Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

2. Name of Operator

9. API Well No.
30-039-31491

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date

Title	Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 02/28/2025

Additional Operator Remarks

Location of Well

0. SHL: LOT 8 / 215 FNL / 370 FWL / TWSP: 23N / RANGE: 7W / SECTION: 5 / LAT: 36.26292 / LONG: -107.605021 (TVD: 0 feet, MD: 0 feet)

PPP: SENW / 1955 FNL / 330 FEL / TWSP: 23N / RANGE: 7W / SECTION: 6 / LAT: 36.25818 / LONG: -107.607391 (TVD: 5100 feet, MD: 5423 feet)

PPP: SENE / 1955 FNL / 330 FEL / TWSP: 23N / RANGE: 8W / SECTION: 1 / LAT: 36.25818 / LONG: -107.607391 (TVD: 5100 feet, MD: 5423 feet)

PPP: SENE / 1955 FNL / 330 FEL / TWSP: 23N / RANGE: 7W / SECTION: 6 / LAT: 36.25818 / LONG: -107.607391 (TVD: 5100 feet, MD: 5423 feet)

BHL: SWNE / 1956 FNL / 330 FWL / TWSP: 23N / RANGE: 8W / SECTION: 1 / LAT: 36.258159 / LONG: -107.641105 (TVD: 5580 feet, MD: 16259 feet)

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024 Submittal Type: ☐ Initial Submittal ☒ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-039-31491	42289	LYBROOK GALLUP

Property Code	Property Name	Well Number
321248	MC-7 COM	659H

OGRID No.	Operator Name	Ground Level Elevation
372286	ENDURING RESOURCES, LLC	7032'

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
D	5	23N	7W	8	215' NORTH	370' WEST	36.262920 °N	-107.605021 °W	RIO ARRIBA

Bottom Hole Location

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
F	1	23N	8W		1955' NORTH	1429' WEST	36.258162 °N	-107.637380 °W	SAN JUAN

Dedicated Acres	Penetrated Spacing Unit:	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit	Consolidation Code
321.56	Lot 1, Lot 2, Lot 3, Lot 4 Lot 5, SE/4 NW/4, S/2 NE/4 Section 6, T23N, R7W			☐ Yes ☐ No	Communitization

Order Numbers

Well setbacks are under Common Ownership: ☒ Yes ☐ No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
D	5	23N	7W	8	215' NORTH	370' WEST	36.262920 °N	-107.605021 °W	RIO ARRIBA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
H	6	23N	7W		1955' NORTH	100' EAST	36.258181 °N	-107.606611 °W	RIO ARRIBA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
F	1	23N	8W		1955' NORTH	1429' WEST	36.258162 °N	-107.637380 °W	SAN JUAN

Unitized Area or Area of Uniform Interest	Spacing Unit Type	Ground Floor Elevation
	☒ Horizontal ☐ Vertical ☐ Directional	

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Shaw-Marie Ford
Signature

4/3/2025
Date

Shaw-Marie Ford
Printed Name

sford@enduringresources.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JASON C. EDWARDS
NEW MEXICO
15269
4/3/2025
REGISTERED PROFESSIONAL SURVEYOR

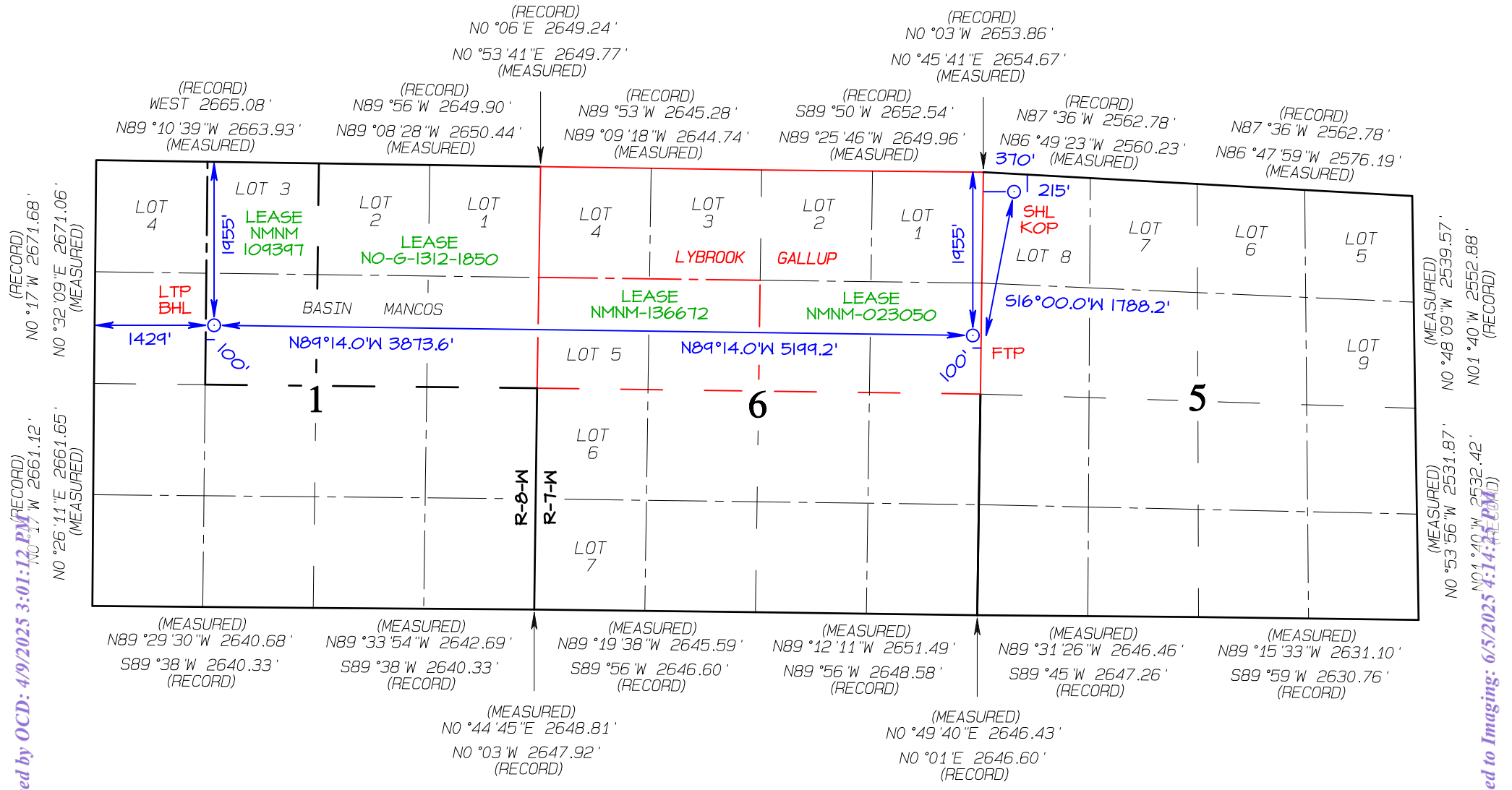
JASON C. EDWARDS
Signature and Seal of Professional Surveyor

Certificate Number	Date of Survey
15269	OCTOBER 4, 2018

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

MC-7 COM #659H

BOTTOM HOLE LOCATION (BHL)	LAST TAKE POINT (LTP)	FIRST TAKE POINT (FTP)	KICK OFF POINT (KOP)	SURFACE LOCATION (SHL)
1955' FNL 1429' FWL	1955' FNL 1429' FWL	1955' FNL 100' FEL	215' FNL 370' FWL	215' FNL 370' FWL
SECTION 1, T23N, R8W	SECTION 1, T23N, R8W	SECTION 6, T23N, R7W	SECTION 5, T23N, R7W	SECTION 5, T23N, R7W
LAT 36.258162 °N	LAT 36.258162 °N	LAT 36.258181 °N	LAT 36.262920 °N	LAT 36.262920 °N
LONG -107.637380 °W	LONG -107.637380 °W	LONG -107.606611 °W	LONG -107.605021 °W	LONG -107.605021 °W
DATUM: NAD1983	DATUM: NAD1983	DATUM: NAD1983	DATUM: NAD1983	DATUM: NAD1983



C-102	State of New Mexico	Revised July 9, 2024
Submit Electronically Via OCD Permitting	Energy, Minerals & Natural Resources Department	Submittal Type: ☐ Initial Submittal ☒ Amended Report ☐ As Drilled
	OIL CONSERVATION DIVISION	

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
	97232	BASIN MANCOS

Property Code	Property Name	Well Number
321248	MC-7 COM	659H

OGRID No.	Operator Name	Ground Level Elevation
372286	ENDURING RESOURCES, LLC	7032'

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Mineral Owner: ☐ State ☐ Fee ☒ Tribal ☒ Federal

Surface Location

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Dedicated Acres	Penetrated Spacing Unit:	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit	Consolidation Code
240.36	Lot 1, Lot 2, Lot 3 SE/4 NW/4, S/2 NE/4 Section 1, T23N, R8W			☐ Yes ☐ No	Communitization

Order Numbers

Well setbacks are under Common Ownership: ☒ Yes ☐ No

Kick Off Point (KOP)

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	☒ Horizontal ☐ Vertical ☐ Directional	

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Shaw-Marie Ford
Signature

4/3/2025
Date

Shaw-Marie Ford
Printed Name

sford@enduringresources.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JASON C. EDWARDS
Signature and Seal of Professional Surveyor

