



Gas Capture Plan

Surprise-Damfino S6 Pad COGCC Location ID #416625

November 2022

Jackson County, Colorado

**SURPRISE-DAMFINO S6 PAD
GAS CAPTURE PLAN
Revised 11.17.2022**

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Article I. Introduction

Facility Information

This document provides site-specific information for the Surprise-Damfino S6 Pad. The information in this document relates specifically to the time during the construction, drilling, completion and operation of the three (3) new horizontal wells – Damfino 0680 5-6H31, Damfino 0680 7-6H31 and Damfino 0680 8-6H31.

The Surprise-Damfino S6 Pad was originally constructed in 2010 by EOG Resources, and then expanded in later years by subsequent operators. The Pad is located approximately 20.3 miles south of the Town of Walden on Highway 14. The highway access into the pad is located approximately 1.5 miles south of the intersection of State Highway 14 and Jackson County Road 28. The Pad is located in Lot 11 of Section 6, Township 6 North, Range 80 West, zoned Ranch Land within Jackson County. Local government authorities do not regulate Oil and Gas Operations in Jackson County. As such, Local Government Permits are not required for this Pad.

The Surprise-Damfino S6 Working Pad Surface covers approximately 3 acres. The Pad is located on Federal Bureau of Land Management land and as such Jackson County Assessor does not assign parcel numbers to federal land. The area disturbed by the pad construction is currently used for hay storage and cattle grazing.

Some production facility equipment for the Surprise-Damfino S6 Pad will be located within the Working Pad Area adjacent to the 2 existing wells – Surprise 4-06H and Damfino 2-06H and 3 new wells – Damfino 0680 5, 7 & 8-6H31. Production facility equipment located on the Surprise-Damfino S6 Pad will potentially consist of separators/treaters/allocation vessels, pump jacks, gas lift equipment, gas lift compressors, and generators.

The majority of the proposed production facility equipment for the new wells drilled on the Surprise-Damfino S6 Pad will be routed through the Spicer S32 Annex Pad, and will be located on the Surprise S4 CTB Pad (Location ID 436676) and Veneta S32 Pad (Location ID 324752). All equipment will be located within the Working Pad Areas and will potentially consist of oil tanks, water tanks, separator/treaters, vapor recovery towers (VRT), vapor recovery units (VRU), emission control devices (ECD), natural gas combustors, generators, flaring mitigation data centers and proposed electrical and/or solar equipment.

Operational Phases for Surprise-Damfino S6 Pad

Phase	Duration (days)	Estimated Start Date
Construction	30 days	3 rd Quarter (July) 2021
Drilling (incl. rig mobilization)	95 days	2 nd Quarter (June) 2022
Completion (incl. mobilization)	60 days	4 th Quarter (October) 2022
Flowback	21 days	4 th Quarter (November) 2022
Production	20 years	4 th Quarter (December) 2022

Article II. Plan Narrative

Overview

D90 Energy, LLC is exploring several long-term options for capturing and using natural gas produced from the wells drilled on the Surprise-Damfino S6 Pad. The closest point of sale is the Colorado Interstate Pipeline located near Laramie, Wyoming in the NWSE of Section 11-T15N-R74W (41.284796 °N, 105.664108°W) as indicated on the attached Gas Capture Plan Maps. D90 Energy undertaking several long-term and short-term strategies for capturing gas produced from wells located on the Surprise-Damfino S6 Pad.

Long-Term CIG Option

The nearest pipeline connection is in Laramie, Wyoming, located approximately 80 miles away from the Surprise-Damfino S6 Pad. Construction of a new gas pipeline from the Surprise-Damfino S6 Pad to Laramie Wyoming would be very difficult to construct. Permits would be necessary from the Federal Energy Regulatory Commission, Bureau of Land Management, U. S. Forest Service and several other state agencies and private land owners. It would be necessary to construct the pipeline over the Never Summer Mountain Range of mountains through Routt and Medicine Bow National Forests. EE3 LLC and SandRidge Exploration & Production, LLC previously attempted, without success, to obtain the necessary permits and easements to construct a pipeline to Colorado Interstate's Pipeline in Laramie. D90 Energy has determined that it is probably not practical to construct a pipeline to Laramie, Wyoming because of the rough terrain and regulatory obstacles.

