

Form 3160-3
(October 2024)FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2027UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER		5. Lease Serial No.
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address	3b. Phone No. (include area code)	9. API Well No. 30-045-38512
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish
16. No of acres in lease		13. State
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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 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.

(Continued on page 2)

*(Instructions on page 2)



Additional Operator Remarks

Location of Well

0. SHL: NENW / 196 FNL / 1893 FWL / TWSP: 23N / RANGE: 9W / SECTION: 28 / LAT: 36.204619 / LONG: -107.796647 (TVD: 0 feet, MD: 0 feet)
PPP: SWSE / 79 FSL / 2154 FEL / TWSP: 23N / RANGE: 9W / SECTION: 21 / LAT: 36.205393 / LONG: -107.792351 (TVD: 4316 feet, MD: 4601 feet)
PPP: SWNW / 0 FSL / 0 FEL / TWSP: 23N / RANGE: 9W / SECTION: 27 / LAT: 36.200111 / LONG: -107.784891 (TVD: 4457 feet, MD: 13081 feet)
PPP: NWNE / 0 FSL / 0 FEL / TWSP: 23N / RANGE: 9W / SECTION: 28 / LAT: 36.205081 / LONG: -107.792131 (TVD: 4457 feet, MD: 13081 feet)
PPP: NWNE / 0 FNL / 0 FEL / TWSP: 23N / RANGE: 9W / SECTION: 34 / LAT: 36.200111 / LONG: -107.784891 (TVD: 4457 feet, MD: 13081 feet)
BHL: NWNE / 535 FNL / 1505 FEL / TWSP: 23N / RANGE: 9W / SECTION: 34 / LAT: 36.189232 / LONG: -107.772433 (TVD: 4457 feet, MD: 13081 feet)

BLM Point of Contact

Name: CHRISTOPHER P WENMAN
Title: Natural Resource Specialist
Phone: (505) 564-7727
Email: cwenman@blm.gov

CONFIDENTIAL

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 30-045-38512	Pool Code 98157	Pool Name LYBROOK MANCOS W
Property Code 332891	Property Name GREATER LYBROOK UNIT	Well Number 038H
OGRID No. 372286	Operator Name ENDURING RESOURCES, LLC	Ground Level Elevation 6529'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☒ Tribal ☒ Federal

Surface Location

UL C	Section 28	Township 23N	Range 9W	Lot	Feet from N/S Line 196' NORTH	Feet from E/W Line 1893' WEST	Latitude 36.204619 °N	Longitude -107.796647 °W	County SAN JUAN
---------	---------------	-----------------	-------------	-----	----------------------------------	----------------------------------	--------------------------	-----------------------------	--------------------

Bottom Hole Location

UL B	Section 34	Township 23N	Range 9W	Lot	Feet from N/S Line 535' NORTH	Feet from E/W Line 1505' EAST	Latitude 36.189232 °N	Longitude -107.772433 °W	County SAN JUAN
---------	---------------	-----------------	-------------	-----	----------------------------------	----------------------------------	--------------------------	-----------------------------	--------------------

Dedicated Acres 440.00	Penetrated Spacing Unit SW/4 SE/4 - Section 21 SW/4 NW/4, N/2 SW/4 SE/4 SW/4, SW/4 SE/4 - Section 27 N/2 NE/4, SE/4 NE/4 - Section 28 N/2 NE/4 - Section 34	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit ☐ Yes ☐ No	Consolidation Code UNIT
Order Numbers R-22081			Well setbacks are under Common Ownership ☒ Yes ☐ No		

Kick Off Point (KOP)

UL C	Section 28	Township 23N	Range 9W	Lot	Feet from N/S Line 196' NORTH	Feet from E/W Line 1893' WEST	Latitude 36.204619 °N	Longitude -107.796647 °W	County SAN JUAN
---------	---------------	-----------------	-------------	-----	----------------------------------	----------------------------------	--------------------------	-----------------------------	--------------------

First Take Point (FTP)

UL O	Section 21	Township 23N	Range 9W	Lot	Feet from N/S Line 79' SOUTH	Feet from E/W Line 2154' EAST	Latitude 36.205393 °N	Longitude -107.792351 °W	County SAN JUAN
---------	---------------	-----------------	-------------	-----	---------------------------------	----------------------------------	--------------------------	-----------------------------	--------------------

Last Take Point (LTP)

UL B	Section 34	Township 23N	Range 9W	Lot	Feet from N/S Line 535' NORTH	Feet from E/W Line 1505' EAST	Latitude 36.189232 °N	Longitude -107.772433 °W	County SAN JUAN
---------	---------------	-----------------	-------------	-----	----------------------------------	----------------------------------	--------------------------	-----------------------------	--------------------

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

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. <u>Shaw-Marie Ford</u> 10/28/2025 Signature Date Shaw-Marie Ford Printed Name <u>sford@enduringresources.com</u> 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 <table><tr><td>Certificate Number 15269</td><td>Date of Survey APRIL 30, 2024</td></tr></table>	Certificate Number 15269	Date of Survey APRIL 30, 2024
Certificate Number 15269	Date of Survey APRIL 30, 2024		

SURFACE LOCATION (SHL)
196' FNL 1893' FWL
SECTION 28, T23N, R9W

KICK OFF POINT (KOP)
196' FNL 1893' FWL
SECTION 28, T23N, R9W

FIRST TAKE POINT (FTP)
79' FSL 2154' FEL
SECTION 21, T23N, R9W

LAST TAKE POINT (LTP)
535' FNL 1505' FEL
SECTION 34, T23N, R9W

BOTTOM HOLE LOCATION (BHL)
535' FNL 1505' FEL
SECTION 34, T23N, R9W

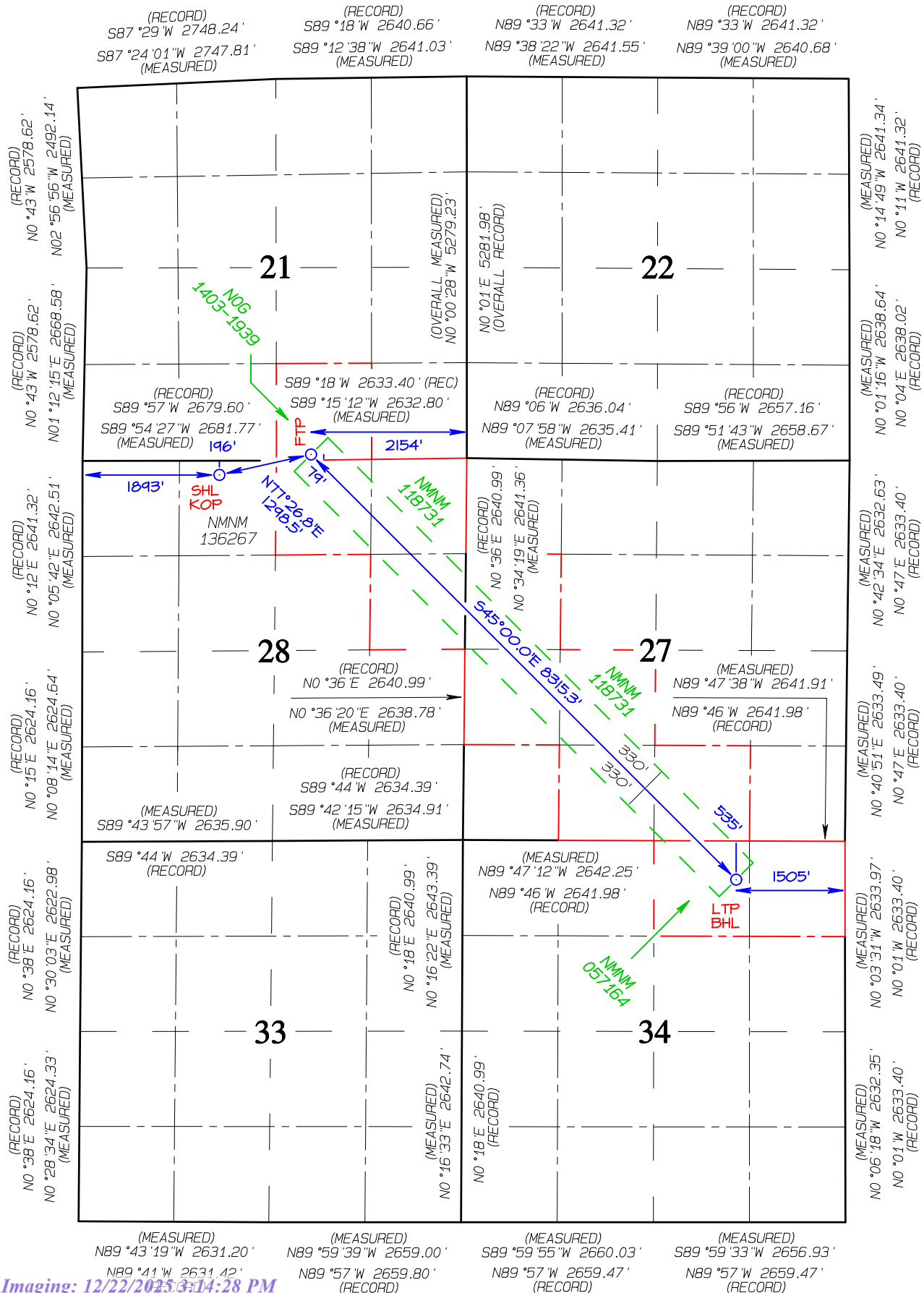
LAT 36.204619 °N
LONG -107.796647 °W
DATUM: NAD1983

LAT 36.204619 °N
LONG -107.796647 °W
DATUM: NAD1983

LAT 36.205393 °N
LONG -107.792351 °W
DATUM: NAD1983

LAT 36.189232 °N
LONG -107.772433 °W
DATUM: NAD1983

LAT 36.189232 °N
LONG -107.772433 °W
DATUM: NAD1983



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

Submit Electronically
Via E-permitting

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:** 07 / 19 / 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
Greater Lybrook Unit 036H	TBD	C-28-23N-9W	196 FNL x 1853 FWL	294	294	118
Greater Lybrook Unit 037H	TBD	C-28-23N-9W	196 FNL x 1873 FWL	336	336	135
Greater Lybrook Unit 038H	TBD	C-28-23N-9W	196 FNL x 1893 FWL	252	252	101
Greater Lybrook Unit 039H	TBD	C-28-23N-9W	196 FNL x 1913 FWL	378	378	151
				3-year Decline	3-year Decline	3-year Decline
Greater Lybrook Unit 036H	TBD	C-28-23N-9W	196 FNL x 1853 FWL	112	112	45
Greater Lybrook Unit 037H	TBD	C-28-23N-9W	196 FNL x 1873 FWL	128	128	51
Greater Lybrook Unit 038H	TBD	C-28-23N-9W	196 FNL x 1893 FWL	96	96	38
Greater Lybrook Unit 039H	TBD	C-28-23N-9W	196 FNL x 1913 FWL	144	144	58

IV. Central Delivery Point Name: Chaco Processing Plant [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
Greater Lybrook Unit 059H	TBD	Q4 2025	Q4 2025	Q4 2025	Q4 2025	Q4 2025
Greater Lybrook Unit 061H	TBD	Q4 2025	Q4 2025	Q4 2025	Q4 2025	Q4 2025
Greater Lybrook Unit 063H	TBD	Q4 2025	Q4 2025	Q4 2025	Q4 2025	Q4 2025
Greater Lybrook Unit 071H	TBD	Q4 2025	Q4 2025	Q4 2025	Q4 2025	Q4 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: 7/19/2025
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
Greater Lybrook Unit 036H 037H 038H 039H

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
Greater Lybrook Unit 036H 037H 038H 039H

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
Greater Lybrook Unit 036H 037H 038H 039H

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 take 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
Greater Lybrook Unit 036H 037H 038H 039H

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
6300 S SYRACUSE WAY, SUITE 525
CENTENNIAL, COLORADO 80211

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

WELL INFORMATION:

Name: Greater Lybrook Unit 038H

API Number: TBD

AFE Number: TBD

ER Well Number: TBD

State: New Mexico

County: San Juan

Surface Elevation: 6,529 ft ASL (GL) 6,553 ft ASL (KB)

Surface Location: 28-23-9 Sec-Twn-Rng 196 ft FNL 1,893 ft FWL

36.204619 ° N latitude 107.796647 ° W longitude (NAD 83)

BH Location: 34-23-9 Sec-Twn-Rng 535 ft FNL 1,505 ft FEL

36.189232 ° N latitude 107.772433 ° W longitude (NAD 83)

Driving Directions: FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:

South on US Hwy 550 for 38.3 miles to MM 113.4; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way; Left (Southeast) remaining on CR #7890 for 0.6 miles to T; Right (SouthWest) on CR #7890 for 0.6 miles to fork; Right (West) on access road for 0.6 mi to fork; Left/Straight (West) for 3.1 miles to Greater Lybrook Unit 772H PAD. There are 5 existing wells on this location and 4 new wells staked on the west side of the pad, from West to East: Greater Lybrook Unit 036H, 037H, 038H, 039H

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	6,478	75	75	W	normal
	Kirtland	6,395	158	158	W	normal
	Fruitland	6,160	393	393	G, W	sub
	Pictured Cliffs	5,770	783	783	G, W	sub
	Lewis	5,605	948	948	G, W	normal
	Chacra	5,415	1,138	1,138	G, W	normal
	Cliff House	4,410	2,143	2,194	G, W	sub
	Menefee	4,395	2,158	2,210	G, W	normal
	Point Lookout	3,359	3,194	3,324	G, W	normal
	Mancos	3,207	3,346	3,488	O,G	sub (~0.38)
	Gallup (MNCS_A)	2,872	3,681	3,848	O,G	sub (~0.38)
	MNCS_B	2,775	3,778	3,953	O,G	sub (~0.38)
	MNCS_C	2,684	3,869	4,051	O,G	sub (~0.38)
	MNCS_Cms	2,643	3,910	4,095	O,G	sub (~0.38)
	MNCS_D	2,509	4,044	4,241	O,G	sub (~0.38)
	MNCS_E	2,360	4,193	4,418	O,G	sub (~0.38)
	MNCS_F	2,309	4,244	4,487	O,G	sub (~0.38)
	MNCS_G	2,237	4,316	4,601	O,G	sub (~0.38)
	MNCS_H	2,197	4,356	4,679	O,G	sub (~0.38)
	MNCS_I	2,151	4,402	4,800	O,G	sub (~0.38)

FTP TARGET	2,237	4,316	4,601	O,G	sub (~0.38)
PROJECTED TD	2,096	4,457	13,081	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: 1,920 psi

Maximum anticipated surface pressure, assuming partially evacuated hole: 940 psi

Temperature: Maximum anticipated BHT is 125° F or less

H₂S INFORMATION:

H₂S 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 7" casing to TD; gas detection from drillout of 9-5/8" casing to TD.

MWD / LWD: Gamma Ray from drillout of 9-5/8" casing to TD

Open Hole Logs: None planned

Testing: None planned

Coring: None planned

Cased Hole Logs: CBL on 7" casing from deepest free-fall depth to surface

DRILLING RIG INFORMATION:

Contractor: Ensign

Rig No.: 140

Draw Works: Pacific Rim 1500AC (1,500 hp)

Mast: Process MFG Corp Swing Up Triple (136 ft, 750,000 lbs)

Top Drive: Tesco 400-EXI-600 (400 ton)

Prime Movers: 3 - CAT 3512C (1,350 hp)

Pumps: 2 - Gardner Denver PZ-11 (7,500 psi)

BOPE 1: T3 Annular & Shaffer double gate ram (11", 5,000 psi)

BOPE 2: T3 annular(11", 5,000 psi)

Choke 3", 5,000 psi

KB-GL (ft): 23.5

Note: Actual drilling rig may vary depending on availability at time the well is scheduled to be drilled.

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.
- 3) 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.

- 4) 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.
- 5) 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.
- 6) 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 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 minimize 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 and attached Newpark mud program for additional details.

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: 12-1/4"

Bit / Motor: Mill Tooth or PDC, no motor

MWD / Survey: No MWD, deviation survey

Logging: None

Casing Specs: Specs		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
	9.625	36.0	K-55	STC	2,020	3,520	564,000	423,000

Loading		153	1,037	110,988	110,988
Min. S.F.		13.21	3.40	5.08	3.81

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): Minimum: 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)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)
Redi-Mix	TYPE I-II	14.5	1.61	7.41	0.3132	50%	0	114	184

Calculated cement volumes assume gauge hole and the excess noted in table

Csg ID 8.921

Mesa Ready Mix or first available

Shoe Track L 44

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	5,199 ft (MD)	Hole Section Length:	4,849 ft
350 ft (TVD)	to	4,841 ft (TVD)	Casing Required:	5,199 ft

Fluid:	Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	Comments
	LSND (KCI)	8.8 - 9.2	15	8 - 14	6 - 12	10.8 - 11.2	No OBM

Hole Size (inches): 8.75

Bit / Motor: 8-3/4" PDC bit 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 9-5/8" casing to 1,500 psi for 30 minutes.

Casing Specs:							Tens. Body	Tens. Conn
		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	(lbs)	(lbs)
	7	26.0	K-55	LTC	4,320	4,980	415,000	367,000
	Loading					2,115	1,217	217,878
Min. S.F.					2.04	4.09	1.90	1.68

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): Minimum: 3,400 Optimum: 4,530 Maximum: 5,660

Centralizers: 1 per joint in non-vertical hole; 1 per 2-joints in vertical hole

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)
Lead	III:POZ Blend	12.5	2.150	12.06	80%	0	410	880
Tail	Type III	13.5	1.710	8.88	30%	3,388	213	363

Annular Capacity 0.16681 cuft/ft 7" casing x 9-5/8" casing annulus Shoe Track L 44

0.1503 cuft/ft 9-5/8" casing x 12-1/4" hole annulus Casing ID 6.276

0.2148 cuft/ft 7" casing casing volume

Calculated cement volumes assume gauge hole and the excess noted in table

Drake Intermediate Cementing Program

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.

5,199 ft (MD)	to	13,081 ft (MD)	Hole Section Length:	7,882 ft
4,841 ft (TVD)	to	4,457 ft (TVD)	Casing Required:	8,042 ft
Estimated KOP:	4,339 ft (MD)	4,268 ft (TVD)		
Estimated Liner Top:	5,039 ft (MD)	4,806 ft (TVD)		
Estimated Landing Point (FTP):	4,601 ft (MD)	4,316 ft (TVD)		
Estimated Lateral Length:	8,480 ft (MD)			

Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	YP (lb/100 sqft)	pH	Comments	Comments
	WBM	8.7 - 9.0	NC	+20	±2	9-9.5	prod water	OBM as contingency

Hole Size: 6.125

Bit / Motor: 6-1/8" PDC bit 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.

Liner/Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	4.500	11.6	P-110	BTC	7,560	10,690	367,000	385,000
Loading					2,202	8,755	230,938	230,938
Min. S.F.					3.43	1.22	1.59	1.67

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. Tension calculations assume vertical hole to approximate drag in lateral.

MU Torque (ft lbs): Minimum: BTC Optimum: BTC Maximum: BTC

Centralizers: Centralizer count and placement may be adjusted based on well conditions and as-drilled surveys.

Cement:	Type	Weight (ppg)	Yield	Water	% Excess	Planned TOC	Total Cmt	Total Cmt (cu)
Spacer	IntegraGuard Star	11		31.6		0	40 bbls	
Tail	G:POZ blend	13.3	1.520	7.50	25%	5,039	655	996

Displacement 175 est bbls

Annular Capacities	0.1044	cuft/ft	4-1/2" casing x 7" casing annulus	
	0.09417	cuft/ft	4-1/2" casing x 6-1/8" hole annulus	
	0.0873	cuft/ft	4-1/2" casing volume	est shoe jt ft 100
	0.0102	bbls/ft	4" DP capacity	

Calculated cement volumes assume gauge hole and the excess noted in table

American Cementing Liner & Production Blend

				IntegraGuard Star			
S-8 Silica Flour	Avis 616 viscosifier	FP24 Defoamer .5	Plus 3K LCM 15	SS201 Surfactant 1			
Spacer 163.7 lbs/bbl	11.6 lb/bbl	lb/bbl	lb/bbl	gal/bbl			
	Bentonite			IntegraGuard		FP24 Defoamer	
	BA90 Bonding	Viscosifier 8%	FL24 Fluid Loss .5%	GW86 Viscosifier	R7C Retarder .2%	0.3% BWOB, Anti-	
Lead/Tail	ASTM Type I/II	Agent 5.0 lb/sx	BWOB	BWOB	.1% BWOB	BWOB	Static .01 lb/sx

Type G 50%	Pozzolan Fly Ash Extender 50%	BA90 Bonding Agent 3.0 lb/sx	Bentonite Viscosifier 4% BWOB	FL24 Fluid Loss .4% BWOB	IntegraGuard GW86 Viscosifier .1% BWOB	R3 Retarder BWOB	FP24 Defoamer .3% BWOB, IntegraSeal 0.25 lb/sx
------------	----------------------------------	---------------------------------	-------------------------------------	-----------------------------	--	---------------------	---

Notify NMOCD & BLM if cement is not circulated to surface.

Note: This well will not be considered an unorthodox well location as defined by NMAC 19.15.16.15.C.5. As defined in NMAC 19.15.16.15.C.1.a and 19.15.16.15.C.1.b, no point in the completed interval shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth well. The boundaries of the completed interval, as defined by NMAC 19.15.16.7.B, are the last take point and first take point, as defined by NMAC 19.15.16.7.E and NMAC 19.15.16.7.J, respectively. In the case of this well, the last take point will be the bottom toe-initiation sleeve, and the first take point will be the top perforation. **Neither the toe-initiation sleeve nor the top perforation shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth of the well.**

FINISH WELL: ND BOP, cap well, RDMO.

