater from 400 meters (1312 feet) to 300 meters (984 feet), increased the separation distance from muds and cuttings discharge locations from 1500 feet to 200 feet, and provided for an additional 1000 feet buffer area beyond the maximum anchor areas.

The activities proposed in this Plan do not disturb seafloor areas in water depths greater than 300 meters (984 feet); therefore, chemosynthetic information is not required.

B. Topographic Features Map

BOEM and the National Marine Fisheries Service (NMFS) have entered into a programmatic consultation agreement for Essential Fish Habitat that requires that no bottom disturbing activities (including rig placement, and rig or construction base use of anchors, chains, cables, and wire ropes) within 305 meters (1000 feet) of a “No-Activity Zone” of a topographic feature.

If such proposed bottom disturbing activities are within 1000 feet of a no activity zone, the BOEM is required to consult with the NMFS.

The activities proposed in this Plan are not affected by a topographic feature.

C. Topographic Features Statement (Shunting)

The activities proposed in this Plan are not affected by a topographic feature; therefore, Arena is not required to shunt drill cuttings and drill fluids.

D. Live Bottoms (Pinnacle Trend) Map

Certain leases are located in areas characterized by the existence of live bottoms. Live bottom (Pinnacle trend features) are small, isolated, low to moderate relief carbonate reef features or outcrops of unknown origin or hard substrates exposed by erosion that provide surface area for the growth of sessile invertebrates and attract large number of fish. Known features occur in an area of topographic relief in the northeastern portion of the western Gulf of America.

These leases would contain a Live Bottom Stipulation to ensure that impacts from nearby oil and gas activities on these live bottom areas are mitigated to the greatest extent possible.

For each affected lease, the Live Bottom Stipulation requires that you prepare a live bottom survey report containing a bathymetry map prepared by using remote sensing techniques. This report must be submitted to the BOEM Gulf of America OCS Region (GOMR) before you may conduct any drilling activities or install any structure, including lease term pipelines in accordance with NTL 2009-G39.

The existing surface location in Eugene Island Block 320 is not located within 200 feet of any pinnacle trend feature with vertical relief equal to or greater than 8 feet; as such live bottom information is not required.

Section 6 - Biological, Physical & Socioeconomic Information (30 CFR Part 550.247)

E. Live Bottoms (Low Relief) Map

Certain leases are located in areas characterized by the existence of live bottoms. Live bottom (Low relief features) are sea grass communities; those areas that contain biological assemblages consisting of sessile invertebrates living upon and attached to naturally occurring hard or rocky formations with rough, broken, or smooth topography; and areas where a hard substrate and vertical relief may favor the accumulation of turtles, fishes or other fauna. These features occur in the Eastern Planning Area of the Gulf of America.

Eugene Island Block 320 is not located within 200 feet of any pinnacle trend feature with vertical relief equal to or greater than 8 feet; as such live bottom (low relief) maps are not required.

F. Potentially Sensitive Biological Features Map

Oil and gas operations and transportation activities in the vicinity of potentially sensitive biological features may cause deleterious impacts to the sessile and pelagic communities associated with those habitats. Adverse impacts to the communities could be caused by mechanical damage from drilling rigs, platforms, pipelines and anchor employment.

The existing surface location in Eugene Island Block 320 is not located within 61 meters (200 feet) of potentially sensitive biological features; as such the biologically sensitive maps are not required.

G. Threatened or Endangered Species, Critical Habitat, and Marine Mammal Information

The BOEM revised Title 30 CFR Part 550, Subpart B to require lessees/operators to address the federally listed species with designated critical habitat as well as marine mammals which may be impacted by the proposed activities addressed under this Plan.

In accordance with Section 7 of the Endangered Species Act (ESA) and the Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program”, Appendices A, B, C and J, all federal agencies must ensure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify its designated critical habitat.

Included as *Attachment H* is a listing of the species under the jurisdiction of NOAA fisheries that are known to occur in the Gulf of America that may be affected by the proposed action.

Arena does not anticipate that the proposed activities will occur in the presence of federally listed threatened or endangered species and critical habitat designated under the Endangered Species Act (ESA) and marine mammals protected under the Marine Mammal Protection Act (MMPA). However, Arena will adhere to the requirements set forth in the following document, as applicable, to avoid or minimize impacts to any of the species listed in the Endangered Species Act (ESA) as a result of the operations proposed in this Plan:

- Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, Appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program, Appendix A

Section 6 - Biological, Physical & Socioeconomic Information **(30 CFR Part 550.247)**

H. Archaeological Report

In accordance with NTL's 2011-JOINT-G01 and 2005-G07, Eugene Island Block 320 is located within an area requiring a 300-meter spacing survey. This requirement provides protection of prehistoric and historic archaeological resources by requiring remote sensing surveys in areas designated to have a high probability for archaeological resources.

Copies of these reports have been previously submitted to the BOEM under separate cover for Plan Control No. N-8227 when the Eugene Island Block 320 B Platform was installed.

I. Air and Water Quality Information

According to NTL 2008-G04, air and water quality information is not required as the proposed activities provided for in this Plan do not impact the State of Florida.

K. Socioeconomic Information

According to NTL 2008-G04, socioeconomic information is not required as the proposed activities provided for in this Plan do not impact the State of Florida.

Section 7 - Wastes and Discharges Information (30 CFR Part 550.248)

A. Projected Generated Wastes

All projected solid and liquid wastes likely to be generated by our proposed activities are included in *Attachment I*. This attachment includes both operational wastes permitted by the appropriate NPDES General Permit GMG290269 and any other identified wastes.

Arena does not plan to treat, store or dispose of any of the above wastes down hole at our existing location.

B. Projected Ocean Discharges

All projected solid and liquid wastes likely to be generated by our proposed activities are included in *Attachment I*. This attachment includes both operational wastes permitted by the appropriate NPDES General Permit GMG290269 and any other identified wastes.

C. Modeling Report

According to NTL 2008-G04, a modeling report is not required for the operations proposed in this Plan.

D. NPDES Permits

According to NTL 2008-G04 information regarding NPDES permits is not required to accompany EP's or DOCD's in the Gulf of America.

E. Cooling Water Intakes

According to NTL 2008-G04 information regarding cooling water intakes is not required to accompany EP's or DOCD's in the Gulf of America.

Section 8 - Air Emissions Information (30 CFR Parts 550.249)

A. Emissions Worksheets and Screening Questions

The Projected Air Quality Emissions Report (Form BOEM-139) addresses the proposed drilling, completion and production activities proposed in this Plan.

As evidenced by *Attachment J*, the worksheets were completed based on the proposed activities being greater than 25 miles from shore and 200 kilometers of the Breton Wilderness Area.

B. Emissions Reduction Measures

The projected air emissions are within the exemption level; however, Arena utilizes ultra-low Sulphur fuel which is considered an emission reduction measure and the factor has been adjusted in the worksheets.

C. Verification of Non-default Emission Factors

Arena has elected to use the default emission factors as provided in *Attachment J*.

D. Non-Exempt Activities

The proposed activities are within the exemption amount as detailed in *Attachment J*.

E. Modeling Report

According to NTL 2008-G04, this Section of the Plan is not applicable to the proposed operations.

Section 9 - Oil Spills Information (30 CFR Part 550.250)

A. Oil Spill Response Planning

All of the proposed activities and facilities in this Plan will be covered by the Regional Oil Spill Response Plan filed by Arena Offshore, LP (BOEM Company No. 02628) in accordance with Title 30 CFR Part 254 and most recently approved on May 13, 2025.

The following locations will be used in the event and oil spill occurs as a result of the proposed activities.

Primary Response Equipment Location	Pre-Planned Staging Location(s)
Houma, Leeville, Harvey, and Vermilion, LA	Fourchon or Cameron, LA

Arena utilizes Clean Gulf Associates (CGA) as its primary provider for equipment, which is an industry cooperative owning an inventory of oil spill clean-up equipment. CGA is supported by the Marine Spill Response Corporation's (MSRC), which is responsible for storing, inspecting, maintaining and dispatching CGA's equipment. The MSRC STARS network provides for the closest available personnel, as well as an MSRC supervisor to operate the equipment.

Category	Regional OSRP WCD	DOCD WCD	Regional OSRP WCD	DOCD WCD
Type of Activity	Production > 10 miles from shore	Production > 10 miles from shore	Drilling > 10 miles from shore	Drilling > 10 miles from shore
Lease Number	OCS-G 00983	RUE G30422	OCS-G 05040	RUE G30422
Facility Location	EI 252	EI 320	EI 316	EI 320
Facility Designation	Platform L	Platform B	MODU/ Platform A	Location C (N-9691)
Distance to Nearest Shoreline (miles)	51	62	68	62
Storage Tanks (total)	31	5	317	NA
Lease Pipelines	164	NA	NA	NA
Uncontrolled Blowout (bbls)	10,957	3117	74,119	18,834
Total Volume (bbls)	11,152	3122	74,436	18,834
Type of Oil	Oil	Condensate	Oil	Condensate
API Gravity	32°	35°	33°	34.5°

Section 9 - Oil Spills Information (30 CFR Part 550.250)

Since Arena Offshore, LP (02628) has the capability to respond to the appropriate worst-case spill scenario included in its Biennial Regional OSRP approved on May 13, 2025, the worst-case discharge scenario determined for this plan does not replace the appropriate worst-case scenario in our Regional OSRP, I hereby certify that Arena Offshore, LP has the capability to respond, to the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in this DOCD.

B. Oil Spill Response Discussion

In the event of an uncontrolled spill release resulting from the activities proposed in this Plan, Arena's Person-In-Charge on the platform/rig or the Shorebase Dispatcher would most likely be the initial individuals to contact the Qualified Individual (QI) or our Spill Management Team (SMT) detailed in the Regional OSRP. The QI would immediately activate the SMT to ascertain the severity of the spill incident. Arena's SMT Incident Command Center is located at O'Brien's Response Management, Inc.'s office in Houston, Texas.

Dependent upon the severity of the spill incident, a trajectory analysis would be conducted utilizing the BOEM Oil Spill Risk Analysis Model (OSRAM) as referenced in our approved Regional OSRP. This trajectory would provide the required information on percentage and timing of potential impact to the shoreline impact areas. The SMT would then identify the areas of sensitivities at potential landfall segment(s), so additional planning may be conducted for shoreline protection strategies. If surveillance indicates a potential threat to shoreline; the appropriate equipment and personnel would be deployed, as outlined in our Regional OSRP.

An overflight may be conducted to determine the extent and dissipation rate of the spill, with potential sampling of the spill release. Mechanical recovery equipment may also be dispatched to the leading edge of the spill, as outlined in our Regional OSRP. If additional offshore response is required, the SMT would initiate the Dispersant Use Plan of the Regional OSRP and utilize the services of Airborne Support Inc.'s aircraft and personnel.

Arena does not propose or anticipate New or Unusual Technology for oil spill detection, control or clean-up for operations proposed in this Plan.

Arena provided an oil spill response discussion, equipment deployment, and containment for the Worst-Case Discharge in Plan Control No. N-9691, copy included as **Attachment K**. The activities proposed in this Plan do not supersede the Worst-Case Discharge previously provided.

Section 9 - Oil Spills Information (30 CFR Part 550.250)

C. Modeling Report

According to NTL 2008-G04, this Section of the Plan is not applicable to the proposed operations.

D. NTL 2015-N01

The activity proposed in this Plan does not supersede the previously approved NTL 2015-N01 data submitted and approved for Eugene Island Block 320, Lease OCS-G 36211 under Plan Control No. N-9691. Arena has determined the Worst-Case Discharge Volume submitted in Plan N-9691 for 18,834 bbls, and accepted by BOEM is still valid and will continue to be the Worst-Case Discharge for the proposed activities in this Plan.

Section 10 - Environmental Monitoring Information (30 CFR Part 550.252)

A. Monitoring Systems

Arena subscribes to StormGeo Inc. Weather Service which provides access to real-time weather conditions and provides periodic updates on impending inclement weather conditions such as tropical depressions, storms and/or hurricanes entering the Gulf of America.

Arena also relies on the National Weather Service to support the aforementioned subscribed service. During impending inclement weather conditions, Arena closely coordinates the activity with our contractors and field personnel to ensure the safety of people for evacuation; measures to prepare the facility for evacuation to ensure protection of the environment and the facility/equipment.

B. Incidental Takes

The BOEM regulations in Title 30 CFR Part 550, Subpart B and the Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program”, Appendices A, B, C and J, require lessees/operators to provide for monitoring systems if the activities provided for in this Plan have the potential to result in an incidental take of any federally listed species and/or marine mammals.

Arena does not anticipate the incidental taking of any species as a result of the proposed activities. However, Arena will adhere to the requirements as set forth in the following documents, as applicable, to avoid or minimize impacts to any of the species listed in the Endangered Species Act (ESA) as a result of the operations proposed in this Plan:

- Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, Appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program, Appendix A
- BSEE’s Notice to Lessees NTL 2015-G03 “Marine Trash and Debris Awareness and Elimination”, and the recent National Marine Fisheries Service Biological Opinion issued on March 13, 2020
- BOEM Notice to Lessees NTL 2016-G01 “Vessel Strike Avoidance and Injured/Dead Protected Species Reporting”
- BOEM Notice to Lessees NTL 2016-G02 “Implementation of Seismic Mitigation Measures and Protected Species Observer Program”

Section 11 - Lease Stipulations/Special Conditions Information **(30 CFR Part 550.253)**

Under the Outer Continental Shelf Lands Act, both BOEM and BSEE are charged with the responsibility of managing and regulating the exploration and development on the OCS.

As part of the regulatory process, an Environmental Impact Statement (EIS) is prepared for each lease sale, at which time mitigation measures are addressed in the form of lease stipulations, which then become part of the oil and gas lease terms and are therefore enforceable as part of that lease.

As part of this process, the designated operator proposing to conduct related exploratory and development activities, must review the applicable lease stipulations, as well as other special conditions, which may be imposed by the BOEM, and other governing agencies.

The existing surface location in Eugene Island Block 320 (RUE G30422) is subject to the following lease stipulations and special conditions:

- **Marine Protected Species**

The BOEM regulations in Title 30 CFR Part 550, Subpart B and the Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program”, Appendices A, B, C and J, require lessees/operators to provide for monitoring systems if the activities provided for in this Plan have the potential to result in an incidental take of any federally listed species and/or marine mammals.