Long-Term Xcel Option

Xcel Energy has expressed an interest in purchasing natural gas at a location on their existing pipeline system in Grand County near their Williams Fork Compression Facility approximately 67 miles away. Construction of a new gas pipeline from the Surprise-Damfino S6 Pad to Xcel's William's Fork Facility would be very difficult and time-consuming to construct. Permits would be necessary from Bureau of Land Management, U. S. Forest Service, State of Colorado Land Board and several other agencies and many private land owners. In June 2021, D90 started an engineering and environmental study to determine the feasibility of constructing a natural gas pipeline from the Surprise-Damfino S6 Pad to Xcel's Williams Fork Facility. D90 anticipates that the feasibility study will be completed by December 2022. If the feasibility study determines that a pipeline project to Xcel is feasible, then D90 would begin planning the construction of such a pipeline. Such planning would include engineering and operational planning, right-of-way acquisition, gas plant design and regulatory permits. The earliest that permits and right-of-ways could likely be obtained would be 2023 Q4. Based on that timeline, the earliest that construction could begin would be 2024 Q2. If the pipeline and plant construction could be completed by 2024 Q4, gas could be sold to Xcel starting approximately 2025 Q1.

Long-Term Rawlins Option

There are several interstate pipelines located adjacent to Interstate 80 in Wyoming, approximately 90 miles north of the Surprise-Damfino S6 Pad. Construction of a new gas pipeline from the Surprise-Damfino S6 Pad to the interstate pipelines located adjacent to I80 near Rawlins would be very difficult and time-consuming to construct. Permits would be necessary from Bureau of Land Management and several other State and Federal agencies and many private land owners. D90 has recently started an

engineering and environmental study to determine the feasibility of constructing a natural gas pipeline from the Surprise-Damfino S6 Pad to the existing interstate pipelines located adjacent to I80 near Rawlins. D90 anticipates that the feasibility study will be completed by June 2023. If the feasibility study determines that a pipeline project to the existing interstate pipelines near Rawlins, Wyoming is feasible, then D90 would begin planning the construction of such a pipeline. Such planning would include engineering and operational planning, right-of-way acquisition, gas plant design and regulatory permits. The earliest that permits and right-of ways could likely be obtained would be 2024 Q4. Based on that timeline, the earliest that construction could begin would be 2025 Q2. If the pipeline and plant construction could be completed by 2026 Q1, gas could be sold into one or more of the interstate pipelines starting approximately 2026 Q1.

Long-Term Electricity Generation Option

The Western Area Power Administration (“WAPA”) operates an interstate electricity power transmission line which traverses Jackson County from southwest to northeast. Tri-States Generation & Transmission Association (and others) are interested in purchasing electricity which could be transported on WAPA’s power transmission system. D90 Energy has commissioned a study to determine the feasibility of constructing a new natural gas power plant in Jackson County which would use gas produced from the Surprise-Damfino S6 Pad (and other wells operated by D90) to generate electricity which would be sold to Tri-States and delivered via the existing WAPA power transmission facilities. D90 anticipates that the feasibility study will be completed by 2023 Q2. If the feasibility study determines that a power generation is feasible, then D90 would begin planning the construction of the power generating facility, transmission lines and substation. Such planning would include engineering and operational planning, right-of-way acquisition, and regulatory permits. It is likely that the earliest that permits and right-of ways could be obtained would be approximately 2024 Q4. The earliest that construction could begin would be approximately 2025 Q2. If the power plant, transmission lines and substation could be completed by 2024 Q4, gas could be used to generate utility scale electricity by 2025 Q4.

Interim Gas Capture Plan

Once the new wells are drilled on the Surprise-Damfino S6 Pad, D90 will use a portion of the gas to generate electricity on-site to operate the equipment on the Surprise-Damfino S6 Pad. A portion of the remaining gas may be used for artificial gas-lift of the wells located on the Surprise-Damfino S6 Pad. The remaining gas will be transported via a new flowline to the existing Spicer 0780 S32 Annex Pad, and from there to the Surprise S4 CTB in an existing flowline. At the Surprise S4 CTB, the gas will be processed via a third-party gas processing facility. The gas liquids recovered through processing would be sold separately or together with the crude oil. The remaining residue gas will be sold to the gas processor to generate electricity to power its data processing operations. In the event of an upset at the Surprise S4 CTB, gas at that location has the ability to travel to the Surprise Unit S9 Pad, which also has third-party gas processing on location.