COMPLETION AND PRODUCTION PLAN:

Est Lateral Length: 8,380

Est Frac Inform: 35 Frac Stages 135,000 bbls slick water 10,900,000 lbs proppant

Frac: 39 plug-and-perf stages with 150,000 bbls slickwater fluid and 12,100,000 lbs of proppant (estimated)

Flowback: Flow back through production tubing as pressures allow

Production: Produce through production tubing via gas-lift into permanent production and storage facilities

ESTIMATED START DATES:

Drilling: 12/16/2024

Completion: 2/14/2025

Production: 3/31/2025

Prepared by: Greg Olson 7/18/2024

Updated:

WELL NAME: **Greater Lybrook Unit 038H**

OBJECTIVE: **Drill, complete, and equip single lateral in the Mancos-Gallup formation**

API Number: *TBD*

AFE Number: *TBD*

ER Well Number: *TBD*

State: *New Mexico*

County: *San Juan*

Surface Elev.: *6,529* ft ASL (GL) *6,553* ft ASL (KB)

Surface Location: *28-23-9* Sec-Twn- Rng *196* ft FNL *1,893* ft FWL

BH Location: *34-23-9* Sec-Twn- Rng *535* ft FNL *1505* ft FEL

Driving Directions: **FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:**

South on US Hwy 550 for 38.3 miles to MM 113.4; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way; Left (Southeast) remaining on CR #7890 for 0.6 miles to T; Right (SouthWest) on CR #7890 for 0.6 miles to fork; Right (West) on access road for 0.6 mi to fork; Left/Straight (West) for 3.1 miles to Greater Lybrook Unit 772H PAD. There are 5 existing wells on this location and 4 new wells staked on the west side of the pad, from West to East: Greater Lybrook Unit 036H, 037H, 038H, 039H

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	12.250	350	9.625	36	K-55	STC	0	350
Intermediate	8.750	5,199	7	26.0	K-55	LTC	0	5,199
Production	6.125	13,081	4.500	11.6	P-110	BTC	5,039	13,081

CEMENT PROPERTIES SUMMARY:

	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	TYPE I-II	14.5	1.61	7.41	0.3132	50%	0	114
Inter. (Lead)	III:POZ Blend	12.5	2.15	12.06	0.1668	80%	0	410
Inter. (Tail)	Type III	13.5	1.71	8.88	0.1503	30%	3,388	213
Prod. (Lead)	0	0	0.000	0	0.1044	0%	0	0
Prod. (Tail)	G:POZ blend	13.3	1.520	7.5	0.0873	25%	5,039	655

COMPLETION / PRODUCTION SUMMARY:

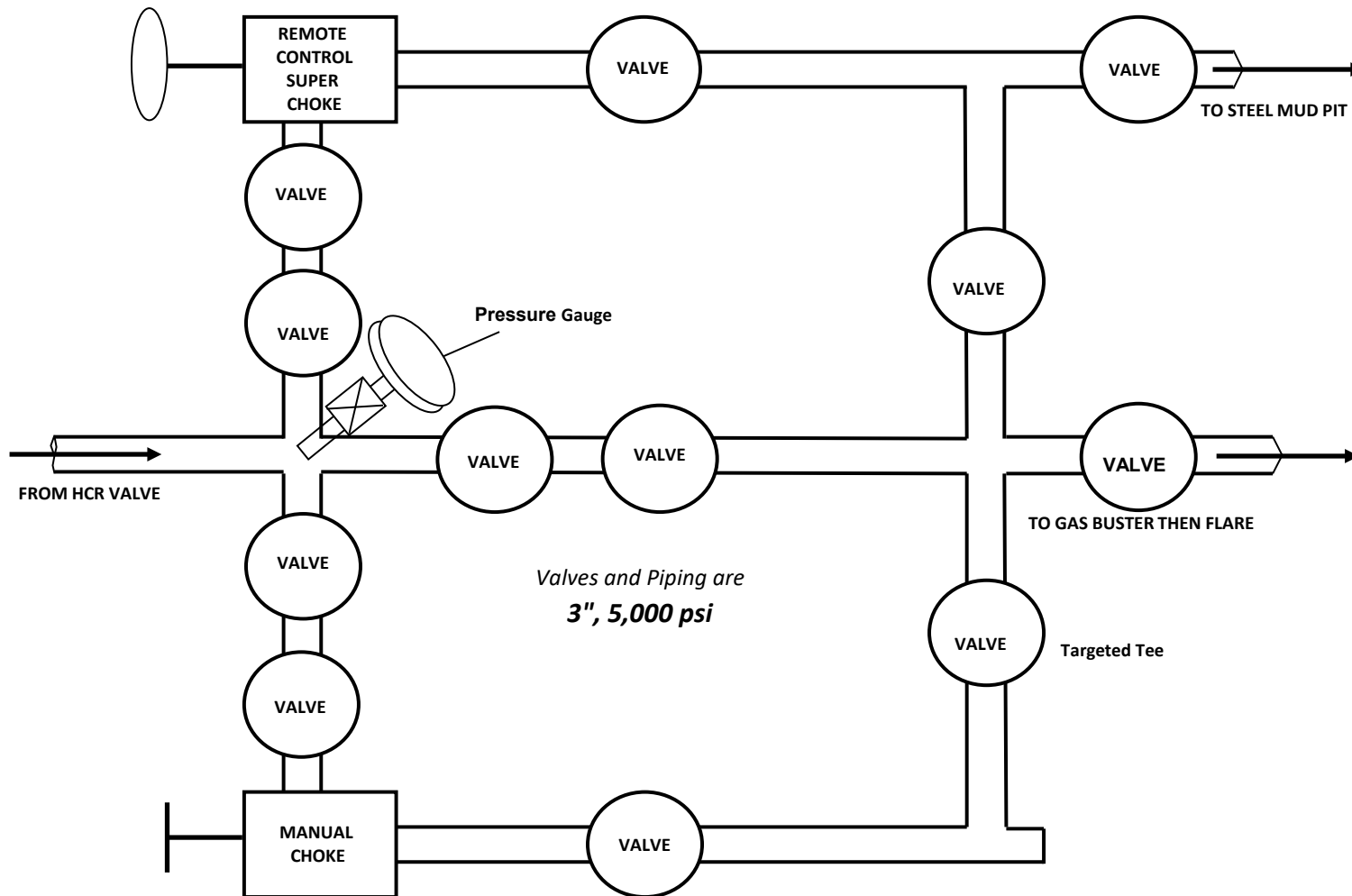
Frac: 39 plug-and-perf stages with 150,000 bbls slickwater fluid and 12,100,000 lbs of proppant (estimated)
Flowback: Flow back through production tubing as pressures allow
Production: Produce through production tubing via gas-lift into permanent production and storage facilities

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	5,199 ft
KOP (MD)	4,339 ft
KOP (TVD)	4,268 ft
Target (TVD)	4,316 ft
Curve BUR	10 °/100 ft
POE (MD)	4,601 ft
TD (MD)	13,081 ft
Lat Len (ft)	8,480 ft

Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	75	75
Kirtland	158	158
Fruitland	393	393
Pictured Cliffs	783	783
Lewis	948	948
Chacra	1,138	1,138
Cliff House	2,143	2,194
Menefee	2,158	2,210
Point Lookout	3,194	3,324
Mancos	3,346	3,488
Gallup (MNCS_A)	3,681	3,848
MNCS_B	3,778	3,953
MNCS_C	3,869	4,051
MNCS_Cms	3,910	4,095
MNCS_D	4,044	4,241
MNCS_E	4,193	4,418
MNCS_F	4,244	4,487
MNCS_G	4,316	4,601
MNCS_H	4,356	4,679
MNCS_I	4,402	4,800
FTP TARGET	4,316	4,601
PROJECTED TD	4,457	13,081

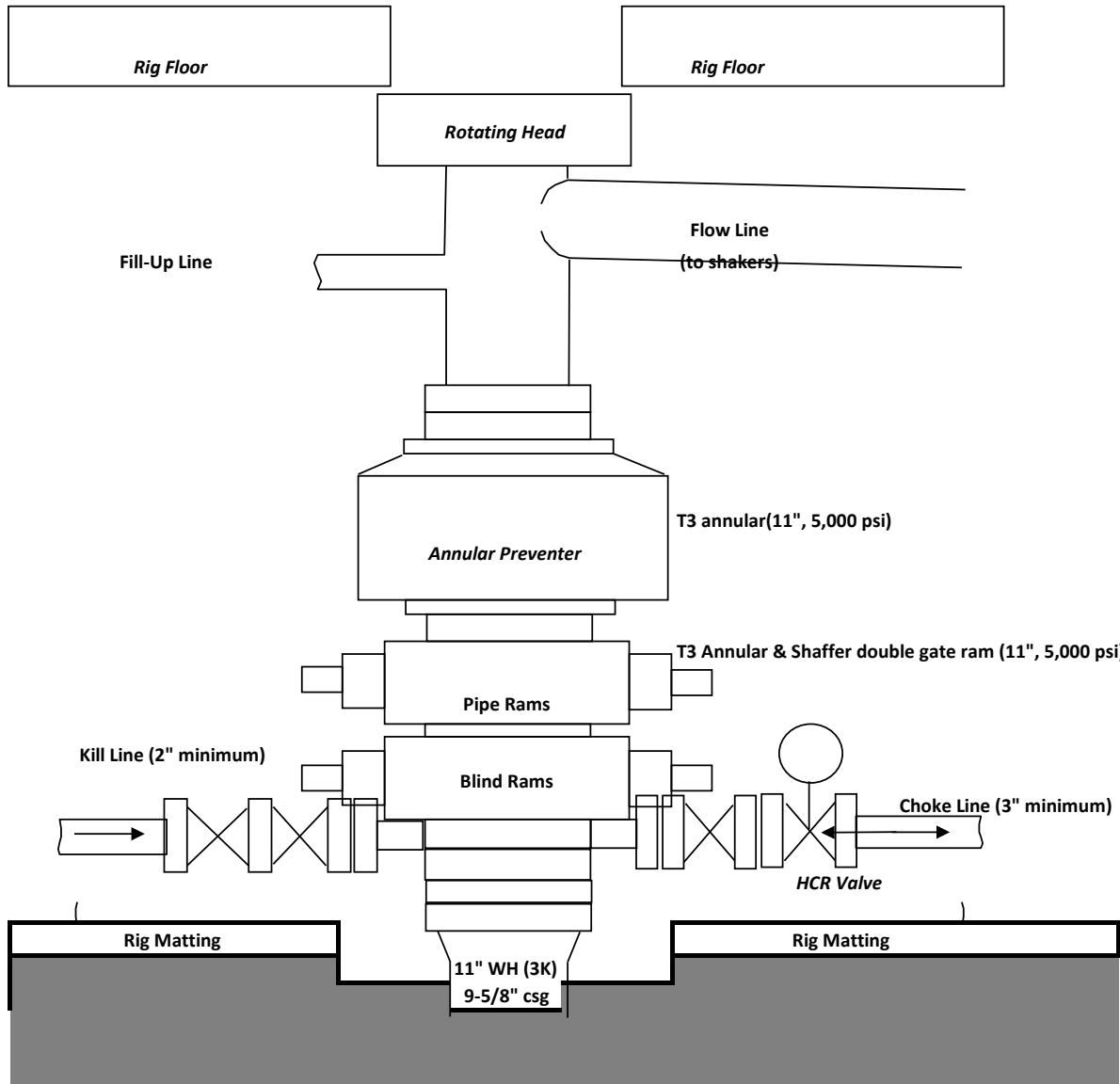
Greater Lybrook Unit 038H

NOTE: EXACT BOPE AND CHOKE CONFIGURATION 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.

CHOKE MANIFOLD

Greater Lybrook Unit 038H

NOTE: EXACT BOPE AND CHOKE CONFIGURATION 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.

BOPE



Well: Greater Lybrook Unit 38H
Site: Greater Lybrook (36, 37, 38 & 39)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig:

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Depth Reference: RKB=6529+23.5 @ 6552.50ft

Surface location:
Northing: 1893780.90
Easting: 2733914.92
Latitude: 36.20461900
Longitude: -107.79664700

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.457°



Azimuths to Grid North
True North: -0.02°
Magnetic North: 8.46°

Magnetic Field
Strength: 48965.7nT
Dip Angle: 62.65°
Date: 8/21/2024
Model: IGRF2020



CASING DETAILS

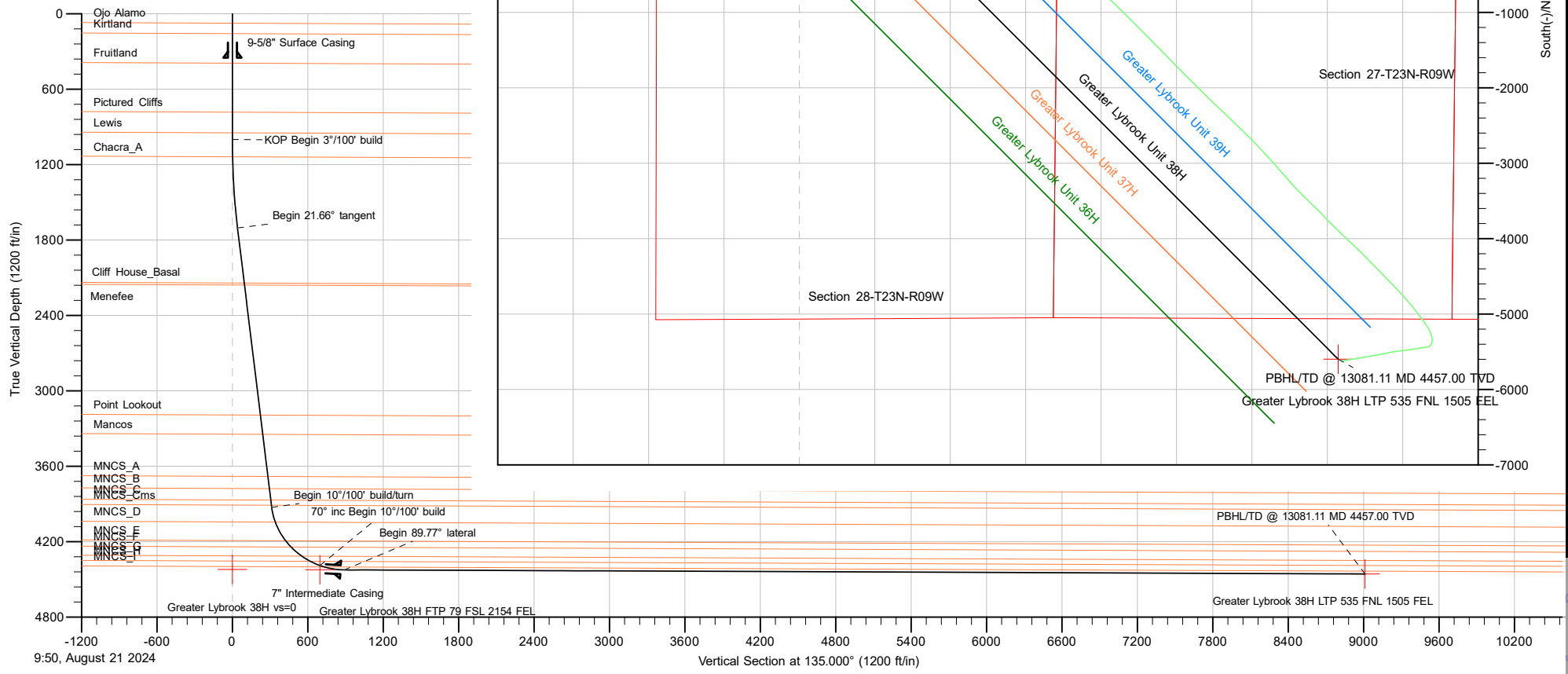
TVD	MD	Size
350.00	350.00	9-5/8
4423.78	4931.63	7

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.000	0.00	
2	1000.00	0.00	0.000	1000.00	0.00	0.00	0.00	0.000	0.00	KOP Begin 3"/100' build
3	1721.89	21.66	62.921	1704.82	61.37	120.03	3.00	62.921	41.48	Begin 21.66° tangent
4	4112.87	21.66	62.921	3927.03	463.04	905.69	0.00	0.000	313.00	Begin 10°/100' build/turn
5	4761.63	70.00	135.000	4390.01	282.26	1267.30	10.00	80.943	696.53	70° inc Begin 10°/100' build
6	4959.34	89.77	135.000	4424.56	145.31	1404.24	10.00	0.000	890.20	Begin 89.77° lateral
7	13081.11	89.77	135.000	4457.00	-5597.59	7147.18	0.00	0.000	9011.91	PBHL/TD @ 13081.11 MD 4457.00 TVD

DESIGN TARGET DETAILS

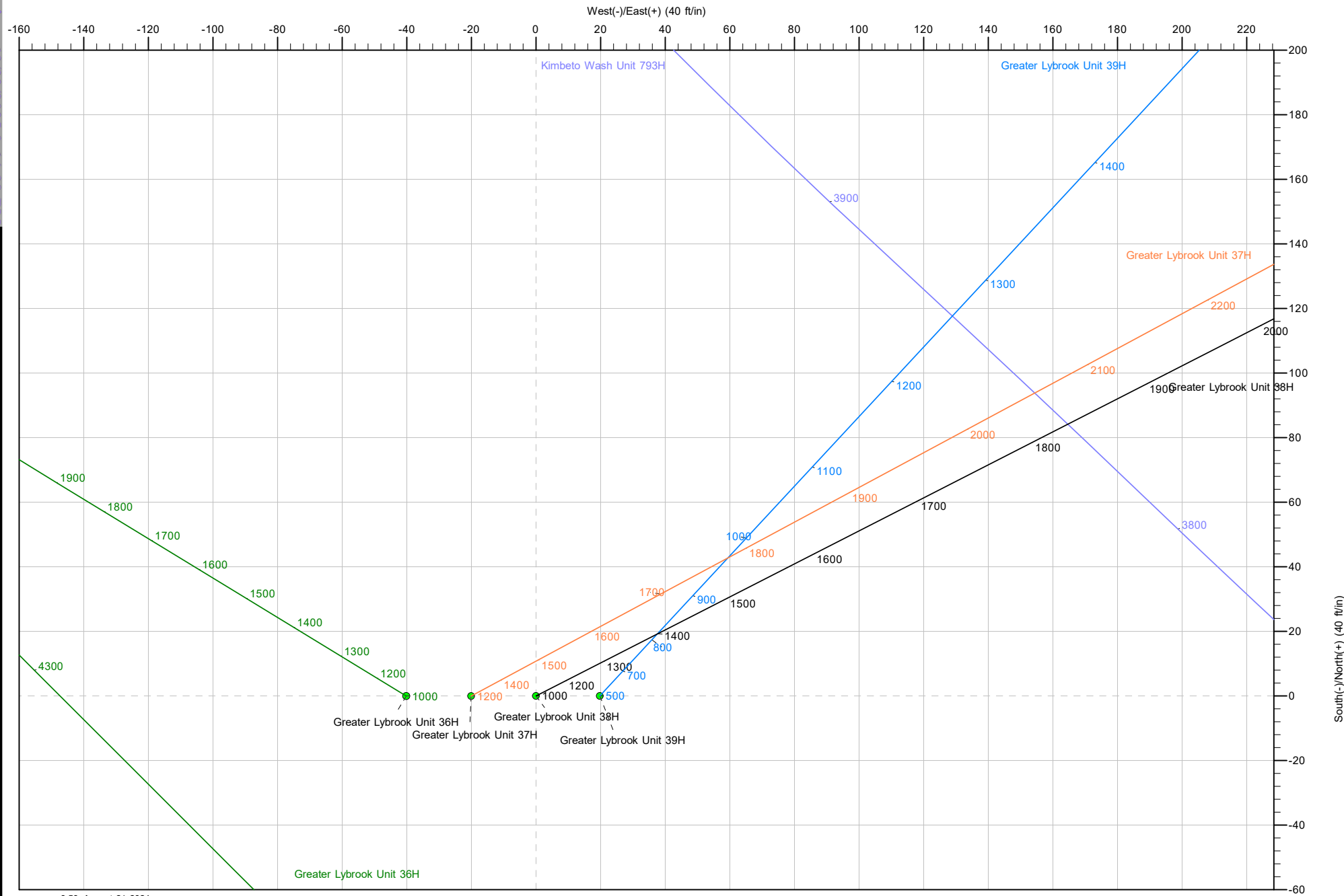
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Greater Lybrook 38H FTP 79 FSL 2154 FEL	4423.78	282.26	1267.30	1894063.16	2735182.21	36.20539300	-107.79235100
Greater Lybrook 38H LTP 535 FNL 1505 FEL	4457.00	-5597.59	7147.18	1888183.32	2741062.08	36.18923200	-107.77243300
Greater Lybrook 38H vs=0	4421.00	774.78	774.78	1894555.68	2734689.70	36.20674656	-107.79401976



9:50, August 21 2024



Well: Greater Lybrook Unit 38H
Site: Greater Lybrook (36, 37, 38 & 39)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig:





Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project	San Juan County, New Mexico NAD83 NM W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Greater Lybrook (36, 37, 38 & 39)		
Site Position:		Northing:	1,893,780.89 usft
From:	Lat/Long	Easting:	2,733,874.80 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	36.20461900
		Longitude:	-107.79678300

Well	Greater Lybrook Unit 38H, Surf loc: 196 FNL 1893 FWL Section 28-T23N-R09W		
Well Position	+N/-S	0.00 ft	Northing: 1,893,780.90 usft
	+E/-W	0.00 ft	Easting: 2,733,914.92 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
Grid Convergence:	0.022 °	Ground Level:	6,529.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/21/2024	8.478	62.646	48,965.68914463

Design	rev0				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	135.000	

Plan Survey Tool Program	Date	8/21/2024			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	13,081.11	rev0 (Original Hole)	MWD	
				OWSG MWD - Standard	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,721.89	21.66	62.921	1,704.82	61.37	120.03	3.00	3.00	0.00	62.921	
4,112.87	21.66	62.921	3,927.03	463.04	905.69	0.00	0.00	0.00	0.000	
4,761.63	70.00	135.000	4,390.01	282.26	1,267.30	10.00	7.45	11.11	80.943	
4,959.34	89.77	135.000	4,424.56	145.31	1,404.24	10.00	10.00	0.00	0.000	
13,081.11	89.77	135.000	4,457.00	-5,597.59	7,147.18	0.00	0.00	0.00	0.000	Greater Lybrook 38H



