



ONYX PAD FLUID LEAK DETECTION PLAN

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Article I. Introduction

Location Information

This document provides site-specific information for the Onyx Pad within the Onyx Pad OGD. The information in this document relates specifically to the time during the construction, drilling, completion, and production of the twelve (12) proposed horizontal wells on this location.

The proposed location is irrigated crop land approximately 5270' North of the intersection of WCR 76 and WCR 33. The Pad will be in the NWNW Section 26, Township 7 North, Range 66 West, zoned agricultural within Weld County's Near-Urban planning area. A 1041WOGLA is being filed concurrently with the OGD application as 1041WOGLA22-0017.

The proposed Pad will be 9.1 acres, reduced to 2.2 after interim reclamation. The working pad surface will be 5.5 acres. The Pad is on Parcel #070726200014 owned by Glenn C and Lee Shannon Leffler. The location is currently used for farming.

The proposed Onyx Pad will have production facility equipment located within the Working Pad Surface adjacent to the wells consisting of and will connect to existing oil tanks, water tanks, vapor recovery towers (VRT), vapor recovery units (VRU), and emission control devices (ECD) at the adjacent Leffler 26-A Pad (Loc ID 433335).

Phase	Duration (Days)	Estimated Start Date
Construction	14	3rd Quarter (September) 2023
Drilling	84	4th Quarter (October) 2023
Completions (Prep and Frac)	142	4th Quarter (December) 2023
Flowback (Drill Out and flowback)	48	2nd Quarter (May) 2024
Production	25 Years	3rd Quarter (August) 2024
Interim Reclamation	10	4th Quarter (November) 2024

**or the first favorable growing season.*

Article II. Drilling Fluids Procedures and BMPs

- A closed-loop system will be used for drilling operations as required by Rule 408.a.
- All drilling fluid transfers will be performed by two drilling crew members to assure transfer is completed, valves are closed following transfer and that no fluids are lost.
- During initial rig up on site, all hoses, lines and valves will be assembled and checked for proper connection, alignment and for leaks, and then inspected daily during drilling operations.
- A 40 ml poly liner with foam type berms will be utilized under the drilling rig, shakers, and drill cuttings bins to contain any leaks if they were to occur.



Article III. Completion Fluid Procedures and BMPs

- All completion fluid transfers will be performed by two completion crew members to assure transfer is completed, valves are closed following transfer and that no fluids are lost.
- During initial rig up on site, all hoses, lines and valves will be assembled and checked for proper connection, alignment and for leaks, and then inspected daily during completion operations.
- A 40 ml poly liner with foam type berms will be utilized under the frac spread layout to contain any leaks if they were to occur.

Article IV. Production Fluid Procedures and BMPs

Monitoring & Detection

- Fluid Monitoring will be achieved through high level alarms with guided wave radar level gauges. These gauges report remotely volumes via telemetry. This telemetry allows pumpers to have real time access to information and review levels at any time. Pumpers also have the ability to Shut in the wells in the event of an emergency.

Inspection

- Audio, Visual and Olfactory (AVO) inspections or Infrared surveys will be performed to identify any leaks coming from the flowlines on a monthly basis.
- Flowlines will be inspected per COGCC 1100 regulations.
- Periodic site inspections will be conducted by Bayswater personnel or 3rd party environmental contractors to look for any signs of leaks and or potential leaks.



- All equipment, both permanent and temporary, including but not limited to:
 - Wellheads
 - Separators
 - Heaters
 - Pumps
 - General-purpose valves
 - Flanges and fittings
 - Sampling connections
 - Compressors
 - Pressure relief valves
 - Open pipe connections
 - Generators
 - Skids
 - Above ground containers
 - Pipelines and flowlines
 - Field drainage systems
 - Fluid handling equipment
 - Secondary containment

Are inspected for:

- failure of packing or O-Rings
- gasket failure or loose bolts
- Unusual noises or movements
- seal failure
- visual evidence of rust or stains
- Odor

Testing:

- New flowlines will be hydrotested to manufacturers' recommended levels before placed into use.
- Flowline Testing will be conducted in accordance with COGCC Rule 1104.j. Audio, Visual and Olfactory (AVO) Detection Survey or Alternative Survey Requirements. When AVO surveys are conducted, the entire flowline length using audio, visual and olfactory techniques will be performed to detect integrity failures, leaks, spills, or releases, or signs of a leak, spill, or release like stressed vegetation or soil discoloration. Where the regulations permit, Bayswater may also conduct a survey using an instrument monitoring method capable of detecting integrity failures, leaks, spills or releases, or signs of a leak, spill or release. Bayswater will document the date and time of all surveys, the detection methodology and technology used, and the name of the employee who conducted the survey.

Maintenance

- Daily site visits are made by lease operators (aka pumpers) to the well pad for maintenance issues including leaks and spill potential.

Article V. Record Keeping

Spill response includes notifications, reporting, response actions, remediation, and corrective actions. Waste will be properly classified as E&P or non-E&P wastes. For E&P waste, all spills greater than 1 barrel (outside containment) or greater than 5 barrels (inside containment) will be reported to the COGCC using a Form 19. If remediation is required, a Form 27 will also be submitted. Spills related to non-E&P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled. Bayswater tracks and cleans up all spills, including those that are not reportable.

Written procedures associated with the inspection and testing activities conducted per the requirements of this Plan will be maintained. Along with the referenced procedures, records of inspections and tests required by this Plan will be signed by the appropriate personnel and retained for a period of three years or as indicated in COGCC's rules. Inspection records and associated information will be maintained with a copy of this Plan.

Article VI. Site-Specific BMP

- Spill prevention and response are addressed in training of employees and contractor personnel on at least an annual basis.
- No pits will be used on location, therefore pit level Indicators will not be used on location.
- A Leak Detection and Repair ("LDAR") program along with an audio, visual, olfactory ("AVO") program is planned for this location as part of an overall leak and spill detection program.
- Tertiary containment, such as an earthen berm, will be installed as required for Production Facilities within 500 feet of a down gradient surface water feature. All berms will be visually checked periodically to ensure proper working condition.
- Separator berms shall be constructed of steel rings. All berms will be visually checked periodically to ensure proper working condition. Containment berms shall be constructed and designed to prevent leakage and resist degradation from erosion or routine operation. Tertiary containment, such as an earthen berm, will be installed as required for Production Facilities within 500 feet of a down gradient surface water feature. All berms will be visually checked periodically to ensure proper working condition.
- All oil and water loadouts that are commonly used have a load bucket and isolation valve. Since they are used often, there is not a bull plug installed. Any loadouts that are rarely used, are bull plugged without a load bucket.
- Operator's SPCC Plan includes details of loading and unloading procedures in regards to:
 - Training
 - Inspection
 - Emergency Shutdown Procedures
 - Pre-loading/unloading inspections
 - Securing/grounding/bonding the transport unit
 - Controls and Monitoring
 - Terminating Flow and Disconnecting System

Article VII. Exhibits/References/Appendices

None.