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MC-7 COM #659H

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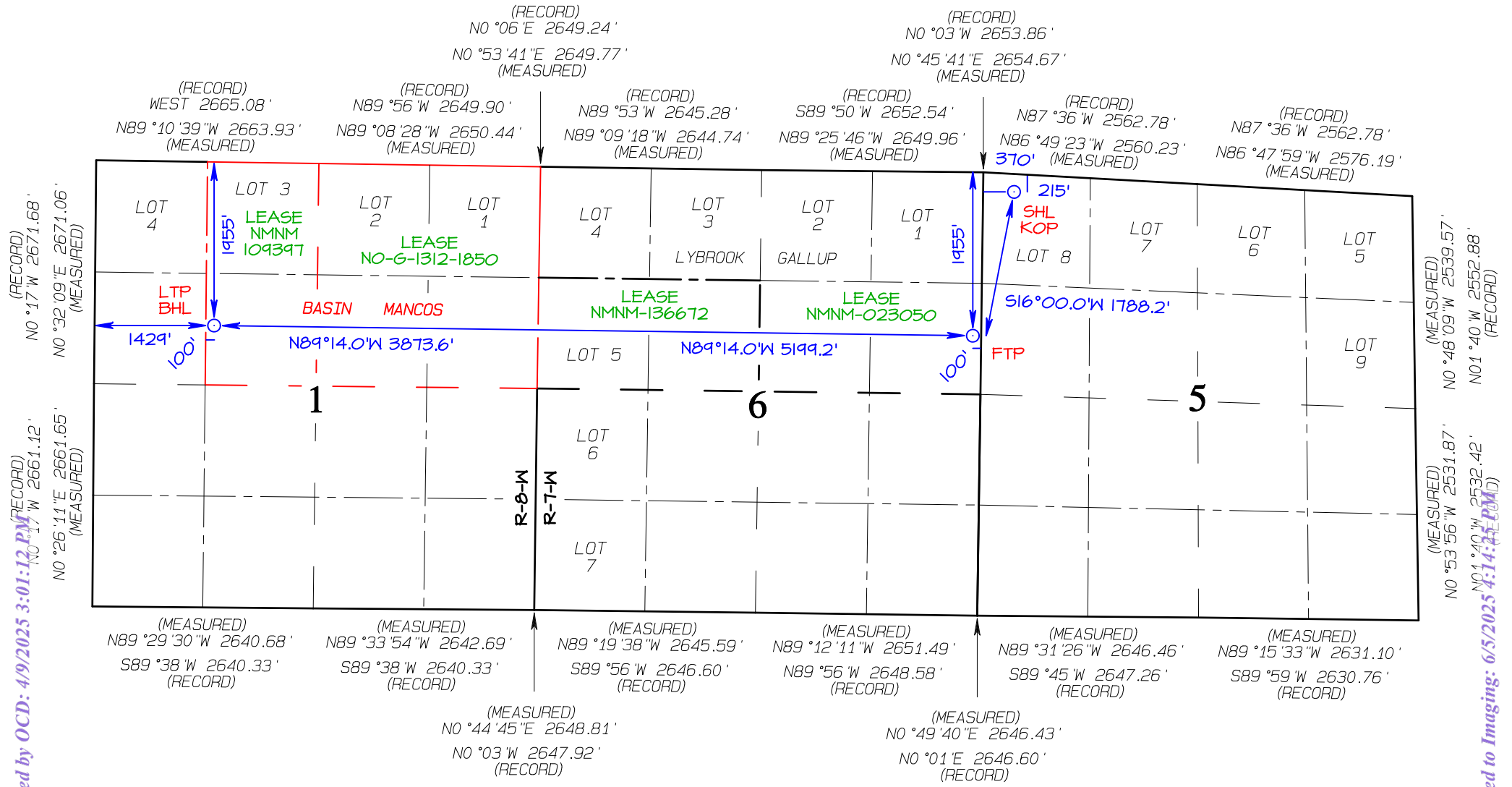
LAT 36.258162 °N LONG -107.637380 °W DATUM: NAD1983	LAT 36.258162 °N LONG -107.637380 °W DATUM: NAD1983	LAT 36.258181 °N LONG -107.606611 °W DATUM: NAD1983	LAT 36.262920 °N LONG -107.605021 °W DATUM: NAD1983	LAT 36.262920 °N LONG -107.605021 °W DATUM: NAD1983



State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: __Enduring Resources, LLC_____ **OGRID:** __372286_____ **Date:** _04_/_09_/_2025_

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
MC 7 COM 655H	TBD	D-5-23N-7W Lot 8	216 FNL x 330 FWL	542	555	108
MC 7 COM 659H	TBD	D-5-23N-7W Lot 8	215 FNL x 370 FWL	549	562	110
				3-year Decline	3-year Decline	3-year Decline
MC 7 COM 655H	TBD	D-5-23N-7W Lot 8	216 FNL x 330 FWL	88	263	18
MC 7 COM 659H	TBD	D-5-23N-7W Lot 8	215 FNL x 370 FWL	89	267	18

IV. Central Delivery Point Name: _____MC 7 COM CDP_____ [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
MC 7 COM 655H	TBD	Q3 2025	Q3 2025	Q3 2025	Q3 2025	Q3 2025
MC 7 COM 659H	TBD	Q3 2025	Q3 2025	Q3 2025	Q3 2025	Q3 2025

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:
Printed Name: Shaw-Marie Ford
Title: Regulatory Specialist
E-mail Address: sford@enduringresources.com
Date: 4/3/2025
Phone: 505-716-3297

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

Enduring Resources, LLC.
NATURAL GAS MANAGEMENT and WASTE MINIMIZATION PLAN
MC 7 COM 655H and 659H

SEPARATION EQUIPMENT

Enduring Resources, LLC (Enduring) has pulled representative pressurized samples from wells in the same producing formation. Enduring has utilized these samples in process simulations to determine the amount of gas anticipated in each stage of the process and utilized this information with a safety factor to size the equipment listed below:

Separation equipment will be set as follows:

- Individual 3 phase separator will be set for the individual well.
- The separator will be sized based on the anticipated volume of the well and the pressure of the lines utilized for oil, gas, and water takeaway.
- The 3 phase production separator will be equipped with a 0.75 MMBtu/hr indirect fired heater.

Heater treaters will be set as follows:

- Individual heater treaters will be set for the individual well.
- The heater treaters are sized based on the anticipated combined volume of oil and produced water predicted to come from the initial 3 phase separator.
- Oil will be separated from the produced water and the oil/produced water will be sent to its respective tanks.
- The combined oil and natural gas stream is routed to the Vapor Recovery Tower.

Vapor Recovery Equipment will be set as follows:

- The Vapor Recovery Tower has been sized, based on the anticipated volume of gas from the heater treater and oil and water tanks.
- The Vapor Recovery Unit has been sized, based on the anticipated volume of gas from the heater treater and oil and water tanks. The Vapor Recovery Unit is utilized to push the recovered gas into the sales pipeline.

Production storage tanks will be set as follows:

- The oil and produced water tanks utilize a closed vent capture system to ensure all breathing, working, and flashing losses are routed to the Vapor Recovery Tower and Vapor Recovery Unit.
- Each of the production storage tanks will be equipped with a 0.5 MMBtu/hr indirect heater.

Enduring Resources, LLC.
NATURAL GAS MANAGEMENT and WASTE MINIMIZATION PLAN
MC 7 COM 655H and 659H

VENTING and FLARING

Enduring has a natural gas system available prior to startup of completion operations. Enduring utilizes a Vapor Recovery Unit System and sells all natural gas except during periods of startup, shutdown, maintenance, or malfunction for the gas capturing equipment, including the vapor recovery tower, vapor recovery unit, storage tanks, and pipelines.

Currently, Enduring utilizes the following from list A-I of Section 3 for its operations to minimize flaring:

a) Enduring utilizes natural gas-powered generators to power its leases where grid power isn't available.
b) When electrical grid power is unavailable, natural gas generators will be used for major equipment onsite.
c) Enduring's in service compression will be natural gas powered.
d) Should liquids removal, such as dehydration be required, units will be powered by natural gas.

Enduring will only flare gas during the following times:

- Scheduled maintenance for gas capturing equipment including:
  - Vapor Recovery Tower
  - Vapor Recovery Unit
  - Storage tanks
  - Pipelines
  - Emergency flaring

Enduring Resources, LLC.
NATURAL GAS MANAGEMENT and WASTE MINIMIZATION PLAN
MC 7 COM 655H and 659H

OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

Enduring understands the requirements of NMAC 19.15.27.8 which states that the venting and flaring of natural gas during drilling, completion or production that constitutes waste as defined in 19.15.2 are prohibited.

19.15.27.8 B. Venting and flaring during drilling operations

- Enduring shall capture or combust natural gas if technically feasible during drilling operations using best industry practices.
- A flare stack with a 100% capacity for expected volumes will be set on location of the facility at least 100 feet from the nearest surface hole location, well heads, and storage tanks.
- In the event of an emergency, Enduring will vent natural gas in order to avoid substantial impact. Enduring shall report the vented or flared gas to the NMOCD.

19.15.27.8 E. Venting and flaring during completion or recompletion operations

During Completion Operations, Enduring utilizes the following:

- Enduring facilities are built and ready from day 1 of Flowback.
- Individual well test separators will be set to properly separate gas and liquids. Temporary test separator will be utilized initially to process volumes. In addition, separators will be tied into flowback tanks which will be tied into the gas processing equipment for sales down a pipeline. See Separation Equipment for details.
- Should the facility not yet be capable of processing gas, or the gas does not meet quality standards, then storage tanks will be set that are tied into gas busters or temporary flare to manage natural gas. This flare would meet the following requirements:
    1) An appropriately sized flare stack with an automatic igniter.
    2) Enduring analyzes the natural gas samples twice per week.
    3) Enduring routes the natural gas into a gathering pipeline as soon as the pipeline specifications are met.
    4) Enduring provides the NMOCD with pipeline specifications and natural gas data.

19.15.27.8 D. Venting and flaring during production operations

During Production Operations Enduring will not vent or flare natural gas except under the following circumstances:

1. During an emergency or malfunction
2. To unload or clean-up liquid holdup in a well to atmospheric pressure, provided:
    a. Enduring does not vent after the well achieves a stabilized rate and pressure.
    b. Enduring will remain present on-site during liquids unloading by manual purging and tall all reasonable actions to achieve a stabilized rate and pressure at the earliest practical time.
    c. Enduring will optimize the system to minimize natural gas venting on any well equipped with a plunger lift or auto control system.
    d. Best Management Practices will be used during downhole well maintenance.
3. During the first year of production from an exploratory well provided:
    a. Enduring receives approval from the NMOCD.
    b. Enduring remains in compliance with the NM gas capture requirements.
    c. Enduring submits an updated C-129 form to the NMOCD.
4. During the following activities unless prohibited:
    a. Gauging or sampling a storage tank or low-pressure production vessel.
    b. Loading out liquids from a storage tank.
    c. Repair and maintenance.
    d. Normal operation of gas activated pneumatic controller or pump.
    e. Normal operation of a storage tank but not including venting from a thief hatch.
    f. Normal operation of dehydration units.
    g. Normal operations of compressors, compressor engines, turbines, valves, flanges, and connectors.
    h. During a bradenhead, packer leakage test, or production test lasting less than 24-hours.
    i. When natural gas does not meet the gathering pipeline specifications.
    j. Commissioning of pipelines, equipment, or facilities only for as long as necessary to purge introduced impurities.

19.15.27.8 E. Performance standards

1. Enduring has utilized process simulations with a safety factor to design all separation and storage equipment. The equipment is routed to a Vapor Recovery System and utilizes a flare as back up for periods of startup, shutdown, maintenance, or malfunction of the VRU System.
2. Enduring will install a flare that designed to handle the full volume of vapors from the facility in case of the VRU failure and it its designed with an auto ignition system.
3. Flare stacks will appropriately sized and designed to ensure proper combustion efficiency.
    a. Flare stacks installed or replaced will be equipped with an automatic ignitor or continuous pilot.

   b. Previously installed flare stacks will be retrofitted with an automatic ignitor, continuous pilot, or technology that alerts ENDURING of flare malfunction within 18 months after May 25, 2021.
   c. Flare stacks replaced after May 25, 2021, will be equipped with an automatic ignitor or continuous pilot if located at a well or facility with average daily production of 60,000 cubic feet of natural gas or less.
   d. Flare stacks will be located at least 100 feet from the well and storage tanks and securely anchored.
4. Enduring will conduct an AVO inspection on all components for leaks and defects on a weekly basis.
5. Enduring will make and keep records of AVO inspections which will be available to the NMOCD for at least 5 years.
6. Enduring may use a remote or automated monitoring technology to detect leaks and releases in lieu of AVO inspections with prior NMOCD approval.
7. Facilities will be designed to minimize waste.
8. Enduring will resolve emergencies as promptly as possible.