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.00	0.00	0.000	75.00	0.00	0.00	0.00	0.00	0.00	0.00
Ojo Alamo									
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
158.00	0.00	0.000	158.00	0.00	0.00	0.00	0.00	0.00	0.00
Kirtland									
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
350.00	0.00	0.000	350.00	0.00	0.00	0.00	0.00	0.00	0.00
9-5/8" Surface Casing									
393.00	0.00	0.000	393.00	0.00	0.00	0.00	0.00	0.00	0.00
Fruitland									
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
783.00	0.00	0.000	783.00	0.00	0.00	0.00	0.00	0.00	0.00
Pictured Cliffs									
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
948.00	0.00	0.000	948.00	0.00	0.00	0.00	0.00	0.00	0.00
Lewis									
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 3°/100' build									
1,100.00	3.00	62.921	1,099.95	1.19	2.33	0.81	3.00	3.00	0.00
1,138.13	4.14	62.921	1,138.01	2.27	4.45	1.54	3.00	3.00	0.00
Chacra_A									
1,200.00	6.00	62.921	1,199.63	4.76	9.32	3.22	3.00	3.00	0.00
1,300.00	9.00	62.921	1,298.77	10.70	20.94	7.24	3.00	3.00	0.00
1,400.00	12.00	62.921	1,397.08	19.00	37.16	12.84	3.00	3.00	0.00
1,500.00	15.00	62.921	1,494.31	29.62	57.94	20.02	3.00	3.00	0.00
1,600.00	18.00	62.921	1,590.18	42.55	83.23	28.76	3.00	3.00	0.00
1,700.00	21.00	62.921	1,684.43	57.75	112.95	39.03	3.00	3.00	0.00
1,721.89	21.66	62.921	1,704.82	61.37	120.03	41.48	3.00	3.00	0.00
Begin 21.66° tangent									
1,800.00	21.66	62.921	1,777.42	74.49	145.70	50.35	0.00	0.00	0.00
1,900.00	21.66	62.921	1,870.36	91.29	178.56	61.71	0.00	0.00	0.00
2,000.00	21.66	62.921	1,963.30	108.09	211.42	73.06	0.00	0.00	0.00
2,100.00	21.66	62.921	2,056.24	124.89	244.28	84.42	0.00	0.00	0.00
2,193.76	21.66	62.921	2,143.38	140.64	275.09	95.07	0.00	0.00	0.00
Cliff House_Basal									
2,200.00	21.66	62.921	2,149.18	141.69	277.14	95.78	0.00	0.00	0.00
2,209.90	21.66	62.921	2,158.39	143.35	280.39	96.90	0.00	0.00	0.00
Menefee									
2,300.00	21.66	62.921	2,242.13	158.49	310.00	107.13	0.00	0.00	0.00
2,400.00	21.66	62.921	2,335.07	175.29	342.85	118.49	0.00	0.00	0.00
2,500.00	21.66	62.921	2,428.01	192.09	375.71	129.84	0.00	0.00	0.00
2,600.00	21.66	62.921	2,520.95	208.89	408.57	141.20	0.00	0.00	0.00
2,700.00	21.66	62.921	2,613.89	225.69	441.43	152.55	0.00	0.00	0.00
2,800.00	21.66	62.921	2,706.83	242.49	474.29	163.91	0.00	0.00	0.00
2,900.00	21.66	62.921	2,799.77	259.29	507.15	175.27	0.00	0.00	0.00
3,000.00	21.66	62.921	2,892.71	276.09	540.01	186.62	0.00	0.00	0.00



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,100.00	21.66	62.921	2,985.66	292.89	572.87	197.98	0.00	0.00	0.00
3,200.00	21.66	62.921	3,078.60	309.68	605.73	209.33	0.00	0.00	0.00
3,300.00	21.66	62.921	3,171.54	326.48	638.58	220.69	0.00	0.00	0.00
3,324.06	21.66	62.921	3,193.90	330.53	646.49	223.42	0.00	0.00	0.00
Point Lookout									
3,400.00	21.66	62.921	3,264.48	343.28	671.44	232.04	0.00	0.00	0.00
3,487.68	21.66	62.921	3,345.97	358.01	700.25	242.00	0.00	0.00	0.00
Mancos									
3,500.00	21.66	62.921	3,357.42	360.08	704.30	243.40	0.00	0.00	0.00
3,600.00	21.66	62.921	3,450.36	376.88	737.16	254.76	0.00	0.00	0.00
3,700.00	21.66	62.921	3,543.30	393.68	770.02	266.11	0.00	0.00	0.00
3,800.00	21.66	62.921	3,636.24	410.48	802.88	277.47	0.00	0.00	0.00
3,848.30	21.66	62.921	3,681.14	418.60	818.75	282.95	0.00	0.00	0.00
MNCS_A									
3,900.00	21.66	62.921	3,729.19	427.28	835.74	288.82	0.00	0.00	0.00
3,952.72	21.66	62.921	3,778.18	436.14	853.06	294.81	0.00	0.00	0.00
MNCS_B									
4,000.00	21.66	62.921	3,822.13	444.08	868.60	300.18	0.00	0.00	0.00
4,050.68	21.66	62.921	3,869.23	452.59	885.25	305.93	0.00	0.00	0.00
MNCS_C									
4,094.81	21.66	62.921	3,910.25	460.01	899.75	310.95	0.00	0.00	0.00
MNCS_Cms									
4,100.00	21.66	62.921	3,915.07	460.88	901.46	311.53	0.00	0.00	0.00
4,112.87	21.66	62.921	3,927.03	463.04	905.69	313.00	0.00	0.00	0.00
Begin 10°/100' build/turn									
4,150.00	22.53	72.529	3,961.44	468.30	918.57	318.39	10.00	2.34	25.88
4,200.00	24.51	84.057	4,007.31	472.25	938.04	329.36	10.00	3.97	23.06
4,241.08	26.70	92.109	4,044.37	472.79	955.75	341.50	10.00	5.34	19.60
MNCS_D									
4,250.00	27.23	93.689	4,052.32	472.59	959.78	344.50	10.00	5.95	17.72
4,300.00	30.50	101.550	4,096.12	469.31	983.65	363.69	10.00	6.53	15.72
4,350.00	34.15	107.951	4,138.37	462.44	1,009.44	386.79	10.00	7.30	12.80
4,400.00	38.07	113.216	4,178.77	452.03	1,036.98	413.62	10.00	7.85	10.53
4,417.88	39.53	114.876	4,192.70	447.46	1,047.21	424.08	10.00	8.13	9.29
MNCS_E									
4,450.00	42.19	117.614	4,217.00	438.16	1,066.05	443.98	10.00	8.30	8.52
4,487.24	45.36	120.453	4,243.88	425.65	1,088.56	468.75	10.00	8.50	7.62
MNCS_F									
4,500.00	46.46	121.355	4,252.76	420.94	1,096.42	477.64	10.00	8.62	7.07
4,550.00	50.83	124.595	4,285.80	400.49	1,127.87	514.33	10.00	8.74	6.48
4,600.00	55.28	127.452	4,315.85	376.98	1,160.16	553.79	10.00	8.90	5.71
4,600.67	55.34	127.488	4,316.23	376.64	1,160.59	554.33	10.00	8.96	5.39
MNCS_G									
4,650.00	59.79	130.015	4,342.68	350.57	1,193.04	595.71	10.00	9.02	5.12
4,678.56	62.38	131.374	4,356.49	334.27	1,211.98	620.63	10.00	9.09	4.76
MNCS_H									
4,700.00	64.34	132.352	4,366.11	321.48	1,226.26	639.77	10.00	9.13	4.56
4,750.00	68.93	134.517	4,385.93	289.93	1,259.56	685.64	10.00	9.18	4.33
4,761.63	70.00	135.000	4,390.01	282.26	1,267.30	696.53	10.00	9.21	4.16
70° inc Begin 10°/100' build									
4,800.00	73.84	135.000	4,401.92	256.47	1,293.08	733.00	10.00	10.00	0.00
4,800.09	73.84	135.000	4,401.94	256.41	1,293.15	733.08	0.00	0.00	0.00
MNCS_I									



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,850.00	78.84	135.000	4,413.72	222.13	1,327.43	781.57	10.02	10.02	0.00
4,900.00	83.84	135.000	4,421.25	187.19	1,362.37	830.98	10.00	10.00	0.00
4,931.63	87.00	135.000	4,423.78	164.89	1,384.66	862.51	10.00	10.00	0.00
7" Intermediate Casing									
4,950.00	88.84	135.000	4,424.45	151.91	1,397.64	880.86	10.00	10.00	0.00
4,959.34	89.77	135.000	4,424.56	145.31	1,404.24	890.20	10.00	10.00	0.00
Begin 89.77° lateral									
5,000.00	89.77	135.000	4,424.72	116.56	1,433.00	930.86	0.00	0.00	0.00
5,100.00	89.77	135.000	4,425.12	45.85	1,503.71	1,030.86	0.00	0.00	0.00
5,200.00	89.77	135.000	4,425.52	-24.86	1,574.42	1,130.86	0.00	0.00	0.00
5,300.00	89.77	135.000	4,425.92	-95.57	1,645.13	1,230.86	0.00	0.00	0.00
5,400.00	89.77	135.000	4,426.32	-166.28	1,715.84	1,330.86	0.00	0.00	0.00
5,500.00	89.77	135.000	4,426.72	-236.99	1,786.55	1,430.86	0.00	0.00	0.00
5,600.00	89.77	135.000	4,427.12	-307.70	1,857.26	1,530.86	0.00	0.00	0.00
5,700.00	89.77	135.000	4,427.52	-378.41	1,927.97	1,630.86	0.00	0.00	0.00
5,800.00	89.77	135.000	4,427.92	-449.12	1,998.68	1,730.86	0.00	0.00	0.00
5,900.00	89.77	135.000	4,428.32	-519.83	2,069.39	1,830.85	0.00	0.00	0.00
6,000.00	89.77	135.000	4,428.72	-590.54	2,140.10	1,930.85	0.00	0.00	0.00
6,100.00	89.77	135.000	4,429.12	-661.25	2,210.81	2,030.85	0.00	0.00	0.00
6,200.00	89.77	135.000	4,429.51	-731.96	2,281.52	2,130.85	0.00	0.00	0.00
6,300.00	89.77	135.000	4,429.91	-802.67	2,352.23	2,230.85	0.00	0.00	0.00
6,400.00	89.77	135.000	4,430.31	-873.38	2,422.94	2,330.85	0.00	0.00	0.00
6,500.00	89.77	135.000	4,430.71	-944.09	2,493.65	2,430.85	0.00	0.00	0.00
6,600.00	89.77	135.000	4,431.11	-1,014.80	2,564.36	2,530.85	0.00	0.00	0.00
6,700.00	89.77	135.000	4,431.51	-1,085.51	2,635.07	2,630.85	0.00	0.00	0.00
6,800.00	89.77	135.000	4,431.91	-1,156.22	2,705.78	2,730.85	0.00	0.00	0.00
6,900.00	89.77	135.000	4,432.31	-1,226.93	2,776.49	2,830.85	0.00	0.00	0.00
7,000.00	89.77	135.000	4,432.71	-1,297.64	2,847.20	2,930.85	0.00	0.00	0.00
7,100.00	89.77	135.000	4,433.11	-1,368.35	2,917.91	3,030.84	0.00	0.00	0.00
7,200.00	89.77	135.000	4,433.51	-1,439.06	2,988.62	3,130.84	0.00	0.00	0.00
7,300.00	89.77	135.000	4,433.91	-1,509.77	3,059.33	3,230.84	0.00	0.00	0.00
7,400.00	89.77	135.000	4,434.31	-1,580.48	3,130.04	3,330.84	0.00	0.00	0.00
7,500.00	89.77	135.000	4,434.71	-1,651.19	3,200.75	3,430.84	0.00	0.00	0.00
7,600.00	89.77	135.000	4,435.11	-1,721.90	3,271.47	3,530.84	0.00	0.00	0.00
7,700.00	89.77	135.000	4,435.51	-1,792.61	3,342.18	3,630.84	0.00	0.00	0.00
7,800.00	89.77	135.000	4,435.91	-1,863.32	3,412.89	3,730.84	0.00	0.00	0.00
7,900.00	89.77	135.000	4,436.31	-1,934.03	3,483.60	3,830.84	0.00	0.00	0.00
8,000.00	89.77	135.000	4,436.70	-2,004.74	3,554.31	3,930.84	0.00	0.00	0.00
8,100.00	89.77	135.000	4,437.10	-2,075.45	3,625.02	4,030.84	0.00	0.00	0.00
8,200.00	89.77	135.000	4,437.50	-2,146.16	3,695.73	4,130.84	0.00	0.00	0.00
8,300.00	89.77	135.000	4,437.90	-2,216.87	3,766.44	4,230.84	0.00	0.00	0.00
8,400.00	89.77	135.000	4,438.30	-2,287.58	3,837.15	4,330.83	0.00	0.00	0.00
8,500.00	89.77	135.000	4,438.70	-2,358.29	3,907.86	4,430.83	0.00	0.00	0.00
8,600.00	89.77	135.000	4,439.10	-2,429.00	3,978.57	4,530.83	0.00	0.00	0.00
8,700.00	89.77	135.000	4,439.50	-2,499.71	4,049.28	4,630.83	0.00	0.00	0.00
8,800.00	89.77	135.000	4,439.90	-2,570.42	4,119.99	4,730.83	0.00	0.00	0.00
8,900.00	89.77	135.000	4,440.30	-2,641.13	4,190.70	4,830.83	0.00	0.00	0.00
9,000.00	89.77	135.000	4,440.70	-2,711.84	4,261.41	4,930.83	0.00	0.00	0.00
9,100.00	89.77	135.000	4,441.10	-2,782.55	4,332.12	5,030.83	0.00	0.00	0.00
9,200.00	89.77	135.000	4,441.50	-2,853.26	4,402.83	5,130.83	0.00	0.00	0.00
9,300.00	89.77	135.000	4,441.90	-2,923.97	4,473.54	5,230.83	0.00	0.00	0.00
9,400.00	89.77	135.000	4,442.30	-2,994.68	4,544.25	5,330.83	0.00	0.00	0.00
9,500.00	89.77	135.000	4,442.70	-3,065.39	4,614.96	5,430.83	0.00	0.00	0.00



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,600.00	89.77	135.000	4,443.10	-3,136.10	4,685.67	5,530.83	0.00	0.00	0.00	
9,700.00	89.77	135.000	4,443.49	-3,206.81	4,756.38	5,630.82	0.00	0.00	0.00	
9,800.00	89.77	135.000	4,443.89	-3,277.52	4,827.09	5,730.82	0.00	0.00	0.00	
9,900.00	89.77	135.000	4,444.29	-3,348.23	4,897.80	5,830.82	0.00	0.00	0.00	
10,000.00	89.77	135.000	4,444.69	-3,418.94	4,968.51	5,930.82	0.00	0.00	0.00	
10,100.00	89.77	135.000	4,445.09	-3,489.65	5,039.22	6,030.82	0.00	0.00	0.00	
10,200.00	89.77	135.000	4,445.49	-3,560.36	5,109.93	6,130.82	0.00	0.00	0.00	
10,300.00	89.77	135.000	4,445.89	-3,631.07	5,180.64	6,230.82	0.00	0.00	0.00	
10,400.00	89.77	135.000	4,446.29	-3,701.78	5,251.35	6,330.82	0.00	0.00	0.00	
10,500.00	89.77	135.000	4,446.69	-3,772.49	5,322.06	6,430.82	0.00	0.00	0.00	
10,600.00	89.77	135.000	4,447.09	-3,843.20	5,392.77	6,530.82	0.00	0.00	0.00	
10,700.00	89.77	135.000	4,447.49	-3,913.91	5,463.49	6,630.82	0.00	0.00	0.00	
10,800.00	89.77	135.000	4,447.89	-3,984.62	5,534.20	6,730.82	0.00	0.00	0.00	
10,900.00	89.77	135.000	4,448.29	-4,055.32	5,604.91	6,830.81	0.00	0.00	0.00	
11,000.00	89.77	135.000	4,448.69	-4,126.03	5,675.62	6,930.81	0.00	0.00	0.00	
11,100.00	89.77	135.000	4,449.09	-4,196.74	5,746.33	7,030.81	0.00	0.00	0.00	
11,200.00	89.77	135.000	4,449.49	-4,267.45	5,817.04	7,130.81	0.00	0.00	0.00	
11,300.00	89.77	135.000	4,449.89	-4,338.16	5,887.75	7,230.81	0.00	0.00	0.00	
11,400.00	89.77	135.000	4,450.29	-4,408.87	5,958.46	7,330.81	0.00	0.00	0.00	
11,500.00	89.77	135.000	4,450.68	-4,479.58	6,029.17	7,430.81	0.00	0.00	0.00	
11,600.00	89.77	135.000	4,451.08	-4,550.29	6,099.88	7,530.81	0.00	0.00	0.00	
11,700.00	89.77	135.000	4,451.48	-4,621.00	6,170.59	7,630.81	0.00	0.00	0.00	
11,800.00	89.77	135.000	4,451.88	-4,691.71	6,241.30	7,730.81	0.00	0.00	0.00	
11,900.00	89.77	135.000	4,452.28	-4,762.42	6,312.01	7,830.81	0.00	0.00	0.00	
12,000.00	89.77	135.000	4,452.68	-4,833.13	6,382.72	7,930.81	0.00	0.00	0.00	
12,100.00	89.77	135.000	4,453.08	-4,903.84	6,453.43	8,030.81	0.00	0.00	0.00	
12,200.00	89.77	135.000	4,453.48	-4,974.55	6,524.14	8,130.80	0.00	0.00	0.00	
12,300.00	89.77	135.000	4,453.88	-5,045.26	6,594.85	8,230.80	0.00	0.00	0.00	
12,400.00	89.77	135.000	4,454.28	-5,115.97	6,665.56	8,330.80	0.00	0.00	0.00	
12,500.00	89.77	135.000	4,454.68	-5,186.68	6,736.27	8,430.80	0.00	0.00	0.00	
12,600.00	89.77	135.000	4,455.08	-5,257.39	6,806.98	8,530.80	0.00	0.00	0.00	
12,700.00	89.77	135.000	4,455.48	-5,328.10	6,877.69	8,630.80	0.00	0.00	0.00	
12,800.00	89.77	135.000	4,455.88	-5,398.81	6,948.40	8,730.80	0.00	0.00	0.00	
12,900.00	89.77	135.000	4,456.28	-5,469.52	7,019.11	8,830.80	0.00	0.00	0.00	
13,000.00	89.77	135.000	4,456.68	-5,540.23	7,089.82	8,930.80	0.00	0.00	0.00	
13,081.11	89.77	135.000	4,457.00	-5,597.59	7,147.18	9,011.91	0.00	0.00	0.00	
PBHL/TD @ 13081.11 MD 4457.00 TVD										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
350.00	350.00	9-5/8" Surface Casing	9-5/8	12-1/4	
4,931.63	4,423.78	7" Intermediate Casing	7	8-3/4	



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
75.00	75.00	Ojo Alamo		0.230	135.000	
158.00	158.00	Kirtland		0.230	135.000	
393.00	393.00	Fruitland		0.230	135.000	
783.00	783.00	Pictured Cliffs		0.230	135.000	
948.00	948.00	Lewis		0.230	135.000	
1,138.13	1,138.01	Chacra_A		0.230	135.000	
2,193.76	2,143.38	Cliff House_Basal		0.230	135.000	
2,209.90	2,158.39	Menefee		0.230	135.000	
3,324.06	3,193.90	Point Lookout		0.230	135.000	
3,487.68	3,345.97	Mancos		0.230	135.000	
3,848.30	3,681.14	MNCS_A		0.230	135.000	
3,952.72	3,778.18	MNCS_B		0.230	135.000	
4,050.68	3,869.23	MNCS_C		0.230	135.000	
4,094.81	3,910.25	MNCS_Cms		0.230	135.000	
4,241.08	4,044.37	MNCS_D		0.230	135.000	
4,417.88	4,192.70	MNCS_E		0.230	135.000	
4,487.24	4,243.88	MNCS_F		0.230	135.000	
4,600.67	4,316.23	MNCS_G		0.230	135.000	
4,678.56	4,356.49	MNCS_H		0.230	135.000	
4,800.09	4,401.94	MNCS_I		0.230	135.000	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,000.00	1,000.00	0.00	0.00	KOP Begin 3°/100' build	
1,721.89	1,704.82	61.37	120.03	Begin 21.66° tangent	
4,112.87	3,927.03	463.04	905.69	Begin 10°/100' build/turn	
4,761.63	4,390.01	282.26	1,267.30	70° inc Begin 10°/100' build	
4,959.34	4,424.56	145.31	1,404.24	Begin 89.77° lateral	
13,081.11	4,457.00	-5,597.59	7,147.18	PBHL/TD @ 13081.11 MD 4457.00 TVD	



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project	San Juan County, New Mexico NAD83 NM W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site		Greater Lybrook (36, 37, 38 & 39)			
Site Position:		Northing:	1,893,780.89 usft	Latitude:	36.20461900
From:	Lat/Long	Easting:	2,733,874.80 usft	Longitude:	-107.79678300
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Greater Lybrook Unit 38H, Surf loc: 196 FNL 1893 FWL Section 28-T23N-R09W						
Well Position	+N/-S	0.00 ft	Northing:	1,893,780.90	usft	Latitude:	36.20461900
	+E/-W	0.00 ft	Easting:	2,733,914.92	usft	Longitude:	-107.79664700
Position Uncertainty		0.00 ft	Wellhead Elevation:		ft	Ground Level:	6,529.00 ft
Grid Convergence:		0.022 °					

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/21/2024	8.478	62.646	48,965.68914463

Design	rev0			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	135.000

Plan Survey Tool Program	Date	8/21/2024		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,081.11 rev0 (Original Hole)	MWD	
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,721.89	21.66	62.921	1,704.82	61.37	120.03	3.00	3.00	0.00	62.921	
4,112.87	21.66	62.921	3,927.03	463.04	905.69	0.00	0.00	0.00	0.000	
4,761.63	70.00	135.000	4,390.01	282.26	1,267.30	10.00	7.45	11.11	80.943	
4,959.34	89.77	135.000	4,424.56	145.31	1,404.24	10.00	10.00	0.00	0.000	
13,081.11	89.77	135.000	4,457.00	-5,597.59	7,147.18	0.00	0.00	0.00	0.000	Greater Lybrook 38H