Arena does not anticipate the incidental taking of any species as a result of the proposed activities. However, Arena will adhere to the requirements as set forth in the following documents, as applicable, to avoid or minimize impacts to any of the species listed in the Endangered Species Act (ESA) as a result of the operations proposed in this Plan:

- Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, Appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program, Appendix A
- BSEE’s Notice to Lessees NTL 2015-G03 “Marine Trash and Debris Awareness and Elimination”, and the recent National Marine Fisheries Service Biological Opinion issued on March 13, 2020
- BOEM Notice to Lessees NTL 2016-G01 “Vessel Strike Avoidance and Injured/Dead Protected Species Reporting”
- BOEM Notice to Lessees NTL 2016-G02 “Implementation of Seismic Mitigation Measures and Protected Species Observer Program”

- **Military Warning Area**

The Military Areas Stipulation reduces potential impacts, particularly in regards to safety, but does not reduce or eliminate the actual physical presence of oil and gas operations in areas where military operations are conducted. As detailed in NTL 2009-G06, the existing surface disturbance in Eugene Island Block 320 is located within Military Warning Area W-59A. Therefore, in accordance with the requirements of the referenced stipulation, Arena will contact the Naval Air Station in order to coordinate and control the electromagnetic emissions during the proposed operations.

Section 11 - Lease Stipulations/Special Conditions Information (30 CFR Part 550.253)

- **Archaeological Resources**

In accordance with NTL's 2011-JOINT-G01 and 2005-G07, Eugene Island Block 320 is located within an area requiring a 300-meter spacing survey. This requirement provides protection of prehistoric and historic archaeological resources by requiring remote sensing surveys in areas designated to have a high probability for archaeological resources.

Copies of these reports were previously submitted to the BOEM under Seneca Resources Corporation's Initial Exploration Plan Control No. N-8227 which provided for the now existing surface location of Eugene Island Block 320 Platform B.

- **Special Conditions**

The proposed surface disturbance activity in Eugene Island Block 320 Platform B will not be affected by any special conditions and/or multiple uses, such as designated shipping/anchorage areas, lightering zones, rigs-to-reef zone, and ordinance disposal zones.

Section 12 - Environmental Mitigation Measures Information (30 CFR Part 550.254)

A. Measures Taken to Avoid, Minimize, and Mitigate Impacts

The activities proposed in this Plan do not have an impact on the State of Florida; as such this section is not applicable.

B. Incidental Takes

BOEM regulations in Title 30 CFR Part 550, Subpart B and the Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program”, Appendices A, B, C and J, require lessees/operators to provide for monitoring systems if the activities provided for in this Plan have the potential to result in an incidental take of any federally listed species and/or marine mammals.

Arena does not anticipate the incidental taking of any species as a result of the proposed activities. However, Arena will adhere to the requirements as set forth in the following documents, as applicable, to avoid or minimize impacts to any of the species listed in the Endangered Species Act (ESA) as a result of the operations proposed in this Plan:

- Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, Appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program, Appendix A
- BSEE’s Notice to Lessees NTL 2015-G03 “Marine Trash and Debris Awareness and Elimination”, and the recent National Marine Fisheries Service Biological Opinion issued on March 13, 2020
- BOEM Notice to Lessees NTL 2016-G01 “Vessel Strike Avoidance and Injured/Dead Protected Species Reporting”
- BOEM Notice to Lessees NTL 2016-G02 “Implementation of Seismic Mitigation Measures and Protected Species Observer Program”

Section 13 - Decommissioning Information **(30 CFR Part 550.255)**

The information at Title 30 CFR Part 250.255 regarding decommissioning is not required to accompany EP's and DOCD's submitted for the Gulf of America.

Section 14 - Related Facilities & Operation Information

(30 CFR Part 550.256)

A. Related OCS Facilities and Operations

The existing Eugene Island Block 320, Platform B is classified as an unmanned structure and was installed in 2006 in a water depth of 252 feet. The structure is a 4-pile/4-slot platform equipped with minimal test facility for the subject wells.

Produced hydrocarbons on the Eugene Island Block 320, Platform B will be separated and tested through the existing facilities, and production flowing via existing 10-inch and 6-inch right-of-way pipelines (Segment No. 20773/20774, respectively) to the existing Arena-operated Eugene Island Block 341, Platform A for processing, separation, and measurement.

The produced hydrocarbons on the Eugene Island Block 341, Platform A are separated and measured, for sales and royalty purposes. The separated gas production from the Eugene Island Block 341 Platform A will be transported via an existing Arena Offshore, 8-inch/16-inch pipeline (Segment No. 18670) to EI 327, A for ultimate delivery to shore via the Kinetica Deepwater Express Pipeline System (Operations System No. 24.0/XW0). Alternatively, gas production will be transported via Arena-Operated 8" bi-directional pipeline (Segment No. 18542) for ultimate delivery to shore via the Sea Robin West Pipeline System (Operations System No. 20.0/BB0).

Liquid hydrocarbon production from the Eugene Island Block 341 Platform A will be transported via an existing 14-inch pipeline (Segment No. 19785) for ultimate delivery to shore via the Central Gulf Gathering System (operations System No. 26.0).

B. Transportation System

Arena does not anticipate installation of any new and/or modified onshore facilities to accommodate the additional production from the Eugene Island Block 320/324/325 RUE 30422/Leases OCS-G36118/G36119.

C. Produced Liquid Hydrocarbon Transportation Vessels

According to NTL 2008-G04, this Section of the Plan is not applicable to the proposed operations.

Section 15 - Support Vessels and Aircraft Information (30 CFR Part 550.257)

The rig, vessels, and supply boats utilized for proposed activities under this Plan will not transit the Rice's whale moratoria area as noted within the National Marine Fisheries Service Biological Opinion issued March 13, 2020, 2021, 2022, and 2025.

A. General

Personnel involved in the proposed operations will typically use their own vehicles as transportation to and from the selected onshore base; whereas the selected vendors will transport the equipment by a combination of trucks, boats and/or helicopters to the onshore base. The personnel and equipment will then be transported to the platform/rig taking the most direct route feasible as mandated by weather and traffic conditions. The table below provides for the maximum capacities, numbers and trip frequency used during the construction, drilling and production phases:

Type	Maximum Fuel Tank Storage Capacity	Maximum No. in Area at Any Time	Trip Frequency or Duration
Tugboats	3,000 bbls	2	Rig Mobilization
Supply Boats	500 bbls	1	Three trips per week
Crew Boat	500 bbls	1	Four trips per week
Aircraft	330 gals.	1	As needed

B. Diesel Oil Supply Vessels

The following table details the vessels to be used for purposes other than fuel (i.e., corrosion control):

Size of Fuel Supply Vessel	Capacity of Fuel Supply Vessel	Frequency of Fuel Transfers	Route Fuel Supply Vessel Will Take
180' feet	1,500 bbls	Weekly	From the shorebase in Fourchon, LA to EI 320

C. Drilling Fluids Transportation

According to NTL 2008-G04, this Section of the Plan is not applicable to the proposed operations.

D. Solid and Liquid Wastes Transportation

Included as *Attachment I* is a listing of the solid and liquid wastes associated with the proposed activities in this Plan, detailing the types of waste and approximate composition, total amount, name and location, rate and transport method.

Section 15 - Support Vessels and Aircraft Information (30 CFR Part 550.257)

E. Vicinity Map

A Vicinity Plat detailing the existing surface location in Eugene Island Block 320 relative to the shoreline and onshore base is included as *Attachment L*.

Section 16 - Onshore Support Facilities Information (30 CFR Part 550.258)

A. General

The existing surface disturbance in Eugene Island Block 320 is located approximately 62 miles from the nearest Louisiana shoreline and 93 miles to the support base located in Fourchon, LA. Arena will utilize the Westwind Heliport located in New Iberia, Louisiana (approximately 123 miles) as needed.

Arena will utilize the existing GIS Dock located in Fourchon, LA during routine operations proposed in this Plan to accomplish the following:

- Loading/Offloading point for equipment supporting the offshore operations
- Dispatching personnel and equipment, and does not anticipate the need for any expansion of the selected facilities as a result of the activities proposed in this Plan
- Temporary storage for materials and equipment
- 24-Hour Dispatcher

B. Support Base Construction or Expansion

The proposed operations do not require any immediate action to acquire additional land or to expand existing base facilities.

C. Support Base Construction or Expansion Timetable

According to NTL 2008-G04, this Section of the Plan is not applicable to the proposed operations.

D. Waste Disposal

Included as *Attachment I* is a listing of waste disposal facilities to be utilized as part of the associated activities in this Plan; detailing the types of waste, amount, rate and disposal method to be sent to shore.

E. Air Emissions

According to NTL 2008-G04 information regarding air emissions generated by onshore support facilities is not required to accompany EP's and DOCD's for the Gulf of America.

F. Unusual Solid and Liquid Wastes

According to NTL 2008-G04 information regarding unusual solid and liquid wastes generated by onshore support facilities is not required to accompany EP's and DOCD's for the Gulf of America.

Section 17 - Sulphur Operations Information (30 CFR Part 550.259)

A. Bleedwater

Arena does not propose any Sulphur related operations during the activities proposed in this Plan.

B. Subsidence

Arena does not propose any Sulphur related operations during the activities proposed in this Plan.

Section 18 - Coastal Zone Management Information

(30 CFR Part 550.260)

Under direction of the Coastal Zone Management Act (CZMA), the States of Alabama, Florida, Louisiana, Mississippi and Texas developed Coastal Zone Management Programs (CZMP) to allow for the supervision of significant land and water use activities that take place within or that could significantly impact their respective coastal zones.

A. Consistency Certification

According to NTL 2008-G04, this Section of the Plan is not applicable to the proposed operations.

B. Other Information

According to NTL 2008-G04, this Section of the Plan is not applicable to the proposed operations.

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

A. Impact Producing Factors (IPF's) From Proposed Activities

The following matrix is utilized to identify the affected environments that could be impacted by these IPF's. An "x" has been marked for each IPF category that Arena has determined may impact a particular environment as a result of the proposed activities. For those cells which are footnoted, a statement is provided as to the applicability of the proposed activities, and where there may be an effect, an analysis of the effect is provided.

Environmental Resources	Impact Producing Factors (IPFs)					
	Emissions (air, noise, light, etc.)	Effluents (muds, cuttings, other discharges to the water column or seafloor)	Physical disturbances to the seafloor (rig or anchor emplacement, etc.)	Wastes sent to shore for treatment or disposal	Accidents (e.g. oil spills, chemical spills, H ₂ S release)	Other IPFs you identify
<i><u>Site Specific at Offshore Location</u></i>						
Designated topographic features		(1)	(1)		(1)	
Pinnacle Trend area live bottoms		(2)	(2)		(2)	
Eastern Gulf live bottoms		(3)	(3)		(3)	
Chemosynthetic communities			(4)			
Water quality						
Fisheries						
Marine mammals	(8)				(8)	
Sea turtles	(8)				(8)	
Air quality	(9)					
Shipwreck sites (known or potential)			(7)			
Prehistoric archaeological sites			(7)			
<i><u>Vicinity of Offshore Location</u></i>						
Essential fish habitat					(6)	

Marine and pelagic birds						
Public health and safety					(5)	
<i>Coastal & Onshore</i>						
Beaches					(6)	
Wetlands					(6)	
Shorebirds and coastal nesting birds					(6)	
Coastal wildlife refuges						
Wilderness areas						

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

Footnotes for Environmental Impact Analysis Matrix

1. Activities that may affect a marine sanctuary or topographic feature. Specifically, if the well or platform site or any anchors will be on the seafloor within the:
 - (a) 4-mile zone of the Flower Gardens Banks, or the 3-mile zone of Stetson Bank;
 - (b) 1000-m, 1-mile or 3-mile zone of any topographic feature (submarine bank) protected by the Topographic Features Stipulation attached to an OCS lease;
 - (c) Essential Fish Habitat (EFH) criteria of 500 ft from any no-activity zone; or
 - (d) Proximity of any submarine bank (500 ft buffer zone) with relief greater than 2 meters that is not protected by the Topographic Stipulation attached to an OCS lease.
2. Activities with any bottom disturbance within an OCS lease block protected through the Live Bottom (Pinnacle Trend) Stipulation attached to an OCS lease.
3. Activities within any Eastern Gulf OCS block where seafloor habitats are protected by the Live Bottom (Low-Relief) Stipulation attached to an OCS lease.
4. Activities on blocks designated by the BOEM as being in water depths 300 meters or greater.
5. Exploration or production activities where H₂S concentrations greater than 500 ppm might be encountered.
6. All activities that could result in an accidental spill of produced liquid hydrocarbons or diesel fuel that you determine would impact these environmental resources. If the proposed action is located a sufficient distance from a resource that no impact would occur, the EIA can note that in a sentence or two.
7. All activities that involve seafloor disturbances, including anchor emplacements, in any OCS block designated by the BOEM as having high-probability for the occurrence of shipwrecks or prehistoric sites, including such blocks that will be affected that are adjacent to the lease block in which your planned activity will occur. If the proposed activities are located a sufficient distance from a shipwreck or prehistoric site that no impact would occur, the EIA can note that in a sentence or two.
8. All activities that you determine might have an adverse effect on endangered or threatened marine mammals or sea turtles or their critical habitats.
9. Production activities that involve transportation of produced fluids to shore using shuttle tankers or barges.

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

B. Impact Analysis

Site Specific at Offshore Location

BOEM regulations in Title 30 CFR Part 550, Subpart B require lessees/operators to address the federally listed species with designated critical habitat as well as marine mammals which may be impacted by the proposed activities addressed under this Plan.

In accordance with Section 7 of the Endangered Species Act (ESA) and the Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program”, Appendices A, B, C and J, all federal agencies must ensure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species, or destroy or adversely modify its designated critical habitat.

Endangered or Threatened species that may occur at the site-specific offshore location and/or along the northern Gulf of America coast are listed in *Attachment H* of this Plan.

Endangered or Threatened species listed under the Endangered Species Act (ESA), includes marine mammal species in the northern Gulf of America region which are protected under the Marine Mammal Protection Act (MMPA) and fall under the National Marine Fisheries Service (NMFS) jurisdiction for ESA-listed marine mammals (cetaceans), sea turtles in the marine environment, fish and invertebrate species.

Arena does not anticipate that the proposed activities will occur in the presence of federally listed threatened or endangered species and critical habitat designated under the Endangered Species Act (ESA) and marine mammals protected under the Marine Mammal Protection Act (MMPA) listed in *Attachment H*. However, Arena will adhere to the requirements set forth in the following document, as applicable, to avoid encounters or minimize impacts to any of the species listed in the Endangered Species Act (ESA) as a result of the operations proposed in this Plan:

- Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, Appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program, Appendix A
- **Designation Topographic Features**

There are no anticipated emissions, effluents, physical disturbances to the seafloor, wastes transported to shore, and/or accidents from the proposed activities that could cause impacts to topographic features. The surface disturbance within Eugene Island Block 320 is located approximately 50 miles away from the Fishnet Bank. The crests of designated topographic features in the northern Gulf are found below 10 m. In the event of an accidental oil spill from the proposed activities, the gravity of such oil (high gravity condensate and/or diesel fuel) would rise to the surface, quickly dissipate, and/or be swept clear by the currents moving around the bank; thereby avoiding the sessile biota.