19.15.27.8 F. Measurement or estimation of vented and flared natural gas

1. Enduring will have meters on both the low- and high-pressure sides of the flares and the volumes will be recorded in ENDURING's SCADA system.
2. Enduring will install equipment to measure the volume of flared natural gas that has an average daily production of 60,000 cubic feet or greater of natural gas.
3. Enduring's measuring equipment will conform to the industry standards.
4. The measurement system is designed such that it cannot be bypassed except for inspections and servicing meters.
5. Enduring will estimate the volume of vented or flared natural gas using a methodology that can be independently verified if metering is not practicable due to low flow rate or pressure.
6. Enduring will estimate the volume of flared and vented natural gas based on the results of an annual GOR test for wells that do not require measuring equipment reported on Form C-116.
7. Enduring will install measuring equipment whenever the NMOCD determines that metering is necessary.

Enduring Resources, LLC.
NATURAL GAS MANAGEMENT and WASTE MINIMIZATION PLAN
MC 7 COM 655H and 659H

BEST MANAGEMENT PRACTICES

Enduring utilizes the following Best Management Practices to minimize venting during active and planned maintenance.

Enduring has a closed vent capture system to route emissions from the heater treater, tanks, and vapor recovery to the vapor recovery unit with an enclosed combustion device (ECD) for backup. The system is designed such that if the vapor recovery unit is taken out of service for any reason, the vapors will be routed to the ECD for combustion.

Enduring will isolate and attempt to route all vapors to the vapor recovery unit or ECD prior to opening any lines for maintenance to minimize venting from the equipment.

Enduring shall notify the NMOCD of venting or flaring that exceeds 50 MCF but less than 500 MCF in volume that either resulted from an emergency or malfunction, or an event lasting over eight hours or more cumulatively within any 24-hour period from a single event by filing a form C-129 no later than 15 days following the discovery or commencement of venting or flaring.

Enduring shall notify the NMOCD verbally or by e-mail within 24-hours following discovery or commencement of venting or flaring that exceeds 500 MCF in volume or otherwise qualifies as a major release as defined in 19.15.29.7 NMAC from a single event and provide the information required in form C-129 to the NMOCD no later than 15 days that verifies, updates, or corrects the verbal or e-mail notification.

Enduring will install measuring equipment to conform to industry standards such as American Petroleum Institute (API) Manual of Petroleum Measurement Standards (MPMS) Chapter 14.10 Measurement of Flow to Flares.

Enduring's measuring equipment shall not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

Enduring shall report the volume of vented and flared natural gas for each well or facility at which venting or flaring occurred on a monthly basis.

ENDURING RESOURCES IV, LLC
1050 SEVENTEENTH STREET, SUITE 2500
DENVER, COLORADO 80265

DRILLING PLAN: ***Drill, complete, and equip single lateral in the Mancos-I formation***

WELL INFORMATION:

Name: **MC-7 COM 659H**
API Number: *not yet assigned*
State: New Mexico
County: Rio Arriba
Surface Elevation: 7,032 ft ASL (GL) 7,060 ft ASL (KB)
Surface Location: 5-23N-07W Sec-Twn-Rng 215 ft FNL 370 ft FWL
36.25292 ° N latitude 107.605021 ° W longitude (NAD 83)
BH Location: 1-23N-08W Sec-Twn-Rng 1,956 ft FNL 330 ft FWL
36.258159 ° N latitude 107.641105 ° W longitude (NAD 83)
Driving Directions: FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NEW MEXICO: South on US HWY 550 for 43.5 mile to MM 108.3; Left (North) on CR #7998 for 0.3 miles to fork; Right (Northeast) for 0.3 miles to fork; Right (East) for 1.2 miles to fork; Right (South) for 0.2 miles to 4-way intersection; Left (East) for 0.3 miles to 4-way intersection; Straight (East) for 0.1 miles; Left on access road to MC-7 COM 655H Pad.

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:

Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
Ojo Alamo	5,680	1,380	1,383	W	normal
Kirtland	5,540	1,520	1,527	W	normal
Fruitland	5,290	1,770	1,793	G, W	sub
Pictured Cliffs	5,000	2,060	2,109	G, W	sub
Lewis	4,895	2,165	2,223	G, W	normal
Chacra	4,575	2,485	2,572	G, W	normal
Cliff House	3,480	3,580	3,766	G, W	sub
Menefee	3,470	3,590	3,777	G, W	normal
Point Lookout	2,650	4,410	4,670	G, W	normal
Mancos	2,440	4,620	4,899	O,G	sub (~0.38)
Gallup (MNCS_A)	2,085	4,975	5,286	O,G	sub (~0.38)
MNCS_B	2,000	5,060	5,379	O,G	sub (~0.38)
MNCS_C	1,890	5,170	5,498	O,G	sub (~0.38)
MNCS_Cms	1,830	5,230	5,563	O,G	sub (~0.38)
MNCS_D	1,730	5,330	5,673	O,G	sub (~0.38)
MNCS_E	1,630	5,430	5,791	O,G	sub (~0.38)
MNCS_F	1,570	5,490	5,871	O,G	sub (~0.38)
MNCS_G	1,510	5,550	5,964	O,G	sub (~0.38)
MNCS_H	1,467	5,593	6,047	O,G	sub (~0.38)
MNCS_I	1,415	5,645	6,207	O,G	sub (~0.38)
P.O.E. TARGET	**1,405**	**5,655**	**6,318**	**O,G**	**sub (~0.38)**
PROJECTED TD	**1,480**	**5,580**	**16,259**	**O,G**	**sub (~0.38)**

Surface: Nacimiento
Oil & Gas Zones: Several gas bearing zones will be encountered; target formation is the Gallup
Pressure: Normal (0.43 psi/ft) or sub-normal pressure gradients anticipated in all formations
Max. pressure gradient: 0.43 psi/ft Evacuated hole gradient: 0.22 psi/ft

	Maximum anticipated BH pressure, assuming maximum pressure gradient:	**2,440**	**psi**
	Maximum anticipated surface pressure, assuming partially evacuated hole:	**1,200**	**psi**
Temperature:	**Maximum anticipated BHT is 135° F or less**		

H_2S INFORMATION:

H_2S Zones: Encountering hydrogen-sulfide bearing zones is **NOT** anticipated.

Safety: Sensors and alarms will be placed in the substructure, on the rig floor, above the pits, and at the shakers.

LOGGING, CORING, AND TESTING:

Mud Logs: None planned; remote geo-steering from drill out of 9-5/8" casing to TD; gas detection from drillout of 13-3/8" casing to TD.

MWD / LWD: Gamma Ray from drillout of 13-3/8" casing to TD

Open Hole Logs: None planned

Testing: None planned

Coring: None planned

Cased Hole Logs: CBL on 5-1/2" casing from deepest free-fall depth to surface

DRILLING RIG INFORMATION:

Contractor: Ensign

Rig No.: 773

Draw Works: Pacific Rim 1500AC

Mast: ADR 1500S Cantilever Triple (142 ft, 800,000 lbs, 12 lines)

Top Drive: Tesco 500-ESI-1350 (500 ton, 1,350 hp)

Prime Movers: 3 - CAT 3512 (1,475 hp)

Pumps: 3 - Gardner-Denver PZ11 (7,500 psi)

BOPE 1: Cameron single gate ram (pipe) & double gate ram (pipe & blind) (13-5/8", 3,000 psi)

BOPE 2: Cameron annular (13-5/8", 5,000 psi)

Choke 3", 5,000 psi

KB-GL (ft): 28

NOTE: A different rig may be used to drill the well depending on rig availability

BOPE REQUIREMENTS:

See attached diagram for details regarding BOPE specifications and configuration.

1) Rig will be equipped with upper and lower kelly cocks with handles available.
2) Inside BOP and TIW valves will be available to use on all sizes and threads of drill pipe used while drilling the well.
2) BOP accumulator will have enough capacity to open the HCR valve, close all rams and annular preventer, and retain minimum of 200 psi above precharge on the closing manifold without the use of closing pumps. The fluid reservoir capacity shall be at least double the usable fluid volume of the accumulator system capacity, and the fluid level shall be maintained at manufacturer's recommendation. There will be two additional sources of power for the closing pumps (electric and air). Sufficient nitrogen bottles will be available and will be recharged when pressure falls below manufacturer's recommended minimum.
3) BOP testing shall be conducted (a) when initially installed, (b) whenever any seal is broken or repaired, (c) if the time since the previous test exceeds 30 days. Tests will be conducted using a test plug. BOP ram preventers will be tested to 3,000 psig for 10 minutes, and the annular preventer will be tested to 1,500 psi for 10 minutes. Ram and annular preventers will be tested to 250 psi for 5 minutes. Additionally, BOP and casing strings will be tested to .22 psi/ft or 1,500 psi, whichever is greater but not exceeding 70% of yield strength of the casing, for 30 minutes, prior to drilling out 13-3/8" and 9-5/8" casing. Rams and hydraulically operated remote choke line valve will be function tested daily at a minimum.
4) Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams.

5) Manual locking devices (hand wheels) shall be intalled on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device.The valve will be maintained in the open position and shall only be closed when the there is no power to the accumulator.

FLUIDS AND SOLIDS CONTROL PROGRAM:

Fluid Measurement: Pumps shall be equipped with stroke counters with displays in the dog-house. Slow pump speed shall be recorded daily and after mudding up, at a minimum, on the drilling report. A Pit Volume Totalizer will be installed and the readout will be displayed in the dog-house. Gas-detecting equipment will be installed at the shakers, and readouts will be available in the dog-house and the in the geologist's work-station (if geologist or mud-logger is on-site).

Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimimize the amount of fluids and solids that require disposal.

Fluid Disposal : Fluids that cannot be reused, recycled, or returned to the supplier will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).

Solids Disposal : Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).

Fluid Program: See "Detailed Drilling Plan" section for specifics.

DETAILED DRILLING PLAN:

SURFACE: ***Drill vertically to casing setting depth (plus necessary rathole), run casing, cement casing to surface.***

0 ft (MD)	to	**350** ft (MD)	Hole Section Length:	**350 ft**
0 ft (TVD)	to	**350** ft (TVD)	Casing Required:	**350 ft**

Note: Surface hole may be drilled, cased, and cemented with a smaller rig in advance of the drilling rig.

Fluid:

Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	Comments
Fresh Water	8.4	N/C	2 - 8	2 - 12	9.0	Spud mud

Hole Size: 17-1/2"

Bit / Motor: Mill Tooth or PDC, no motor

MWD / Survey: No MWD, deviation survey

Logging: None

Casing Specs:

	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	795	116,634	116,634
Min. S.F.					**7.39**	**3.43**	**7.31**	**7.79**

Assumptions: Collapse: fully evacuated casing with 8.4 ppg equivalent external pressure gradient
Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling intermediate hole and 8.4 ppg equivalent external pressure gradient
Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): *Minumum: N/A Optimum: N/A Maximum: N/A*
Make-up as per API Buttress Connection running procedure.

Casing Summary: Float shoe, 1 jt casing, float collar, casing to surface

Centralizers: 2 centralizers per jt stop-banded 10' from each collar on bottom 3 jts, 1 centralizer per 2 jts to surface

Cement:

Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Class G	15.8	1.174	5.15	0.6946	100%	0	414

Calculated cement volumes assume gauge hole and the excess noted in table
Halliburton HALCEM surface cementing blend
Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

INTERMEDIATE: ***Drill as per directional plan to casing setting depth, run casing, cement casing to surface.***

350 ft (MD)	to	**3,886** ft (MD)	Hole Section Length:	**3,536 ft**
350 ft (TVD)	to	**3,690** ft (TVD)	Casing Required:	**3,886 ft**

Fluid:	Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	Comments
	LSND (KCl)	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	

Hole Size: 12-1/4"
Bit / Motor: PDC w/mud motor
MWD / Survey: MWD Survey with inclination and azimuth survey (every 100' at a minimum), GR optional
Logging: None
Pressure Test: NU BOPE and test (as noted above); pressure test 13-3/8" casing to **1,500** psi for 30 minutes.