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.000	0.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
75.00	0.00	0.000	75.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
Ojo Alamo										
100.00	0.00	0.000	100.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
158.00	0.00	0.000	158.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
Kirtland										
200.00	0.00	0.000	200.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
300.00	0.00	0.000	300.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
350.00	0.00	0.000	350.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
9-5/8" Surface Casing										
393.00	0.00	0.000	393.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
Fruitland										
400.00	0.00	0.000	400.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
500.00	0.00	0.000	500.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
600.00	0.00	0.000	600.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
700.00	0.00	0.000	700.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
783.00	0.00	0.000	783.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
Pictured Cliffs										
800.00	0.00	0.000	800.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
900.00	0.00	0.000	900.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
948.00	0.00	0.000	948.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
Lewis										
1,000.00	0.00	0.000	1,000.00	0.00	0.00	1,893,780.90	2,733,914.92	36.20461900	-107.79664700	
KOP Begin 3"/100' build										
1,100.00	3.00	62.921	1,099.95	1.19	2.33	1,893,782.09	2,733,917.25	36.20462227	-107.79663909	
1,138.13	4.14	62.921	1,138.01	2.27	4.45	1,893,783.18	2,733,919.37	36.20462524	-107.79663192	
Chacra_A										
1,200.00	6.00	62.921	1,199.63	4.76	9.32	1,893,785.67	2,733,924.24	36.20463207	-107.79661541	
1,300.00	9.00	62.921	1,298.77	10.70	20.94	1,893,791.61	2,733,935.86	36.20464838	-107.79657602	
1,400.00	12.00	62.921	1,397.08	19.00	37.16	1,893,799.90	2,733,952.08	36.20467115	-107.79652101	
1,500.00	15.00	62.921	1,494.31	29.62	57.94	1,893,810.53	2,733,972.86	36.20470032	-107.79645055	
1,600.00	18.00	62.921	1,590.18	42.55	83.23	1,893,823.45	2,733,998.15	36.20473581	-107.79636483	
1,700.00	21.00	62.921	1,684.43	57.75	112.95	1,893,838.65	2,734,027.87	36.20477751	-107.79626408	
1,721.89	21.66	62.921	1,704.82	61.37	120.03	1,893,842.27	2,734,034.96	36.20478746	-107.79624005	
Begin 21.66° tangent										
1,800.00	21.66	62.921	1,777.42	74.49	145.70	1,893,855.39	2,734,060.62	36.20482348	-107.79615303	
1,900.00	21.66	62.921	1,870.36	91.29	178.56	1,893,872.19	2,734,093.48	36.20486960	-107.79604163	
2,000.00	21.66	62.921	1,963.30	108.09	211.42	1,893,888.99	2,734,126.34	36.20491571	-107.79593023	
2,100.00	21.66	62.921	2,056.24	124.89	244.28	1,893,905.79	2,734,159.20	36.20496183	-107.79581883	
2,193.76	21.66	62.921	2,143.38	140.64	275.09	1,893,921.54	2,734,190.01	36.20500506	-107.79571439	
Cliff House_Basal										
2,200.00	21.66	62.921	2,149.18	141.69	277.14	1,893,922.59	2,734,192.06	36.20500794	-107.79570743	
2,209.90	21.66	62.921	2,158.39	143.35	280.39	1,893,924.26	2,734,195.31	36.20501251	-107.79569640	
Menefee										
2,300.00	21.66	62.921	2,242.13	158.49	310.00	1,893,939.39	2,734,224.92	36.20505406	-107.79559603	
2,400.00	21.66	62.921	2,335.07	175.29	342.85	1,893,956.19	2,734,257.78	36.20510017	-107.79548463	
2,500.00	21.66	62.921	2,428.01	192.09	375.71	1,893,972.99	2,734,290.63	36.20514629	-107.79537323	
2,600.00	21.66	62.921	2,520.95	208.89	408.57	1,893,989.79	2,734,323.49	36.20519240	-107.79526183	
2,700.00	21.66	62.921	2,613.89	225.69	441.43	1,894,006.59	2,734,356.35	36.20523852	-107.79515043	
2,800.00	21.66	62.921	2,706.83	242.49	474.29	1,894,023.39	2,734,389.21	36.20528463	-107.79503903	
2,900.00	21.66	62.921	2,799.77	259.29	507.15	1,894,040.19	2,734,422.07	36.20533074	-107.79492763	
3,000.00	21.66	62.921	2,892.71	276.09	540.01	1,894,056.99	2,734,454.93	36.20537686	-107.79481622	
3,100.00	21.66	62.921	2,985.66	292.89	572.87	1,894,073.79	2,734,487.79	36.20542297	-107.79470482	



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
3,200.00	21.66	62.921	3,078.60	309.68	605.73	1,894,090.59	2,734,520.65	36.20546909	-107.79459342	
3,300.00	21.66	62.921	3,171.54	326.48	638.58	1,894,107.39	2,734,553.50	36.20551520	-107.79448202	
3,324.06	21.66	62.921	3,193.90	330.53	646.49	1,894,111.43	2,734,561.41	36.20552629	-107.79445522	
Point Lookout										
3,400.00	21.66	62.921	3,264.48	343.28	671.44	1,894,124.19	2,734,586.36	36.20556131	-107.79437062	
3,487.68	21.66	62.921	3,345.97	358.01	700.25	1,894,138.92	2,734,615.17	36.20560175	-107.79427294	
Mancos										
3,500.00	21.66	62.921	3,357.42	360.08	704.30	1,894,140.98	2,734,619.22	36.20560743	-107.79425922	
3,600.00	21.66	62.921	3,450.36	376.88	737.16	1,894,157.78	2,734,652.08	36.20565354	-107.79414781	
3,700.00	21.66	62.921	3,543.30	393.68	770.02	1,894,174.58	2,734,684.94	36.20569965	-107.79403641	
3,800.00	21.66	62.921	3,636.24	410.48	802.88	1,894,191.38	2,734,717.80	36.20574577	-107.79392501	
3,848.30	21.66	62.921	3,681.14	418.60	818.75	1,894,199.50	2,734,733.67	36.20576804	-107.79387120	
MNCS_A										
3,900.00	21.66	62.921	3,729.19	427.28	835.74	1,894,208.18	2,734,750.66	36.20579188	-107.79381361	
3,952.72	21.66	62.921	3,778.18	436.14	853.06	1,894,217.04	2,734,767.98	36.20581619	-107.79375488	
MNCS_B										
4,000.00	21.66	62.921	3,822.13	444.08	868.60	1,894,224.98	2,734,783.52	36.20583799	-107.79370220	
4,050.68	21.66	62.921	3,869.23	452.59	885.25	1,894,233.50	2,734,800.17	36.20586136	-107.79364575	
MNCS_C										
4,094.81	21.66	62.921	3,910.25	460.01	899.75	1,894,240.91	2,734,814.67	36.20588171	-107.79359658	
MNCS_Cms										
4,100.00	21.66	62.921	3,915.07	460.88	901.46	1,894,241.78	2,734,816.37	36.20588411	-107.79359080	
4,112.87	21.66	62.921	3,927.03	463.04	905.69	1,894,243.94	2,734,820.60	36.20589004	-107.79357646	
Begin 10°/100' build/turn										
4,150.00	22.53	72.529	3,961.44	468.30	918.57	1,894,249.20	2,734,833.49	36.20590446	-107.79353277	
4,200.00	24.51	84.057	4,007.31	472.25	938.04	1,894,253.15	2,734,852.96	36.20591530	-107.79346679	
4,241.08	26.70	92.109	4,044.37	472.79	955.75	1,894,253.69	2,734,870.67	36.20591677	-107.79340676	
MNCS_D										
4,250.00	27.23	93.689	4,052.32	472.59	959.78	1,894,253.49	2,734,874.70	36.20591620	-107.79339307	
4,300.00	30.50	101.550	4,096.12	469.31	983.65	1,894,250.21	2,734,898.57	36.20590717	-107.79331219	
4,350.00	34.15	107.951	4,138.37	462.44	1,009.44	1,894,243.34	2,734,924.36	36.20588827	-107.79322476	
4,400.00	38.07	113.216	4,178.77	452.03	1,036.98	1,894,232.93	2,734,951.90	36.20585964	-107.79313143	
4,417.88	39.53	114.876	4,192.70	447.46	1,047.21	1,894,228.36	2,734,962.13	36.20584708	-107.79309677	
MNCS_E										
4,450.00	42.19	117.614	4,217.00	438.16	1,066.05	1,894,219.06	2,734,980.97	36.20582151	-107.79303293	
4,487.24	45.36	120.453	4,243.88	425.65	1,088.56	1,894,206.55	2,735,003.47	36.20578710	-107.79295665	
MNCS_F										
4,500.00	46.46	121.355	4,252.76	420.94	1,096.42	1,894,201.84	2,735,011.34	36.20577416	-107.79293000	
4,550.00	50.83	124.595	4,285.80	400.49	1,127.87	1,894,181.39	2,735,042.79	36.20571795	-107.79282343	
4,600.00	55.28	127.452	4,315.85	376.98	1,160.16	1,894,157.88	2,735,075.08	36.20565332	-107.79271402	
4,600.67	55.34	127.488	4,316.23	376.64	1,160.59	1,894,157.55	2,735,075.51	36.20565241	-107.79271255	
MNCS_G										
4,650.00	59.79	130.015	4,342.68	350.57	1,193.04	1,894,131.48	2,735,107.95	36.20558075	-107.79260261	
4,678.56	62.38	131.374	4,356.49	334.27	1,211.98	1,894,115.18	2,735,126.90	36.20553595	-107.79253841	
MNCS_H										
4,700.00	64.34	132.352	4,366.11	321.48	1,226.26	1,894,102.38	2,735,141.17	36.20550080	-107.79249005	
4,750.00	68.93	134.517	4,385.93	289.93	1,259.56	1,894,070.83	2,735,174.48	36.20541407	-107.79237719	
4,761.63	70.00	135.000	4,390.01	282.26	1,267.30	1,894,063.16	2,735,182.21	36.20539300	-107.79235100	
70° inc Begin 10°/100' build										
4,800.00	73.84	135.000	4,401.92	256.47	1,293.08	1,894,037.37	2,735,208.00	36.20532212	-107.79226362	
4,800.09	73.84	135.000	4,401.94	256.41	1,293.15	1,894,037.31	2,735,208.06	36.20532196	-107.79226341	
MNCS_I										
4,850.00	78.84	135.000	4,413.72	222.13	1,327.43	1,894,003.03	2,735,242.35	36.20522774	-107.79214725	



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured			Vertical			Map				
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Map	Map			
(ft)	(°)	(°)	(ft)	(ft)	(ft)	Northing	Easting	Latitude	Longitude	
						(usft)	(usft)			
4,900.00	83.84	135.000	4,421.25	187.19	1,362.37	1,893,968.09	2,735,277.29	36.20513171	-107.79202887	
4,931.63	87.00	135.000	4,423.78	164.89	1,384.66	1,893,945.80	2,735,299.58	36.20507045	-107.79195334	
7" Intermediate Casing										
4,950.00	88.84	135.000	4,424.45	151.91	1,397.64	1,893,932.82	2,735,312.56	36.20503478	-107.79190936	
4,959.34	89.77	135.000	4,424.56	145.31	1,404.24	1,893,926.21	2,735,319.16	36.20501663	-107.79188699	
Begin 89.77° lateral										
5,000.00	89.77	135.000	4,424.72	116.56	1,433.00	1,893,897.46	2,735,347.91	36.20493761	-107.79178957	
5,100.00	89.77	135.000	4,425.12	45.85	1,503.71	1,893,826.75	2,735,418.62	36.20474328	-107.79155000	
5,200.00	89.77	135.000	4,425.52	-24.86	1,574.42	1,893,756.04	2,735,489.34	36.20454895	-107.79131042	
5,300.00	89.77	135.000	4,425.92	-95.57	1,645.13	1,893,685.33	2,735,560.05	36.20435462	-107.79107085	
5,400.00	89.77	135.000	4,426.32	-166.28	1,715.84	1,893,614.62	2,735,630.76	36.20416029	-107.79083128	
5,500.00	89.77	135.000	4,426.72	-236.99	1,786.55	1,893,543.91	2,735,701.47	36.20396596	-107.79059171	
5,600.00	89.77	135.000	4,427.12	-307.70	1,857.26	1,893,473.20	2,735,772.18	36.20377162	-107.79035214	
5,700.00	89.77	135.000	4,427.52	-378.41	1,927.97	1,893,402.49	2,735,842.89	36.20357729	-107.79011257	
5,800.00	89.77	135.000	4,427.92	-449.12	1,998.68	1,893,331.78	2,735,913.60	36.20338296	-107.78987300	
5,900.00	89.77	135.000	4,428.32	-519.83	2,069.39	1,893,261.07	2,735,984.31	36.20318862	-107.78963343	
6,000.00	89.77	135.000	4,428.72	-590.54	2,140.10	1,893,190.36	2,736,055.02	36.20299429	-107.78939387	
6,100.00	89.77	135.000	4,429.12	-661.25	2,210.81	1,893,119.65	2,736,125.73	36.20279995	-107.78915430	
6,200.00	89.77	135.000	4,429.51	-731.96	2,281.52	1,893,048.94	2,736,196.44	36.20260562	-107.78891474	
6,300.00	89.77	135.000	4,429.91	-802.67	2,352.23	1,892,978.23	2,736,267.15	36.20241128	-107.78867518	
6,400.00	89.77	135.000	4,430.31	-873.38	2,422.94	1,892,907.52	2,736,337.86	36.20221695	-107.78843562	
6,500.00	89.77	135.000	4,430.71	-944.09	2,493.65	1,892,836.82	2,736,408.57	36.20202261	-107.78819606	
6,600.00	89.77	135.000	4,431.11	-1,014.80	2,564.36	1,892,766.11	2,736,479.28	36.20182827	-107.78795650	
6,700.00	89.77	135.000	4,431.51	-1,085.51	2,635.07	1,892,695.40	2,736,549.99	36.20163393	-107.78771695	
6,800.00	89.77	135.000	4,431.91	-1,156.22	2,705.78	1,892,624.69	2,736,620.70	36.20143959	-107.78747739	
6,900.00	89.77	135.000	4,432.31	-1,226.93	2,776.49	1,892,553.98	2,736,691.41	36.20124526	-107.78723784	
7,000.00	89.77	135.000	4,432.71	-1,297.64	2,847.20	1,892,483.27	2,736,762.12	36.20105092	-107.78699828	
7,100.00	89.77	135.000	4,433.11	-1,368.35	2,917.91	1,892,412.56	2,736,832.83	36.20085658	-107.78675873	
7,200.00	89.77	135.000	4,433.51	-1,439.06	2,988.62	1,892,341.85	2,736,903.54	36.20066224	-107.78651918	
7,300.00	89.77	135.000	4,433.91	-1,509.77	3,059.33	1,892,271.14	2,736,974.25	36.20046789	-107.78627963	
7,400.00	89.77	135.000	4,434.31	-1,580.48	3,130.04	1,892,200.43	2,737,044.96	36.20027355	-107.78604008	
7,500.00	89.77	135.000	4,434.71	-1,651.19	3,200.75	1,892,129.72	2,737,115.67	36.20007921	-107.78580053	
7,600.00	89.77	135.000	4,435.11	-1,721.90	3,271.47	1,892,059.01	2,737,186.38	36.19988487	-107.78556099	
7,700.00	89.77	135.000	4,435.51	-1,792.61	3,342.18	1,891,988.30	2,737,257.09	36.19969053	-107.78532144	
7,800.00	89.77	135.000	4,435.91	-1,863.32	3,412.89	1,891,917.59	2,737,327.80	36.19949618	-107.78508190	
7,900.00	89.77	135.000	4,436.31	-1,934.03	3,483.60	1,891,846.88	2,737,398.51	36.19930184	-107.78484236	
8,000.00	89.77	135.000	4,436.70	-2,004.74	3,554.31	1,891,776.17	2,737,469.22	36.19910749	-107.78460281	
8,100.00	89.77	135.000	4,437.10	-2,075.45	3,625.02	1,891,705.46	2,737,539.93	36.19891315	-107.78436327	
8,200.00	89.77	135.000	4,437.50	-2,146.16	3,695.73	1,891,634.75	2,737,610.64	36.19871880	-107.78412373	
8,300.00	89.77	135.000	4,437.90	-2,216.87	3,766.44	1,891,564.04	2,737,681.35	36.19852446	-107.78388420	
8,400.00	89.77	135.000	4,438.30	-2,287.58	3,837.15	1,891,493.33	2,737,752.06	36.19833011	-107.78364466	
8,500.00	89.77	135.000	4,438.70	-2,358.29	3,907.86	1,891,422.62	2,737,822.77	36.19813577	-107.78340512	
8,600.00	89.77	135.000	4,439.10	-2,429.00	3,978.57	1,891,351.91	2,737,893.48	36.19794142	-107.78316559	
8,700.00	89.77	135.000	4,439.50	-2,499.71	4,049.28	1,891,281.20	2,737,964.19	36.19774707	-107.78292606	
8,800.00	89.77	135.000	4,439.90	-2,570.42	4,119.99	1,891,210.49	2,738,034.90	36.19755272	-107.78268652	
8,900.00	89.77	135.000	4,440.30	-2,641.13	4,190.70	1,891,139.78	2,738,105.61	36.19735837	-107.78244699	
9,000.00	89.77	135.000	4,440.70	-2,711.84	4,261.41	1,891,069.07	2,738,176.32	36.19716402	-107.78220746	
9,100.00	89.77	135.000	4,441.10	-2,782.55	4,332.12	1,890,998.36	2,738,247.03	36.19696968	-107.78196794	
9,200.00	89.77	135.000	4,441.50	-2,853.26	4,402.83	1,890,927.65	2,738,317.74	36.19677533	-107.78172841	
9,300.00	89.77	135.000	4,441.90	-2,923.97	4,473.54	1,890,856.94	2,738,388.45	36.19658097	-107.78148888	
9,400.00	89.77	135.000	4,442.30	-2,994.68	4,544.25	1,890,786.23	2,738,459.16	36.19638662	-107.78124936	
9,500.00	89.77	135.000	4,442.70	-3,065.39	4,614.96	1,890,715.52	2,738,529.87	36.19619227	-107.78100983	
9,600.00	89.77	135.000	4,443.10	-3,136.10	4,685.67	1,890,644.81	2,738,600.58	36.19599792	-107.78077031	
9,700.00	89.77	135.000	4,443.49	-3,206.81	4,756.38	1,890,574.10	2,738,671.29	36.19580357	-107.78053079	



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,800.00	89.77	135.000	4,443.89	-3,277.52	4,827.09	1,890,503.39	2,738,742.00	36.19560921	-107.78029127	
9,900.00	89.77	135.000	4,444.29	-3,348.23	4,897.80	1,890,432.68	2,738,812.71	36.19541486	-107.78005175	
10,000.00	89.77	135.000	4,444.69	-3,418.94	4,968.51	1,890,361.97	2,738,883.42	36.19522051	-107.77981223	
10,100.00	89.77	135.000	4,445.09	-3,489.65	5,039.22	1,890,291.26	2,738,954.13	36.19502615	-107.77957272	
10,200.00	89.77	135.000	4,445.49	-3,560.36	5,109.93	1,890,220.55	2,739,024.84	36.19483180	-107.77933320	
10,300.00	89.77	135.000	4,445.89	-3,631.07	5,180.64	1,890,149.84	2,739,095.55	36.19463744	-107.77909369	
10,400.00	89.77	135.000	4,446.29	-3,701.78	5,251.35	1,890,079.13	2,739,166.26	36.19444309	-107.77885417	
10,500.00	89.77	135.000	4,446.69	-3,772.49	5,322.06	1,890,008.42	2,739,236.97	36.19424873	-107.77861466	
10,600.00	89.77	135.000	4,447.09	-3,843.20	5,392.77	1,889,937.71	2,739,307.69	36.19405437	-107.77837515	
10,700.00	89.77	135.000	4,447.49	-3,913.91	5,463.49	1,889,867.01	2,739,378.40	36.19386002	-107.77813564	
10,800.00	89.77	135.000	4,447.89	-3,984.62	5,534.20	1,889,796.30	2,739,449.11	36.19366566	-107.77789613	
10,900.00	89.77	135.000	4,448.29	-4,055.32	5,604.91	1,889,725.59	2,739,519.82	36.19347130	-107.77765663	
11,000.00	89.77	135.000	4,448.69	-4,126.03	5,675.62	1,889,654.88	2,739,590.53	36.19327694	-107.77741712	
11,100.00	89.77	135.000	4,449.09	-4,196.74	5,746.33	1,889,584.17	2,739,661.24	36.19308258	-107.77717762	
11,200.00	89.77	135.000	4,449.49	-4,267.45	5,817.04	1,889,513.46	2,739,731.95	36.19288822	-107.77693811	
11,300.00	89.77	135.000	4,449.89	-4,338.16	5,887.75	1,889,442.75	2,739,802.66	36.19269386	-107.77669861	
11,400.00	89.77	135.000	4,450.29	-4,408.87	5,958.46	1,889,372.04	2,739,873.37	36.19249950	-107.77645911	
11,500.00	89.77	135.000	4,450.68	-4,479.58	6,029.17	1,889,301.33	2,739,944.08	36.19230514	-107.77621961	
11,600.00	89.77	135.000	4,451.08	-4,550.29	6,099.88	1,889,230.62	2,740,014.79	36.19211078	-107.77598011	
11,700.00	89.77	135.000	4,451.48	-4,621.00	6,170.59	1,889,159.91	2,740,085.50	36.19191641	-107.77574061	
11,800.00	89.77	135.000	4,451.88	-4,691.71	6,241.30	1,889,089.20	2,740,156.21	36.19172205	-107.77550111	
11,900.00	89.77	135.000	4,452.28	-4,762.42	6,312.01	1,889,018.49	2,740,226.92	36.19152769	-107.77526162	
12,000.00	89.77	135.000	4,452.68	-4,833.13	6,382.72	1,888,947.78	2,740,297.63	36.19133333	-107.77502214	
12,100.00	89.77	135.000	4,453.08	-4,903.84	6,453.43	1,888,877.07	2,740,368.34	36.19113896	-107.77478264	
12,200.00	89.77	135.000	4,453.48	-4,974.55	6,524.14	1,888,806.36	2,740,439.05	36.19094460	-107.77454315	
12,300.00	89.77	135.000	4,453.88	-5,045.26	6,594.85	1,888,735.65	2,740,509.76	36.19075023	-107.77430366	
12,400.00	89.77	135.000	4,454.28	-5,115.97	6,665.56	1,888,664.94	2,740,580.47	36.19055587	-107.77406417	
12,500.00	89.77	135.000	4,454.68	-5,186.68	6,736.27	1,888,594.23	2,740,651.18	36.19036150	-107.77382468	
12,600.00	89.77	135.000	4,455.08	-5,257.39	6,806.98	1,888,523.52	2,740,721.89	36.19016713	-107.77358520	
12,700.00	89.77	135.000	4,455.48	-5,328.10	6,877.69	1,888,452.81	2,740,792.60	36.18997277	-107.77334571	
12,800.00	89.77	135.000	4,455.88	-5,398.81	6,948.40	1,888,382.10	2,740,863.31	36.18977840	-107.77310623	
12,900.00	89.77	135.000	4,456.28	-5,469.52	7,019.11	1,888,311.39	2,740,934.02	36.18958403	-107.77286674	
13,000.00	89.77	135.000	4,456.68	-5,540.23	7,089.82	1,888,240.68	2,741,004.73	36.18938966	-107.77262726	
13,081.11	89.77	135.000	4,457.00	-5,597.59	7,147.18	1,888,183.32	2,741,062.09	36.18923200	-107.77243300	
PBHL/TD @ 13081.11 MD 4457.00 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Greater Lybrook 38H vs: - plan misses target center by 480.52ft at 4384.10ft MD (4166.14 TVD, 455.72 N, 1028.05 E) - Point	0.00	0.000	4,421.00	774.78	774.78	1,894,555.68	2,734,689.70	36.20674656	-107.79401975	
Greater Lybrook 38H FT - plan misses target center by 31.85ft at 4772.11ft MD (4393.51 TVD, 275.27 N, 1274.28 E) - Point	0.00	0.000	4,423.78	282.26	1,267.30	1,894,063.16	2,735,182.21	36.20539300	-107.79235100	
Greater Lybrook 38H LTI - plan hits target center - Point	0.00	0.000	4,457.00	-5,597.59	7,147.18	1,888,183.32	2,741,062.09	36.18923200	-107.77243300	