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

- **Pinnacle Trend Area Live Bottoms**

There are no anticipated emissions, effluents, physical disturbances to the seafloor, wastes sent to shore, and/or accidents from the proposed activities that could cause impacts to a pinnacle trend area. The proposed surface disturbance within Eugene Island Block 320 is located a significant distance (> 100 miles) from the closest pinnacle trend live bottom stipulated block. The crests of the pinnacle trend area are much deeper than 20 m. In the event of an accidental oil spill from the proposed activities, the gravity of such oil (high gravity condensate and/or diesel fuel) would rise to the surface, quickly dissipate, and/or be swept clear by currents moving around the bank; and thus not impacting the pinnacles.

- **Eastern Gulf Live Bottoms**

There are no anticipated emissions, effluents, emissions physical disturbances to the seafloor, wastes sent to shore, and/or accidents from the proposed activities that could cause impacts to Eastern Gulf live bottoms. The proposed surface disturbance within Eugene Island Block 320 is located a significant distance (>100 miles) from the closest pinnacle Eastern Gulf live bottom stipulated block.

In the event of an accidental oil spill from the proposed activities, the gravity of such oil (high gravity condensate and/or diesel fuel) would rise to the surface, quickly dissipate, and/or be swept clear by currents moving around the bank; and would not be expected to cause adverse impacts to Eastern Gulf live bottoms because of the depth of the features and dilutions of spills.

- **Chemosynthetic Communities**

Water depth at the surface location in Eugene Island Block 320 is approximately 252 feet. Therefore, the proposed activities are not located within the vicinity of any known chemosynthetic communities, which typically occur in water depths greater than 300 meters. Based on the water depth, there are no anticipated emissions, effluents, emissions physical disturbances to seafloor, wastes sent to shore, and/or accidents from the proposed activities that could impact these types of communities.

- **Water Quality**

Routine operational discharges authorized by EPA's Region VI NPDES General Permit GMG290000 are regulated based on volume discharge rate limitations, and certain testing requirements for oil and grease and toxicity limitations. As such, it is not anticipated these discharges will cause significant adverse impacts to water quality. Accidental oil spill release from the proposed activities, and cumulative similar discharge activity within the vicinity could potentially cause impacts to water quality. It is unlikely that an accidental oil spill release would occur from the proposed activities. In the event of such a release, the water quality would be temporarily affected by the dissolved components and small droplets. Currents and microbial degradation would remove the oil from the water column or dilute the constituents to background levels.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of Arena's Regional Oil Spill Response Plan which addresses available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

- **General Underwater Noise**

The proposed activities for this Plan will be completed utilizing a Jack-up rig, support vessels and helicopters. Underwater noise levels produced by rig equipment and support vessel activity transmits directly to the water during drilling and maintenance operations but is a temporary disturbance. As a result, these sound sources are insignificant and not likely to adversely affect the endangered or threatened species that are known to occur in the Gulf of America.

Included as *Attachment H* of this Plan is a listing of endangered or threatened species under the jurisdiction of NOAA fisheries that are known to occur in the Gulf of America that may be affected by proposed action.

Arena does not anticipate that proposed activities in the Plan will occur in the presence of federally listed threatened or endangered species and critical habitat designated under the Endangered Species Act (ESA) and marine mammals protected under the Marine Mammal Protection Act (MMPA). However, Arena will adhere to the requirements set forth in the following document, as applicable, to avoid or minimize impacts to any of the species listed in the Endangered Species Act (ESA) as a result of operations proposed in this Plan:

- Biological Opinion on Federally Regulated Oil and Gas Program Activities in the Gulf of America, Appendices to the Programmatic Biological Opinion on the Gulf of America and Gas Program, Appendix A

- **Fisheries**

Accidental oil spill release from the proposed activities, and cumulative similar discharge activity within the vicinity may potentially cause some detrimental effects on fisheries. It is unlikely a spill would occur; however, such a release in open waters closed to mobile adult finfish or shellfish would likely be sub-lethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of Arena's Regional Oil Spill Response Plan which addresses available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

Arena will conduct the proposed activities under EPA's Region VI NPDES General Permit GMG290000 which authorizes the discharge of certain effluents, subject to certain limitations, prohibitions and recordkeeping requirements, and Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program", Appendices A, B, C and J. As such, it is not anticipated these discharges will cause significant adverse impacts to water quality.

Threatened Fish Species

As a result of the proposed offshore activities the following threatened and endangered fish species may be adversely impacted by emissions, effluents, waste sent to shore, noise, and/or accidents.

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

Giant Manta Ray –

The giant manta ray inhabits tropical, subtropical and temperate waters. Commercial fishing is the primary threat to giant manta rays which is caught as a bycatch. Offshore activities such as vessel presence and rig equipment noise can produce sounds at a frequency and intensity that could cause a behavioral change to the giant manta ray which has an approximate hearing frequency of 20 Hz. However, because of limited propagation distances of high SPL from proposed activities, impacts would be limited, and no population level impacts are expected.

Oceanic Whitetip Shark –

Oceanic whitetip sharks are found worldwide in offshore waters and is only occasionally reported in the Gulf of America. Commercial fishing pressure is the primary threat to the shark. Offshore activities such as vessel presence and rig equipment noise can produce sounds at a frequency and intensity that could cause a behavioral change to the oceanic whitetip shark which has an approximate hearing frequency of 20 Hz. However, because of limited propagation distances of high SPL from proposed activities, impacts would be limited, and no population level impacts are expected.

Gulf Sturgeon –

The gulf sturgeon resides primarily in inland estuaries and rivers from Louisiana to Florida and a small population of the species enters the Gulf of America seasonally in western Florida. The gulf sturgeon population has been depleted by fishing and shoreline development. Proposed offshore activities that could cause impacts to the gulf sturgeon include accidents (oil spills) and discarded trash and debris. It is unlikely that an accidental oil spill release would occur from proposed activities. In the event of such a release, Arena does not anticipate the effects from oil spills will diminish the value of the gulf sturgeon critical habitat; the proposed activities will be covered by Arena's Regional OSRP. Trash and debris are not expected to impact the gulf sturgeon from proposed activities. Arena will operate in accordance with the regulations, agency guidance, Appendix "B" Section 7 of NMFS Endangered Species Act (ESA) Biological Opinion, and to the requirements set forth in BSEE's Notice to Lessees NTL 2015-G03 "Marine Trash and Debris Awareness and Elimination".

Nassau Grouper –

The Nassau grouper is one of the most common fish species in the coastal waters of the United States and has been subject to overfishing. The Nassau grouper is typically found in the shallow tropical waters of eastern Florida and the Florida Keys. There has been one confirmed sighting of Nassau grouper from the Flower Garden Banks in the Gulf of America and three additional reports from mooring buoys and the coral cap region of West Flower Garden flats. Proposed offshore activities that could cause impacts to the Nassau grouper include accidents (oil spills). It is unlikely that an accidental oil spill release would occur from proposed offshore activities. However, in the event of such a release Arena does not anticipate the effects from oil spills will diminish the value of the Nassau grouper critical habitat; the proposed activities will be covered by Arena's Regional OSRP.

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

Smalltooth Sawfish –

The smalltooth sawfish live in shallow coastal waters in the Gulf of America, primarily in southwest Florida where several areas of critical habitat have been designated. Proposed offshore activities that could cause impacts to the smalltooth sawfish include accidents (oil spills). It is unlikely that an accidental oil spill release would occur from proposed offshore activities. However, in the event of such a release Arena does not anticipate the effects from oil spills will diminish the value of the smalltooth sawfish critical habitat; the proposed activities will be covered by Arena's Regional OSRP.

Invertebrate Species –

There are seven known threatened coral species within the northern Gulf of America: rough cactus coral, pillar coral, lobed star coral, mountainous star coral, boulder star coral, staghorn coral, and elkhorn coral. None of these threatened species are expected to be present within the proposed offshore activities area, therefore should not be adversely affected by routine activities or accidental events.

- **Marine Mammals**

As a result of the proposed activities, marine mammals may be adversely impacted by emissions, effluents, waste sent to shore, and/or accidents.

Chronic and sporadic sub-lethal effects could occur that may stress and/or weaken individuals of a local group or population and make them more susceptible to infection from natural or anthropogenic sources. Few lethal effects are expected from accidental oil spill, chance collisions with service vessels and ingestion of plastic material.

The net results of any disturbance would depend on the size and percentage of the population affected, ecological importance of the disturbed area, environmental and biological parameters that influence an animal's sensitivity to disturbance and stress, and the accommodation time in response to prolonged disturbance (Geraci and St. Aubin, 1980). Collisions between cetaceans and ship could cause serious injury or death (Laist et al., 2001).

Sperm whales are one of 11 whale species that are hit commonly by ships (Laist et al., 2001). Collisions between OCS vessels and cetaceans within the project area are expected to be unusual events.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of Arena's Regional Oil Spill Response Plan which addresses available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

Exposure to sound during rig pile activities could result in a temporary hearing loss or other behavioral responses in marine mammals, which could include local displacement from the area while pile driving activities occur. Arena doesn't plan to conduct pile driving activities during the operations under this Plan. Section 7 of the Endangered Species Act (ESA) Biological Opinion concluded that potential impacts of this type of exposure are not anticipated to have adverse effects as whales are expected to be moving and less likely to remain stationary during pile driving activities.

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

Arena will conduct the proposed activities under EPA’s Region VI NPDES General Permit GMG290000 which authorizes the discharge of certain effluents, subject to certain limitations, prohibitions and recordkeeping requirements, and Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program”, Appendices A, B, C and J. As such, it is not anticipated these discharges will cause significant adverse impacts to water quality.

Additionally, Arena does not anticipate the incidental taking of any marine mammals as the result of the proposed activities. The proposed activities will be conducted by our company and its contractors and will adhere to the requirements as set forth in the following documents, as applicable, to avoid or minimize impacts to any of the species listed in the Endangered Species Act (ESA) as a result of the operations proposed in this Plan:

- Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, Appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program, Appendix A
- BSEE’s Notice to Lessees NTL 2015-G03 “Marine Trash and Debris Awareness and Elimination”, and the recent National Marine Fisheries Service Biological Opinion issued on March 13, 2020
- BOEM Notice to Lessees NTL 2016-G01 “Vessel Strike Avoidance and Injured/Dead Protected Species Reporting”
- BOEM Notice to Lessees NTL 2016-G02 “Implementation of Seismic Mitigation Measures and Protected Species Observer Program”

- **Sea Turtles**

As a result of the proposed activities, sea turtles may be adversely impacted by emissions, effluents, waste sent to shore, and/or accidents.

Small numbers of turtles could be killed or injured by chance collision with service vessels or by eating indigestible trash, particularly plastic items accidentally lost from drilling rigs, production facilities and service vessels. Drilling rigs and project vessels (construction barges) produce noise that could disrupt normal behavior patterns and create some stress to sea turtles, making them more susceptible to disease. Accidental oil spill release are potential threats which could have lethal effects on turtles. Contact and/or consumption of this released material could seriously affect individual sea turtles. Most OCS related impacts on sea turtles are expected to be sub-lethal.

Chronic and/or avoidance of effected areas could cause declines in survival or productivity, resulting in gradual population declines.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of Arena’s Regional Oil Spill Response Plan which addresses available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

Exposure to sound during pile driving activities could result in a temporary hearing loss or other behavioral responses in sea turtles, which could include local displacement from the area while pile driving activities occur. Arena doesn't plan to conduct pile driving activities during the operations under this Plan. Section 7 of the Endangered Species Act (ESA) Biological Opinion concluded that potential impacts of this type of exposure are not anticipated to be significant for adult sea turtles as noise from pile driving activities should provide warning to avoid the immediate area. However, juvenile sea turtles could be motivated to remain with the habitat and not leave the area, which could lead to hearing loss and adversely affected by being displaced from the habitat. Section 7 also states the annual total of predicted disturbances for juveniles is low. Arena's contractors and company representative will provide mitigation measures with dedicated personnel to continuously monitor a visual radius around the rig and will implement soft starts and shutdowns during pile driving operations to help avoid encounters or minimize impacts.

Arena will conduct the proposed activities under EPA's Region VI NPDES General Permit GMG290000 which authorizes the discharge of certain effluents, subject to certain limitations, prohibitions and recordkeeping requirements, and Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program", Appendices A, B, C and J. As such, it is not anticipated these discharges will cause significant adverse impacts to water quality.

Additionally, Arena does not anticipate the incidental taking of any sea turtles as the result of the proposed activities. The proposed activities will be conducted by our company and its contractors and will adhere to the requirements as set forth in the following documents, as applicable, to avoid or minimize impacts to any of the species listed in the Endangered Species Act (ESA) as a result of the operations proposed in this Plan:

- Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America, Appendices to the Programmatic Biological Opinion on the Gulf of America Oil and Gas Program, Appendix A
- BSEE's Notice to Lessees NTL 2015-G03 "Marine Trash and Debris Awareness and Elimination", and the recent National Marine Fisheries Service Biological Opinion issued on March 13, 2020, 2021, 2022, and 2025
- BOEM Notice to Lessees NTL 2016-G01 "Vessel Strike Avoidance and Injured/Dead Protected Species Reporting"
- BOEM Notice to Lessees NTL 2016-G02 "Implementation of Seismic Mitigation Measures and Protected Species Observer Program"
- During pile driving activities mitigation measures for sea turtles will be in place with dedicated personnel continuously monitoring a visual radius around the rig and will implement soft starts and shutdowns confirming no presence of sea turtles prior to continuing pile driving at recommended low energy and continue to monitor for presence of sea turtles during operations

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

- **Air Quality**

The proposed activities are located approximately 62 miles to the nearest Louisiana shoreline. There would be a limited degree of air quality degradation in the immediate vicinity of the proposed activities. Air quality analyses of the proposed activities are below the BOEM exemption level. As such, Arena does not anticipate any IPF's as a result of the proposed activities.

- **Shipwreck Sites (Known or Potential)**

There are no physical disturbances to the seafloor which could impact known or potential shipwreck sites, as the review of high-resolution shallow hazards data indicate there are no known or potential shipwreck sites located within the surveyed area. As such, Arena does not anticipate any IPF's as a result of the proposed activities.

- **Prehistoric Archaeological Sites**

There are no physical disturbances to the seafloor which could cause impacts to prehistoric archaeological sites, as the review of high-resolution shallow hazards data and supporting studies did not reflect the occurrence of prehistoric archaeological sites. As such, Arena does not anticipate any IPF's as a result of the proposed activities.

Vicinity of Offshore Location

- **Essential Fish Habitat**

As a result of the proposed activities, essential fish habitat may be adversely impacted by effluents and/or accidents.

An accidental oil spill that may occur as a result of the proposed activities has potential to cause some detrimental effects on essential fish habitat. It is unlikely that an accidental oil spill release would occur; however, if a spill were to occur in close proximity to finfish or shellfish, the effects would likely be sub-lethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of Arena's Regional Oil Spill Response Plan which addresses available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

- **Marine and Pelagic Birds**

As a result of the proposed activities, marine and pelagic birds may be adversely impacted by an accidental oil spill, by the birds coming into contact with the released oil. It is unlikely that an accidental oil spill release would occur.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of Arena's Regional Oil Spill Response Plan which addresses available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

- **Public Health and Safety**

There are no anticipated emissions, effluents, wastes sent to shore, and/or accidents from the proposed activities that could cause impacts to the public health and safety. Arena received BOEM approval classifying the Eugene Island Block 320 area as absent of hydrogen sulfide per Plan Control No. N-10038.