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,612	1,411	221,996	221,996
Min. S.F.					**1.25**	**2.49**	**2.54**	**2.04**

Assumptions: Collapse: fully evacuated casing with 8.4 ppg equivalent external pressure gradient
Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling production hole and 8.4 ppg equivalent external pressure gradient
Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): *Minumum:* *3,400* *Optimum:* *4,530* *Maximum:* *5,660*
Casing Summary: Float shoe, 1 jt casing, float collar, casing to surface
Centralizers: 2 centralizers per jt stop-banded 10' from each collar on bottom 3 jts, 1 centralizer per 2 jts to surface

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	G:POZ Blend	12.3	1.987	10.16	70%	0	922
Tail	Class G	15.8	1.148	4.98	20%	3,386	164

Annular Capacity	0.3627	cuft/ft	*9-5/8" casing x 13-3/8" casing annulus*
	0.3132	cuft/ft	*9-5/8" casing x 12-1/4" hole annulus*

Calculated cement volumes assume gauge hole and the excess noted in table
Halliburton ECONOCEM & HALCEM cementing blend
Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

PRODUCTION: ***Drill to TD following directional plan, run casing, cement casing to surface.***

3,886 ft (MD)	to	**16,259** ft (MD)	Hole Section Length:	**12,373 ft**
3,690 ft (TVD)	to	**5,580** ft (TVD)	Casing Required:	**16,259 ft**

Estimated KOP:	**5,423**	ft (MD)	**5,100**	ft (TVD)
Estimated Landing Point (P.O.E.):	**6,318**	ft (MD)	**5,655**	ft (TVD)
Estimated Lateral Length:	**9,941**	ft (MD)		

Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	YP (lb/100 sqft)	pH	Comments
	LSND (FW)	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	OBM as contingency

Hole Size: 8-1/2"

Bit / Motor: PDC w/mud motor

MWD / Survey: MWD with GR, inclination, and azimuth (survey every joint from KOP to Landing Point and survey every 100' minimum before KOP and after Landing Point)

Logging: GR MWD for entire section, no mud-log or cuttings sampling, no OH WL logs

Pressure Test: NU BOPE and test (as noted above); pressure test 9-5/8" casing to **1,500** psi for 30 minutes.

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,757	9,022	338,511	338,511
Min. S.F.					**2.71**	**1.18**	**1.61**	**1.31**

Assumptions: Collapse: fully evacuated casing with 9.5 ppg fluid in the annulus (floating casing during running)
Burst: 8,500 psi maximum surface treating pressure with 10.2 ppg equivalent mud weight sand laden fluid with 8.4 ppg equivalent external pressure gradient
Tension: buoyed weight in 9.0 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): *Minumum: 3,470 Optimum: 4,620 Maximum: 5,780*

Casing Summary: Float shoe, 1 jt casing, float collar, 1 jt casing, float collar, 1 jt casing, toe-intitiation sleeve, 20' marker joint, toe-initiation sleeve, casing to KOP with 20' marker joints spaced evenly in lateral every 2,000', floatation sub, casing to surface. **The toe-initiation sleeves must be positioned INSIDE the 330' unit setback.**

Centralizers: *Centralizer count and placement may be adjusted based on well conditions and as-drilled surveys.*
Lateral: 1 centralizer per joint
Curve: 1 centralizer per joint from landing point to KOP
KOP to surf: 1 centralizer per 2 joints

Cement:	**Type**	**Weight (ppg)**	**Yield (cuft/sk)**	**Water (gal/sk)**	**% Excess**	**Planned TOC (ft MD)**	**Total Cmt (sx)**
Lead	G:POZ blend	12.4	1.907	9.981	50%	0	1,075
Tail	G:POZ blend	13.3	1.360	5.999	10%	5,286	2,033

Annular Capacity	0.2691	cuft/ft	*5-1/2" casing x 9-5/8" casing annulus*
	0.2291	cuft/ft	*5-1/2" casing x 8-1/2" hole annulus*

Calculated cement volumes assume gauge hole and the excess noted in table
Halliburton ECONOCEM & EXTENDACEM cementing blend
Notify NMOCD & BLM if cement is not circulated to surface.

Note: The lateral may be drilled outside the applicaple unit setback to maximize the length of the completed interval and to maximize resource recovery. If the well is drilled outside the setback, the toe initiation sleeve(s) and all perforations will be placed inside the setback. An unorthodox location application is not required because the completed interval will be entirely within the setback as defined and allowed by NMAC 19.15.16.7B(1), NMAC 19.15.16.14B(2), NMAC 19.15.16.15B(2) .

FINISH WELL: ***ND BOP, cap well, RDMO.***

COMPLETION AND PRODUCTION PLAN:

Frac: 55 plug-and-perf stages with 220,000 bbls slickwater fluid and 18,000,000 lbs of proppant (estimated)
Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assitance)
Production: Produce through production tubing via gas-lift into permanent production and storage facilities

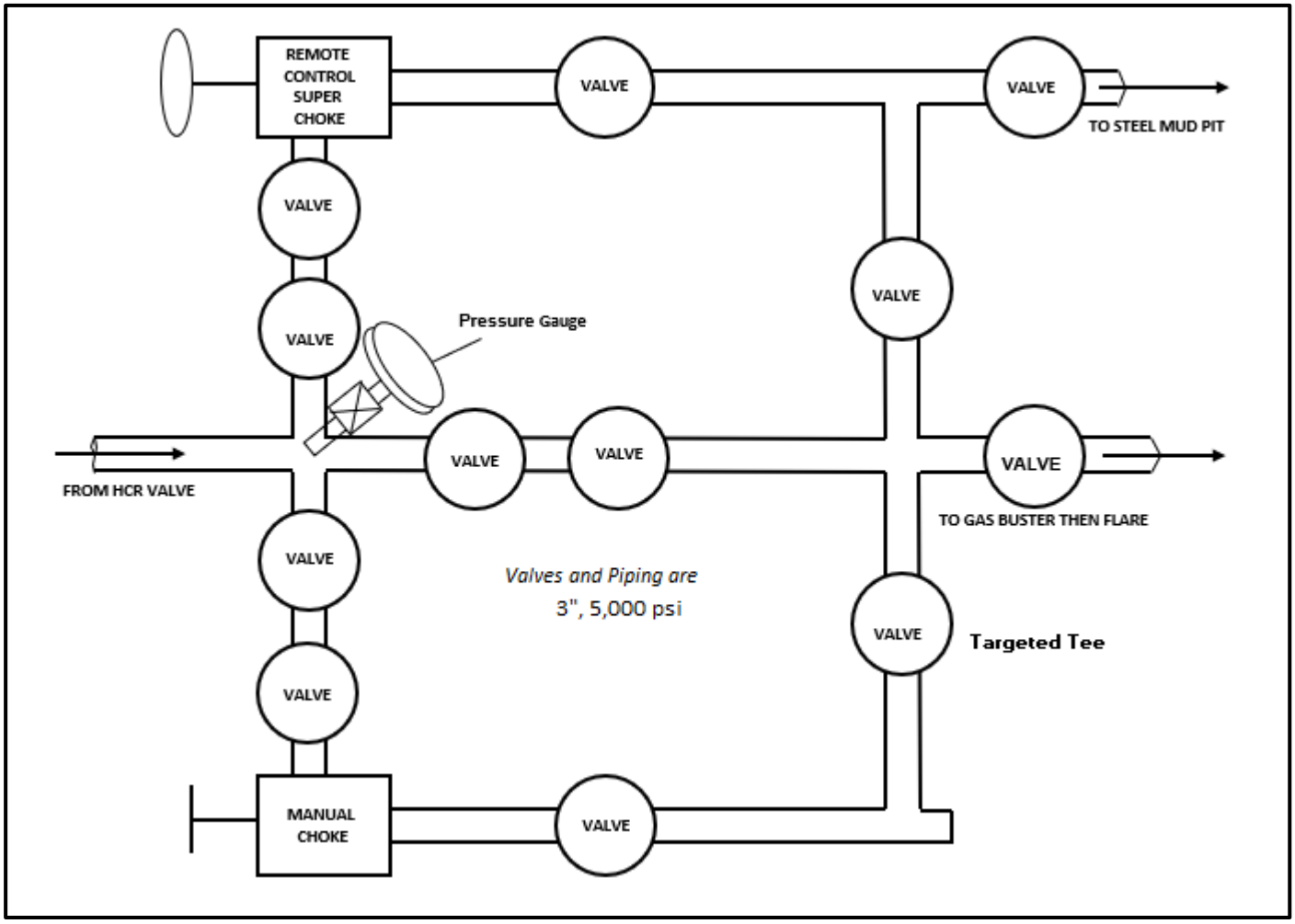
ESTIMATED START DATES:

Drilling: TBD
Completion: TBD
Production: TBD

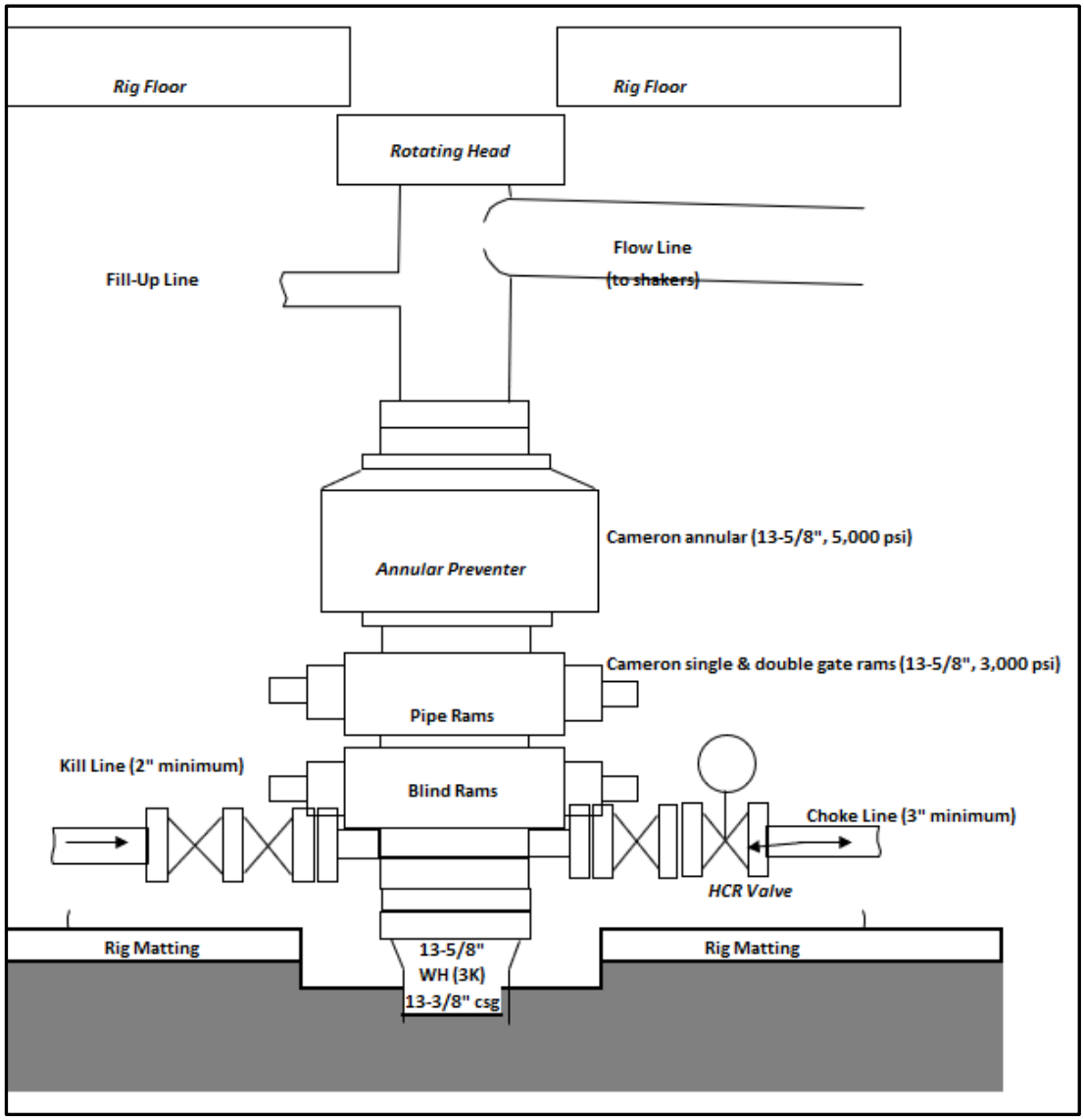
Prepared by: **Alec Bridge** **10/11/2019**