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site:	Greater Lybrook (36, 37, 38 & 39)	North Reference:	Grid
Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
350.00	350.00	9-5/8" Surface Casing	9-5/8	12-1/4	
4,931.63	4,423.78	7" Intermediate Casing	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
75.00	75.00	Ojo Alamo		0.230	135.000
158.00	158.00	Kirtland		0.230	135.000
393.00	393.00	Fruitland		0.230	135.000
783.00	783.00	Pictured Cliffs		0.230	135.000
948.00	948.00	Lewis		0.230	135.000
1,138.13	1,138.01	Chacra_A		0.230	135.000
2,193.76	2,143.38	Cliff House_Basal		0.230	135.000
2,209.90	2,158.39	Menefee		0.230	135.000
3,324.06	3,193.90	Point Lookout		0.230	135.000
3,487.68	3,345.97	Mancos		0.230	135.000
3,848.30	3,681.14	MNCS_A		0.230	135.000
3,952.72	3,778.18	MNCS_B		0.230	135.000
4,050.68	3,869.23	MNCS_C		0.230	135.000
4,094.81	3,910.25	MNCS_Cms		0.230	135.000
4,241.08	4,044.37	MNCS_D		0.230	135.000
4,417.88	4,192.70	MNCS_E		0.230	135.000
4,487.24	4,243.88	MNCS_F		0.230	135.000
4,600.67	4,316.23	MNCS_G		0.230	135.000
4,678.56	4,356.49	MNCS_H		0.230	135.000
4,800.09	4,401.94	MNCS_I		0.230	135.000

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,000.00	1,000.00	0.00	0.00	KOP Begin 3°/100' build	
1,721.89	1,704.82	61.37	120.03	Begin 21.66° tangent	
4,112.87	3,927.03	463.04	905.69	Begin 10°/100' build/turn	
4,761.63	4,390.01	282.26	1,267.30	70° inc Begin 10°/100' build	
4,959.34	4,424.56	145.31	1,404.24	Begin 89.77° lateral	
13,081.11	4,457.00	-5,597.59	7,147.18	PBHL/TD @ 13081.11 MD 4457.00 TVD	



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Reference	rev0		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,508.11ft	Error Surface:	Ellipsoid Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	8/21/2024		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	13,081.11	rev0 (Original Hole)	MWD	OWSG MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Greater Lybrook (36, 37, 38 & 39)						
Greater Lybrook Unit 36H - Original Hole - rev0	1,000.00	1,000.00	40.12	33.12	5.731	CC, ES
Greater Lybrook Unit 36H - Original Hole - rev0	13,081.11	13,549.80	1,205.01	793.20	2.926	SF
Greater Lybrook Unit 37H - Original Hole - rev0	1,000.00	1,000.00	20.06	13.06	2.866	CC, ES, SF
Greater Lybrook Unit 39H - Original Hole - rev0	500.00	500.00	19.77	16.35	5.786	CC, ES
Greater Lybrook Unit 39H - Original Hole - rev0	13,081.11	13,232.60	787.55	494.79	2.690	SF
Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)						
Kimbeto Wash Unit 772H - Original Hole - Surveys Origin	4,600.00	4,685.73	292.93	257.43	8.250	SF
Kimbeto Wash Unit 772H - Original Hole - Surveys Origin	4,651.23	4,652.10	290.76	255.54	8.256	CC, ES
Kimbeto Wash Unit 774H - Original Hole - Surveys Origin	1,852.42	1,845.36	239.42	225.72	17.476	CC, ES
Kimbeto Wash Unit 774H - Original Hole - Surveys Origin	1,900.00	1,882.20	241.41	227.26	17.065	SF
Kimbeto Wash Unit 793H - Original Hole - Surveys Origin	2,277.14	2,227.93	229.64	212.68	13.542	CC
Kimbeto Wash Unit 793H - Original Hole - Surveys Origin	2,300.00	2,248.50	229.87	212.68	13.373	ES
Kimbeto Wash Unit 793H - Original Hole - Surveys Origin	2,400.00	2,337.23	236.32	218.21	13.048	SF
Kimbeto Wash Unit 794H - Original Hole - Surveys Origin	4,320.80	4,484.26	365.26	333.71	11.577	CC, ES, SF
W Lybrook Unit						
W Lybrook Unit No. 735H - Original Hole - Surveys Origin	13,081.11	5,187.77	1,202.74	978.65	5.367	CC, ES, SF