Coastal and Onshore

- **Beaches**

As a result of the proposed activities, beaches may be adversely impacted by an accidental oil spill. However, due to the distance from shore (approximately 62 miles to nearest Louisiana shoreline), and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA BOEM 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of Arena's Regional Oil Spill Response Plan which addresses available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

- **Wetlands**

As a result of the proposed activities, wetlands may be adversely impacted by an accidental oil spill. However, due to the distance from shore (approximately 62 miles to the nearest Louisiana shoreline) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA BOEM 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of Arena's Regional Oil Spill Response Plan which addresses available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

- **Shore Birds and Coastal Nesting Birds**

As a result of the proposed activities, shore birds and coastal nesting birds may be adversely impacted by an accidental oil spill. However, due to the distance from shore (approximately 62 miles to the nearest Louisiana shoreline) and the response capabilities that would be implemented, no significant adverse impacts are expected.

Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA BOEM 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of Arena's Regional Oil Spill Response Plan which addresses available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

- **Coastal Wildlife Refuges**

As a result of the proposed activities, coastal wildlife refuges may be adversely impacted by an accidental oil spill. However, due to the distance from shore (approximately 62 miles to the nearest Louisiana shoreline) and the response capabilities that would be implemented, no significant adverse impacts are expected.

Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA BOEM 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of Arena's Regional Oil Spill Response Plan which addresses available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

- **Wilderness Areas**

As a result of the proposed activities, wilderness areas may be adversely impacted by an accidental oil spill. However, due to the distance to the nearest area (approximately 62 miles to the nearest Louisiana shoreline) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA BOEM 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of Arena's Regional Oil Spill Response Plan which addresses available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

- **Other Resources Identified**

Arena has not identified any other environmental resources other than those addressed above.

C. Impacts on Proposed Activities

Arena does not anticipate any impacts on the offshore site-specific locations, offshore vicinity, and/or coastal and onshore environmental conditions.

D. Environmental Hazards

Eugene Island Block 320 is not located within a geographic area impacted by strong environmental phenomena, other than potential hurricanes in the Gulf of America. The permanent structure has been designed to meet the current regulations and design criteria for these hurricane events. To mitigate potential impacts to the facility and/or wells during impending hurricanes, Arena will take precautionary measures to secure the facility, shutting in the wells and evacuating personnel for evacuation as further detailed in our U.S. Coast Guard Emergency Evacuation Plan.

E. Alternatives

There are no alternatives other than those required by regulation to be considered to reduce the environmental impacts of the activities proposed in this Plan.

F. Mitigation Measures

No mitigation measures other than those required by regulations will be considered to avoid, lessen or eliminate potential impacts on environmental resources.

G. Consultation

Arena has not contacted any agencies or persons for consultation regarding potential impacts associated with the proposed activities. Therefore, a list of such entities is not being provided.

H. Preparer

Questions or requests for additional information should be made to Arena's authorized representative/preparer of this Plan:

Aimee Deady
Arena Offshore, LP
2103 Research Forest Drive, Suite 200
The Woodlands, Texas 77380
281-210-3180 (Direct Office)
aimee@arenaoffshore.com

Section 19 – Environmental Impact Analysis (30 CFR Part 550.261)

I. References

The following documents were utilized in preparing the Environmental Impact Assessment (though not necessarily cited in the document):

<i>Document</i>	<i>Author</i>	<i>Dated</i>
Shallow Hazards Survey Report	Fugro Services	N-8227
NTL 2005-G07 “Archaeological Resource Surveys and Reports”	Bureau of Ocean Energy Management	2005
Environmental Impact Statement Report No. 2007-003	Bureau of Ocean Energy Management	2007
NTL 2008-G05 “Shallow Hazards Program”	Bureau of Ocean Energy Management	2008
NTL 2008-N05 “Guidelines for Oil Spill Financial Responsibility (OSFR) for Covered Facilities	Bureau of Ocean Energy Management	2008
NTL 2009-G04 “Significant OCS Sediment Resources in the Gulf of America	Bureau of Ocean Energy Management	2009
NTL 2009-N11 “Air Quality Jurisdiction on the OCS”	Bureau of Ocean Energy Management	2009
NTL 2009-G26 “U.S. Air Force Communication Towers”	Bureau of Ocean Energy Management	2009
NTL 2009-G27 “Submitting Exploration Plans and Development Operations Coordination Documents”	Bureau of Ocean Energy Management	2009
NTL 2009-G29 “Implementation Plan for Transition from North American Datum 27 to North American Datum 83	Bureau of Ocean Energy Management	2009
NTL 2009-G31 “Hydrogen Sulfide”	Bureau of Safety and Environmental Enforcement	2009
NTL 2009-G34 “Ancillary Activities”	Bureau of Ocean Energy Management	2009
NTL 2009-G40 “Deepwater Benthic Communities”	Bureau of Ocean Energy Management	2009
NTL 2009-G39 “Biologically-Sensitive Underwater Features and Areas”	Bureau of Ocean Energy Management	2010
NTL 2011-G01-JOINT “Revision to the List of OCS Lease Blocks Requiring Archaeological Resource Surveys and Reports”	Bureau of Ocean Energy Management/Bureau of Safety and Environmental Enforcement	2011
BSEE NTL 2015-G03 “Marine Trash & Debris Awareness & Elimination”	Bureau of Safety and Environmental Enforcement	2015

**Section 19 – Environmental Impact Analysis
(30 CFR Part 550.261)**

<i>Document</i>	<i>Author</i>	<i>Dated</i>
NTL 2014-G04 “Military Warning and Water Test Areas	Bureau of Ocean Energy Management	2014
NTL 2015-N01 “Information Requirements for Exploration Plans, Development & Production Plans, and Development Operations Coordination Documents on the OCS for Worst Case Discharge and Blowout Scenarios”	Bureau of Ocean Energy Management	2015
NTL 2015-N04 “General Financial Assurance”	Bureau of Ocean Energy Management	2015
NTL 2015-N06 “Procedures and Requirements for Right-of-Use and Easement Requests for Platforms, Artificial Island, Installations and Other Devices Attached to the Seabed”	Bureau of Ocean Energy Management	2015
NTL 2016-N01 – Requiring Additional Security	Bureau of Ocean Energy Management	2016
NTL 2016-G01 – Vessel Strike Avoidance and Injured/Dead Protected Species Reporting	Bureau of Ocean Energy Management	Reissued 2019
NTL 2016-G02 “Implementation of Seismic Survey Mitigation Measures and Protected Species Observer Program”	Bureau of Ocean Energy Management	Reissued 2019
NPDES General Permit GMG290000	EPA – Region VI	2021
Title 30 CFR Part 550	Bureau of Ocean Energy Management	2026
Title 30 CFR Part 250	Bureau of Safety and Environmental Enforcement	2026
Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of America (FPR-2017-9234)	Office of Protected Resources, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce	2025
Regional Oil Spill Response Plan	J. Connor Consulting	2025

Section 20 - Administrative Information (30 CFR Part 550.262)

A. Exempted Information Description (Public Information Copies Only)

Excluded from the Public Information copies are the following:

- a. Proposed bottomhole location information
- b. Proposed total well depths (measured and true vertical depth)
- c. Production Rates and Life of Reserves
- d. New and Unusual Technology
- e. Mineral Resource Conservation Information
- f. Geological and Geophysical Attachments
- g. Correlative well information used to justify H2S classification

B. Bibliography

The following documents were utilized in preparing the Plan:

<i>Document</i>	<i>Author</i>	<i>Dated</i>
Regional Oil Spill Response Plan	J. Connor Consulting	2025
Initial Exploration Plan (Plan Control No. N-8227)	Seneca Resources Corporation	2004
Initial Development Operations Coordination Document (Plan Control No. N-9691)	Arena Offshore, LP	2013
Initial Development Operations Coordination Document (Plan Control No. N-10038)	Arena Offshore, LP	2019
Initial Development Operations Coordination Document (Plan Control No. N-10175)	Arena Offshore, LP	2022
Revised Development Operations Coordination Document (Plan Control No. R-7341)	Arena Offshore, LP	2024

OCS Plan Information Form

**Attachment A
(Public Information)**

OCS PLAN INFORMATION FORM

General Information											
Type of OCS Plan:		Exploration Plan (EP)		Development Operations Coordination Document (DOCD)				X			
Company Name: Arena Offshore, LP				BOEM Operator Number: 02628							
Address:				Contact Person: Aimee Deady							
2103 Research Forest Drive, Suite 200				Phone Number: 281-210-3180							
The Woodlands, Texas 77380				E-Mail Address: adeady@arenaoffshore.com							
If a service fee is required under 30 CFR 550.125(a), provide the				Amount paid		\$5565		Receipt No.		27VPJQ8K	
Project and Worst Case Discharge (WCD) Information											
Lease(s): RUE30422/G36118/G36119		Area: EI 320/324/325		Block(s):		Project Name (If Applicable):					
Objective(s)		X	Oil	X	Gas	Sulphur	Salt	Onshore Support Base(s): Fourchon, Louisiana			
Platform/Well Name: B/Bwells			Total Volume of WCD: 18,834 bbls				API Gravity: 34.5°				
Distance to Closest Land (Miles): 62 miles				Volume from uncontrolled blowout: 18,834 bbls							
Have you previously provided information to verify the calculations and assumptions for your WCD?							X	Yes	No		
If so, provide the Control Number of the EP or DOCD with which this information was provided							N-9691				
Do you propose to use new or unusual technology to conduct your activities?								Yes	X	No	
Do you propose to use a vessel with anchors to install or modify a structure?								Yes	X	No	
Do you propose any facility that will serve as a host facility for deepwater subsea development?								Yes	X	No	
Description of Proposed Activities and Tentative Schedule (Mark all that apply)											
Proposed Activity			Start Date		End Date		No. of Days				
Exploration drilling											
Development drilling			04/01/2026		12/31/2028		225 total drilling days				
Well completion			included in above		included in above						
Well test flaring (for more than 48 hours)											
Installation or modification of structure											
Installation of production facilities											
Installation of subsea wellheads and/or manifolds											
Installation of lease term pipelines											
Commence production			06/01/2026		12/31/2034		9 years				
Other (Specify and attach description)											
Description of Drilling Rig					Description of Structure						
X	Jackup		Drillship			Caisson		Tension leg platform			
	Gorilla Jackup		Platform rig		X	Fixed platform		Compliant tower			
	Semisubmersible		Submersible			Spar		Guyed tower			
	DP Semisubmersible		Other (Attach Description)			Floating production system		Other (Attach Description)			
Drilling Rig Name (If Known):											
Description of Lease Term Pipelines											
From (Facility/Area/Block)		To (Facility/Area/Block)		Diameter (Inches)		Length (Feet)					

OCS PLAN INFORMATION FORM (CONTINUED)
Include one copy of this page for each proposed well/structure

Proposed Well/Structure Location										
Well or Structure Name/Number (If renaming well or structure, reference previous name): Platform B				Previously reviewed under an approved EP or DOCD?		<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	
Is this an existing well or structure?		<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	If this is an existing well or structure, list the Complex ID or API No.		1855-1		
Do you plan to use a subsea BOP or a surface BOP on a floating facility to conduct your proposed activities?							<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
WCD info	For wells, volume of uncontrolled blowout (Bbls/day): NA			For structures, volume of all storage and pipelines (Bbls): 5 bbls			API Gravity of fluid		34.5°	
	Surface Location			Bottom-Hole Location (For Wells)			Completion (For multiple completions, enter separate lines)			
Lease No.	OCS RUE G30422			OCS			OCS OCS			
Area Name	Eugene Island									
Block No.	320									
Blockline Departures (in feet)	N/S Departure: F <u> </u> L <u> </u>			N/S Departure: F <u> </u> L <u> </u>			N/S Departure: F <u> </u> L <u> </u>			
	945.77'						N/S Departure: F <u> </u> L <u> </u>			
	E/W Departure: F <u> </u> L <u> </u>			E/W Departure: F <u> </u> L <u> </u>			E/W Departure: F <u> </u> L <u> </u>			
	2260.54'						E/W Departure: F <u> </u> L <u> </u>			
Lambert X-Y coordinates	X: 1,967,695.14'			X:			X:			
	Y: -149,620.47'			Y:			Y:			
Latitude/Longitude	Latitude 28° 15' 18.8538" N			Latitude			Latitude			
	Longitude 91° 26' 01.0878" W			Longitude			Longitude			
Water Depth (Feet): 252'				MD (Feet):		TVD (Feet):		MD (Feet):		TVD (Feet):
Anchor Radius (if applicable) in feet:								MD (Feet):		TVD (Feet):
Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not necessary)										
Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor					
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						

OCS PLAN INFORMATION FORM (CONTINUED)
Include one copy of this page for each proposed well/structure

Proposed Well/Structure Location										
Well or Structure Name/Number (If renaming well or structure, reference previous name): B002 (ST00BP00)				Previously reviewed under an approved EP or DOCD?		<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	
Is this an existing well or structure?		<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	If this is an existing well or structure, list the Complex ID or API No.		17-710-41695-00		
Do you plan to use a subsea BOP or a surface BOP on a floating facility to conduct your proposed activities?							<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
WCD info	For wells, volume of uncontrolled blowout (Bbls/day): 18,834 bbls (N-9691)			For structures, volume of all storage and pipelines (Bbls): NA			API Gravity of fluid		34.5°	
	Surface Location			Bottom-Hole Location (For Wells)			Completion (For multiple completions, enter separate lines)			
Lease No.	OCS RUE G30422			OCS			OCS OCS			
Area Name	Eugene Island									
Block No.	320									
Blockline Departures (in feet)	N/S Departure: F <u> </u> L			N/S Departure: F <u> </u> L			N/S Departure: F <u> </u> L			
	969.29'						N/S Departure: F <u> </u> L			
	E/W Departure: F <u> </u> L			E/W Departure: F <u> </u> L			E/W Departure: F <u> </u> L			
	2283.33'						E/W Departure: F <u> </u> L			
Lambert X-Y coordinates	X: 1,967,672.35'			X:			X:			
	Y: 149,596.95'			Y:			Y:			
Latitude/Longitude	Latitude 28° 15' 19.0864" N			Latitude			Latitude			
	Longitude 91° 26' 01.3428" W			Longitude			Longitude			
Water Depth (Feet): 252'				MD (Feet):		TVD (Feet):		MD (Feet):		TVD (Feet):
Anchor Radius (if applicable) in feet:								MD (Feet):		TVD (Feet):
Anchor Locations for Drilling Rig or Construction Barge (if anchor radius supplied above, not necessary)										
Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor					
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						