Enduring Resources IV, LLC
CHOKE MANIFOLD

NOTE: EXACT BOPE AND CHOKE CONFIRGURATION AND COMPONENTS MAY DIFFER FROM WHAT IS DEPICTED IN THE DIGRAMS BELOW DEPENDING ON THE RIG AND ITS ASSOCIATED EQUIPMENT. RAM PREVENTERS, ANNULAR PREVENTERS, AND CHOKE MANIFOLD AND COMPONENTS WILL BE RATED TO 3,000 PSI MINIMUM.



Enduring Resources IV, LLC
BOPE Diagram



Enduring Resources LLC

San Juan Basin - MC-7 COM
655H Pad
659H

Wellbore #1

Plan: Design #1

Standard Planning Report

11 October, 2019

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well 659H
Company:	Enduring Resources LLC	**TVD Reference:**	KB @ 7060.0usft (Original Well Elev)
Project:	San Juan Basin - MC-7 COM	**MD Reference:**	KB @ 7060.0usft (Original Well Elev)
Site:	655H Pad	**North Reference:**	Grid
Well:	659H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project San Juan Basin - MC-7 COM

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site 655H Pad, Rio Arriba County, New Mexico

Site Position:		**Northing:**	1,917,764.62 usft	**Latitude:**	36° 15' 46.512 N
From:	Lat/Long	**Easting:**	1,240,908.44 usft	**Longitude:**	107° 36' 18.565 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-0.80 °

Well 659H

Well Position	**+N/-S**	-0.6 usft	**Northing:**	1,917,764.06 usft	**Latitude:**	36° 15' 46.512 N
	+E/-W	40.1 usft	**Easting:**	1,240,948.53 usft	**Longitude:**	107° 36' 18.076 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	7,032.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	9.93	63.13	50,651.28781937

Design Design #1

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	261.56

Plan Survey Tool Program **Date** 10/11/2019

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	16,259.3	Design #1 (Wellbore #1)	MWD	
				OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,781.9	23.46	185.36	1,760.2	-157.1	-14.7	3.00	3.00	0.00	185.36	
5,422.5	23.46	185.36	5,100.0	-1,600.0	-150.0	0.00	0.00	0.00	0.00	659H KOP
5,738.5	31.90	257.33	5,386.7	-1,683.1	-239.7	10.27	2.67	22.78	110.51	
6,317.8	90.43	270.77	5,655.0	-1,715.8	-722.9	10.27	10.10	2.32	15.64	659H POE
16,259.3	90.43	270.77	5,580.0	-1,582.4	-10,663.3	0.00	0.00	0.00	0.00	659H BHL

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well 659H
Company:	Enduring Resources LLC	**TVD Reference:**	KB @ 7060.0usft (Original Well Elev)
Project:	San Juan Basin - MC-7 COM	**MD Reference:**	KB @ 7060.0usft (Original Well Elev)
Site:	655H Pad	**North Reference:**	Grid
Well:	659H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00
13 3/8"									
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	3.00	185.36	1,100.0	-2.6	-0.2	0.6	3.00	3.00	0.00
1,200.0	6.00	185.36	1,199.6	-10.4	-1.0	2.5	3.00	3.00	0.00
1,300.0	9.00	185.36	1,298.8	-23.4	-2.2	5.6	3.00	3.00	0.00
1,382.6	11.48	185.36	1,380.0	-38.0	-3.6	9.1	3.00	3.00	0.00
Ojo Alamo									
1,400.0	12.00	185.36	1,397.1	-41.6	-3.9	10.0	3.00	3.00	0.00
1,500.0	15.00	185.36	1,494.3	-64.8	-6.1	15.5	3.00	3.00	0.00
1,526.6	15.80	185.36	1,520.0	-71.8	-6.7	17.2	3.00	3.00	0.00
Kirtland									
1,600.0	18.00	185.36	1,590.2	-93.1	-8.7	22.3	3.00	3.00	0.00
1,700.0	21.00	185.36	1,684.4	-126.3	-11.8	30.3	3.00	3.00	0.00
1,781.9	23.46	185.36	1,760.2	-157.1	-14.7	37.6	3.00	3.00	0.00
1,792.5	23.46	185.36	1,770.0	-161.4	-15.1	38.6	0.00	0.00	0.00
Fruitland									
1,800.0	23.46	185.36	1,776.8	-164.3	-15.4	39.4	0.00	0.00	0.00
1,900.0	23.46	185.36	1,868.6	-203.9	-19.1	48.9	0.00	0.00	0.00
2,000.0	23.46	185.36	1,960.3	-243.6	-22.8	58.3	0.00	0.00	0.00
2,100.0	23.46	185.36	2,052.1	-283.2	-26.6	67.8	0.00	0.00	0.00
2,108.7	23.46	185.36	2,060.0	-286.6	-26.9	68.7	0.00	0.00	0.00
Pictured Cliffs									
2,200.0	23.46	185.36	2,143.8	-322.8	-30.3	77.3	0.00	0.00	0.00
2,223.1	23.46	185.36	2,165.0	-332.0	-31.1	79.5	0.00	0.00	0.00
Lewis									
2,300.0	23.46	185.36	2,235.5	-362.5	-34.0	86.8	0.00	0.00	0.00
2,400.0	23.46	185.36	2,327.3	-402.1	-37.7	96.3	0.00	0.00	0.00
2,500.0	23.46	185.36	2,419.0	-441.7	-41.4	105.8	0.00	0.00	0.00
2,571.9	23.46	185.36	2,485.0	-470.3	-44.1	112.6	0.00	0.00	0.00
Chacra									
2,600.0	23.46	185.36	2,510.7	-481.4	-45.1	115.3	0.00	0.00	0.00
2,700.0	23.46	185.36	2,602.5	-521.0	-48.8	124.8	0.00	0.00	0.00
2,800.0	23.46	185.36	2,694.2	-560.6	-52.6	134.3	0.00	0.00	0.00
2,900.0	23.46	185.36	2,785.9	-600.3	-56.3	143.8	0.00	0.00	0.00
3,000.0	23.46	185.36	2,877.7	-639.9	-60.0	153.3	0.00	0.00	0.00
3,100.0	23.46	185.36	2,969.4	-679.5	-63.7	162.8	0.00	0.00	0.00
3,200.0	23.46	185.36	3,061.1	-719.2	-67.4	172.3	0.00	0.00	0.00
3,300.0	23.46	185.36	3,152.9	-758.8	-71.1	181.8	0.00	0.00	0.00
3,400.0	23.46	185.36	3,244.6	-798.4	-74.9	191.2	0.00	0.00	0.00
3,500.0	23.46	185.36	3,336.4	-838.1	-78.6	200.7	0.00	0.00	0.00
3,600.0	23.46	185.36	3,428.1	-877.7	-82.3	210.2	0.00	0.00	0.00
3,700.0	23.46	185.36	3,519.8	-917.3	-86.0	219.7	0.00	0.00	0.00

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well 659H
Company:	Enduring Resources LLC	**TVD Reference:**	KB @ 7060.0usft (Original Well Elev)
Project:	San Juan Basin - MC-7 COM	**MD Reference:**	KB @ 7060.0usft (Original Well Elev)
Site:	655H Pad	**North Reference:**	Grid
Well:	659H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,765.6	23.46	185.36	3,580.0	-943.3	-88.4	225.9	0.00	0.00	0.00
Cliff House									
3,776.5	23.46	185.36	3,590.0	-947.6	-88.8	227.0	0.00	0.00	0.00
Menefee									
3,800.0	23.46	185.36	3,611.6	-957.0	-89.7	229.2	0.00	0.00	0.00
3,885.5	23.46	185.36	3,690.0	-990.8	-92.9	237.3	0.00	0.00	0.00
9 5/8"									
3,900.0	23.46	185.36	3,703.3	-996.6	-93.4	238.7	0.00	0.00	0.00
4,000.0	23.46	185.36	3,795.0	-1,036.2	-97.1	248.2	0.00	0.00	0.00
4,100.0	23.46	185.36	3,886.8	-1,075.9	-100.9	257.7	0.00	0.00	0.00
4,200.0	23.46	185.36	3,978.5	-1,115.5	-104.6	267.2	0.00	0.00	0.00
4,300.0	23.46	185.36	4,070.2	-1,155.1	-108.3	276.7	0.00	0.00	0.00
4,400.0	23.46	185.36	4,162.0	-1,194.8	-112.0	286.2	0.00	0.00	0.00
4,500.0	23.46	185.36	4,253.7	-1,234.4	-115.7	295.7	0.00	0.00	0.00
4,600.0	23.46	185.36	4,345.5	-1,274.0	-119.4	305.2	0.00	0.00	0.00
4,670.4	23.46	185.36	4,410.0	-1,301.9	-122.1	311.8	0.00	0.00	0.00
Point Lookout									
4,700.0	23.46	185.36	4,437.2	-1,313.6	-123.2	314.7	0.00	0.00	0.00
4,800.0	23.46	185.36	4,528.9	-1,353.3	-126.9	324.1	0.00	0.00	0.00
4,899.3	23.46	185.36	4,620.0	-1,392.6	-130.6	333.6	0.00	0.00	0.00
Mancos									
4,900.0	23.46	185.36	4,620.7	-1,392.9	-130.6	333.6	0.00	0.00	0.00
5,000.0	23.46	185.36	4,712.4	-1,432.5	-134.3	343.1	0.00	0.00	0.00
5,100.0	23.46	185.36	4,804.1	-1,472.2	-138.0	352.6	0.00	0.00	0.00
5,200.0	23.46	185.36	4,895.9	-1,511.8	-141.7	362.1	0.00	0.00	0.00
5,286.3	23.46	185.36	4,975.0	-1,546.0	-144.9	370.3	0.00	0.00	0.00
Gallup (MNCS_A)									
5,300.0	23.46	185.36	4,987.6	-1,551.4	-145.4	371.6	0.00	0.00	0.00
5,378.9	23.46	185.36	5,060.0	-1,582.7	-148.4	379.1	0.00	0.00	0.00
MNCS_B									
5,400.0	23.46	185.36	5,079.3	-1,591.1	-149.2	381.1	0.00	0.00	0.00
5,422.5	23.46	185.36	5,100.0	-1,600.0	-150.0	383.2	0.00	0.00	0.00
5,498.3	21.91	205.22	5,170.0	-1,627.8	-157.4	394.7	10.27	-2.05	26.23
MNCS_C									
5,500.0	21.90	205.70	5,171.6	-1,628.4	-157.7	395.0	10.27	-0.35	27.52
5,563.0	22.61	222.75	5,230.0	-1,647.9	-171.1	411.1	10.27	1.12	27.05
MNCS_Cms									
5,600.0	23.80	231.90	5,264.0	-1,657.8	-181.7	423.1	10.27	3.23	24.77
5,673.2	27.52	247.06	5,330.0	-1,673.5	-209.0	452.4	10.27	5.08	20.72
MNCS_D									
5,700.0	29.22	251.62	5,353.6	-1,678.0	-220.9	464.8	10.27	6.36	16.99
5,738.5	31.90	257.33	5,386.7	-1,683.1	-239.7	484.2	10.27	6.97	14.86
5,791.0	37.12	259.74	5,430.0	-1,689.0	-268.9	513.9	10.27	9.94	4.58
MNCS_E									
5,800.0	38.02	260.10	5,437.1	-1,690.0	-274.3	519.4	10.27	9.99	3.94
5,870.7	45.11	262.46	5,490.0	-1,697.0	-320.6	566.3	10.27	10.03	3.35
MNCS_F									
5,900.0	48.06	263.28	5,510.1	-1,699.7	-341.8	587.5	10.27	10.07	2.78
5,963.8	54.50	264.81	5,550.0	-1,704.8	-391.2	637.2	10.27	10.10	2.41
MNCS_G									
6,000.0	58.17	265.58	5,570.1	-1,707.3	-421.3	667.3	10.27	10.12	2.11
6,046.6	62.89	266.48	5,593.0	-1,710.1	-461.7	707.7	10.27	10.13	1.93
MNCS_H									