Operational Phase Compliance

During Drilling Operations, gas emissions will be captured or combusted downstream of the mud-gas separator using best drilling practices while maintaining safe operating conditions. If capturing or combusting gas would pose safety risks to onsite personnel, D90 Energy will provide verbal notification to the Director within 12 hours and submit a Form 4, Sundry Notice within 7 days. If venting pursuant to this

Rule 903.b.(2) exceeds 24 hours, D90 Energy will seek the Director's approval to continue venting. Combustors will be located a minimum of 100 feet from the nearest surface hole location and enclosed.

During Completions Operations, D90 Energy will adhere to reduced emission completion practices as specified by reference in Rule 901.b, on all newly completed and re-completed oil and gas Wells regardless of whether the Well is hydraulically fractured. All flowback vessels will be enclosed and will adhere to emission reduction from pre-production Flowback vessels standards as incorporated by Rule 901.b.

After the Commencement of Production Operations, Venting or Flaring of natural gas produced from any Completed Well will be prohibited except under the circumstances described in 903.d.

Article III. Mitigation Measures and Best Management Practices

Testing (if applicable)

The wells drilled on the Surprise-Damfino S6 Pad are not Wildcat (Exploratory) Wells and Production Evaluation or Productivity Tests are not planned to occur.

Anticipated Safety Risks

There are no anticipated safety risks that will require D90 Energy to allow gas to escape, rather than being captured or combusted during drilling operations. Drilling operations are controlled by an emission control device.

Minimize Venting BMPs

It is D90 Energy's operational goal to avoid venting during any active and planned maintenance when possible. In order to achieve this, equipment is removed from service prior to maintenance to allow pressurized gas to feed back into the system prior to initiating work. The equipment is then isolated from the system by closing all valves feeding into it.

When venting is unavoidable to perform maintenance, the equipment is isolated prior to initiating maintenance work. By isolating the equipment, the amount of gas vented is substantially reduced as only the gas in the equipment is vented, not the entire system the equipment is attached to.

Well Liquids Unloading Minimization BMP

D90 Energy performs well liquids unloading activities when a rod part cannot be fished and fluid in the tubing requires removal prior to pulling the tubing. Removing fluid in the tubing is required to avoid a produced fluid spill onto the surface area around the wellhead.

During a well liquids unloading event, D90 Energy utilizes a tool to capture both produced fluid and gas during the swabbing operation avoiding venting to the atmosphere. The tubing fluid and gas is re-routed to the casing valve below the closed blowout preventor. The re-routing of fluid and gas prevents venting to the atmosphere as all fluids and gas go back into the tubing and casing annulus instead of an open top tank.

Anticipated Production Volumes and Separation Capacity

D90 Energy, LLC anticipates initial production of 300bbl/day of crude oil per well and 315,000SCF/day of natural gas production per well. The separator configuration, quantity, and anticipated operating conditions have been designed to be sufficient to process up to 1500MMCF gas and 2000bbl/day liquid capacity through three 3-Phase separators.

Measurement and Reporting

D90 Energy, LLC will measure the volume of all gas Vented, Flared, or used by direct measurement or estimation. The volume of gas Vented, Flared, or used and method of measurement will be reported on a per Well basis on the Form 7, Operator's Monthly Report of Operations.

All mineral Owners of the volume of oil and gas that is Vented, Flared, or used on-lease will be notified by D90 Energy, LLC. D90 Energy, LLC will maintain records of such notice and provide the records to the Director upon request.

All Flared gas will be combusted in an enclosed device equipped with an auto-igniter or continuous pilot light and a design destruction efficiency of at least 98% for hydrocarbons.

Article IV. Exhibits/References/Appendices

Gas Capture Plan Map - Gas Pipeline Project to Xcel Energy William's Fork Facility

Gas Capture Plan Map - Power Generation Project to Western Area Power Authority