OCS PLAN INFORMATION FORM (CONTINUED)
Include one copy of this page for each proposed well/structure

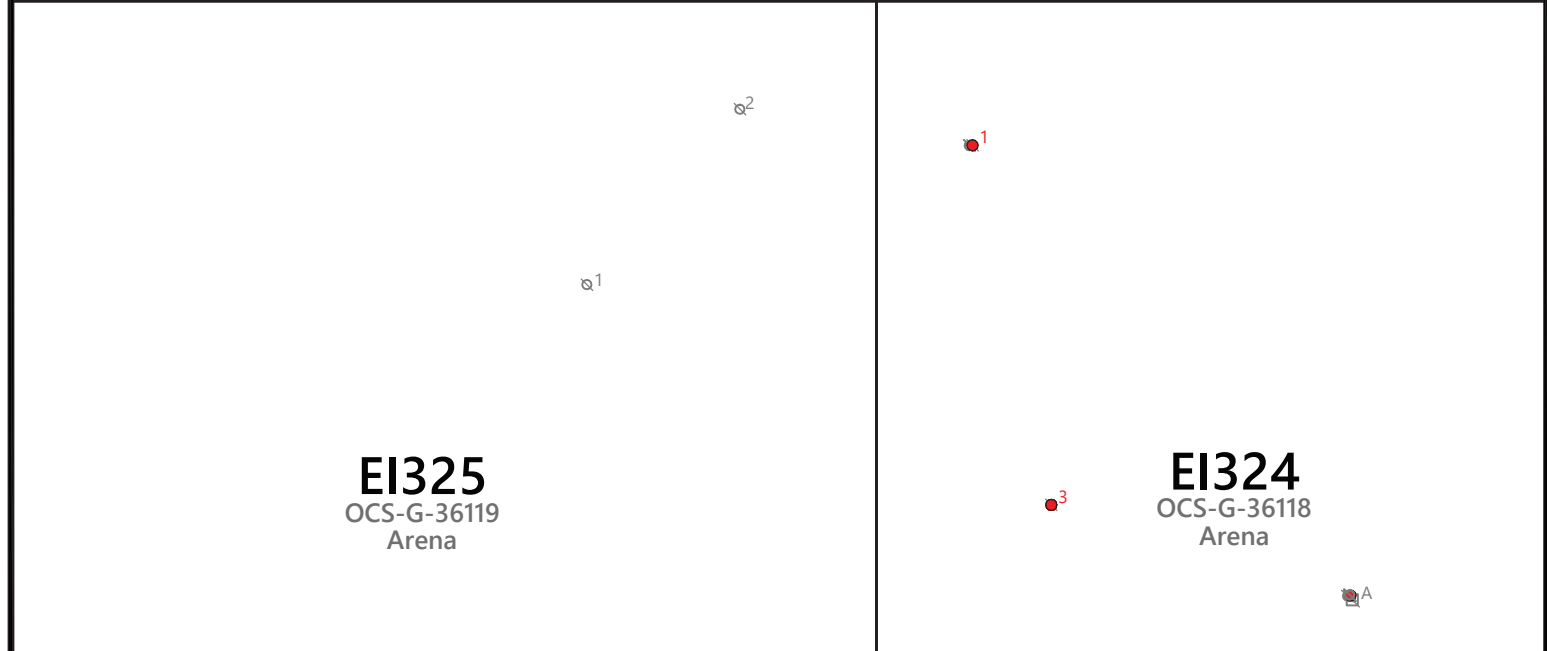
Proposed Well/Structure Location									
Well or Structure Name/Number (If renaming well or structure, reference previous name): B003 (ST00BP01)				Previously reviewed under an approved EP or DOCD?		<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No	
Is this an existing well or structure?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If this is an existing well or structure, list the Complex ID or API No.			17-710-41696-01		
Do you plan to use a subsea BOP or a surface BOP on a floating facility to conduct your proposed activities?						<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No	
WCD info		For wells, volume of uncontrolled blowout (Bbls/day): 18,834 bbls (N-9691)			For structures, volume of all storage and pipelines (Bbls): NA			API Gravity of fluid	
								34.5°	
Surface Location				Bottom-Hole Location (For Wells)			Completion (For multiple completions, enter separate lines)		
Lease No.		OCS RUE G30422			OCS			OCS OCS	
Area Name		Eugene Island							
Block No.		320							
Blockline Departures (in feet)		N/S Departure: F <u> </u> L 965.27'			N/S Departure: F <u> </u> L			N/S Departure: F <u> </u> L N/S Departure: F <u> </u> L N/S Departure: F <u> </u> L	
		E/W Departure: F <u> </u> L 2287.79'			E/W Departure: F <u> </u> L			E/W Departure: F <u> </u> L E/W Departure: F <u> </u> L E/W Departure: F <u> </u> L	
Lambert X-Y coordinates		X: 1,967,667.89'			X:			X: X: X:	
		Y: 149,600.97'			Y:			Y: Y: Y:	
Latitude/Longitude		Latitude 28° 15' 19.0466" N			Latitude			Latitude Latitude Latitude	
		Longitude 91° 26' 01.3926" W			Longitude			Longitude Longitude Longitude	
Water Depth (Feet): 252'				MD (Feet):		TVD (Feet):		MD (Feet): MD (Feet): MD (Feet):	
Anchor Radius (if applicable) in feet:								TVD (Feet): TVD (Feet): TVD (Feet):	
Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not necessary)									
Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor				
			X =	Y =					
			X =	Y =					
			X =	Y =					
			X =	Y =					
			X =	Y =					
			X =	Y =					
			X =	Y =					
			X =	Y =					

OCS PLAN INFORMATION FORM (CONTINUED)
Include one copy of this page for each proposed well/structure

Proposed Well/Structure Location										
Well or Structure Name/Number (If renaming well or structure, reference previous name): B004 (ST01BP00)				Previously reviewed under an approved EP or DOCD?		<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	
Is this an existing well or structure?		<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	If this is an existing well or structure, list the Complex ID or API No.		17-710-41697-02		
Do you plan to use a subsea BOP or a surface BOP on a floating facility to conduct your proposed activities?							<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
WCD info	For wells, volume of uncontrolled blowout (Bbls/day): 18,834 bbls (N-9691)			For structures, volume of all storage and pipelines (Bbls): NA			API Gravity of fluid		34.5°	
	Surface Location			Bottom-Hole Location (For Wells)			Completion (For multiple completions, enter separate lines)			
Lease No.	OCS RUE G30422			OCS			OCS OCS			
Area Name	Eugene Island									
Block No.	320									
Blockline Departures (in feet)	N/S Departure: F <u> </u> L			N/S Departure: F <u> </u> L			N/S Departure: F <u> </u> L			
	960.57'						N/S Departure: F <u> </u> L			
	E/W Departure: F <u> </u> L			E/W Departure: F <u> </u> L			E/W Departure: F <u> </u> L			
	2283.55'						E/W Departure: F <u> </u> L			
Lambert X-Y coordinates	X: 1,967,672.13'			X:			X:			
	Y: 149,605.67'			Y:			Y:			
Latitude/ Longitude	Latitude 28° 15' 19.0001" N			Latitude			Latitude			
	Longitude 91° 26' 01.3451" W			Longitude			Longitude Longitude Longitude			
Water Depth (Feet): 252'				MD (Feet):		TVD (Feet):		MD (Feet): MD (Feet): MD (Feet):		TVD (Feet): TVD (Feet): TVD (Feet):
Anchor Radius (if applicable) in feet:										
Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not necessary)										
Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor					
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						
			X =	Y =						

Well Location Plat


**Attachment B
(Public Information)**





EXISTING LOCATIONS NAD27 LOUISIANA SOUTH								
LOCATION	COND.	CALLNS	CALLEW	X COORDINATE	Y COORDINATE	LATITUDE	LONGITUDE	WD
Structure "B"		945.77' FSL	2,260.54' FEL	1,967,695.14'	-149,620.47'	28°15'18.8538"N	91°26'01.0878"W	252'
B2 Surf.	B	969.29' FSL	2,283.33' FEL	1,967,672.35'	-149,596.95'	28°15'19.0864"N	91°26'01.3428"W	252'
B3 Surf.	A	965.27' FSL	2,287.79' FEL	1,967,667.89'	-149,600.97'	28°15'19.0466"N	91°26'01.3926"W	252'
B4 Surf.	C	960.57' FSL	2,283.55' FEL	1,967,672.13'	-149,605.67'	28°15'19.0001"N	91°26'01.3451"W	252'

PUBLIC
INFORMATION

PUBLIC
INFORMATION



**DEVELOPMENT OPERATIONS
COORDINATION DOCUMENT**
OCS-G-36118 / OCS-G-36119
BLOCK 324 AND 325 EUGENE ISLAND AREA
GULF OF AMERICA

Geodetic Datum: NAD27 Projection: LOUISIANA SOUTH Grid Units: US SURVEY FEET		 <p>FUGRO USA MARINE, INC. 13501 Katy Freeway Suite 1050 Houston, Texas 77079 USA (713) 346-3700</p>	
<p>SCALE 1:24000</p> 			
Job No.: 26000054	Date: 2/6/2026	Drwn: EA	Chart: 1 Of 1
DWG File: 26000054_EI320-Str-B_B2-B3-B4_DOCD			2/06/2026

NOAA Threatened/Endangered Species

**Attachment H
(Public Information)**

NOAA Endangered Species List

**Attachment I
(Public Information)**



NOAA FISHERIES

Southeast Region

Protected Resources Division

Gulf of Mexico's Threatened and Endangered Species

For more information on listed species please visit:
<http://www.nmfs.noaa.gov/pr/species/esa/listed.htm>
http://sero.nmfs.noaa.gov/protected_resources/index.html

Marine Mammal Species

	Scientific Name	Status
fin whale	<i>Balaenoptera physalus</i>	Endangered
sei whale	<i>Balaenoptera borealis</i>	Endangered
sperm whale	<i>Physeter macrocephalus</i>	Endangered
Gulf of Mexico Bryde's whale	<i>Balaenoptera edeni - subspecies</i>	Proposed - Endangered

Sea Turtle Species

green sea turtle	<i>Chelonia mydas</i>	Threatened ¹
hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Endangered
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered
leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered
loggerhead sea turtle	<i>Caretta caretta</i>	Threatened ²

Fish Species

Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	Threatened
Nassau grouper	<i>Epinephelus striatus</i>	Threatened
smalltooth sawfish	<i>Pristis pectinata</i>	Endangered ³
oceanic whitetip shark	<i>Carcharhinus longimanus</i>	Threatened
giant manta ray	<i>Manta birostris</i>	Threatened

Invertebrate Species

rough cactus coral	<i>Mycetophyllia ferox</i>	Threatened ⁴
pillar coral	<i>Dendrogyra cylindrus</i>	Threatened ⁴
lobed star coral	<i>Orbicella annularis</i>	Threatened
mountainous star coral	<i>Orbicella faveolata</i>	Threatened
boulder star coral	<i>Orbicella franksi</i>	Threatened
staghorn coral	<i>Acropora cervicornis</i>	Threatened ⁴
elkhorn coral	<i>Acropora palmata</i>	Threatened ⁵

¹ North Atlantic and South Atlantic Distinct Population Segments.

² Northwest Atlantic Distinct Population Segment.

³ U.S. Distinct Population Segment

⁴ Colonies located at Dry Tortugas National Park.

⁵ Colonies located at Flower Garden Banks National Marine Sanctuary and Dry Tortugas National Park.



NOAA FISHERIES

Southeast Region

Protected Resources Division

Critical Habitat Designations

For final rules, maps, and GIS data please visit:

http://sero.nmfs.noaa.gov/maps_gis_data/protected_resources/critical_habitat/index.html

Loggerhead sea turtle: There are 38 designated marine areas that occur throughout the Southeast Region.

Gulf sturgeon: There are 14 marine and estuarine units located in Northwest Florida, Alabama, Mississippi, and eastern Louisiana.

Smalltooth sawfish: There are two habitat units located in Charlotte Harbor and in the Ten Thousand Islands/Everglades, Florida.

Species Proposed for Listing Under the Endangered Species Act

Federal action agencies are encouraged to include species proposed for listing under the Endangered Species Act (ESA) in their Section 7 consultation requests. Species that are proposed for listing are those which have been found to warrant federal protection under the ESA, but a final rule formally listing the species has not yet published. By including these species in your Section 7 consultation, reinitiating consultation after the ESA listing is finalized may not be necessary.

For more information on species proposed for listing under the ESA, please visit:

<http://www.nmfs.noaa.gov/pr/species/esa/candidate.htm#proposed>

Waste Tables

**Attachment I
(Public Information)**

TABLE 1. WASTES YOU WILL GENERATE, TREAT AND DOWNHOLE DISPOSE OR DISCHARGE TO THE GOM

please specify if the amount reported is a total or per well amount

Projected generated waste			Projected ocean discharges		Projected Downhole Disposal
Type of Waste and Composition	Composition	Projected Amount	Discharge rate	Discharge Method	Answer yes or no
Will drilling occur ? If yes, you should list muds and cuttings					
Water-based drilling fluid	barite, additives	5063 bbls/well	169 bbls/day/well	discharge overboard	No
Cuttings wetted with water-based fluid	water-based fluids	1246 bbls/well	42 bbls/day/well	discharge overboard	No
Cuttings wetted with synthetic-based fluid	Cuttings generated while using synthetic based drilling fluid.	283 bbls/well	9 bbls/day/well	Shunt through downpipe	No
Brine	NA	NA	NA	discharge overboard	
Will humans be there? If yes, expect conventional waste					
Domestic waste (kitchen water, shower water)	grey water	30 gal/person/day	NA	Remove floating solids and discharge	No
Sanitary waste (toilet water)	treated sanitary waste	20 gal/person/day	NA	Chlorinate and discharge	No
Is there a deck? If yes, there will be Deck Drainage					
Deck Drainage	wash water and rainwater	1000 bbl (dependent on rainfall)	15 bbl/hr	discharge overboard	No
Will you conduct well treatment, completion, or workover?					
well treatment fluids	NA	NA	NA	NA	NA
well completion fluids	Calcium Chloride	200 bbls/well	25 bbls/hr (1 day per well)	NA	NA
workover fluids	NA	NA	NA	NA	NA
Miscellaneous discharges. If yes, only fill in those associated with your activity.					
Desalinization unit discharge	NA	NA	NA	NA	NA
Blowout prevent fluid	NA	NA	NA	NA	NA
Ballast water	NA	NA	NA	NA	NA
Bilge water	NA	NA	NA	NA	NA
Excess cement at seafloor	NA	NA	NA	NA	NA
Fire water	NA	NA	NA	NA	NA
Cooling water	NA	NA	NA	NA	NA
Will you produce hydrocarbons? If yes fill in for produced water.					
Produced water	formation water	None Discharged		0 discharge overboard	NA
Will you be covered by an individual or general NPDES permit ?			GENERAL PERMIT	GMC290269	