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well 659H
Company:	Enduring Resources LLC	**TVD Reference:**	KB @ 7060.0usft (Original Well Elev)
Project:	San Juan Basin - MC-7 COM	**MD Reference:**	KB @ 7060.0usft (Original Well Elev)
Site:	655H Pad	**North Reference:**	Grid
Well:	659H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,100.0	68.31	267.42	5,615.1	-1,712.7	-510.3	756.1	10.27	10.14	1.77
6,200.0	78.46	269.02	5,643.6	-1,715.6	-605.9	851.2	10.27	10.16	1.60
6,207.1	79.18	269.13	5,645.0	-1,715.7	-612.9	858.1	10.27	10.16	1.52
MNCS_I									
6,300.0	88.63	270.51	5,654.9	-1,716.0	-705.1	949.4	10.27	10.16	1.48
6,317.8	90.43	270.77	5,655.0	-1,715.8	-722.9	966.9	10.27	10.17	1.46
6,400.0	90.43	270.77	5,654.4	-1,714.7	-805.1	1,048.1	0.00	0.00	0.00
6,500.0	90.43	270.77	5,653.6	-1,713.4	-905.1	1,146.8	0.00	0.00	0.00
6,600.0	90.43	270.77	5,652.9	-1,712.0	-1,005.1	1,245.5	0.00	0.00	0.00
6,700.0	90.43	270.77	5,652.1	-1,710.7	-1,105.1	1,344.2	0.00	0.00	0.00
6,800.0	90.43	270.77	5,651.4	-1,709.3	-1,205.1	1,442.9	0.00	0.00	0.00
6,900.0	90.43	270.77	5,650.6	-1,708.0	-1,305.1	1,541.7	0.00	0.00	0.00
7,000.0	90.43	270.77	5,649.9	-1,706.7	-1,405.1	1,640.4	0.00	0.00	0.00
7,100.0	90.43	270.77	5,649.1	-1,705.3	-1,505.1	1,739.1	0.00	0.00	0.00
7,200.0	90.43	270.77	5,648.3	-1,704.0	-1,605.0	1,837.8	0.00	0.00	0.00
7,300.0	90.43	270.77	5,647.6	-1,702.6	-1,705.0	1,936.5	0.00	0.00	0.00
7,400.0	90.43	270.77	5,646.8	-1,701.3	-1,805.0	2,035.2	0.00	0.00	0.00
7,500.0	90.43	270.77	5,646.1	-1,699.9	-1,905.0	2,133.9	0.00	0.00	0.00
7,600.0	90.43	270.77	5,645.3	-1,698.6	-2,005.0	2,232.6	0.00	0.00	0.00
7,700.0	90.43	270.77	5,644.6	-1,697.3	-2,105.0	2,331.3	0.00	0.00	0.00
7,800.0	90.43	270.77	5,643.8	-1,695.9	-2,205.0	2,430.0	0.00	0.00	0.00
7,900.0	90.43	270.77	5,643.1	-1,694.6	-2,305.0	2,528.7	0.00	0.00	0.00
8,000.0	90.43	270.77	5,642.3	-1,693.2	-2,404.9	2,627.4	0.00	0.00	0.00
8,100.0	90.43	270.77	5,641.6	-1,691.9	-2,504.9	2,726.2	0.00	0.00	0.00
8,200.0	90.43	270.77	5,640.8	-1,690.6	-2,604.9	2,824.9	0.00	0.00	0.00
8,300.0	90.43	270.77	5,640.0	-1,689.2	-2,704.9	2,923.6	0.00	0.00	0.00
8,400.0	90.43	270.77	5,639.3	-1,687.9	-2,804.9	3,022.3	0.00	0.00	0.00
8,500.0	90.43	270.77	5,638.5	-1,686.5	-2,904.9	3,121.0	0.00	0.00	0.00
8,600.0	90.43	270.77	5,637.8	-1,685.2	-3,004.9	3,219.7	0.00	0.00	0.00
8,700.0	90.43	270.77	5,637.0	-1,683.8	-3,104.9	3,318.4	0.00	0.00	0.00
8,800.0	90.43	270.77	5,636.3	-1,682.5	-3,204.9	3,417.1	0.00	0.00	0.00
8,900.0	90.43	270.77	5,635.5	-1,681.2	-3,304.8	3,515.8	0.00	0.00	0.00
9,000.0	90.43	270.77	5,634.8	-1,679.8	-3,404.8	3,614.5	0.00	0.00	0.00
9,100.0	90.43	270.77	5,634.0	-1,678.5	-3,504.8	3,713.2	0.00	0.00	0.00
9,200.0	90.43	270.77	5,633.3	-1,677.1	-3,604.8	3,811.9	0.00	0.00	0.00
9,300.0	90.43	270.77	5,632.5	-1,675.8	-3,704.8	3,910.7	0.00	0.00	0.00
9,400.0	90.43	270.77	5,631.7	-1,674.4	-3,804.8	4,009.4	0.00	0.00	0.00
9,500.0	90.43	270.77	5,631.0	-1,673.1	-3,904.8	4,108.1	0.00	0.00	0.00
9,600.0	90.43	270.77	5,630.2	-1,671.8	-4,004.8	4,206.8	0.00	0.00	0.00
9,700.0	90.43	270.77	5,629.5	-1,670.4	-4,104.7	4,305.5	0.00	0.00	0.00
9,800.0	90.43	270.77	5,628.7	-1,669.1	-4,204.7	4,404.2	0.00	0.00	0.00
9,900.0	90.43	270.77	5,628.0	-1,667.7	-4,304.7	4,502.9	0.00	0.00	0.00
10,000.0	90.43	270.77	5,627.2	-1,666.4	-4,404.7	4,601.6	0.00	0.00	0.00
10,100.0	90.43	270.77	5,626.5	-1,665.1	-4,504.7	4,700.3	0.00	0.00	0.00
10,200.0	90.43	270.77	5,625.7	-1,663.7	-4,604.7	4,799.0	0.00	0.00	0.00
10,300.0	90.43	270.77	5,625.0	-1,662.4	-4,704.7	4,897.7	0.00	0.00	0.00
10,400.0	90.43	270.77	5,624.2	-1,661.0	-4,804.7	4,996.4	0.00	0.00	0.00
10,500.0	90.43	270.77	5,623.4	-1,659.7	-4,904.7	5,095.1	0.00	0.00	0.00
10,600.0	90.43	270.77	5,622.7	-1,658.3	-5,004.6	5,193.9	0.00	0.00	0.00
10,700.0	90.43	270.77	5,621.9	-1,657.0	-5,104.6	5,292.6	0.00	0.00	0.00
10,800.0	90.43	270.77	5,621.2	-1,655.7	-5,204.6	5,391.3	0.00	0.00	0.00
10,900.0	90.43	270.77	5,620.4	-1,654.3	-5,304.6	5,490.0	0.00	0.00	0.00
11,000.0	90.43	270.77	5,619.7	-1,653.0	-5,404.6	5,588.7	0.00	0.00	0.00