Offset Design:	Greater Lybrook (36, 37, 38 & 39) - Greater Lybrook Unit 36H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program:	0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.022	-0.02	-40.12	40.12					
100.00	100.00	100.00	100.00	0.27	0.27	-90.022	-0.02	-40.12	40.12	39.57	0.55	73.155		
200.00	200.00	200.00	200.00	0.63	0.63	-90.022	-0.02	-40.12	40.12	38.86	1.27	31.708		
300.00	300.00	300.00	300.00	0.99	0.99	-90.022	-0.02	-40.12	40.12	38.14	1.98	20.240		
400.00	400.00	400.00	400.00	1.35	1.35	-90.022	-0.02	-40.12	40.12	37.42	2.70	14.864		
500.00	500.00	500.00	500.00	1.71	1.71	-90.022	-0.02	-40.12	40.12	36.71	3.42	11.745		
600.00	600.00	600.00	600.00	2.07	2.07	-90.022	-0.02	-40.12	40.12	35.99	4.13	9.708		
700.00	700.00	700.00	700.00	2.43	2.43	-90.022	-0.02	-40.12	40.12	35.27	4.85	8.273		
800.00	800.00	800.00	800.00	2.78	2.78	-90.022	-0.02	-40.12	40.12	34.56	5.57	7.207		
900.00	900.00	900.00	900.00	3.14	3.14	-90.022	-0.02	-40.12	40.12	33.84	6.28	6.385		
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-90.022	-0.02	-40.12	40.12	33.12	7.00	5.731	CC, ES	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (36, 37, 38 & 39) - Greater Lybrook Unit 36H - Original Hole - rev0													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
1,100.00	1,099.95	1,098.04	1,098.00	3.86	3.85	-152.695	1.30	-42.27	44.64	36.95	7.70	5.799		
1,200.00	1,199.63	1,194.89	1,194.55	4.21	4.19	-152.151	5.16	-48.60	58.14	49.77	8.38	6.941		
1,300.00	1,298.77	1,289.43	1,288.32	4.57	4.54	-151.572	11.39	-58.81	80.43	71.39	9.04	8.900		
1,400.00	1,397.08	1,383.40	1,380.99	4.95	4.89	-151.273	19.52	-72.12	110.46	100.75	9.71	11.372		
1,500.00	1,494.31	1,477.15	1,473.39	5.36	5.26	-151.803	27.79	-85.68	145.15	134.74	10.41	13.940		
1,600.00	1,590.18	1,569.12	1,564.02	5.81	5.62	-152.673	35.92	-98.99	184.20	173.09	11.11	16.576		
1,700.00	1,684.43	1,659.05	1,652.65	6.31	5.99	-153.616	43.86	-112.00	227.60	215.79	11.81	19.264		
1,800.00	1,777.42	1,747.44	1,739.76	6.86	6.35	-154.913	51.66	-124.79	274.05	261.54	12.51	21.898		
1,900.00	1,870.36	1,835.76	1,826.80	7.44	6.72	-155.953	59.46	-137.57	320.70	307.48	13.21	24.272		
2,000.00	1,963.30	1,924.09	1,913.85	8.05	7.09	-156.729	67.26	-150.35	367.40	353.48	13.92	26.394		
2,100.00	2,056.24	2,012.41	2,000.90	8.67	7.46	-157.330	75.06	-163.12	414.15	399.52	14.64	28.298		
2,200.00	2,149.18	2,100.74	2,087.95	9.31	7.84	-157.810	82.86	-175.90	460.93	445.57	15.36	30.014		
2,300.00	2,242.13	2,189.06	2,174.99	9.97	8.22	-158.201	90.67	-188.68	507.73	491.64	16.09	31.564		
2,400.00	2,335.07	2,277.39	2,262.04	10.63	8.60	-158.526	98.47	-201.46	554.54	537.72	16.82	32.970		
2,500.00	2,428.01	2,365.72	2,349.09	11.30	8.98	-158.801	106.27	-214.24	601.36	583.81	17.56	34.251		
2,600.00	2,520.95	2,454.04	2,436.14	11.98	9.36	-159.036	114.07	-227.02	648.20	629.90	18.30	35.420		
2,700.00	2,613.89	2,542.37	2,523.19	12.67	9.75	-159.239	121.87	-239.80	695.04	675.99	19.05	36.492		
2,800.00	2,706.83	2,630.69	2,610.23	13.35	10.13	-159.417	129.67	-252.58	741.89	722.09	19.80	37.478		
2,900.00	2,799.77	2,719.02	2,697.28	14.05	10.52	-159.573	137.47	-265.36	788.74	768.19	20.55	38.386		
3,000.00	2,892.71	2,807.35	2,784.33	14.75	10.91	-159.712	145.27	-278.14	835.60	814.29	21.30	39.226		
3,100.00	2,985.66	2,895.67	2,871.38	15.45	11.30	-159.836	153.07	-290.92	882.46	860.40	22.06	40.004		
3,200.00	3,078.60	3,033.00	3,007.39	16.15	11.87	-160.207	162.83	-306.91	927.12	903.92	23.19	39.976		
3,300.00	3,171.54	3,179.82	3,153.88	16.85	12.40	-161.002	167.61	-314.75	966.64	942.36	24.28	39.808		
3,400.00	3,264.48	3,290.42	3,264.48	17.56	12.77	-161.791	167.90	-315.22	1,002.13	977.03	25.10	39.927		
3,500.00	3,357.42	3,383.36	3,357.42	18.27	13.07	-162.424	167.90	-315.22	1,037.48	1,011.66	25.82	40.184		
3,600.00	3,450.36	3,476.30	3,450.36	18.98	13.37	-163.016	167.90	-315.22	1,072.93	1,046.39	26.54	40.431		
3,700.00	3,543.30	3,569.24	3,543.30	19.69	13.67	-163.570	167.90	-315.22	1,108.48	1,081.22	27.26	40.667		
3,800.00	3,636.24	3,662.18	3,636.24	20.40	13.98	-164.090	167.90	-315.22	1,144.11	1,116.14	27.98	40.893		
3,900.00	3,729.19	3,755.12	3,729.19	21.12	14.29	-164.579	167.90	-315.22	1,179.83	1,151.13	28.70	41.109		
4,000.00	3,822.13	4,843.56	4,416.27	21.83	19.55	164.091	-289.36	142.05	1,191.14	1,158.38	32.76	36.358		
4,100.00	3,915.07	4,854.15	4,416.19	22.55	19.69	163.578	-296.85	149.54	1,179.26	1,144.95	34.31	34.373		
4,200.00	4,007.31	4,871.23	4,416.05	23.29	19.91	143.628	-308.92	161.62	1,174.79	1,139.01	35.78	32.835		
4,228.19	4,032.82	4,879.05	4,415.98	23.51	20.01	138.160	-314.45	167.15	1,174.57	1,138.35	36.22	32.431		
4,300.00	4,096.12	4,904.83	4,415.77	24.07	20.35	126.425	-332.68	185.38	1,175.84	1,138.50	37.34	31.489		
4,400.00	4,178.77	4,954.08	4,415.37	24.87	21.06	114.170	-367.50	220.20	1,180.99	1,141.93	39.06	30.237		
4,500.00	4,252.76	5,017.49	4,414.85	25.69	22.01	105.061	-412.34	265.04	1,188.20	1,147.24	40.96	29.009		
4,600.00	4,315.85	5,093.12	4,414.23	26.54	23.22	98.169	-465.82	318.52	1,195.13	1,152.00	43.13	27.709		
4,700.00	4,366.11	5,178.69	4,413.53	27.42	24.67	93.181	-526.32	379.02	1,199.51	1,153.88	45.63	26.288		
4,800.00	4,401.92	5,271.62	4,412.77	28.35	26.31	90.496	-592.03	444.73	1,199.90	1,151.46	48.45	24.768		
4,843.68	4,412.47	5,313.91	4,412.42	28.79	27.08	89.998	-621.93	474.63	1,199.86	1,150.02	49.83	24.079		
4,900.00	4,421.25	5,369.44	4,411.97	29.39	28.11	89.560	-661.20	513.90	1,199.89	1,148.30	51.59	23.257		
5,000.00	4,424.72	5,469.29	4,411.15	30.56	30.01	89.352	-731.80	584.50	1,199.93	1,144.94	54.99	21.819		
5,100.00	4,425.12	5,569.28	4,410.33	31.84	31.96	89.294	-802.50	655.21	1,199.94	1,141.38	58.57	20.488		
5,200.00	4,425.52	5,669.27	4,409.51	33.24	33.96	89.236	-873.20	725.91	1,199.96	1,137.68	62.28	19.267		
5,300.00	4,425.92	5,769.27	4,408.70	34.73	35.99	89.178	-943.90	796.61	1,199.98	1,133.87	66.10	18.154		
5,400.00	4,426.32	5,869.26	4,407.88	36.31	38.05	89.119	-1,014.61	867.32	1,199.99	1,129.98	70.02	17.139		
5,500.00	4,426.72	5,969.25	4,407.06	37.97	40.14	89.061	-1,085.31	938.02	1,200.01	1,126.00	74.01	16.214		
5,600.00	4,427.12	6,069.24	4,406.24	39.69	42.25	89.003	-1,156.01	1,008.73	1,200.03	1,121.96	78.07	15.372		
5,700.00	4,427.52	6,169.24	4,405.42	41.48	44.37	88.945	-1,226.71	1,079.43	1,200.05	1,117.87	82.18	14.602		
5,800.00	4,427.92	6,269.23	4,404.60	43.31	46.52	88.887	-1,297.41	1,150.13	1,200.07	1,113.73	86.35	13.898		
5,900.00	4,428.32	6,369.22	4,403.78	45.19	48.67	88.829	-1,368.12	1,220.84	1,200.10	1,109.55	90.55	13.253		
6,000.00	4,428.72	6,469.22	4,402.97	47.11	50.84	88.771	-1,438.82	1,291.54	1,200.12	1,105.33	94.79	12.661		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (36, 37, 38 & 39) - Greater Lybrook Unit 36H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Rule Assigned:												Warning	
Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
6,100.00	4,429.12	6,569.21	4,402.15	49.06	53.02	88.713	-1,509.52	1,362.24	1,200.15	1,101.09	99.06	12.115	
6,200.00	4,429.51	6,669.20	4,401.33	51.05	55.21	88.654	-1,580.22	1,432.95	1,200.18	1,096.82	103.36	11.612	
6,300.00	4,429.91	6,769.19	4,400.51	53.06	57.40	88.596	-1,650.93	1,503.65	1,200.20	1,092.52	107.68	11.146	
6,400.00	4,430.31	6,869.19	4,399.69	55.09	59.61	88.538	-1,721.63	1,574.36	1,200.23	1,088.21	112.02	10.714	
6,500.00	4,430.71	6,969.18	4,398.87	57.14	61.82	88.480	-1,792.33	1,645.06	1,200.26	1,083.88	116.38	10.313	
6,600.00	4,431.11	7,069.17	4,398.06	59.22	64.03	88.422	-1,863.03	1,715.76	1,200.30	1,079.54	120.76	9.940	
6,700.00	4,431.51	7,169.16	4,397.24	61.31	66.26	88.364	-1,933.74	1,786.47	1,200.33	1,075.18	125.15	9.591	
6,800.00	4,431.91	7,269.16	4,396.42	63.41	68.48	88.306	-2,004.44	1,857.17	1,200.37	1,070.82	129.55	9.266	
6,900.00	4,432.31	7,369.15	4,395.60	65.53	70.71	88.248	-2,075.14	1,927.87	1,200.40	1,066.44	133.96	8.961	
7,000.00	4,432.71	7,469.14	4,394.78	67.66	72.95	88.189	-2,145.84	1,998.58	1,200.44	1,062.05	138.39	8.675	
7,100.00	4,433.11	7,569.13	4,393.96	69.80	75.19	88.131	-2,216.54	2,069.28	1,200.48	1,057.66	142.82	8.405	
7,200.00	4,433.51	7,669.13	4,393.14	71.95	77.43	88.073	-2,287.25	2,139.99	1,200.52	1,053.25	147.26	8.152	
7,300.00	4,433.91	7,769.12	4,392.33	74.11	79.67	88.015	-2,357.95	2,210.69	1,200.56	1,048.85	151.71	7.913	
7,400.00	4,434.31	7,869.11	4,391.51	76.27	81.92	87.957	-2,428.65	2,281.39	1,200.60	1,044.43	156.17	7.688	
7,500.00	4,434.71	7,969.10	4,390.69	78.45	84.17	87.899	-2,499.35	2,352.10	1,200.64	1,040.01	160.63	7.475	
7,600.00	4,435.11	8,069.10	4,389.87	80.63	86.42	87.841	-2,570.06	2,422.80	1,200.69	1,035.59	165.10	7.273	
7,700.00	4,435.51	8,169.09	4,389.05	82.82	88.67	87.783	-2,640.76	2,493.51	1,200.73	1,031.16	169.57	7.081	
7,800.00	4,435.91	8,269.08	4,388.23	85.01	90.93	87.725	-2,711.46	2,564.21	1,200.78	1,026.73	174.05	6.899	
7,900.00	4,436.31	8,369.07	4,387.41	87.21	93.19	87.667	-2,782.16	2,634.91	1,200.83	1,022.30	178.53	6.726	
8,000.00	4,436.70	8,469.07	4,386.60	89.42	95.45	87.609	-2,852.87	2,705.62	1,200.88	1,017.86	183.01	6.562	
8,100.00	4,437.10	8,569.06	4,385.78	91.62	97.71	87.551	-2,923.57	2,776.32	1,200.93	1,013.42	187.50	6.405	
8,200.00	4,437.50	8,669.05	4,384.96	93.84	99.97	87.493	-2,994.27	2,847.02	1,200.98	1,008.98	191.99	6.255	
8,300.00	4,437.90	8,769.04	4,384.14	96.05	102.24	87.434	-3,064.97	2,917.73	1,201.03	1,004.54	196.49	6.112	
8,400.00	4,438.30	8,869.04	4,383.32	98.27	104.50	87.376	-3,135.67	2,988.43	1,201.09	1,000.10	200.99	5.976	
8,500.00	4,438.70	8,969.03	4,382.50	100.50	106.77	87.318	-3,206.38	3,059.14	1,201.14	995.66	205.49	5.845	
8,600.00	4,439.10	9,069.02	4,381.69	102.72	109.04	87.260	-3,277.08	3,129.84	1,201.20	991.21	209.99	5.720	
8,700.00	4,439.50	9,169.02	4,380.87	104.95	111.31	87.202	-3,347.78	3,200.54	1,201.26	986.77	214.49	5.601	
8,800.00	4,439.90	9,269.01	4,380.05	107.19	113.58	87.144	-3,418.48	3,271.25	1,201.32	982.32	218.99	5.486	
8,900.00	4,440.30	9,369.00	4,379.23	109.42	115.85	87.086	-3,489.19	3,341.95	1,201.38	977.88	223.50	5.375	
9,000.00	4,440.70	9,468.99	4,378.41	111.66	118.12	87.028	-3,559.89	3,412.66	1,201.44	973.43	228.01	5.269	
9,100.00	4,441.10	9,568.99	4,377.59	113.90	120.39	86.970	-3,630.59	3,483.36	1,201.50	968.98	232.52	5.167	
9,200.00	4,441.50	9,668.98	4,376.77	116.14	122.66	86.912	-3,701.29	3,554.06	1,201.57	964.54	237.03	5.069	
9,300.00	4,441.90	9,768.97	4,375.96	118.38	124.94	86.854	-3,772.00	3,624.77	1,201.63	960.09	241.54	4.975	
9,400.00	4,442.30	9,868.96	4,375.14	120.63	127.21	86.796	-3,842.70	3,695.47	1,201.70	955.65	246.05	4.884	
9,500.00	4,442.70	9,968.96	4,374.32	122.88	129.49	86.738	-3,913.40	3,766.17	1,201.77	951.20	250.56	4.796	
9,600.00	4,443.10	10,068.95	4,373.50	125.13	131.76	86.680	-3,984.10	3,836.88	1,201.83	946.76	255.08	4.712	
9,700.00	4,443.49	10,168.94	4,372.68	127.38	134.04	86.622	-4,054.80	3,907.58	1,201.91	942.32	259.59	4.630	
9,800.00	4,443.89	10,268.93	4,371.86	129.63	136.32	86.564	-4,125.51	3,978.29	1,201.98	937.87	264.10	4.551	
9,900.00	4,444.29	10,368.93	4,371.04	131.89	138.60	86.507	-4,196.21	4,048.99	1,202.05	933.43	268.62	4.475	
10,000.00	4,444.69	10,468.92	4,370.23	134.14	140.87	86.449	-4,266.91	4,119.69	1,202.12	929.00	273.13	4.401	
10,100.00	4,445.09	10,568.91	4,369.41	136.40	143.15	86.391	-4,337.61	4,190.40	1,202.20	924.56	277.64	4.330	
10,200.00	4,445.49	10,668.90	4,368.59	138.66	145.43	86.333	-4,408.32	4,261.10	1,202.28	920.12	282.16	4.261	
10,300.00	4,445.89	10,768.90	4,367.77	140.91	147.71	86.275	-4,479.02	4,331.81	1,202.35	915.68	286.67	4.194	
10,400.00	4,446.29	10,868.89	4,366.95	143.17	149.99	86.217	-4,549.72	4,402.51	1,202.43	911.25	291.18	4.130	
10,500.00	4,446.69	10,968.88	4,366.13	145.44	152.27	86.159	-4,620.42	4,473.21	1,202.51	906.82	295.69	4.067	
10,600.00	4,447.09	11,068.87	4,365.32	147.70	154.55	86.101	-4,691.13	4,543.92	1,202.59	902.39	300.21	4.006	
10,700.00	4,447.49	11,168.87	4,364.50	149.96	156.84	86.043	-4,761.83	4,614.62	1,202.68	897.96	304.72	3.947	
10,800.00	4,447.89	11,268.86	4,363.68	152.23	159.12	85.985	-4,832.53	4,685.32	1,202.76	893.53	309.23	3.890	
10,900.00	4,448.29	11,368.85	4,362.86	154.49	161.40	85.927	-4,903.23	4,756.03	1,202.85	889.11	313.74	3.834	
11,000.00	4,448.69	11,468.84	4,362.04	156.76	163.68	85.870	-4,973.93	4,826.73	1,202.93	884.68	318.25	3.780	
11,100.00	4,449.09	11,568.84	4,361.22	159.02	165.96	85.812	-5,044.64	4,897.44	1,203.02	880.26	322.76	3.727	
11,200.00	4,449.49	11,668.83	4,360.40	161.29	168.25	85.754	-5,115.34	4,968.14	1,203.11	875.84	327.26	3.676	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (36, 37, 38 & 39) - Greater Lybrook Unit 36H - Original Hole - rev0													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
11,300.00	4,449.89	11,768.82	4,359.59	163.56	170.53	85.696	-5,186.04	5,038.84	1,203.20	871.43	331.77	3.627		
11,400.00	4,450.29	11,868.81	4,358.77	165.83	172.81	85.638	-5,256.74	5,109.55	1,203.29	867.01	336.28	3.578		
11,500.00	4,450.68	11,968.81	4,357.95	168.10	175.10	85.580	-5,327.45	5,180.25	1,203.38	862.60	340.78	3.531		
11,600.00	4,451.08	12,068.80	4,357.13	170.37	177.38	85.523	-5,398.15	5,250.96	1,203.48	858.19	345.28	3.485		
11,700.00	4,451.48	12,168.79	4,356.31	172.64	179.67	85.465	-5,468.85	5,321.66	1,203.57	853.78	349.79	3.441		
11,800.00	4,451.88	12,268.79	4,355.49	174.91	181.95	85.407	-5,539.55	5,392.36	1,203.67	849.38	354.29	3.397		
11,900.00	4,452.28	12,368.78	4,354.67	177.18	184.24	85.349	-5,610.25	5,463.07	1,203.76	844.98	358.79	3.355		
12,000.00	4,452.68	12,468.77	4,353.86	179.45	186.52	85.291	-5,680.96	5,533.77	1,203.86	840.58	363.28	3.314		
12,100.00	4,453.08	12,568.76	4,353.04	181.73	188.81	85.234	-5,751.66	5,604.47	1,203.96	836.18	367.78	3.274		
12,200.00	4,453.48	12,668.76	4,352.22	184.00	191.09	85.176	-5,822.36	5,675.18	1,204.06	831.79	372.28	3.234		
12,300.00	4,453.88	12,768.75	4,351.40	186.28	193.38	85.118	-5,893.06	5,745.88	1,204.17	827.40	376.77	3.196		
12,400.00	4,454.28	12,868.74	4,350.58	188.55	195.66	85.060	-5,963.77	5,816.59	1,204.27	823.01	381.26	3.159		
12,500.00	4,454.68	12,968.73	4,349.76	190.83	197.95	85.003	-6,034.47	5,887.29	1,204.37	818.62	385.75	3.122		
12,600.00	4,455.08	13,068.73	4,348.94	193.10	200.24	84.945	-6,105.17	5,957.99	1,204.48	814.24	390.24	3.087		
12,700.00	4,455.48	13,168.72	4,348.13	195.38	202.52	84.887	-6,175.87	6,028.70	1,204.59	809.86	394.73	3.052		
12,800.00	4,455.88	13,268.71	4,347.31	197.65	204.81	84.830	-6,246.58	6,099.40	1,204.70	805.49	399.21	3.018		