TABLE 2. WASTES YOU WILL TRANSPORT AND /OR DISPOSE OF ONSHORE

please specify whether the amount reported is a total or per well

Projected generated waste		Solid and Liquid Wastes transportation	Waste Disposal		
Type of Waste	Composition	Transport Method	Name/Location of Facility	Amount	Disposal Method
Will drilling occur ? If yes, fill in the muds and cuttings.					
Oil-based drilling fluid or mud	NA	NA	NA	NA	NA
Synthetic-based drilling fluid or mud	NA	NA	NA	NA	NA
Cuttings wetted with Water-based fluid	NA	NA	NA	NA	NA
Cuttings wetted with Synthetic-based fluid	NA	NA	NA	NA	NA
Cuttings wetted with oil-based fluids	NA	NA	NA	NA	NA
Will you produce hydrocarbons? If yes fill in for produced sand.					
Produced sand	NA	NA	NA	NA	NA
Will you have additional wastes that are not permitted for discharge? If yes, fill in the appropriate rows.					
trash and debris	trash and debris	storage bins on supply boat	EPS Dock Abbeville, LA	500 cu ft total	landfill
used oil	NA	drums on supply boat	NA	NA	NA
wash water	NA	NA	NA	NA	NA
chemical product wastes	NA	NA	NA	NA	NA

Air Quality Emissions Report

**Attachment J
(Public Information)**

COMPANY	Arena Offshore, LP
AREA	Eugene Island
BLOCK	320
LEASE	RUE G30422
FACILITY	B
WELL	B002, B003, B004 Back-Up wells
COMPANY CONTACT	Aimee Deady
TELEPHONE NO.	281-210-3180
REMARKS	

LEASE TERM PIPELINE CONSTRUCTION INFORMATION:		
YEAR	NUMBER OF PIPELINES	TOTAL NUMBER OF CONSTRUCTION DAYS
2026		none
2027		
2028		
2029		
2030		
2031		
2032		
2033		
2034		
2035		

2028 AIR EMISSIONS CALCULATIONS - 1ST YEAR

COMPANY	AREA	BLOCK	LEASE	FACILITY	WELL	EQUIPMENT	CONTACT	PHONE	REMARKS																
Area Office LP	Block Ward	BP	16.5 (1362)			Bottom Hook Back-Up	Area Study	907-470-3180																	
OPERATIONS	EQUIPMENT ID	RATING	MAX. FUEL	ACT. FUEL	RUN TIME	MAXIMUM POUNDS PER HOUR													ESTIMATED TONS						
			GALHR	GALD		TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3		
			SCFHR	SCFD	HR/D	DYR																			
			MMBTUHR	SCF/D	HR/D	DYR																			
DRILLING	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
WFD 400450	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS - Diesel Boiler	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS - Drilling Prime Engine, Auxiliary	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PIPELINE	VESSLS - Pipeline Laying Vessel - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
INSTALLATION	VESSLS - Pipeline Burying - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FACILITY INSTALLATION	VESSLS - Heavy Lift Vessel/Derrick Barge Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PRODUCTION	RECP - 600hp Diesel (crane)	174	8.951604	214.84	24	365	0.38	0.38	0.38	0.01	5.41	0.40	--	1.16	--	1.68	1.68	1.68	0.05	23.69	1.75	--	5.09	--	
	RECP - 600hp Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	VESSLS - Shuttle Tankers	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS - Well Stimulation	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Natural Gas Turbine	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Diesel Turbine	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Dual Fuel Turbine	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECP - 2 Cycle Lean Natural Gas	0	0	0.00	0	0	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	RECP - 4 Cycle Lean Natural Gas	0	0	0.00	0	0	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	RECP - 4 Cycle Rich Natural Gas	0	0	0.00	0	0	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	Diesel Boiler	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Natural Gas Heater/Boiler/Burner	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
MISC.	STORAGE TANK	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	COMBUSTION FLARE - no smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	COMBUSTION FLARE - light smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	COMBUSTION FLARE - medium smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	COMBUSTION FLARE - heavy smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	COLD VENT	0	0	0.00	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	FLIGHTS	0	0	0.00	0	0	--	--	--	--	0.65	--	--	--	--	--	--	--	--	--	2.86	--	--	--	
	GLYCOL DEHYDRATOR	0	0	0.00	0	0	--	--	--	--	0.00	--	--	--	--	--	--	--	--	--	0.00	--	--	--	
	WASTE INCINERATOR	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DRILLING	Liquid Flaring	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
WELL TEST	COMBUSTION FLARE - no smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	COMBUSTION FLARE - light smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	COMBUSTION FLARE - medium smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	COMBUSTION FLARE - heavy smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
ALASKA-SPECIFIC SOURCES	VESSLS	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
	VESSLS - Ice Management Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	
2028	Facility Total Emissions						6.59	4.13	4.02	0.10	154.15	5.33	0.00	24.49	0.04	16.44	11.79	11.49	0.29	426.30	16.15	0.00	66.08	0.12	
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES															2,072.49				2,072.49	2,072.49			53,396.22	
DRILLING	VESSLS - Crew Diesel	2265	116.52519	2796.60	12	128	1.60	0.96	0.94	0.02	38.28	1.10	0.00	6.00	0.01	1.23	0.74	0.72	0.02	29.40	0.85	0.00	4.61	0.01	
	VESSLS - Supply Diesel	2265	116.52519	2796.60	12	96	1.60	0.96	0.94	0.02	38.28	1.10	0.00	6.00	0.01	0.82	0.58	0.54	0.01	22.05	0.63	0.00	3.46	0.01	
	VESSLS - Tug Diesel	4600	236.60516	5679.64	12	2	3.25	1.96	1.90	0.05	77.76	2.24	0.00	12.20	0.02	0.04	0.02	0.02	0.00	0.03	0.03	0.00	0.15	0.00	
PIPELINE	VESSLS - Support Diesel, Laying	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
INSTALLATION	VESSLS - Crew Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS - Supply Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FACILITY	VESSLS - Material Tug Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
INSTALLATION	VESSLS - Crew Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS - Supply Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PRODUCTION	VESSLS - Support Diesel (crane boat)	2265	116.52519	2796.60	8	156	1.60	0.96	0.94	0.02	38.28	1.10	0.00	6.00	0.01	0.75	0.45	0.44	0.01	17.92	0.52	0.00	2.81	0.01	
	VESSLS - Support Diesel (supply boat)	2265	116.52519	2796.60	10	156	1.60	0.96	0.94	0.02	38.28	1.10	0.00	6.00	0.01	1.25	0.75	0.73	0.02	29.86	0.86				

AR EMISSIONS CALCULATIONS - 4TH YEAR

COMPANY	AREA	BLOCK	LEASE	FACILITY	WELL	CONTACT										PHONE	REMARKS								
Area Office LP	Block Ward	NO	NO	NO	NO	Area Study										214-210-3180									
OPERATIONS	EQUIPMENT ID	RATING	MAX. FUEL ACT. FUEL		RUN TIME		MAXIMUM POUNDS PER HOUR										ESTIMATED TONS								
			GAL/HR	SCFD	HR/D	D/YR	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3	
			MMBTU/HR	SCF/HR	SCFD	HR/D	D/YR	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3
DRILLING	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DRILLING	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DRILLING	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DRILLING	VESSLS - Diesel Boiler	0	0	0.00	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DRILLING	VESSLS - Drilling Prime Engine, Auxiliary	0	0	0.00	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE	VESSLS - Pipeline Laying Vessel - Diesel	0	0	0.00	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INSTALLATION	VESSLS - Pipeline Burying - Diesel	0	0	0.00	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY INSTALLATION	VESSLS - Heavy Lift Vessel/Derrick Barge Diesel	0	0	0.00	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION	RECP - 600hp Diesel (crane)	CR-01	174	8.951604	214.84	24	365	0.38	0.38	0.38	0.01	5.41	0.40	--	1.16	--	1.68	1.68	1.68	0.05	23.69	1.75	--	5.09	--
PRODUCTION	RECP - 600hp Diesel		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PRODUCTION	VESSLS - Shuttle Tankers		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PRODUCTION	VESSLS - Well Stimulation		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PRODUCTION	Natural Gas Turbine		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PRODUCTION	Diesel Turbine		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PRODUCTION	Dual Fuel Turbine		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PRODUCTION	RECP - 2 Cycle Lean Natural Gas		0	0	0.00	0	0	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PRODUCTION	RECP - 4 Cycle Lean Natural Gas		0	0	0.00	0	0	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PRODUCTION	RECP - 4 Cycle Rich Natural Gas		0	0	0.00	0	0	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PRODUCTION	Diesel Boiler		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PRODUCTION	Natural Gas Heater/Boiler/Burner		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
MISC.	STORAGE TANK		BPD	SCF/HR	COUNT																				
MISC.	COMBUSTION FLARE - no smoke		0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
MISC.	COMBUSTION FLARE - light smoke		0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
MISC.	COMBUSTION FLARE - medium smoke		0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
MISC.	COMBUSTION FLARE - heavy smoke		0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
MISC.	COLD VENT		0	0	0	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MISC.	FLIGHTS		0	0	0	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MISC.	GLYCOL DEHYDRATOR		0	0	0	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MISC.	WASTE INCINERATOR		0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
DRILLING	Liquid Flaring		0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WELL TEST	COMBUSTION FLARE - no smoke		0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
WELL TEST	COMBUSTION FLARE - light smoke		0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
WELL TEST	COMBUSTION FLARE - medium smoke		0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
WELL TEST	COMBUSTION FLARE - heavy smoke		0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
ALASKA-SPECIFIC SOURCES	VESSLS		KW			HR/D	D/YR																		
ALASKA-SPECIFIC SOURCES	VESSLS - Ice Management Diesel		0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
2029	Facility Total Emissions							0.38	0.38	0.38	0.01	5.41	0.40	1.68	1.16	0.00	1.68	1.68	1.68	0.05	23.69	4.81	0.00	5.09	0.00
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES																								
EXEMPTION CALCULATION	62.2																								
DRILLING	VESSLS - Crew Diesel		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
DRILLING	VESSLS - Supply Diesel		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
DRILLING	VESSLS - Tug Diesel		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PIPELINE	VESSLS - Support Diesel, Laying		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
INSTALLATION	VESSLS - Support Diesel, Burying		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
INSTALLATION	VESSLS - Crew Diesel		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
INSTALLATION	VESSLS - Supply Diesel		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
FACILITY	VESSLS - Material Tug Diesel		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
INSTALLATION	VESSLS - Crew Diesel		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
INSTALLATION	VESSLS - Supply Diesel		0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--
PRODUCTION	VESSLS - Support Diesel (crew boat)		2265	116.52519	2796.60	8	156	1.60	0.96	0.94	0.02	38.28	1.10	0.00	6.00	0.01	0.75	0.45	0.44	0.01	17.92	0.52	0.00	2.81	0.01
PRODUCTION	VESSLS - Support Diesel (supply boat)		2265	116.52519	2796.60	10	156	1.60	0.96	0.94	0.02	38.28	1.10	0.00	6.00	0.01									

AR EMISSIONS CALCULATIONS - 6TH YEAR

COMPANY	AREA	BLOCK	LEASE	FACILITY	WELL	CONTACT										PHONE	REMARKS															
Area Office LP	Block name	NO	PLS (3562)			BOTH WITH 1004 Back-Up Wells										Area Study	21-210-3180															
OPERATIONS	EQUIPMENT ID	RATING	MAX. FUEL	ACT. FUEL	RUN TIME	MAXIMUM POUNDS PER HOUR										ESTIMATED TONS																
	HP	GAL/HR	GAL/D	SCF/HR	SCFD	HR/D	D/YR	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3							
	MMBTU/HR	SCF/HR	SCFD	HR/D	D/YR	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3
DRILLING	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS - Diesel Boiler	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS - Drilling Prime Engine, Auxiliary	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PIPELINE	VESSLS - Pipeline Laying Vessel - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
INSTALLATION	VESSLS - Pipeline Burying - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FACILITY INSTALLATION	VESSLS - Heavy Lift Vessel/Derrick Barge Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PRODUCTION	RECIP -600hp Diesel (crane)	CR-01	174	8.951604	214.84	24	365	0.38	0.38	0.38	0.01	5.41	0.40	--	1.16	--	1.68	1.68	1.68	0.05	23.69	1.75	--	5.09	--							
	VESSLS - Shuttle Tankers	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS - Well Stimulation	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Natural Gas Turbine	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Diesel Turbine	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Dual Fuel Turbine	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECIP - 2 Cycle Lean Natural Gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECIP - 4 Cycle Lean Natural Gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECIP - 4 Cycle Rich Natural Gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Diesel Boiler	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Natural Gas Heater/Boiler/Burner	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	MISC.	BPD	0	0.00	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	STORAGE TANK																															
	COMBUSTION FLARE - no smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	COMBUSTION FLARE - light smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	COMBUSTION FLARE - medium smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	COMBUSTION FLARE - heavy smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	COLD VENT	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	FLIGHTS	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	GLYCOL DEHYDRATOR	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	WASTE INCINERATOR	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DRILLING	Liquid Flaring	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
WELL TEST	COMBUSTION FLARE - no smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	COMBUSTION FLARE - light smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	COMBUSTION FLARE - medium smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	COMBUSTION FLARE - heavy smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ALASKA-SPECIFIC SOURCES	VESSLS																															
	VESSLS - Ice Management Diesel																															
	2031 Facility Total Emissions							0.38	0.38	0.38	0.01	5.41	1.68	0.00	1.16	0.00	1.68	1.68	1.68	0.05	23.69	4.81	0.00	5.09	0.00							
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES																															
	62.2																															
DRILLING	VESSLS - Crew Diesel	0	0</																													