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well 659H
Company:	Enduring Resources LLC	**TVD Reference:**	KB @ 7060.0usft (Original Well Elev)
Project:	San Juan Basin - MC-7 COM	**MD Reference:**	KB @ 7060.0usft (Original Well Elev)
Site:	655H Pad	**North Reference:**	Grid
Well:	659H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,100.0	90.43	270.77	5,618.9	-1,651.6	-5,504.6	5,687.4	0.00	0.00	0.00
11,200.0	90.43	270.77	5,618.2	-1,650.3	-5,604.6	5,786.1	0.00	0.00	0.00
11,300.0	90.43	270.77	5,617.4	-1,649.0	-5,704.6	5,884.8	0.00	0.00	0.00
11,400.0	90.43	270.77	5,616.7	-1,647.6	-5,804.5	5,983.5	0.00	0.00	0.00
11,500.0	90.43	270.77	5,615.9	-1,646.3	-5,904.5	6,082.2	0.00	0.00	0.00
11,600.0	90.43	270.77	5,615.2	-1,644.9	-6,004.5	6,180.9	0.00	0.00	0.00
11,700.0	90.43	270.77	5,614.4	-1,643.6	-6,104.5	6,279.6	0.00	0.00	0.00
11,800.0	90.43	270.77	5,613.6	-1,642.2	-6,204.5	6,378.4	0.00	0.00	0.00
11,900.0	90.43	270.77	5,612.9	-1,640.9	-6,304.5	6,477.1	0.00	0.00	0.00
12,000.0	90.43	270.77	5,612.1	-1,639.6	-6,404.5	6,575.8	0.00	0.00	0.00
12,100.0	90.43	270.77	5,611.4	-1,638.2	-6,504.5	6,674.5	0.00	0.00	0.00
12,200.0	90.43	270.77	5,610.6	-1,636.9	-6,604.4	6,773.2	0.00	0.00	0.00
12,300.0	90.43	270.77	5,609.9	-1,635.5	-6,704.4	6,871.9	0.00	0.00	0.00
12,400.0	90.43	270.77	5,609.1	-1,634.2	-6,804.4	6,970.6	0.00	0.00	0.00
12,500.0	90.43	270.77	5,608.4	-1,632.9	-6,904.4	7,069.3	0.00	0.00	0.00
12,600.0	90.43	270.77	5,607.6	-1,631.5	-7,004.4	7,168.0	0.00	0.00	0.00
12,700.0	90.43	270.77	5,606.9	-1,630.2	-7,104.4	7,266.7	0.00	0.00	0.00
12,800.0	90.43	270.77	5,606.1	-1,628.8	-7,204.4	7,365.4	0.00	0.00	0.00
12,900.0	90.43	270.77	5,605.3	-1,627.5	-7,304.4	7,464.1	0.00	0.00	0.00
13,000.0	90.43	270.77	5,604.6	-1,626.1	-7,404.4	7,562.9	0.00	0.00	0.00
13,100.0	90.43	270.77	5,603.8	-1,624.8	-7,504.3	7,661.6	0.00	0.00	0.00
13,200.0	90.43	270.77	5,603.1	-1,623.5	-7,604.3	7,760.3	0.00	0.00	0.00
13,300.0	90.43	270.77	5,602.3	-1,622.1	-7,704.3	7,859.0	0.00	0.00	0.00
13,400.0	90.43	270.77	5,601.6	-1,620.8	-7,804.3	7,957.7	0.00	0.00	0.00
13,500.0	90.43	270.77	5,600.8	-1,619.4	-7,904.3	8,056.4	0.00	0.00	0.00
13,600.0	90.43	270.77	5,600.1	-1,618.1	-8,004.3	8,155.1	0.00	0.00	0.00
13,700.0	90.43	270.77	5,599.3	-1,616.8	-8,104.3	8,253.8	0.00	0.00	0.00
13,800.0	90.43	270.77	5,598.6	-1,615.4	-8,204.3	8,352.5	0.00	0.00	0.00
13,900.0	90.43	270.77	5,597.8	-1,614.1	-8,304.2	8,451.2	0.00	0.00	0.00
14,000.0	90.43	270.77	5,597.0	-1,612.7	-8,404.2	8,549.9	0.00	0.00	0.00
14,100.0	90.43	270.77	5,596.3	-1,611.4	-8,504.2	8,648.6	0.00	0.00	0.00
14,200.0	90.43	270.77	5,595.5	-1,610.0	-8,604.2	8,747.3	0.00	0.00	0.00
14,300.0	90.43	270.77	5,594.8	-1,608.7	-8,704.2	8,846.1	0.00	0.00	0.00
14,400.0	90.43	270.77	5,594.0	-1,607.4	-8,804.2	8,944.8	0.00	0.00	0.00
14,500.0	90.43	270.77	5,593.3	-1,606.0	-8,904.2	9,043.5	0.00	0.00	0.00
14,600.0	90.43	270.77	5,592.5	-1,604.7	-9,004.2	9,142.2	0.00	0.00	0.00
14,700.0	90.43	270.77	5,591.8	-1,603.3	-9,104.2	9,240.9	0.00	0.00	0.00
14,800.0	90.43	270.77	5,591.0	-1,602.0	-9,204.1	9,339.6	0.00	0.00	0.00
14,900.0	90.43	270.77	5,590.3	-1,600.7	-9,304.1	9,438.3	0.00	0.00	0.00
15,000.0	90.43	270.77	5,589.5	-1,599.3	-9,404.1	9,537.0	0.00	0.00	0.00
15,100.0	90.43	270.77	5,588.7	-1,598.0	-9,504.1	9,635.7	0.00	0.00	0.00
15,200.0	90.43	270.77	5,588.0	-1,596.6	-9,604.1	9,734.4	0.00	0.00	0.00
15,300.0	90.43	270.77	5,587.2	-1,595.3	-9,704.1	9,833.1	0.00	0.00	0.00
15,400.0	90.43	270.77	5,586.5	-1,593.9	-9,804.1	9,931.8	0.00	0.00	0.00
15,500.0	90.43	270.77	5,585.7	-1,592.6	-9,904.1	10,030.6	0.00	0.00	0.00
15,600.0	90.43	270.77	5,585.0	-1,591.3	-10,004.0	10,129.3	0.00	0.00	0.00
15,700.0	90.43	270.77	5,584.2	-1,589.9	-10,104.0	10,228.0	0.00	0.00	0.00
15,800.0	90.43	270.77	5,583.5	-1,588.6	-10,204.0	10,326.7	0.00	0.00	0.00
15,900.0	90.43	270.77	5,582.7	-1,587.2	-10,304.0	10,425.4	0.00	0.00	0.00
16,000.0	90.43	270.77	5,582.0	-1,585.9	-10,404.0	10,524.1	0.00	0.00	0.00
16,100.0	90.43	270.77	5,581.2	-1,584.6	-10,504.0	10,622.8	0.00	0.00	0.00
16,200.0	90.43	270.77	5,580.4	-1,583.2	-10,604.0	10,721.5	0.00	0.00	0.00
16,259.3	90.43	270.77	5,580.0	-1,582.4	-10,663.3	10,780.1	0.00	0.00	0.00

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well 659H
Company:	Enduring Resources LLC	**TVD Reference:**	KB @ 7060.0usft (Original Well Elev)
Project:	San Juan Basin - MC-7 COM	**MD Reference:**	KB @ 7060.0usft (Original Well Elev)
Site:	655H Pad	**North Reference:**	Grid
Well:	659H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
659H KOP - plan hits target center - Point	0.00	0.00	5,100.0	-1,600.0	-150.0	1,916,164.06	1,240,798.53	36° 15' 30.672 N	107° 36' 19.633 W
659H BHL - plan hits target center - Point	0.00	360.00	5,580.0	-1,582.4	-10,663.3	1,916,181.65	1,230,285.24	36° 15' 29.372 N	107° 38' 27.978 W
659H POE - plan hits target center - Point	0.00	360.00	5,655.0	-1,715.8	-722.9	1,916,048.26	1,240,225.62	36° 15' 29.448 N	107° 36' 26.608 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
350.0	350.0	13 3/8"	13-3/8	17-1/2
3,885.5	3,690.0	9 5/8"	9-5/8	12-1/4

Formations

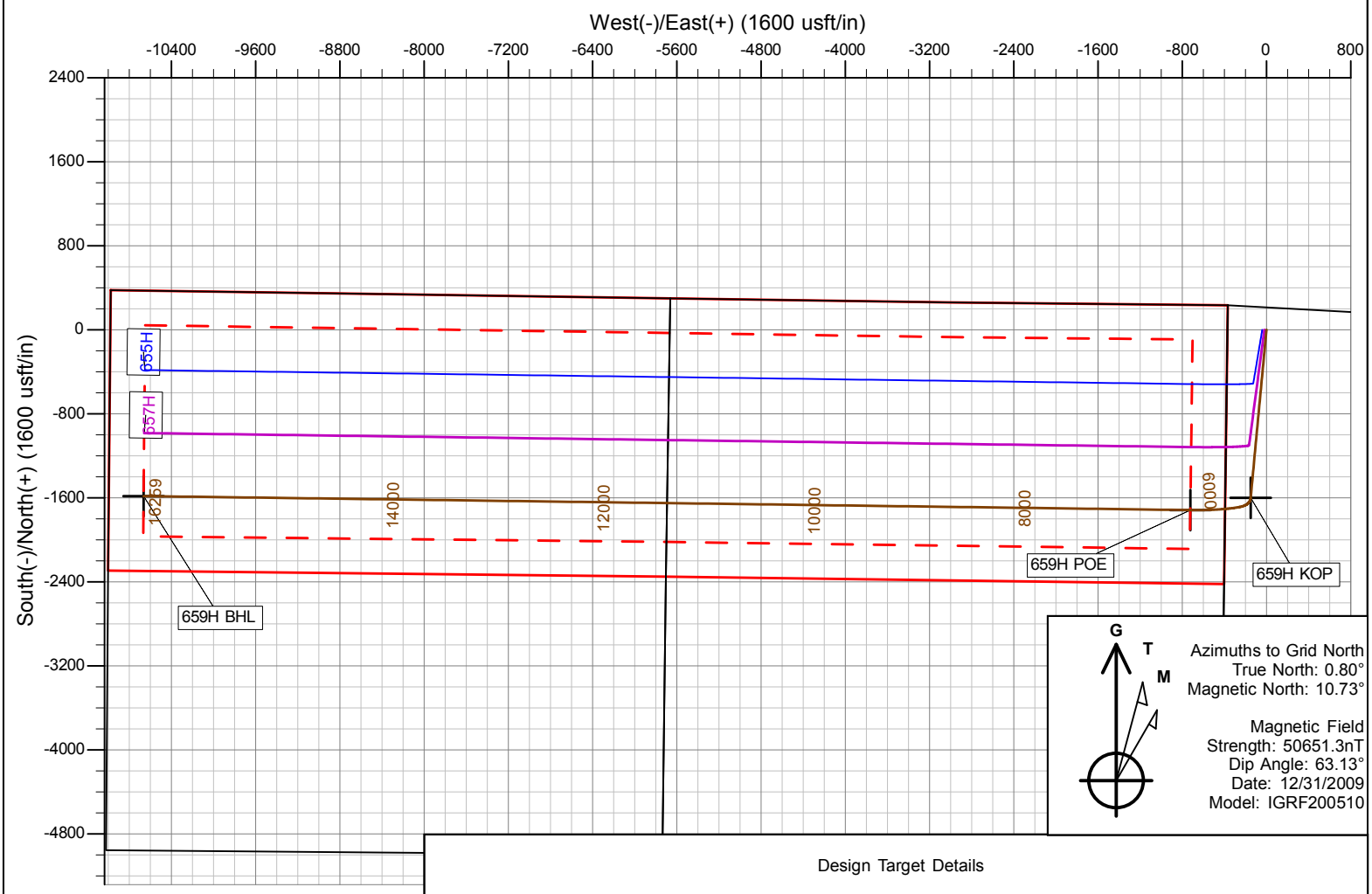
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,382.6	1,380.0	Ojo Alamo		0.00	
1,526.6	1,520.0	Kirtland		0.00	
1,792.5	1,770.0	Fruitland		0.00	
2,108.7	2,060.0	Pictured Cliffs		0.00	
2,223.1	2,165.0	Lewis		0.00	
2,571.9	2,485.0	Chacra		0.00	
3,765.6	3,580.0	Cliff House		0.00	
3,776.5	3,590.0	Menefee		0.00	
4,670.4	4,410.0	Point Lookout		0.00	
4,899.3	4,620.0	Mancos		0.00	
5,286.3	4,975.0	Gallup (MNCS_A)		0.00	
5,378.9	5,060.0	MNCS_B		0.00	
5,498.3	5,170.0	MNCS_C		0.00	
5,563.0	5,230.0	MNCS_Cms		0.00	
5,673.2	5,330.0	MNCS_D		0.00	
5,791.0	5,430.0	MNCS_E		0.00	
5,870.7	5,490.0	MNCS_F		0.00	
5,963.8	5,550.0	MNCS_G		0.00	
6,046.6	5,593.0	MNCS_H		0.00	
6,207.1	5,645.0	MNCS_I		0.00	