12,900.00	4,456.28	13,368.70	4,346.49	199.93	207.10	84.772	-6,317.28	6,170.10	1,204.80	801.11	403.69	2.984		
13,000.00	4,456.68	13,468.70	4,345.67	202.21	209.38	84.714	-6,387.98	6,240.81	1,204.92	796.74	408.17	2.952		
13,081.11	4,457.00	13,549.80	4,345.01	204.06	211.24	84.667	-6,445.33	6,298.16	1,205.01	793.20	411.81	2.926 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (36, 37, 38 & 39) - Greater Lybrook Unit 37H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Rule Assigned:												Warning	
Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.022	-0.01	-20.06	20.06				
100.00	100.00	100.00	100.00	0.27	0.27	-90.022	-0.01	-20.06	20.06	19.51	0.55	36.578	
200.00	200.00	200.00	200.00	0.63	0.63	-90.022	-0.01	-20.06	20.06	18.80	1.27	15.854	
300.00	300.00	300.00	300.00	0.99	0.99	-90.022	-0.01	-20.06	20.06	18.08	1.98	10.120	
400.00	400.00	400.00	400.00	1.35	1.35	-90.022	-0.01	-20.06	20.06	17.36	2.70	7.432	
500.00	500.00	500.00	500.00	1.71	1.71	-90.022	-0.01	-20.06	20.06	16.65	3.42	5.872	
600.00	600.00	600.00	600.00	2.07	2.07	-90.022	-0.01	-20.06	20.06	15.93	4.13	4.854	
700.00	700.00	700.00	700.00	2.43	2.43	-90.022	-0.01	-20.06	20.06	15.21	4.85	4.136	
800.00	800.00	800.00	800.00	2.78	2.78	-90.022	-0.01	-20.06	20.06	14.49	5.57	3.604	
900.00	900.00	900.00	900.00	3.14	3.14	-90.022	-0.01	-20.06	20.06	13.78	6.28	3.192	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-90.022	-0.01	-20.06	20.06	13.06	7.00	2.866 CC, ES, SF	
1,100.00	1,099.95	1,099.95	1,099.95	3.86	3.86	-155.957	-0.01	-20.06	22.42	14.71	7.71	2.907	
1,200.00	1,199.63	1,199.63	1,199.63	4.21	4.22	-162.052	-0.01	-20.06	29.76	21.34	8.42	3.533	
1,300.00	1,298.77	1,300.85	1,300.80	4.57	4.57	-166.607	1.25	-17.72	39.84	30.72	9.12	4.368	
1,400.00	1,397.08	1,402.64	1,402.26	4.95	4.94	-169.168	5.08	-10.60	50.02	40.22	9.80	5.105	
1,500.00	1,494.31	1,505.01	1,503.72	5.36	5.31	-170.736	11.51	1.34	60.17	49.72	10.45	5.755	
1,600.00	1,590.18	1,607.96	1,604.87	5.81	5.69	-171.741	20.56	18.16	70.23	59.14	11.09	6.330	
1,700.00	1,684.43	1,711.49	1,705.40	6.31	6.11	-172.396	32.25	39.90	80.16	68.45	11.72	6.842	
1,800.00	1,777.42	1,815.72	1,805.11	6.86	6.58	-172.709	46.61	66.58	88.34	76.01	12.33	7.167	
1,900.00	1,870.36	1,920.56	1,903.59	7.44	7.09	-172.474	63.64	98.23	91.23	78.31	12.92	7.061	
2,000.00	1,963.30	2,022.56	1,997.73	8.05	7.65	-171.807	82.23	132.79	89.65	76.03	13.62	6.583	
2,100.00	2,056.24	2,122.53	2,089.82	8.67	8.24	-171.076	100.67	167.04	87.63	73.22	14.41	6.080	
2,200.00	2,149.18	2,222.50	2,181.92	9.31	8.85	-170.311	119.10	201.30	85.63	70.40	15.23	5.623	
2,300.00	2,242.13	2,322.48	2,274.01	9.97	9.49	-169.510	137.53	235.56	83.65	67.59	16.06	5.209	
2,400.00	2,335.07	2,422.45	2,366.10	10.63	10.14	-168.670	155.96	269.81	81.68	64.78	16.91	4.832	
2,500.00	2,428.01	2,522.42	2,458.20	11.30	10.80	-167.789	174.40	304.07	79.73	61.97	17.77	4.488	
2,575.14	2,497.85	2,596.03	2,526.15	11.81	11.30	-167.178	187.80	328.99	78.66	60.17	18.49	4.253	
2,600.00	2,520.95	2,619.93	2,548.40	11.98	11.45	-167.066	191.94	336.67	78.81	60.06	18.75	4.203	
2,700.00	2,613.89	2,715.94	2,638.84	12.67	12.05	-167.143	207.20	365.04	82.47	62.73	19.73	4.179	
2,800.00	2,706.83	2,811.37	2,730.21	13.35	12.61	-167.941	220.22	389.23	90.98	70.36	20.63	4.411	
2,900.00	2,799.77	2,905.75	2,821.82	14.05	13.10	-169.165	230.95	409.17	104.35	82.92	21.43	4.869	
3,000.00	2,892.71	3,000.00	2,914.32	14.75	13.55	-170.541	239.51	425.09	122.52	100.35	22.17	5.527	
3,100.00	2,985.66	3,089.66	3,003.03	15.45	13.92	-171.818	245.65	436.49	145.37	122.57	22.80	6.375	
3,200.00	3,078.60	3,178.46	3,091.40	16.15	14.25	-172.968	249.77	444.15	172.81	149.42	23.39	7.389	
3,300.00	3,171.54	3,264.76	3,177.57	16.85	14.53	-173.946	251.90	448.12	204.64	180.73	23.91	8.559	
3,400.00	3,264.48	3,351.68	3,264.48	17.56	14.78	-174.787	252.30	448.86	240.46	216.01	24.46	9.832	
3,500.00	3,357.42	3,444.62	3,357.42	18.27	15.04	-175.480	252.30	448.86	277.25	252.09	25.16	11.019	
3,600.00	3,450.36	3,541.63	3,454.43	18.98	15.32	-176.095	252.05	449.11	313.96	288.02	25.95	12.101	
3,700.00	3,543.30	3,658.90	3,570.38	19.69	15.68	-179.185	240.70	460.46	346.36	319.36	27.00	12.829	
3,800.00	3,636.24	3,770.79	3,675.80	20.40	16.09	175.148	214.54	486.62	374.14	346.11	28.03	13.349	
3,900.00	3,729.19	3,870.23	3,761.89	21.12	16.52	168.363	179.53	521.63	401.39	372.15	29.24	13.729	
4,000.00	3,822.13	3,954.34	3,827.12	21.83	16.96	161.641	142.07	559.09	432.47	401.94	30.52	14.168	
4,100.00	3,915.07	4,023.59	3,874.54	22.55	17.38	155.649	106.43	594.74	470.49	438.91	31.57	14.902	
4,200.00	4,007.31	4,084.18	3,910.78	23.29	17.82	127.148	72.12	629.05	514.69	482.47	32.21	15.977	
4,300.00	4,096.12	4,143.94	3,941.31	24.07	18.32	103.288	35.81	665.35	559.64	527.06	32.58	17.179	
4,400.00	4,178.77	4,203.10	3,966.11	24.87	18.88	86.801	-2.15	703.31	602.36	569.64	32.72	18.412	
4,500.00	4,252.76	4,261.71	3,985.09	25.69	19.52	75.332	-41.34	742.50	640.79	608.05	32.73	19.576	
4,600.00	4,315.85	4,319.76	3,998.22	26.54	20.21	67.238	-81.30	782.46	673.47	640.81	32.66	20.622	
4,700.00	4,366.11	4,377.17	4,005.51	27.42	20.96	61.517	-121.56	822.72	699.40	666.87	32.53	21.501	
4,800.00	4,401.92	4,438.84	4,007.08	28.35	21.82	57.771	-165.13	866.29	718.19	685.61	32.58	22.043	
4,900.00	4,421.25	4,536.64	4,006.17	29.39	23.30	55.502	-234.28	935.45	729.52	695.07	34.45	21.177	
5,000.00	4,424.72	4,636.49	4,005.24	30.56	24.93	55.038	-304.88	1,006.04	732.03	695.05	36.98	19.794	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (36, 37, 38 & 39) - Greater Lybrook Unit 37H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Rule Assigned:												Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.00	4,425.12	4,736.48	4,004.31	31.84	26.67	54.953	-375.58	1,076.75	732.79	693.01	39.78	18.421	
5,200.00	4,425.52	4,836.47	4,003.38	33.24	28.48	54.868	-446.28	1,147.45	733.55	690.84	42.71	17.173	
5,300.00	4,425.92	4,936.46	4,002.45	34.73	30.37	54.783	-516.98	1,218.15	734.32	688.57	45.75	16.050	
5,400.00	4,426.32	5,036.45	4,001.52	36.31	32.30	54.698	-587.68	1,288.85	735.09	686.22	48.87	15.041	
5,500.00	4,426.72	5,136.44	4,000.59	37.97	34.29	54.614	-658.38	1,359.55	735.86	683.80	52.06	14.136	
5,600.00	4,427.12	5,236.43	3,999.66	39.69	36.31	54.529	-729.08	1,430.25	736.63	681.34	55.29	13.323	
5,700.00	4,427.52	5,336.42	3,998.73	41.48	38.36	54.445	-799.79	1,500.96	737.40	678.84	58.56	12.591	
5,800.00	4,427.92	5,436.41	3,997.80	43.31	40.44	54.361	-870.49	1,571.66	738.17	676.31	61.87	11.932	
5,900.00	4,428.32	5,536.41	3,996.87	45.19	42.54	54.277	-941.19	1,642.36	738.95	673.76	65.19	11.335	
6,000.00	4,428.72	5,636.40	3,995.94	47.11	44.66	54.194	-1,011.89	1,713.06	739.73	671.19	68.53	10.794	
6,100.00	4,429.12	5,736.39	3,995.01	49.06	46.80	54.110	-1,082.59	1,783.76	740.50	668.62	71.89	10.301	
6,200.00	4,429.51	5,836.38	3,994.08	51.05	48.95	54.027	-1,153.29	1,854.47	741.28	666.04	75.25	9.851	
6,300.00	4,429.91	5,936.37	3,993.14	53.06	51.11	53.944	-1,223.99	1,925.17	742.07	663.45	78.61	9.440	
6,400.00	4,430.31	6,036.36	3,992.21	55.09	53.29	53.861	-1,294.69	1,995.87	742.85	660.87	81.98	9.062	
6,500.00	4,430.71	6,136.35	3,991.28	57.14	55.47	53.778	-1,365.39	2,066.57	743.63	658.29	85.34	8.714	
6,600.00	4,431.11	6,236.34	3,990.35	59.22	57.66	53.696	-1,436.09	2,137.27	744.42	655.72	88.70	8.392	
6,700.00	4,431.51	6,336.34	3,989.42	61.31	59.86	53.613	-1,506.79	2,207.98	745.21	653.15	92.06	8.095	
6,800.00	4,431.91	6,436.33	3,988.49	63.41	62.07	53.531	-1,577.49	2,278.68	746.00	650.58	95.41	7.819	
6,900.00	4,432.31	6,536.32	3,987.56	65.53	64.29	53.449	-1,648.20	2,349.38	746.79	648.03	98.76	7.562	
7,000.00	4,432.71	6,636.31	3,986.63	67.66	66.51	53.367	-1,718.90	2,420.08	747.58	645.49	102.09	7.323	
7,100.00	4,433.11	6,736.30	3,985.70	69.80	68.73	53.285	-1,789.60	2,490.78	748.38	642.96	105.42	7.099	
7,200.00	4,433.51	6,836.29	3,984.77	71.95	70.96	53.204	-1,860.30	2,561.48	749.17	640.44	108.74	6.890	
7,300.00	4,433.91	6,936.28	3,983.84	74.11	73.19	53.122	-1,931.00	2,632.19	749.97	637.93	112.04	6.694	
7,400.00	4,434.31	7,036.27	3,982.91	76.27	75.43	53.041	-2,001.70	2,702.89	750.77	635.43	115.33	6.510	
7,500.00	4,434.71	7,136.26	3,981.98	78.45	77.67	52.960	-2,072.40	2,773.59	751.57	632.95	118.61	6.336	
7,600.00	4,435.11	7,236.26	3,981.05	80.63	79.91	52.879	-2,143.10	2,844.29	752.37	630.49	121.88	6.173	
7,700.00	4,435.51	7,336.25	3,980.12	82.82	82.16	52.798	-2,213.80	2,914.99	753.17	628.04	125.13	6.019	
7,800.00	4,435.91	7,436.24	3,979.19	85.01	84.40	52.718	-2,284.50	2,985.70	753.98	625.60	128.37	5.873	
7,900.00	4,436.31	7,536.23	3,978.26	87.21	86.66	52.638	-2,355.20	3,056.40	754.78	623.18	131.60	5.736	
8,000.00	4,436.70	7,636.22	3,977.33	89.42	88.91	52.557	-2,425.90	3,127.10	755.59	620.78	134.81	5.605	
8,100.00	4,437.10	7,736.21	3,976.39	91.62	91.16	52.477	-2,496.61	3,197.80	756.40	618.40	138.00	5.481	
8,200.00	4,437.50	7,836.20	3,975.46	93.84	93.42	52.398	-2,567.31	3,268.50	757.21	616.03	141.18	5.363	
8,300.00	4,437.90	7,936.19	3,974.53	96.05	95.68	52.318	-2,638.01	3,339.21	758.02	613.68	144.35	5.251	
8,400.00	4,438.30	8,036.18	3,973.60	98.27	97.94	52.238	-2,708.71	3,409.91	758.84	611.34	147.49	5.145	
8,500.00	4,438.70	8,136.18	3,972.67	100.50	100.20	52.159	-2,779.41	3,480.61	759.65	609.03	150.62	5.043	
8,600.00	4,439.10	8,236.17	3,971.74	102.72	102.46	52.080	-2,850.11	3,551.31	760.47	606.73	153.74	4.946	
8,700.00	4,439.50	8,336.16	3,970.81	104.95	104.73	52.001	-2,920.81	3,622.01	761.28	604.45	156.84	4.854	
8,800.00	4,439.90	8,436.15	3,969.88	107.19	107.00	51.922	-2,991.51	3,692.71	762.10	602.18	159.92	4.766	
8,900.00	4,440.30	8,536.14	3,968.95	109.42	109.26	51.843	-3,062.21	3,763.42	762.92	599.94	162.98	4.681	
9,000.00	4,440.70	8,636.13	3,968.02	111.66	111.53	51.765	-3,132.91	3,834.12	763.75	597.72	166.03	4.600	
9,100.00	4,441.10	8,736.12	3,967.09	113.90	113.80	51.687	-3,203.61	3,904.82	764.57	595.51	169.06	4.523	
9,200.00	4,441.50	8,836.11	3,966.16	116.14	116.07	51.609	-3,274.31	3,975.52	765.39	593.32	172.07	4.448	
9,300.00	4,441.90	8,936.11	3,965.23	118.38	118.34	51.531	-3,345.02	4,046.22	766.22	591.16	175.07	4.377	
9,400.00	4,442.30	9,036.10	3,964.30	120.63	120.61	51.453	-3,415.72	4,116.93	767.05	589.01	178.04	4.308	
9,500.00	4,442.70	9,136.09	3,963.37	122.88	122.89	51.375	-3,486.42	4,187.63	767.88	586.88	181.00	4.242	
9,600.00	4,443.10	9,236.08	3,962.44	125.13	125.16	51.298	-3,557.12	4,258.33	768.71	584.77	183.94	4.179	
9,700.00	4,443.49	9,336.07	3,961.51	127.38	127.43	51.220	-3,627.82	4,329.03	769.54	582.68	186.87	4.118	
9,800.00	4,443.89	9,436.06	3,960.58	129.63	129.71	51.143	-3,698.52	4,399.73	770.37	580.60	189.77	4.059	
9,900.00	4,444.29	9,536.05	3,959.64	131.89	131.98	51.066	-3,769.22	4,470.44	771.21	578.55	192.66	4.003	
10,000.00	4,444.69	9,636.04	3,958.71	134.14	134.26	50.990	-3,839.92	4,541.14	772.05	576.52	195.53	3.949	
10,100.00	4,445.09	9,736.03	3,957.78	136.40	136.54	50.913	-3,910.62	4,611.84	772.88	574.50	198.38	3.896	
10,200.00	4,445.49	9,836.03	3,956.85	138.66	138.81	50.836	-3,981.32	4,682.54	773.72	572.51	201.21	3.845	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (36, 37, 38 & 39) - Greater Lybrook Unit 37H - Original Hole - rev0											Offset Site Error:	0.00 ft
Survey Program: 0-MWD											Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	Factor
10,300.00	4,445.89	9,936.02	3,955.92	140.91	141.09	50.760	-4,052.02	4,753.24	774.56	570.54	204.02	3.796
10,400.00	4,446.29	10,036.01	3,954.99	143.17	143.37	50.684	-4,122.72	4,823.94	775.40	568.58	206.82	3.749
10,500.00	4,446.69	10,136.00	3,954.06	145.44	145.65	50.608	-4,193.43	4,894.65	776.25	566.65	209.60	3.703
10,600.00	4,447.09	10,235.99	3,953.13	147.70	147.93	50.532	-4,264.13	4,965.35	777.09	564.73	212.36	3.659
10,700.00	4,447.49	10,335.98	3,952.20	149.96	150.21	50.457	-4,334.83	5,036.05	777.94	562.84	215.10	3.617
10,800.00	4,447.89	10,435.97	3,951.27	152.23	152.49	50.381	-4,405.53	5,106.75	778.78	560.96	217.83	3.575
10,900.00	4,448.29	10,535.96	3,950.34	154.49	154.77	50.306	-4,476.23	5,177.45	779.63	559.10	220.53	3.535
11,000.00	4,448.69	10,635.96	3,949.41	156.76	157.05	50.231	-4,546.93	5,248.16	780.48	557.26	223.22	3.496
11,100.00	4,449.09	10,735.95	3,948.48	159.02	159.33	50.156	-4,617.63	5,318.86	781.33	555.44	225.89	3.459
11,200.00	4,449.49	10,835.94	3,947.55	161.29	161.61	50.081	-4,688.33	5,389.56	782.19	553.64	228.54	3.422
11,300.00	4,449.89	10,935.93	3,946.62	163.56	163.90	50.006	-4,759.03	5,460.26	783.04	551.86	231.18	3.387
11,400.00	4,450.29	11,035.92	3,945.69	165.83	166.18	49.932	-4,829.73	5,530.96	783.90	550.10	233.79	3.353
11,500.00	4,450.68	11,135.91	3,944.76	168.10	168.46	49.857	-4,900.43	5,601.67	784.75	548.36	236.39	3.320
11,600.00	4,451.08	11,235.90	3,943.83	170.37	170.75	49.783	-4,971.14	5,672.37	785.61	546.64	238.97	3.287
11,700.00	4,451.48	11,335.89	3,942.90	172.64	173.03	49.709	-5,041.84	5,743.07	786.47	544.93	241.54	3.256
11,800.00	4,451.88	11,435.88	3,941.96	174.91	175.31	49.635	-5,112.54	5,813.77	787.33	543.25	244.08	3.226
11,900.00	4,452.28	11,535.88	3,941.03	177.18	177.60	49.562	-5,183.24	5,884.47	788.19	541.58	246.61	3.196
12,000.00	4,452.68	11,635.87	3,940.10	179.45	179.88	49.488	-5,253.94	5,955.17	789.05	539.93	249.13	3.167
12,100.00	4,453.08	11,735.86	3,939.17	181.73	182.16	49.415	-5,324.64	6,025.88	789.92	538.30	251.62	3.139
12,200.00	4,453.48	11,835.85	3,938.24	184.00	184.45	49.342	-5,395.34	6,096.58	790.78	536.69	254.10	3.112
12,300.00	4,453.88	11,935.84	3,937.31	186.28	186.73	49.269	-5,466.04	6,167.28	791.65	535.09	256.56	3.086
12,400.00	4,454.28	12,035.83	3,936.38	188.55	189.02	49.196	-5,536.74	6,237.98	792.52	533.51	259.01	3.060
12,500.00	4,454.68	12,135.82	3,935.45	190.83	191.30	49.123	-5,607.44	6,308.68	793.39	531.96	261.43	3.035
12,600.00	4,455.08	12,235.81	3,934.52	193.10	193.59	49.050	-5,678.14	6,379.39	794.26	530.41	263.85	3.010
12,700.00	4,455.48	12,335.80	3,933.59	195.38	195.88	48.978	-5,748.84	6,450.09	795.13	528.89	266.24	2.987
12,800.00	4,455.88	12,435.80	3,932.66	197.65	198.16	48.906	-5,819.55	6,520.79	796.01	527.38	268.62	2.963
12,900.00	4,456.28	12,535.79	3,931.73	199.93	200.45	48.834	-5,890.25	6,591.49	796.88	525.89	270.99	2.941
13,000.00	4,456.68	12,635.78	3,930.80	202.21	202.73	48.762	-5,960.95	6,662.19	797.76	524.42	273.33	2.919
13,081.11	4,457.00	12,716.89	3,930.04	204.06	204.59	48.703	-6,018.30	6,719.54	798.47	523.24	275.23	2.901