AR EMISSIONS CALCULATIONS - 6TH YEAR

COMPANY	AREA	BLOCK	LEASE	FACILITY	WELL	CONTACT										PHONE	REMARKS							
Area Office LP	Block yard	00	10-10-2002			Area Study										907-410-3180								
OPERATIONS	EQUIPMENT ID	RATING	MAX. FUEL	ACT. FUEL	RUN TIME	MAXIMUM POUNDS PER HOUR										ESTIMATED TONS								
	HP	GAL/HR	SCF/HR	SCFD	HR/D	DYR	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3
	MMBTU/HR	SCF/HR	SCFD	HR/D	DYR	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3	
DRILLING	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSLS - Drilling - Propulsion Engine - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSLS - Diesel Boiler	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSLS - Drilling Prime Engine, Auxiliary	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE	VESSLS - Pipeline Laying Vessel - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INSTALLATION	VESSLS - Pipeline Burying - Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY INSTALLATION	VESSLS - Heavy Lift Vessel/Derrick Barge Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION	RECIP -600hp Diesel (crane)	174	8.951604	214.84	24	365	0.38	0.38	0.38	0.01	5.41	0.40	--	1.16	--	1.68	1.68	1.68	0.05	23.69	1.75	--	5.09	--
	VESSLS - Shuttle Tankers	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSLS - Well Stimulation	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Natural Gas Turbine	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Diesel Turbine	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dual Fuel Turbine	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECIP - 2 Cycle Lean Natural Gas	0	0	0.00	0	0	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--
	RECIP - 4 Cycle Lean Natural Gas	0	0	0.00	0	0	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--
	RECIP - 4 Cycle Rich Natural Gas	0	0	0.00	0	0	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00	0.00	0.00	0.00	--	0.00	--
	Diesel Boiler	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Natural Gas Heater/Boiler/Burner	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	STORAGE TANK			0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	COMBUSTION FLARE - no smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	COMBUSTION FLARE - light smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	COMBUSTION FLARE - medium smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	COMBUSTION FLARE - heavy smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	COLD VENT	0	0	0.00	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	FLIGHTS	0	0	0.00	0	0	--	--	--	--	0.65	--	--	--	--	--	--	--	--	--	2.86	--	--	--
	GLYCOL DEHYDRATOR	0	0	0.00	0	0	--	--	--	--	0.00	--	--	--	--	--	--	--	--	--	0.00	--	--	--
	WASTE INCINERATOR	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DRILLING	Liquid Flaring	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WELL TEST	COMBUSTION FLARE - no smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	COMBUSTION FLARE - light smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	COMBUSTION FLARE - medium smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	COMBUSTION FLARE - heavy smoke	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ALASKA-SPECIFIC SOURCES	VESSLS		KW		HR/D	DYR																		
	VESSLS - Ice Management Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00
2033	Facility Total Emissions						0.38	0.38	0.38	0.01	5.41	1.68	0.00	1.16	0.00	1.68	1.68	1.68	0.05	23.69	4.81	0.00	5.09	0.00
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES															2,072.49	2,072.49	2,072.49	2,072.49	2,072.49	2,072.49			53,396.22
DRILLING	VESSLS - Crew Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSLS - Supply Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSLS - Tug Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE	VESSLS - Support Diesel, Laying	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INSTALLATION	VESSLS - Support Diesel, Burying	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSLS - Crew Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSLS - Supply Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY	VESSLS - Material Tug Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INSTALLATION	VESSLS - Crew Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSLS - Supply Diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION	VESSLS - Support Diesel (crew boat)	2265	116.52519	2796.60	8	156	1.60	0.96	0.94	0.02	38.28	1.10	0.00	6.00	0.01	1.25	0.75	0.73	0.02	29.86	0.86	0.00	4.68	0.01
	VESSLS - Support Diesel (supply boat)	2265	116.52519																					

AIR EMISSIONS CALCULATIONS

COMPANY	AREA	BLOCK	LEASE	FACILITY	WELL				
Arena Offshore, LP	Eugene Island	320	RUE G30422	B					
Year	Facility Emitted Substance								
	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH3
2026	18.44	11.79	11.49	0.29	425.30	16.15	0.00	68.08	0.12
2027	18.44	11.79	11.49	0.29	425.30	16.15	0.00	68.08	0.12
2028	18.44	11.79	11.49	0.29	425.30	16.15	0.00	68.08	0.12
2029	1.68	1.68	1.68	0.05	23.69	4.61	0.00	5.09	0.00
2030	1.68	1.68	1.68	0.05	23.69	4.61	0.00	5.09	0.00
2031	1.68	1.68	1.68	0.05	23.69	4.61	0.00	5.09	0.00
2032	1.68	1.68	1.68	0.05	23.69	4.61	0.00	5.09	0.00
2033	1.68	1.68	1.68	0.05	23.69	4.61	0.00	5.09	0.00
2034	1.68	1.68	1.68	0.05	23.69	4.61	0.00	5.09	0.00
2035	1.68	1.68	1.68	0.05	23.69	4.61	0.00	5.09	0.00
Allowable	2072.49			2072.49	2072.49	2072.49		53396.22	

Oil Spill Response Discussion

**Attachment K
(Public Information)**

SPILL RESPONSE DISCUSSION

For the purpose of NEPA and Coastal Zone Management Act analysis, the largest spill volume originating from the proposed activity would be a well blowout during drilling operations, estimated to be 18,834 barrels of condensate with an API gravity of 34.5°.

Land Segment and Resource Identification

Trajectories of a spill and the probability of it impacting a land segment have been projected utilizing information in the BSEE Oil Spill Risk Analysis Model (OSRAM) for the Central and Western Gulf of Mexico available on the BSEE website. The results are shown in **Figure 1**. The BSEE OSRAM identifies a 11% probability of impact to the shorelines of Cameron Parish, Louisiana within 30 days. Cameron Parish includes the east side of Sabine Lake, Sabine National Wildlife Refuge, Calcasieu Lake, Lacassine National Wildlife Refuge (inland) and Grand Lake. Cameron Parish also includes the area along the coastline from Sabine Pass to Big Constance Lake in Rockefeller Wildlife Refuge. This region is composed of open public beaches, marshlands and swamps. It serves as a habitat for numerous birds, finfish and other animals, including several rare, threatened and endangered species.

Response

Arena Offshore, LP will make every effort to respond to the Worst Case Discharge as effectively as practicable. A description of the response equipment under contract to contain and recover the Worst Case Discharge is shown in **Figure 2**.

Using the estimated chemical and physical characteristics of condensate, an ADIOS weathering model was run on a similar product from the ADIOS oil database. The results indicate 33% or approximately 6,219 barrels of condensate would be evaporated/dispersed within 24 hours, with approximately 12,625 barrels remaining.

Spill Response EI 320, Platform B	Barrels of Oil
WCD Volume	18,834
Less 33% natural evaporation/dispersion	6,219
Remaining volume	12,625

Figure 2 outlines equipment, personnel, materials and support vessels as well as temporary storage equipment available to respond to a spill of approximately 12,625 barrels. The volume accounts for the amount remaining after evaporation/dispersion at 24 hours. The list estimates individual times needed for procurement, load out, travel time to the site and deployment. **Figure 2** also indicates how operations will be supported.

Arena Offshore, LP's Oil Spill Response Plan includes alternative response technologies such as dispersants and in-situ burn. Strategies will be decided by Unified Command based on the size of the spill, weather and potential impacts. If aerial dispersants are utilized, 8 sorties (9,600

gallons) from two of the DC-3 aircrafts and 4 sorties (8,000 gallons) from the Basler aircraft would provide a daily dispersant capability of 7,540 barrels. If the conditions are favorable for in-situ burning, the proper approvals have been obtained and the proper planning is in place, in-situ burning of oil may be attempted. Slick containment boom would be immediately called out and on-scene as soon as possible. Offshore response strategies may include attempting to skim utilizing the HOSS Barge and three Fast Response Units (FRUs), with a total derated skimming capacity of 55,753 barrels. Temporary storage associated with skimming equipment equals 4,600 barrels. If additional storage is needed, three 20,000 barrel storage barges may be mobilized and centrally located to provide temporary storage allowing the skimmers to stay in the area of operations as much as possible. **Safety is first priority. Air monitoring will be accomplished and operations deemed safe prior to any containment/skimming attempts.**

If the spill went unabated, shoreline impact in Cameron Parish, Louisiana would depend upon existing environmental conditions. Shoreline protection would include the use of CGA's near shore and shallow water skimmers with a totaled derated skimming capacity of 21,841 barrels. Temporary storage associated with skimming equipment equals 355 barrels. If additional storage is needed, a 23,000 barrel storage barge may be mobilized and centrally located to provide temporary storage allowing the skimmers to stay in the area of operations as much as possible. Onshore response may include the deployment of shoreline boom on beach areas, or protection and sorbent boom on vegetated areas. A Letter of Intent from OMI Environmental will ensure access to 30,000 feet of 18" shoreline protection boom. **Figure 2** outlines individual times needed for procurement, load out, travel time to the site and deployment. Strategies would be based upon surveillance and real time trajectories that depict areas of potential impact given actual sea and weather conditions. The State of Louisiana Initial Oil Spill Response Plan for Cameron Parish and Unified Command would be consulted to ensure that environmental and special economic resources would be correctly identified and prioritized to ensure optimal protection. Shoreline protection strategies depict the protection response modes applicable for oil spill clean-up operations. The State of Louisiana Initial Oil Spill Response Plan provides detailed shoreline protection strategies for this area, and it describes necessary action to keep the oil spill from entering Louisiana's coastal wetlands, based on the assumption that removal of the released oil will be much easier and less damaging to fragile coastal ecosystems if done in the open waters of the Gulf of Mexico. Supervisory personnel have the option to modify the deployment and operation of equipment allowing a more effective response to site-specific circumstances. Arena Offshore, LP's contract Spill Management Team holds a copy of the State of Louisiana Initial Oil Spill Response Plan.

Based on the anticipated worst case discharge scenario, Arena Offshore, LP can be onsite with contracted oil spill recovery equipment with adequate response capacity to contain and recover surface hydrocarbons, and prevent land impact, to the maximum extent practicable, within an estimated 30 hours (based on the equipment's Effective Daily Recovery Capacity (EDRC)).

Initial Response Considerations

Actual actions taken during an oil spill response will be based on many factors which include but are not limited to:

- Weather
- Equipment and materials availability
- Ocean currents and tides
- Location of the spill
- Product spilled
- Amount spilled
- Environmental risk assessments
- Trajectory and product analysis
- Well status, i.e., shut in or continual release

Arena Offshore, LP will take action to provide a safe, aggressive response to contain and recover as much of the spilled oil as quickly as it is safe to do so. In an effort to protect the environment, response actions will be designed to provide an “in-depth” protection strategy meant to recover as much oil as possible as far from environmentally sensitive areas as possible. Safety will take precedence over all other considerations during these operations.

Upon notification of a spill, the following actions will be taken:

- Information will be confirmed
- An assessment will be made and initial objectives set
- OSROs and appropriate agencies will be notified
- ICS 201, Initial Report Form will be completed
- Initial Safety plan will be written and published
- Unified Command will be established
 - Overall safety plan developed to reflect the operational situation and coordinated objectives
 - Areas of responsibility established for Source Control and each surface operational site
 - On-site command and control established

Offshore Response Actions

Equipment Deployment

Surveillance

- Surveillance Aircraft will be deployed within two hours of Qualified Individual (QI) notification, or at first light
- Provide trained observer to provide on site status reports
- Provide command and control platform at the site if needed
- Continual surveillance of oil movement by remote sensing systems, aerial photography and visual confirmation
- Continual monitoring of vessel assets using vessel monitoring systems

Dispersant application assets

- Put Airborne Support Inc. (ASI) on standby
- With the Federal On-Scene Coordinator (FOSC), conduct analysis to determine appropriateness of dispersant application
- Gain FOSC approval for use of dispersants on the surface
- Deploy aircraft in accordance with a plan developed for the actual situation
- Coordinate movement of dispersants, aircraft, and support equipment and personnel
- Confirm dispersant availability for current and long range operations
- Start ordering dispersant stocks required for expected operations

Containment boom

- Call out early and expedite deployment to be on scene ASAP
- Ensure boom handling and mooring equipment is deployed with boom
- Provide continuing reports to vessels to expedite their arrival at sites that will provide for their most effective containment
- Use Vessels of Opportunity (VOO) to deploy and maintain boom

Dedicated off-shore skimming systems

General

- Deployed to the highest concentration of oil
- Assets deployed at safe distance from aerial dispersant and in-situ burn operations

CGA HOSS Barge

- Use in areas with heaviest oil concentrations
- Consider for use in areas of known debris (seaweed, and other floating materials)

CGA FRUs

- To the area of the thickest oil
- Use as far off-shore as allowed
- VOOs 140' – 180' in length
- VOOs with minimum of 18' x 38' or 23' x 50' of optimum deck space

Storage Vessels

- Establish availability of CGA contracted assets
- Early call out (to allow for tug boat acquisition and deployment speeds)
- Phase mobilization to allow storage vessels to arrive at the same time as skimming systems
- Position as closely as possible to skimming assets to minimize offloading time

Vessels of Opportunity (VOO)

- Use Arena Offshore, LP's contracted resources as applicable
- Industry vessels are usually best for deployment of Vessel of Opportunity Skimming Systems (VOSS)
- Acquire additional resources as needed
- Consider use of local assets, i.e. fishing and pleasure craft
- Expect mission specific and safety training to be required
- Plan with the US Coast Guard for vessel inspections

In-situ Burn assets

- Determine appropriateness of in-situ burn operation in coordination with the FOSC and affected State On-Scene Coordinator (SOSC)
- Determine availability of fire boom and selected ignition systems
- Start ordering fire boom stocks required for expected operations
- Contact boom manufacturer to provide training if required
- Determine assets to perform on water operation
- Build operations into safety plan
- Conduct operations in accordance with an approved plan

Near Shore Response Actions

Timing

- Place near shore assets on standby and deploy in accordance with planning based on the actual situation, actual trajectories and oil budgets
- VOO identification and training in advance of spill nearing shoreline if possible
- Outfitting of VOOs for specific missions
- Deployment of assets based on actual movement of oil

Considerations

- Water depth, vessel draft
- Shoreline gradient
- State of the oil
- Use of VOOs
- Distance of surf zone from shoreline

Equipment Deployment

Surveillance

- Provide trained observer to direct skimming operations
- Continual surveillance of oil movement by remote sensing systems, aerial photography and visual confirmation
- Continual monitoring of vessel assets

Dispersant Use

- Generally will not be approved within 3 miles of shore or with less than 10 meters of water depth
- Approval would be at Regional Response Team level (Region 6)

Vessel Deployment

Dedicated Near Shore skimming systems

- Fast Response Vessels (FRV)
- Egmopol and Marco Shallow Water Skimmer (SWS)
- Operate with aerial spotter directing systems to observed oil slicks

VOO

- Use Arena Offshore, LP's contracted resources as applicable
- Industry vessels are usually best for deployment of Vessel of Opportunity Skimming Systems (VOSS)
- Acquire additional resources as needed
- Consider use of local assets, i.e. fishing and pleasure craft
- Expect mission specific and safety training to be required
- Plan with the US Coast Guard for vessel inspections
- Operate with aerial spotter directing systems to oil patches

Shoreline Protection Operations

Response Planning Considerations

- Environmental risk assessments (ERA) to determine priorities for area protection
- Time to acquire personnel and equipment and their availability
- Previous contingency planning contained in the appropriate Area Contingency Plan, and currently for Louisiana, The State of Louisiana Initial Oil Spill Response Plan, Deep Water Horizon, dated 2 May 2010

Actions

Placement of boom

- Position boom in accordance with the ERA based on the actual situation or the appropriate ACP
- Assess timing of booming operations to ensure it is where it needs to be at time of impact. Consider:
 - Trajectories
 - Weather forecast
 - Oil Impact forecast
 - Verified spill movement
 - Boom, manpower and vessel (shallow draft) availability
 - Near shore boom and support material, (stakes, anchors, line)

Beach Preparation

Considerations and Actions

- Use of a 10 mile go/no go line to determine timing of beach cleaning
- Shoreline Cleanup and Assessment Team Reports and recommendations
- Determination of Archeological sites and gaining authority to enter
- Monitoring of tide tables and weather to determine extent of high tides
- Pre cleaning of beaches by moving waste above high tide lines to minimize waste
- Staging of equipment and housing of response personnel as close to the job site as possible to maximize on-site work time
- Boom tending, repair, replacement and security (use of local assets may be advantageous)
- Constant awareness of weather and oil movement for resource redeployment as necessary
- In-situ burn may be considered when marshes have been impacted
- Passive clean up of marshes should be considered and appropriate stocks of sorbent boom and/or sweep obtained
- Earthen berms and shoreline protection boom may be considered to protect sensitive inland areas

Decanting Strategy

Recovered oil and water mixtures will typically separate into distinct phases when left in a quiescent state. When separation occurs, the relatively clean water phase can be siphoned or decanted back to the recovery point with minimal, if any, impact. Decanting therefore increases the effective on-site oil storage capacity and equipment operating time. FOSC/SOSC approval will be requested prior to decanting operations. This practice is routinely used for oil spill recovery.