Enduring Resources LLC

Directional Drilling Plan
Plan View & Section View

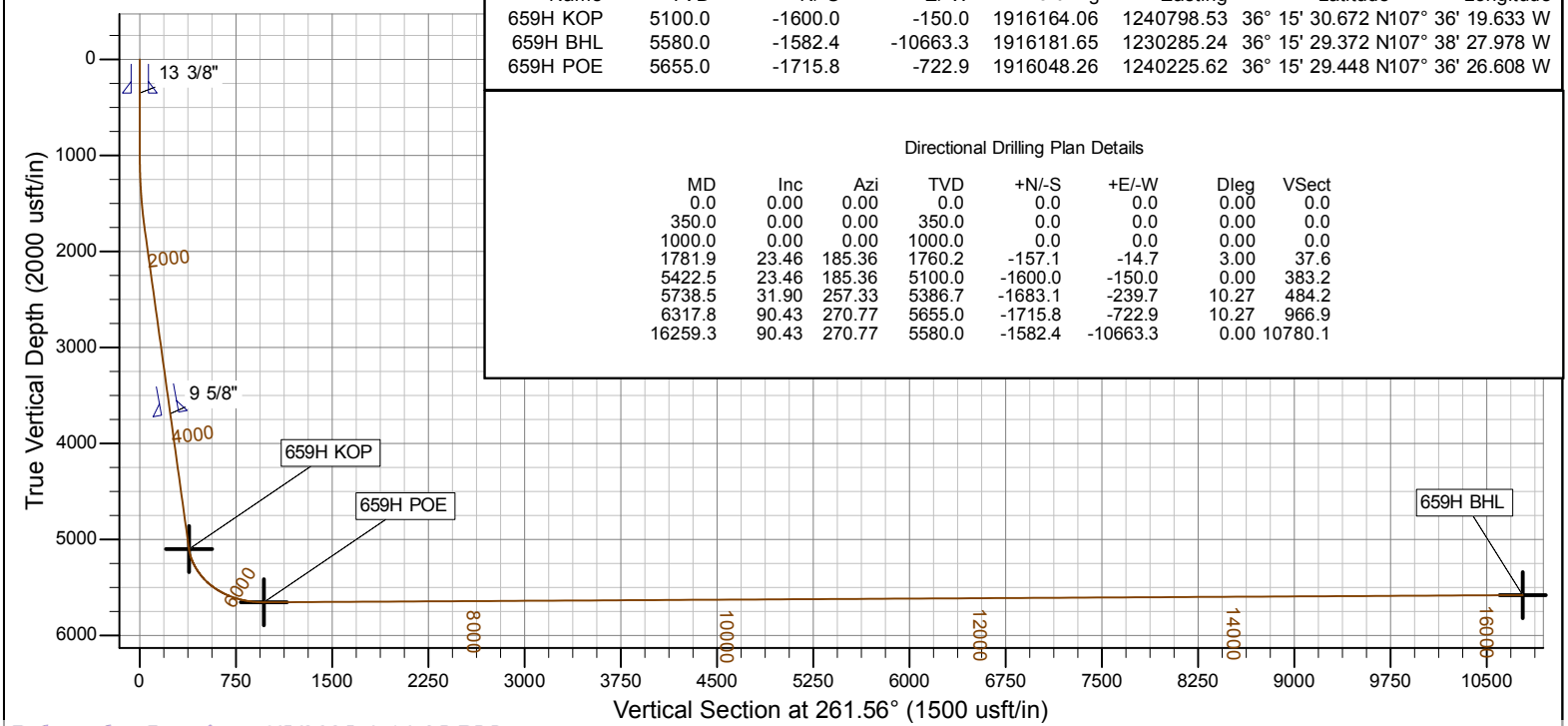
MC-7 COM 659H

Rio Arriba County, New Mexico
T23N R07W Sec.05 Lot D
Surface Latitude: 36° 15' 46.512 N
Surface Longitude: 107° 36' 18.076 W
Ground Level: 7032.0
Reference Elevation: KB @ 7060.0usft (Original Well Elev)



Design Target Details

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
659H KOP	5100.0	-1600.0	-150.0	1916164.06	1240798.53	36° 15' 30.672 N	107° 36' 19.633 W
659H BHL	5580.0	-1582.4	-10663.3	1916181.65	1230285.24	36° 15' 29.372 N	107° 38' 27.978 W
659H POE	5655.0	-1715.8	-722.9	1916048.26	1240225.62	36° 15' 29.448 N	107° 36' 26.608 W



Directional Drilling Plan Details

MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0
350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.0
1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.0
1781.9	23.46	185.36	1760.2	-157.1	-14.7	3.00	37.6
5422.5	23.46	185.36	5100.0	-1600.0	-150.0	0.00	383.2
5738.5	31.90	257.33	5386.7	-1683.1	-239.7	10.27	484.2
6317.8	90.43	270.77	5655.0	-1715.8	-722.9	10.27	966.9
16259.3	90.43	270.77	5580.0	-1582.4	-10663.3	0.00	10780.1

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington District Office
6251 College Blvd, Suite A
Farmington, New Mexico 87402

In Reply Refer To:
3162.3-1(NMF0110)

* ENDURING RESOURCES LLC

#659H MC 7 COM

Lease: NMNM 023050 Agreement: TBD
SH: Lot 8 Section 5, T. 23 N., R. 7 W.
Rio Arriba County, New Mexico
BH: SWNE Section 1, T. 23 N., R. 8 W.
San Juan County, New Mexico
***Above Data Required on Well Sign**

GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

The following special requirements apply and are effective when **checked**:

A. ☒ Note all surface/drilling conditions of approval attached.

B. ☒ The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated

C. ☐ Test the surface casing to a minimum of _____ psi for 30 minutes.

D. ☐ Test all casing strings below the surface casing to .22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield burst) for a minimum of 30 minutes.

E. ☒ Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the Bureau of Land Management, New Mexico State Office, Reservoir Management Group, 301 Dinosaur Trail, Santa Fe, New Mexico 87508.
The effective date of the agreement must be **prior** to any sales.

F. ☐ The use of co-flex hose is authorized contingent upon the following:
1. From the BOP to the choke manifold: the co-flex hose must be hobbled on both ends and saddle to prevent whip.
2. From the choke manifold to the discharge tank: the co-flex hoses must be as straight as practical, hobbled on both ends and anchored to prevent whip.
3. The co-flex hose pressure rating must be at least commensurate with approved BOPE.

I. GENERAL

A. Full compliance with all applicable laws and regulations, with the approved Permit to drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors. Failure to comply with these requirements and the filing of required reports will result in strict enforcement pursuant to 43 CFR 3163.1 or 3163.2.

B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).

C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.

D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-Field Office, weekly from the spud date until the well is completed and the Well Completion Report is filed. The report should be on 8-1/2 x 11 inch paper, and each page should identify the well by; operator's name, well number, location and lease number.

E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).

F. BOP equipment (except the annular preventer) shall be tested utilizing a test plug to full working pressure for 10 minutes. No bleed-off of pressure is acceptable. (See 43 CFR 3172.6(b)(9)(ii)).

G. The operator shall have sufficient weighting materials and lost circulation materials on location in the event of a pressure kick or in the event of lost circulation. (See 43 CFR 3172.8(a)).

H. The flare line(s) discharge shall be located not less than 100 feet from the well head, having straight lines unless turns are targeted with running tees, and shall be positioned downwind of the prevailing wind direction and shall be anchored. The flare system shall have an effective method for ignition. Where noncombustible gas is likely or expected to be vented, the system shall be provided supplemental fuel for ignition and to maintain a continuous flare. (See 43 CFR 3172.8(b)(7)).

I. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a Notice of Intent sundry within three business days. **Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours at 505-564-7600. Emergency program changes after hours should be directed to Virgil Lucero at 505-793-1836.**

J. The Inspection and Enforcement Section (I&E), phone number (505-564-7750) is to be notified at least 24 hours in advance of BOP test, spudding, cementing, or plugging operations so that a BLM representative may witness the operations.

K. Unless drilling operations are commenced within three years according to 43 CFR 3171.14, approval of the Application for Permit to Drill will expire. No extensions will be granted.

L. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the tool pusher shall maintain rig surveillance at all times, unless the well is secured with blowout preventers or cement plugs.

M. If for any reason, drilling operations are suspended for more than 90 days, a written notice must be provided to this office outlining your plans for this well.

N. **Commingling**: No production (oil, gas, and water) from the subject well should start until Sundry Notices (if necessary) granting variances from applicable regulations as related to commingling and off-lease measurement are approved by this office. (See 43 CFR 3173.14)

II. REPORTING REQUIREMENTS

A. For reporting purposes, all well Sundry notices, well completion and other well actions shall be referenced by the appropriate lease, communitization agreement and/or unit agreement numbers.

B. The following reports shall be filed with the BLM-Authorized Officer online through AFMSS 2 within 30 days after the work is completed.

1. Provide complete information concerning.

a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.

b. Intervals tested, perforated (include size, number and location of perforations), acidized, or fractured; and results obtained. Provide date work was done on well completion report and completion sundry notice.

c. Subsequent Report of Abandonment, show the way the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.

2. Well Completion Report will be submitted with 30 days after well has been completed.

a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.

3. Submit a cement evaluation log if cement is not circulated to surface.

C. Production Startup Notification is required no later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site or resumes production in the case of a well which has been off production for more than 90 days. The operator shall notify the Authorized Officer by letter or Sundry Notice, Form 3160-5, or orally to be followed by a letter or Sundry Notice, of the date on which such production has begun or resumed. CFR 43 3162.4-1(c).

III. DRILLER'S LOG

The following shall be entered in the daily driller's log: 1) Blowout preventer pressures tests, including test pressures and results, 2) Blowout preventer tests for proper functioning, 3) Blowout prevention drills conducted, 4) Casing run, including size, grade, weight, and depth set, 5) How pipe was cemented, including amount of cement, type, whether cement circulated to surface, location of cementing tools, etc., 6) Waiting on cement time for each casing string, 7) Casing pressure tests after cementing, including test pressure and results, and 8) Estimated amounts of oil and gas recovered and/or produced during drill stem test.

IV. GAS FLARING

Gas produced from this well may not be vented or flared beyond an initial, authorized test period of * Days, 20 MMCF following its (completion)(recompletion), or flowback has been routed to the production separator, whichever first occurs, without the prior, written approval of the authorized officer in accordance with 43 CFR 3179.81. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted. You shall be required to compensate the lessor for the portion of the gas vented or flared without approval which is determined to have been avoidably lost.

*30 days, unless a longer test period is specifically approved by the authorized officer. The 30-day period will commence upon the beginning of flowback following completion or recompletion.

V. SAFETY

A. All rig heating stoves are to be of the explosion-proof type.

B. Rig safety lines are to be installed.

C. Hard hats and other Personal Protective Equipment (PPE) must be utilized.

VI. CHANGE OF PLANS OR ABANDONMENT

A. Any changes of plans required to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.I.

B. If the well is dry, it is to be plugged in accordance with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.I. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section II.B.1c.

C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drill site without prior approval from the BLM-Authorized Officer.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 450521

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way Centennial, CO 80111	OGRID: 372286
	Action Number: 450521
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
sford	Cement is required to circulate on both surface and intermediate1 strings of casing.	4/9/2025
sford	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	4/9/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	6/5/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	6/5/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	6/5/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	6/5/2025