CGA Equipment Limitations

The capability for any spill response equipment, whether a dedicated or portable system, to operate in differing weather conditions will be directly in relation to the capabilities of the vessel the system is placed on. Most importantly, however, the decision to operate will be based on the judgment of the Unified Command and/or the Captain of the vessel, who will ultimately have the final say in terminating operations. Skimming equipment listed below may have operational limits which exceed those safety thresholds. As was seen in the Deepwater Horizon (DWH) oil spill response, vessel skimming operations ceased when seas reached 5-6 feet and vessels were often recalled to port when those conditions were exceeded. Systems below are some of the most up-to-date systems available and were employed during the DWH spill.

Boom	3 foot seas, 20 knot winds
Dispersants	Winds more than 25 knots Visibility less than 3 nautical miles Ceiling less than 1,000 feet.
FRU	8 foot seas
HOSS Barge/OSRB	8 foot seas
Koseq Arms	8 foot seas
OSRV	4 foot seas

Environmental Conditions in the GOM

Louisiana is situated between the easterly and westerly wind belts, and therefore, experiences westerly winds during the winter and easterly winds in the summer. Average wind speed is generally 14-15 mph along the coast. Wave heights average 4 and 5 feet. However, during hurricane season, Louisiana has recorded wave heights ranging from 40 to 50 feet high and winds reaching speeds of 100 mph. Because much of southern Louisiana lies below sea level, flooding is prominent.

Surface water temperature ranges between 70 and 80° F during the summer months. During the winter, the average temperature will range from 50 and 60° F.

The Atlantic and Gulf of Mexico hurricane season is officially from 1 June to 30 November. 97% of all tropical activity occurs within this window. The Atlantic basin shows a very peaked season from August through October, with 78% of the tropical storm days, 87% of the minor (Saffir-Simpson Scale categories 1 and 2) hurricane days, and 96% of the major (Saffir-Simpson categories 3, 4 and 5) hurricane days occurring then. Maximum activity is in early to mid September. Once in a few years there may be a hurricane occurring "out of season" - primarily in May or December. Globally, September is the most active month and May is the least active month.

**FIGURE 1
TRAJECTORY BY LAND SEGMENT**

Trajectory of a spill and the probability of it impacting a land segment have been projected utilizing Arena Offshore, LP's WCD and information in the BSEE Oil Spill Risk Analysis Model (OSRAM) for the Central and Western Gulf of Mexico available on the BSEE website using 30 day impact. The results are tabulated below.

Area/Block	OCS-G	Launch Area	Land Segment and/or Resource	Conditional Probability (%) within 30 days
EI 320, Platform B <i>62 miles from shore</i>	G26040	C40	Calhoun, TX	1
			Matagorda, TX	3
			Brazoria, TX	1
			Galveston, TX	5
			Jefferson, TX	5
			Cameron, LA	11
			Vermilion, LA	4
			Iberia, LA	2
			St. Mary, LA	1
			Terrebonne, LA	4
			Lafourche, LA	1
			Plaquemines, LA	2

WCD Scenario– BASED ON WELL BLOWOUT DURING DRILLING OPERATIONS (62 miles from shore)
 12,625 bbls of condensate (Volume considering natural weathering)
 API Gravity 34.5°

FIGURE 2 – Equipment Response Time to EI 320, Platform B

Dispersants/Surveillance

Dispersant/Surveillance	Dispersant Capacity (gal)	Storage Capacity	Persons Req.	From	Hrs to Procure	Hrs to Loadout	Travel to site	Total Hrs
CGA								
Basler 67T	2000	NA	2	Houma	1	1	0.5	2.5
ASI								
DC 3	1200	NA	2	Houma	1	1	0.7	2.7
DC 3	1200	NA	2	Houma	1	1	0.7	2.7
Aero Commander	NA	NA	2	Houma	1	1	0.5	2.5

Offshore Response

Offshore Equipment No Staging	EDRC	Storage Capacity	VOO	Persons Required	From	Hrs to Procure	Hrs to Loadout	Hrs to GOM	Travel to Spill Site	Hrs to Deploy	Total Hrs
CGA											
HOSS Barge	43000	4000	3 Tugs	5	Harvey	7	0	5	8.1	1	21.1
Recovered Oil Storage No Staging	EDRC	Storage Capacity	VOO	Persons Required	From	Hrs to Procure	Hrs to Loadout	Hrs to GOM	Travel to Spill Site	Hrs to Deploy	Total Hrs
Enterprise Marine Services LLC (available through contract with CGA)											
CTCo 2604	NA	20000	1 Tug	6	Amelia	4	12	4	8.75	1	29.75
CTCo 2605	NA	20000	1 Tug	6	Amelia	4	12	4	8.75	1	29.75
CTCo 2606	NA	20000	1 Tug	6	Amelia	4	12	4	8.75	1	29.75

Staging Area: Fourchon

Offshore Equipment With Staging	EDRC	Storage Capacity	VOO	Persons Req.	From	Hrs to Procure	Hrs to Loadout	Travel to Staging	Travel to Site	Hrs to Deploy	Total Hrs
CGA											
FRU (2) + 100 bbl Tank (2)	8502	400	2 Utility	12	Leeville	1	2	0.25	7.7	1	11.9
FRU (1) + 100 bbl Tank (2)	4251	200	1 Utility	6	Morgan City	1	2	2	7.7	1	13.7
Offshore Equipment With Staging	EDRC	Storage Capacity	VOO	Persons Req.	From	Hrs to Procure	Hrs to Loadout	Travel to Staging	Travel to Site	Hrs to Deploy	Total Hrs
CGA											
42" Auto Boom (5000')	NA	NA	10 Crew	20	Galveston	1	2	7	7.7	1	18.7
42" Auto Boom (10000')	NA	NA	20 Crew	40	Harvey	1	2	2	7.7	1	13.7
42" Auto Boom (2500')	NA	NA	6 Crew	12	Ingleside	1	2	9.5	7.7	1	21.2
42" Auto Boom (5000')	NA	NA	10 Crew	20	Lake Charles	1	2	4	7.7	1	15.7
42" Auto Boom (2500')	NA	NA	6 Crew	12	Pascagoula	1	2	4	7.7	1	15.7
Hydro-Fire Boom	NA	NA	8 Utility	40	Harvey	1	4	2	7.7	6	20.7

Nearshore Response

Nearshore Equipment No Staging	EDRC	Storage Capacity	VOO	Persons Required	From	Hrs to Procure	Hrs to Loadout	Hrs to GOM	Travel to Spill Site	Hrs to Deploy	Total Hrs
CGA											
46' FRV	5000	65	NA	4	Lake Charles	1	0	1	2	0	4
Enterprise Marine Services LLC (available through contract with CGA)											
CTCo 2607	NA	23000	1 Tug	6	Amelia	4	12	4	15	1	36

Staging Area: Cameron

Nearshore and Inland Skimmers With Staging	EDRC	Storage Capacity	VOO	Persons Req.	From	Hrs to Procure	Hrs to Loadout	Travel to Staging	Travel to Deployment	Hrs to Deploy	Total Hrs
CGA											
SWS Egmopol	3000	100	NA	3	Galveston	1	2	3.5	2	0	8.5
SWS Egmopol	3000	100	NA	3	Morgan City	1	2	3	2	0	8
SWS Marco	3588	20	NA	3	Lake Charles	1	2	1	2	0	6
SWS Marco	3588	34	NA	3	Leeville	1	2	4.75	2	0	9.75
SWS Marco	3588	34	NA	3	Venice	1	2	6.5	2	0	11.5
Rope Mop	77	2	0	3	Harvey	1	2	3.5	2	0	8.5

Shoreline Protection

Staging Area: Cameron

Shoreline Protection Boom	VOO	Persons Req.	Storage/Warehouse Location	Hrs to Procure	Hrs to Loadout	Travel to Staging	Travel to Deployment Site	Hrs to Deploy	Total Hrs
OMI Environmental (available through Letter of Intent)									
10,000' 18" Boom	4 Crew	10	New Iberia, LA	1	1	2.5	2	3	9.5
10,000' 18" Boom	4 Crew	10	Houston, TX	1	1	2.5	2	3	9.5
10,000' 18" Boom	4 Crew	10	Port Arthur, TX	1	1	1.25	2	3	8.25

Beach Boom	EDRC	Storage Capacity	VOO	Persons Req.	From	Hrs to Procure	Hrs to Loadout	Travel to Staging	Travel to Deployment	Hrs to Deploy	Total Hrs
CGA											
Beach Boom (2000')	NA	NA	NA	6	Galveston	1	2	3.5	1	2	9.5
Beach Boom (1000')	NA	NA	NA	4	Ingleside	1	2	6	1	2	12
Beach Boom (2000')	NA	NA	NA	6	Pascagoula	1	2	5.5	1	2	11.5
Wildlife Response	EDRC	Storage Capacity	VOO	Persons Req.	From	Hrs to Procure	Hrs to Loadout	Travel to Staging	Travel to Deployment	Hrs to Deploy	Total Hrs
CGA											
Wildlife Support Trailer	NA	NA	NA	2	Houma	1	2	3.75	1	2	9.75
Bird Scare Guns (24)	NA	NA	NA	2	Belle Chasse	1	2	4.5	1	2	10.5
Bird Scare Guns (12)	NA	NA	NA	2	Galveston	1	2	3.5	1	2	9.5
Bird Scare Guns (24)	NA	NA	NA	2	Houma	1	2	3.75	1	2	9.75
Bird Scare Guns (12)	NA	NA	NA	2	Ingleside	1	2	6	1	2	12
Bird Scare Guns (24)	NA	NA	NA	2	Lake Charles	1	2	1	1	2	7
Bird Scare Guns (24)	NA	NA	NA	2	Pascagoula	1	2	5.5	1	2	11.5

Response Asset	Total
Offshore EDRC	55,753
Offshore Recovered Oil Storage	64,600
Nearshore / Shallow Water EDRC	21,841
Nearshore / Shallow Water Recovered Oil Storage	23,355

Vicinity Map

**Attachment L
(Public Information)**

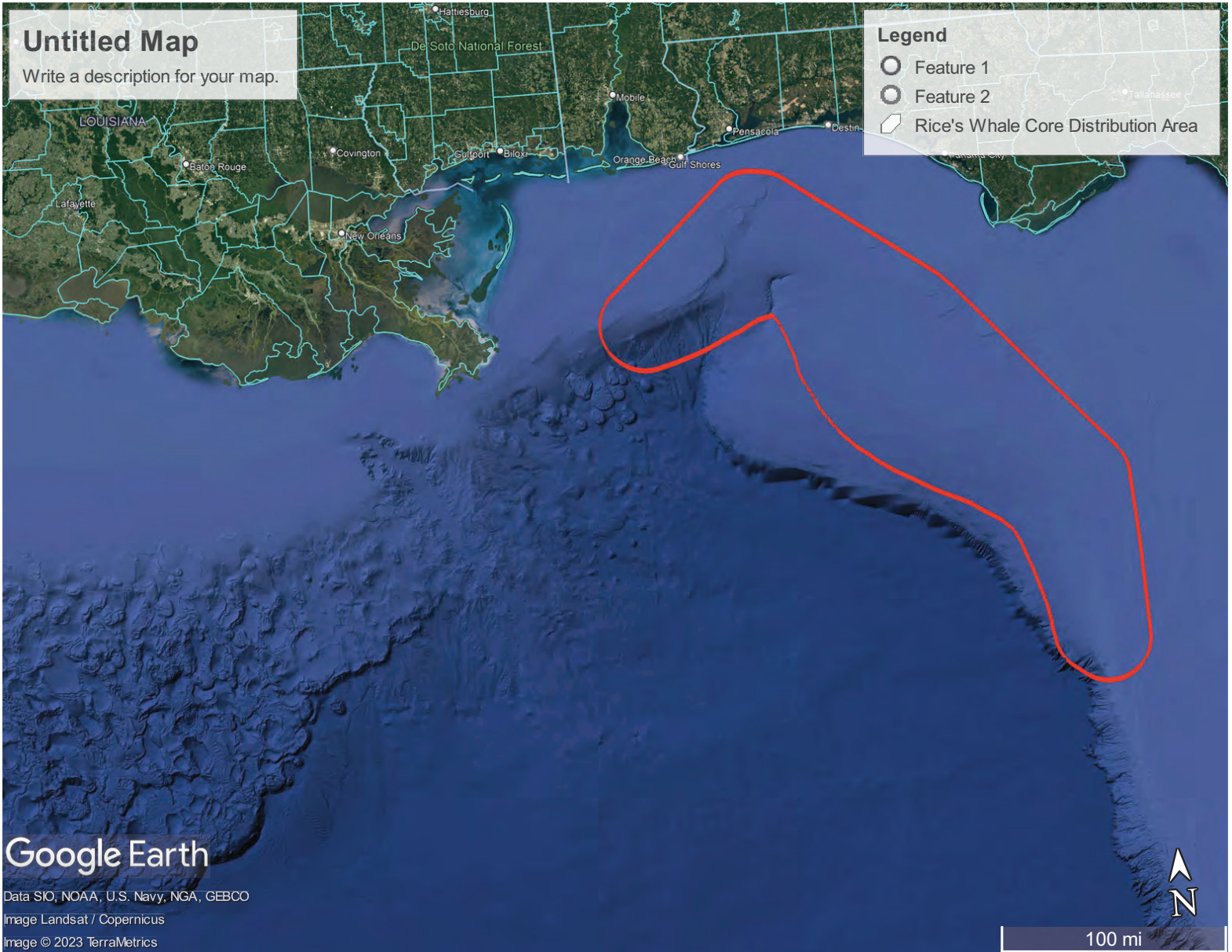


Untitled Map

Write a description for your map.

Legend

- Feature 1
- Feature 2
- Rice's Whale Core Distribution Area



Google Earth

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Image Landsat / Copernicus

Image © 2023 TerraMetrics

100 mi