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (36, 37, 38 & 39) - Greater Lybrook Unit 39H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.978	0.01	19.77	19.77				
100.00	100.00	100.00	100.00	0.27	0.27	89.978	0.01	19.77	19.77	19.22	0.55	36.040	
200.00	200.00	200.00	200.00	0.63	0.63	89.978	0.01	19.77	19.77	18.50	1.27	15.621	
300.00	300.00	300.00	300.00	0.99	0.99	89.978	0.01	19.77	19.77	17.78	1.98	9.971	
400.00	400.00	400.00	400.00	1.35	1.35	89.978	0.01	19.77	19.77	17.07	2.70	7.323	
500.00	500.00	500.00	500.00	1.71	1.71	89.978	0.01	19.77	19.77	16.35	3.42	5.786 CC, ES	
600.00	600.00	599.21	599.17	2.07	2.06	84.964	1.90	21.52	21.62	17.49	4.13	5.237	
700.00	700.00	697.89	697.54	2.43	2.42	74.295	7.52	26.73	27.88	23.05	4.83	5.769	
800.00	800.00	795.52	794.34	2.78	2.78	64.624	16.74	35.28	39.46	33.94	5.52	7.144	
900.00	900.00	891.62	888.88	3.14	3.16	58.013	29.34	46.98	56.49	50.30	6.19	9.119	
1,000.00	1,000.00	985.75	980.53	3.50	3.57	53.799	45.05	61.55	78.72	71.88	6.84	11.502	
1,100.00	1,099.95	1,078.19	1,069.39	3.86	4.00	-11.987	63.68	78.83	103.40	95.94	7.46	13.858	
1,200.00	1,199.63	1,169.47	1,155.85	4.21	4.48	-14.405	85.15	98.75	127.98	119.93	8.05	15.901	
1,300.00	1,298.77	1,259.63	1,239.76	4.57	5.01	-16.573	109.31	121.16	152.48	143.85	8.63	17.672	
1,400.00	1,397.08	1,348.69	1,321.03	4.95	5.58	-18.579	135.99	145.91	176.91	167.71	9.21	19.219	
1,500.00	1,494.31	1,436.66	1,399.56	5.36	6.21	-20.466	165.05	172.87	201.31	191.52	9.78	20.577	
1,600.00	1,590.18	1,523.59	1,475.29	5.81	6.88	-22.259	196.33	201.89	225.68	215.31	10.37	21.762	
1,700.00	1,684.43	1,619.25	1,557.27	6.31	7.68	-24.248	232.47	235.41	248.38	237.20	11.19	22.203	
1,800.00	1,777.42	1,716.74	1,640.81	6.86	8.52	-26.446	269.31	269.59	268.26	256.17	12.09	22.181	
1,900.00	1,870.36	1,814.25	1,724.37	7.44	9.38	-28.401	306.16	303.77	288.38	275.32	13.05	22.091	
2,000.00	1,963.30	1,911.76	1,807.92	8.05	10.25	-30.102	343.01	337.96	308.78	294.73	14.05	21.974	
2,100.00	2,056.24	2,009.27	1,891.48	8.67	11.13	-31.592	379.86	372.14	329.41	314.32	15.09	21.837	
2,200.00	2,149.18	2,106.78	1,975.03	9.31	12.01	-32.907	416.71	406.33	350.23	334.08	16.15	21.689	
2,300.00	2,242.13	2,204.29	2,058.59	9.97	12.91	-34.075	453.57	440.51	371.20	353.97	17.24	21.537	
2,400.00	2,335.07	2,301.80	2,142.14	10.63	13.81	-35.118	490.42	474.70	392.31	373.97	18.34	21.385	
2,500.00	2,428.01	2,399.31	2,225.70	11.30	14.71	-36.055	527.27	508.88	413.53	394.06	19.47	21.236	
2,600.00	2,520.95	2,496.82	2,309.25	11.98	15.61	-36.900	564.12	543.07	434.85	414.23	20.62	21.090	
2,700.00	2,613.89	2,594.33	2,392.81	12.67	16.52	-37.667	600.97	577.25	456.25	434.47	21.78	20.950	
2,800.00	2,706.83	2,691.84	2,476.36	13.35	17.43	-38.365	637.82	611.44	477.72	454.77	22.95	20.816	
2,900.00	2,799.77	2,789.34	2,559.92	14.05	18.35	-39.003	674.67	645.62	499.25	475.12	24.13	20.688	
3,000.00	2,892.71	2,886.85	2,643.47	14.75	19.26	-39.588	711.52	679.81	520.83	495.51	25.33	20.566	
3,100.00	2,985.66	2,984.36	2,727.03	15.45	20.18	-40.127	748.37	713.99	542.47	515.94	26.53	20.450	
3,200.00	3,078.60	3,081.87	2,810.59	16.15	21.10	-40.624	785.22	748.18	564.15	536.41	27.73	20.341	
3,300.00	3,171.54	3,179.38	2,894.14	16.85	22.01	-41.085	822.07	782.36	585.86	556.91	28.95	20.237	
3,400.00	3,264.48	3,276.89	2,977.70	17.56	22.93	-41.513	858.93	816.55	607.61	577.44	30.17	20.139	
3,500.00	3,357.42	3,374.40	3,061.25	18.27	23.85	-41.911	895.78	850.73	629.38	597.99	31.40	20.046	
3,600.00	3,450.36	3,471.91	3,144.81	18.98	24.77	-42.283	932.63	884.92	651.19	618.56	32.63	19.958	
3,700.00	3,543.30	3,569.42	3,228.36	19.69	25.70	-42.631	969.48	919.10	673.02	639.16	33.86	19.875	
3,800.00	3,636.24	3,666.93	3,311.92	20.40	26.62	-42.957	1,006.33	953.29	694.87	659.77	35.10	19.795	
3,900.00	3,729.19	3,764.44	3,395.47	21.12	27.54	-43.263	1,043.18	987.47	716.74	680.40	36.35	19.720	
4,000.00	3,822.13	3,958.33	3,562.26	21.83	29.36	-43.029	1,105.83	1,062.73	736.97	698.47	38.50	19.140	
4,100.00	3,915.07	4,342.49	3,859.81	22.55	32.23	-31.287	1,070.63	1,291.54	725.96	688.84	37.12	19.559	
4,200.00	4,007.31	4,540.19	3,961.85	23.29	33.20	-41.217	970.50	1,426.67	699.34	663.28	36.06	19.392	
4,300.00	4,096.12	4,616.97	3,987.74	24.07	33.52	-53.855	919.88	1,478.19	677.74	640.35	37.40	18.123	
4,400.00	4,178.77	4,670.79	4,000.14	24.87	33.77	-61.114	882.86	1,515.22	668.01	628.93	39.08	17.094	
4,434.11	4,205.10	4,689.12	4,003.23	25.14	33.86	-62.463	870.09	1,527.99	667.35	627.69	39.66	16.827	
4,500.00	4,252.76	4,724.42	4,007.55	25.69	34.05	-63.883	845.32	1,552.76	669.68	628.93	40.75	16.434	
4,600.00	4,315.85	4,781.38	4,009.96	26.54	34.39	-63.640	805.10	1,592.98	681.32	638.86	42.46	16.047	
4,700.00	4,366.11	4,861.37	4,009.36	27.42	34.93	-61.042	748.54	1,649.54	699.15	655.05	44.11	15.852	
4,800.00	4,401.92	4,954.32	4,008.67	28.35	35.66	-57.865	682.81	1,715.27	717.39	671.47	45.93	15.620	
4,900.00	4,421.25	5,052.16	4,007.94	29.39	36.54	-55.615	613.63	1,784.45	728.59	680.47	48.11	15.143	
5,000.00	4,424.72	5,152.01	4,007.20	30.56	37.56	-55.168	543.03	1,855.06	730.98	680.31	50.67	14.426	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (36, 37, 38 & 39) - Greater Lybrook Unit 39H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	4,425.12	5,252.01	4,006.45	31.84	38.70	-55.095	472.33	1,925.76	731.64	678.22	53.42	13.697	
5,200.00	4,425.52	5,352.00	4,005.71	33.24	39.94	-55.021	401.63	1,996.47	732.30	676.01	56.29	13.010	
5,300.00	4,425.92	5,451.99	4,004.96	34.73	41.29	-54.948	330.92	2,067.17	732.95	673.72	59.24	12.374	
5,400.00	4,426.32	5,551.99	4,004.22	36.31	42.73	-54.875	260.22	2,137.88	733.61	671.44	62.18	11.799	
5,500.00	4,426.72	5,651.98	4,003.48	37.97	44.25	-54.802	189.52	2,208.58	734.27	668.98	65.30	11.245	
5,600.00	4,427.12	5,751.97	4,002.73	39.69	45.84	-54.729	118.81	2,279.29	734.93	666.48	68.45	10.736	
5,700.00	4,427.52	5,851.97	4,001.99	41.48	47.51	-54.657	48.11	2,349.99	735.60	663.95	71.65	10.266	
5,800.00	4,427.92	5,951.96	4,001.24	43.31	49.23	-54.584	-22.59	2,420.70	736.26	661.38	74.89	9.832	
5,900.00	4,428.32	6,051.95	4,000.50	45.19	51.00	-54.512	-93.29	2,491.40	736.93	658.77	78.15	9.430	
6,000.00	4,428.72	6,151.95	3,999.75	47.11	52.82	-54.439	-164.00	2,562.11	737.59	656.15	81.44	9.057	
6,100.00	4,429.12	6,251.94	3,999.01	49.06	54.68	-54.367	-234.70	2,632.82	738.26	653.51	84.75	8.711	
6,200.00	4,429.51	6,351.93	3,998.26	51.05	56.58	-54.295	-305.40	2,703.52	738.93	650.86	88.07	8.390	
6,300.00	4,429.91	6,451.93	3,997.52	53.06	58.51	-54.223	-376.11	2,774.23	739.60	648.19	91.40	8.091	
6,400.00	4,430.31	6,551.92	3,996.77	55.09	60.46	-54.151	-446.81	2,844.93	740.27	645.52	94.75	7.813	
6,500.00	4,430.71	6,651.91	3,996.03	57.14	62.45	-54.080	-517.51	2,915.64	740.94	642.84	98.10	7.553	
6,600.00	4,431.11	6,751.91	3,995.28	59.22	64.45	-54.008	-588.21	2,986.34	741.61	640.16	101.45	7.310	
6,700.00	4,431.51	6,851.90	3,994.54	61.31	66.48	-53.937	-658.92	3,057.05	742.29	637.48	104.81	7.082	
6,800.00	4,431.91	6,951.89	3,993.80	63.41	68.52	-53.866	-729.62	3,127.75	742.96	634.80	108.16	6.869	
6,900.00	4,432.31	7,051.89	3,993.05	65.53	70.59	-53.795	-800.32	3,198.46	743.64	632.12	111.51	6.669	
7,000.00	4,432.71	7,151.88	3,992.31	67.66	72.66	-53.724	-871.03	3,269.16	744.31	629.45	114.86	6.480	
7,100.00	4,433.11	7,251.87	3,991.56	69.80	74.75	-53.653	-941.73	3,339.87	744.99	626.79	118.21	6.302	
7,200.00	4,433.51	7,351.87	3,990.82	71.95	76.86	-53.582	-1,012.43	3,410.57	745.67	624.13	121.55	6.135	
7,300.00	4,433.91	7,451.86	3,990.07	74.11	78.97	-53.511	-1,083.13	3,481.28	746.35	621.47	124.88	5.977	
7,400.00	4,434.31	7,551.85	3,989.33	76.27	81.10	-53.441	-1,153.84	3,551.98	747.04	618.83	128.20	5.827	
7,500.00	4,434.71	7,651.85	3,988.58	78.45	83.23	-53.371	-1,224.54	3,622.69	747.72	616.20	131.52	5.685	
7,600.00	4,435.11	7,751.84	3,987.84	80.63	85.38	-53.300	-1,295.24	3,693.40	748.40	613.58	134.83	5.551	
7,700.00	4,435.51	7,851.84	3,987.09	82.82	87.53	-53.230	-1,365.95	3,764.10	749.09	610.97	138.12	5.423	
7,800.00	4,435.91	7,951.83	3,986.35	85.01	89.69	-53.160	-1,436.65	3,834.81	749.78	608.37	141.41	5.302	
7,900.00	4,436.31	8,051.82	3,985.61	87.21	91.86	-53.090	-1,507.35	3,905.51	750.46	605.78	144.68	5.187	
8,000.00	4,436.70	8,151.82	3,984.86	89.42	94.03	-53.021	-1,578.05	3,976.22	751.15	603.21	147.95	5.077	
8,100.00	4,437.10	8,251.81	3,984.12	91.62	96.21	-52.951	-1,648.76	4,046.92	751.84	600.65	151.20	4.973	
8,200.00	4,437.50	8,351.80	3,983.37	93.84	98.39	-52.882	-1,719.46	4,117.63	752.53	598.10	154.43	4.873	
8,300.00	4,437.90	8,451.80	3,982.63	96.05	100.58	-52.812	-1,790.16	4,188.33	753.23	595.57	157.66	4.778	
8,400.00	4,438.30	8,551.79	3,981.88	98.27	102.77	-52.743	-1,860.87	4,259.04	753.92	593.05	160.87	4.687	
8,500.00	4,438.70	8,651.78	3,981.14	100.50	104.97	-52.674	-1,931.57	4,329.74	754.61	590.55	164.07	4.599	
8,600.00	4,439.10	8,751.78	3,980.39	102.72	107.18	-52.605	-2,002.27	4,400.45	755.31	588.06	167.25	4.516	
8,700.00	4,439.50	8,851.77	3,979.65	104.95	109.38	-52.536	-2,072.97	4,471.15	756.01	585.59	170.42	4.436	
8,800.00	4,439.90	8,951.76	3,978.90	107.19	111.59	-52.468	-2,143.68	4,541.86	756.70	583.13	173.57	4.360	
8,900.00	4,440.30	9,051.76	3,978.16	109.42	113.81	-52.399	-2,214.38	4,612.57	757.40	580.69	176.71	4.286	
9,000.00	4,440.70	9,151.75	3,977.42	111.66	116.02	-52.331	-2,285.08	4,683.27	758.10	578.27	179.83	4.216	
9,100.00	4,441.10	9,251.74	3,976.67	113.90	118.24	-52.262	-2,355.79	4,753.98	758.80	575.86	182.94	4.148	
9,200.00	4,441.50	9,351.74	3,975.93	116.14	120.47	-52.194	-2,426.49	4,824.68	759.50	573.47	186.03	4.083	
9,300.00	4,441.90	9,451.73	3,975.18	118.38	122.69	-52.126	-2,497.19	4,895.39	760.21	571.10	189.10	4.020	
9,400.00	4,442.30	9,551.72	3,974.44	120.63	124.92	-52.058	-2,567.89	4,966.09	760.91	568.75	192.16	3.960	
9,500.00	4,442.70	9,651.72	3,973.69	122.88	127.15	-51.990	-2,638.60	5,036.80	761.62	566.41	195.20	3.902	
9,600.00	4,443.10	9,751.71	3,972.95	125.13	129.38	-51.923	-2,709.30	5,107.50	762.32	564.09	198.23	3.846	
9,700.00	4,443.49	9,851.70	3,972.20	127.38	131.62	-51.855	-2,780.00	5,178.21	763.03	561.79	201.24	3.792	
9,800.00	4,443.89	9,951.70	3,971.46	129.63	133.86	-51.788	-2,850.71	5,248.91	763.74	559.51	204.23	3.740	
9,900.00	4,444.29	10,051.69	3,970.71	131.89	136.10	-51.721	-2,921.41	5,319.62	764.45	557.24	207.21	3.689	
10,000.00	4,444.69	10,151.68	3,969.97	134.14	138.34	-51.653	-2,992.11	5,390.32	765.16	554.99	210.16	3.641	
10,100.00	4,445.09	10,251.68	3,969.22	136.40	140.58	-51.586	-3,062.81	5,461.03	765.87	552.76	213.11	3.594	
10,200.00	4,445.49	10,351.67	3,968.48	138.66	142.82	-51.519	-3,133.52	5,531.73	766.58	550.55	216.03	3.549	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (36, 37, 38 & 39) - Greater Lybrook Unit 39H - Original Hole - rev0											Offset Site Error:	0.00 ft
Survey Program: 0-MWD											Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
10,300.00	4,445.89	10,451.66	3,967.74	140.91	145.07	-51.453	-3,204.22	5,602.44	767.30	548.36	218.94	3.505
10,400.00	4,446.29	10,551.66	3,966.99	143.17	147.32	-51.386	-3,274.92	5,673.15	768.01	546.19	221.82	3.462
10,500.00	4,446.69	10,651.65	3,966.25	145.44	149.57	-51.319	-3,345.62	5,743.85	768.73	544.03	224.70	3.421
10,600.00	4,447.09	10,751.65	3,965.50	147.70	151.82	-51.253	-3,416.33	5,814.56	769.44	541.89	227.55	3.381
10,700.00	4,447.49	10,851.64	3,964.76	149.96	154.07	-51.187	-3,487.03	5,885.26	770.16	539.77	230.39	3.343
10,800.00	4,447.89	10,951.63	3,964.01	152.23	156.32	-51.120	-3,557.73	5,955.97	770.88	537.68	233.20	3.306
10,900.00	4,448.29	11,051.63	3,963.27	154.49	158.57	-51.054	-3,628.44	6,026.67	771.60	535.59	236.00	3.269
11,000.00	4,448.69	11,151.62	3,962.52	156.76	160.83	-50.988	-3,699.14	6,097.38	772.32	533.53	238.79	3.234
11,100.00	4,449.09	11,251.61	3,961.78	159.02	163.09	-50.923	-3,769.84	6,168.08	773.04	531.49	241.55	3.200
11,200.00	4,449.49	11,351.61	3,961.03	161.29	165.34	-50.857	-3,840.54	6,238.79	773.76	529.46	244.30	3.167
11,300.00	4,449.89	11,451.60	3,960.29	163.56	167.60	-50.791	-3,911.25	6,309.49	774.49	527.46	247.03	3.135
11,400.00	4,450.29	11,551.59	3,959.55	165.83	169.86	-50.726	-3,981.95	6,380.20	775.21	525.47	249.74	3.104
11,500.00	4,450.68	11,651.59	3,958.80	168.10	172.12	-50.661	-4,052.65	6,450.90	775.94	523.50	252.44	3.074
11,600.00	4,451.08	11,751.58	3,958.06	170.37	174.38	-50.595	-4,123.36	6,521.61	776.67	521.55	255.11	3.044
11,700.00	4,451.48	11,851.57	3,957.31	172.64	176.64	-50.530	-4,194.06	6,592.31	777.39	519.62	257.77	3.016
11,800.00	4,451.88	11,951.57	3,956.57	174.91	178.91	-50.465	-4,264.76	6,663.02	778.12	517.71	260.42	2.988
11,900.00	4,452.28	12,051.56	3,955.82	177.18	181.17	-50.400	-4,335.46	6,733.73	778.85	515.81	263.04	2.961
12,000.00	4,452.68	12,151.55	3,955.08	179.45	183.43	-50.336	-4,406.17	6,804.43	779.58	513.93	265.65	2.935
12,100.00	4,453.08	12,251.55	3,954.33	181.73	185.70	-50.271	-4,476.87	6,875.14	780.32	512.08	268.24	2.909
12,200.00	4,453.48	12,351.54	3,953.59	184.00	187.97	-50.207	-4,547.57	6,945.84	781.05	510.24	270.81	2.884
12,300.00	4,453.88	12,451.53	3,952.84	186.28	190.23	-50.142	-4,618.28	7,016.55	781.78	508.41	273.37	2.860
12,400.00	4,454.28	12,551.53	3,952.10	188.55	192.50	-50.078	-4,688.98	7,087.25	782.52	506.61	275.91	2.836
12,500.00	4,454.68	12,651.52	3,951.36	190.83	194.77	-50.014	-4,759.68	7,157.96	783.25	504.82	278.43	2.813
12,600.00	4,455.08	12,751.51	3,950.61	193.10	197.04	-49.950	-4,830.38	7,228.66	783.99	503.06	280.93	2.791
12,700.00	4,455.48	12,851.51	3,949.87	195.38	199.30	-49.886	-4,901.09	7,299.37	784.73	501.31	283.42	2.769
12,800.00	4,455.88	12,951.50	3,949.12	197.65	201.57	-49.822	-4,971.79	7,370.07	785.47	499.57	285.89	2.747
12,900.00	4,456.28	13,051.49	3,948.38	199.93	203.84	-49.759	-5,042.49	7,440.78	786.21	497.86	288.35	2.727
13,000.00	4,456.68	13,151.49	3,947.63	202.21	206.11	-49.695	-5,113.20	7,511.48	786.95	496.16	290.79	2.706
13,081.11	4,457.00	13,232.60	3,947.03	204.06	207.96	-49.644	-5,170.55	7,568.84	787.55	494.79	292.75	2.690 SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795) - Kimbeto Wash Unit 772H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 405-MWD, 2492-MWD, 11616-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	9.60	9.60	0.00	0.02	88.085	16.20	484.71	484.98				
100.00	100.00	110.69	110.69	0.27	0.18	88.089	16.16	484.58	484.85	484.39	0.46	1,056.122	
200.00	200.00	211.77	211.77	0.63	0.35	88.101	16.06	484.22	484.50	483.51	0.99	491.224	
300.00	300.00	312.85	312.84	0.99	0.52	88.119	15.88	483.64	483.92	482.40	1.51	319.735	
400.00	400.00	413.39	413.39	1.35	0.71	88.144	15.65	482.85	483.12	481.06	2.05	235.112	
479.27	479.27	488.78	488.77	1.63	0.97	88.145	15.63	482.55	482.80	480.20	2.60	185.693	
500.00	500.00	509.20	509.19	1.71	1.04	88.140	15.67	482.56	482.81	480.07	2.74	175.912	
600.00	600.00	609.83	609.83	2.07	1.38	88.148	15.61	482.57	482.82	479.37	3.45	139.948	
700.00	700.00	709.95	709.95	2.43	1.73	88.117	15.86	482.41	482.67	478.51	4.16	116.109	
720.83	720.83	730.34	730.33	2.50	1.80	88.113	15.89	482.40	482.66	478.36	4.30	112.187	
800.00	800.00	808.69	808.68	2.78	2.07	88.117	15.87	482.50	482.76	477.91	4.86	99.397	
900.00	900.00	909.41	909.40	3.14	2.42	88.074	16.23	482.62	482.89	477.33	5.56	86.777	
958.56	958.56	968.07	968.06	3.35	2.63	88.083	16.16	482.60	482.87	476.89	5.98	80.761	
1,000.00	1,000.00	1,008.50	1,008.49	3.50	2.77	88.085	16.14	482.64	482.91	476.64	6.27	77.043	
1,100.00	1,099.95	1,107.94	1,107.93	3.86	3.11	25.305	16.29	482.96	480.87	473.90	6.97	69.022	
1,200.00	1,199.63	1,209.48	1,209.47	4.21	3.47	25.809	16.30	483.13	473.95	466.28	7.67	61.766	
1,300.00	1,298.77	1,296.81	1,296.80	4.57	3.77	26.574	16.26	483.87	463.11	454.78	8.33	55.595	
1,400.00	1,397.08	1,374.79	1,374.69	4.95	4.05	27.602	15.86	487.39	451.37	442.42	8.95	50.452	
1,500.00	1,494.31	1,450.67	1,450.20	5.36	4.31	28.967	14.81	494.70	440.28	430.74	9.55	46.125	
1,600.00	1,590.18	1,527.48	1,526.15	5.81	4.59	30.792	12.58	505.86	430.03	419.88	10.15	42.387	
1,700.00	1,684.43	1,607.00	1,604.12	6.31	4.89	33.121	9.32	521.08	420.70	409.93	10.77	39.054	
1,800.00	1,777.42	1,684.15	1,679.02	6.86	5.21	35.568	5.59	539.21	413.81	402.41	11.40	36.292	
1,891.91	1,862.85	1,760.57	1,752.43	7.39	5.54	37.935	1.90	560.09	411.98	399.93	12.05	34.191	
1,900.00	1,870.36	1,767.42	1,758.98	7.44	5.57	38.139	1.61	562.07	411.99	399.89	12.11	34.030	
2,000.00	1,963.30	1,853.02	1,840.37	8.05	5.98	40.567	-1.53	588.40	414.33	401.47	12.86	32.225	
2,100.00	2,056.24	1,933.80	1,916.31	8.67	6.40	42.715	-4.41	615.77	420.78	407.19	13.59	30.962	
2,200.00	2,149.18	2,010.85	1,987.37	9.31	6.85	44.633	-7.86	645.33	432.76	418.47	14.30	30.271	
2,300.00	2,242.13	2,091.47	2,060.25	9.97	7.36	46.493	-12.40	679.47	449.82	434.75	15.07	29.850	
2,400.00	2,335.07	2,193.03	2,151.64	10.63	8.07	48.674	-18.55	723.37	468.60	452.42	16.18	28.969	
2,500.00	2,428.01	2,294.09	2,243.13	11.30	8.79	50.737	-24.63	765.86	486.79	469.47	17.32	28.109	
2,600.00	2,520.95	2,388.60	2,328.64	11.98	9.44	52.520	-30.30	805.70	505.62	487.26	18.35	27.549	
2,700.00	2,613.89	2,485.96	2,416.73	12.67	9.98	54.254	-36.40	846.72	525.04	505.72	19.32	27.180	
2,800.00	2,706.83	2,584.89	2,506.36	13.35	10.37	55.922	-42.75	888.09	544.68	524.51	20.17	27.007	
2,900.00	2,799.77	2,705.47	2,616.99	14.05	10.88	57.974	-50.32	935.41	562.35	541.06	21.29	26.414	
3,000.00	2,892.71	2,811.03	2,715.09	14.75	11.34	59.734	-55.85	974.00	577.53	555.22	22.31	25.887	
3,100.00	2,985.66	2,900.66	2,798.56	15.45	11.75	61.256	-61.44	1,006.19	593.27	570.03	23.23	25.534	
3,200.00	3,078.60	2,985.00	2,876.50	16.15	12.17	62.633	-67.93	1,037.73	611.55	587.41	24.13	25.340	
3,300.00	3,171.54	3,097.60	2,980.66	16.85	12.77	64.385	-76.66	1,079.61	630.22	604.84	25.38	24.828	
3,400.00	3,264.48	3,223.32	3,098.73	17.56	13.40	66.356	-84.50	1,122.02	645.55	618.76	26.79	24.101	
3,500.00	3,357.42	3,321.63	3,192.19	18.27	13.88	67.971	-89.95	1,152.04	658.43	630.47	27.96	23.552	
3,600.00	3,450.36	3,412.49	3,278.38	18.98	14.33	69.494	-96.66	1,180.01	673.27	644.18	29.09	23.146	
3,700.00	3,543.30	3,556.95	3,416.53	19.69	15.01	71.952	-106.23	1,220.94	686.89	656.17	30.72	22.363	
3,800.00	3,636.24	3,735.00	3,591.61	20.40	15.59	75.680	-111.58	1,252.11	690.85	658.49	32.36	21.346	
3,900.00	3,729.19	3,869.41	3,725.70	21.12	15.85	79.227	-112.21	1,260.70	686.88	653.20	33.68	20.392	
4,000.00	3,822.13	4,949.57	4,425.66	21.83	17.13	169.111	336.61	795.73	608.06	590.62	17.44	34.861	
4,100.00	3,915.07	4,940.48	4,425.30	22.55	17.04	167.548	330.24	802.21	526.92	507.44	19.48	27.052	
4,200.00	4,007.31	4,924.81	4,424.61	23.29	16.88	154.834	319.25	813.36	453.05	430.77	22.27	20.339	
4,300.00	4,096.12	4,892.32	4,422.97	24.07	16.58	142.107	296.41	836.42	390.24	364.50	25.74	15.163	
4,400.00	4,178.77	4,830.67	4,418.01	24.87	16.10	128.342	253.14	880.02	342.01	312.27	29.74	11.500	
4,500.00	4,252.76	4,762.36	4,405.63	25.69	15.75	114.882	205.41	927.24	309.24	275.78	33.46	9.243	
4,600.00	4,315.85	4,685.73	4,381.50	26.54	15.50	100.070	154.05	978.61	292.93	257.43	35.51	8.250 SF	
4,651.23	4,343.30	4,652.10	4,367.11	26.98	15.44	93.261	133.10	1,000.62	290.76	255.54	35.22	8.256 CC, ES	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795) - Kimbeto Wash Unit 772H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 405-MWD, 2492-MWD, 11616-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4,700.00	4,366.11	4,623.41	4,353.15	27.42	15.40	87.282	116.04	1,018.98	292.70	258.66	34.04	8.598	
4,800.00	4,401.92	4,564.51	4,322.17	28.35	15.38	75.856	82.13	1,055.85	307.64	277.31	30.33	10.142	
4,900.00	4,421.25	4,503.06	4,288.19	29.39	15.41	65.448	47.55	1,093.56	334.79	308.14	26.65	12.563	
5,000.00	4,424.72	4,452.23	4,255.74	30.56	15.47	58.197	21.33	1,122.57	370.53	346.53	24.00	15.438	
5,100.00	4,425.12	4,408.67	4,224.80	31.84	15.54	53.824	0.47	1,145.02	418.01	395.48	22.54	18.547	
5,200.00	4,425.52	4,370.00	4,195.38	33.24	15.60	50.102	-16.90	1,163.11	476.10	454.02	22.08	21.567	
5,300.00	4,425.92	4,339.00	4,170.47	34.73	15.65	47.245	-29.74	1,176.35	542.48	520.10	22.38	24.239	
5,400.00	4,426.32	4,308.00	4,144.51	36.31	15.70	44.515	-41.49	1,188.56	615.19	592.26	22.93	26.825	
5,500.00	4,426.72	4,276.00	4,116.92	37.97	15.75	41.875	-52.72	1,200.23	692.58	669.05	23.53	29.428	
5,600.00	4,427.12	4,255.69	4,099.08	39.69	15.79	40.301	-59.45	1,207.22	773.38	748.99	24.38	31.718	
5,700.00	4,427.52	4,232.66	4,078.55	41.48	15.82	38.604	-66.68	1,214.75	856.95	831.86	25.08	34.162	
5,800.00	4,427.92	4,213.00	4,060.80	43.31	15.85	37.229	-72.51	1,220.86	942.70	916.95	25.76	36.599	
5,900.00	4,428.32	4,194.40	4,043.80	45.19	15.88	35.988	-77.72	1,226.35	1,030.26	1,003.90	26.36	39.084	
6,000.00	4,428.72	4,182.00	4,032.37	47.11	15.89	35.190	-81.01	1,229.84	1,119.33	1,092.37	26.97	41.509	
6,100.00	4,429.12	4,166.58	4,018.03	49.06	15.91	34.232	-84.89	1,233.96	1,209.68	1,182.23	27.45	44.068	
6,200.00	4,429.51	4,150.00	4,002.45	51.05	15.93	33.240	-88.76	1,238.11	1,301.15	1,273.29	27.86	46.702	
6,300.00	4,429.91	4,150.00	4,002.45	53.06	15.93	33.240	-88.76	1,238.11	1,393.51	1,365.12	28.39	49.093	
6,400.00	4,430.31	4,135.65	3,988.85	55.09	15.95	32.417	-91.90	1,241.44	1,486.62	1,457.91	28.71	51.774	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795) - Kimbeto Wash Unit 774H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 406-MWD, 3554-MWD, 20066-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	9.60	9.60	0.00	0.02	87.915	16.19	444.59	444.89				
100.00	100.00	110.71	110.71	0.27	0.19	87.914	16.19	444.44	444.74	444.28	0.46	968.657	
200.00	200.00	211.81	211.81	0.63	0.35	87.914	16.18	444.04	444.34	443.36	0.99	450.484	
300.00	300.00	312.90	312.90	0.99	0.52	87.912	16.16	443.39	443.70	442.19	1.51	293.148	
400.00	400.00	414.04	414.03	1.35	0.71	87.911	16.14	442.49	442.81	440.75	2.06	215.349	
500.00	500.00	515.03	515.02	1.71	1.07	87.906	16.14	441.29	441.62	438.85	2.78	159.040	
600.00	600.00	614.00	613.98	2.07	1.42	87.919	15.99	440.20	440.51	437.02	3.49	126.226	
700.00	700.00	713.04	713.01	2.43	1.78	87.913	16.01	439.24	439.55	435.35	4.20	104.575	
800.00	800.00	811.08	811.05	2.78	2.13	87.910	16.01	438.70	439.00	434.09	4.91	89.355	
900.00	900.00	910.68	910.65	3.14	2.49	87.916	15.95	438.46	438.75	433.12	5.63	77.963	
1,000.00	1,000.00	1,016.34	1,016.31	3.50	2.86	88.003	15.26	437.75	438.06	431.70	6.36	68.854	
1,100.00	1,099.95	1,131.49	1,131.33	3.86	3.28	25.797	11.59	434.21	432.56	425.44	7.12	60.719	
1,200.00	1,199.63	1,252.81	1,252.01	4.21	3.73	27.693	3.33	425.14	418.04	410.13	7.90	52.896	
1,300.00	1,298.77	1,371.30	1,368.83	4.57	4.19	30.942	-8.51	409.46	393.68	385.01	8.67	45.411	
1,400.00	1,397.08	1,474.16	1,469.08	4.95	4.63	35.604	-22.63	391.33	362.04	352.62	9.42	38.452	
1,500.00	1,494.31	1,567.01	1,558.62	5.36	5.06	42.036	-38.77	372.81	326.84	316.65	10.19	32.072	
1,600.00	1,590.18	1,653.98	1,641.30	5.81	5.50	50.876	-57.70	353.67	291.41	280.34	11.07	26.332	
1,700.00	1,684.43	1,732.95	1,715.20	6.31	5.94	61.780	-77.76	334.35	260.45	248.37	12.08	21.566	
1,800.00	1,777.42	1,806.00	1,783.00	6.86	6.36	73.260	-97.57	315.74	241.93	228.78	13.16	18.384	
1,852.42	1,826.14	1,845.36	1,819.66	7.16	6.60	79.578	-108.04	305.96	239.42	225.72	13.70	17.476 CC, ES	
1,900.00	1,870.36	1,882.20	1,854.20	7.44	6.82	85.384	-117.38	297.20	241.41	227.26	14.15	17.065 SF	
2,000.00	1,963.30	1,957.01	1,924.48	8.05	7.27	96.670	-136.01	279.57	258.00	243.14	14.86	17.357	
2,100.00	2,056.24	2,030.48	1,993.16	8.67	7.72	106.752	-154.81	261.48	289.48	274.13	15.35	18.862	
2,200.00	2,149.18	2,104.43	2,062.16	9.31	8.19	115.419	-173.93	242.99	331.82	316.07	15.75	21.074	
2,300.00	2,242.13	2,180.80	2,133.53	9.97	8.68	122.724	-193.59	224.23	381.13	364.95	16.18	23.557	
2,400.00	2,335.07	2,264.45	2,212.17	10.63	9.20	129.053	-214.30	204.61	434.08	417.33	16.75	25.922	
2,500.00	2,428.01	2,337.81	2,281.32	11.30	9.67	133.535	-231.96	187.65	489.46	472.26	17.20	28.456	
2,600.00	2,520.95	2,406.17	2,345.51	11.98	10.11	137.073	-248.69	171.14	547.68	530.06	17.62	31.083	
2,700.00	2,613.89	2,473.91	2,408.72	12.67	10.55	140.085	-265.89	153.87	608.63	590.57	18.06	33.701	
2,800.00	2,706.83	2,551.27	2,480.86	13.35	11.07	142.979	-285.56	134.05	670.85	652.20	18.65	35.972	
2,900.00	2,799.77	2,634.90	2,559.12	14.05	11.63	145.593	-306.18	112.96	733.29	713.96	19.33	37.933	
3,000.00	2,892.71	2,719.25	2,638.40	14.75	12.18	147.795	-326.24	92.35	795.48	775.45	20.03	39.720	
3,100.00	2,985.66	2,788.21	2,703.36	15.45	12.63	149.316	-342.63	75.96	857.87	837.31	20.56	41.734	
3,200.00	3,078.60	2,859.37	2,770.06	16.15	13.10	150.710	-360.08	58.38	921.59	900.47	21.12	43.637	
3,300.00	3,171.54	2,948.38	2,853.85	16.85	13.69	152.215	-381.32	37.12	984.78	962.89	21.89	44.983	
3,400.00	3,264.48	3,017.94	2,919.36	17.56	14.14	153.251	-397.81	20.55	1,048.16	1,025.71	22.45	46.681	
3,500.00	3,357.42	3,118.35	3,014.17	18.27	14.79	154.575	-420.98	-3.03	1,111.21	1,087.87	23.35	47.592	
3,600.00	3,450.36	3,239.66	3,129.75	18.98	15.53	155.963	-446.44	-29.62	1,172.51	1,148.08	24.43	47.993	
3,700.00	3,543.30	3,398.42	3,283.62	19.69	16.40	157.435	-473.82	-57.39	1,228.67	1,202.88	25.79	47.636	
3,800.00	3,636.24	3,567.86	3,449.90	20.40	17.01	158.707	-497.09	-79.94	1,281.18	1,254.31	26.87	47.686	
3,900.00	3,729.19	3,838.41	3,719.46	21.12	17.25	160.256	-513.75	-91.54	1,321.27	1,293.61	27.66	47.760	
4,000.00	3,822.13	3,930.25	3,811.26	21.83	17.29	160.822	-514.12	-93.37	1,357.91	1,329.81	28.10	48.325	
4,100.00	3,915.07	4,041.64	3,920.48	22.55	17.34	162.312	-499.72	-108.35	1,393.73	1,365.23	28.50	48.906	
4,200.00	4,007.31	4,114.61	3,989.54	23.29	17.39	161.085	-482.93	-124.76	1,429.22	1,400.36	28.86	49.528	
4,300.00	4,096.12	4,167.09	4,037.63	24.07	17.43	123.335	-468.11	-139.60	1,464.60	1,435.40	29.20	50.155	
4,400.00	4,178.77	4,208.52	4,074.48	24.87	17.47	111.360	-454.83	-153.11	1,500.55	1,471.03	29.52	50.825	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795) - Kimbeto Wash Unit 793H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.00	0.00	9.52	9.52	0.00	0.02	88.004	16.20	464.65	464.94					
100.00	100.00	109.73	109.73	0.27	0.18	88.005	16.19	464.63	464.91	464.45	0.46	1,016.567		
200.00	200.00	209.95	209.95	0.63	0.35	88.007	16.17	464.55	464.83	463.85	0.98	472.866		
300.00	300.00	310.16	310.16	0.99	0.52	88.010	16.13	464.43	464.71	463.21	1.51	308.024		
400.00	400.00	410.25	410.25	1.35	0.69	88.016	16.08	464.27	464.55	462.51	2.04	227.293		
435.32	435.32	444.82	444.82	1.48	0.82	88.029	15.98	464.25	464.52	462.23	2.29	202.690		
500.00	500.00	508.19	508.19	1.71	1.04	88.095	15.44	464.36	464.62	461.87	2.75	169.228		
600.00	600.00	607.70	607.69	2.07	1.38	88.198	14.62	464.81	465.05	461.60	3.45	134.798		
700.00	700.00	709.12	709.11	2.43	1.74	88.261	14.12	464.89	465.10	460.94	4.17	111.663		
800.00	800.00	807.67	807.66	2.78	2.08	88.289	13.90	465.30	465.51	460.64	4.87	95.615		
900.00	900.00	907.98	907.97	3.14	2.44	88.325	13.61	465.53	465.73	460.16	5.58	83.487		
1,000.00	1,000.00	1,005.51	1,005.50	3.50	2.78	88.336	13.54	466.11	466.32	460.04	6.28	74.289		
1,100.00	1,099.95	1,104.28	1,104.26	3.86	3.12	25.593	13.38	467.14	465.00	458.02	6.98	66.655		
1,200.00	1,199.63	1,204.97	1,204.94	4.21	3.48	26.159	12.94	468.22	459.00	451.31	7.68	59.739		
1,300.00	1,298.77	1,304.21	1,304.18	4.57	3.83	27.063	12.78	469.09	448.17	439.78	8.39	53.423		
1,400.00	1,397.08	1,403.54	1,403.50	4.95	4.18	28.441	12.39	469.92	432.82	423.72	9.10	47.551		
1,500.00	1,494.31	1,499.77	1,499.73	5.36	4.52	30.361	11.62	470.67	413.14	403.33	9.81	42.098		
1,600.00	1,590.18	1,608.24	1,608.14	5.81	4.91	33.628	8.58	470.03	388.38	377.80	10.58	36.709		
1,700.00	1,684.43	1,714.04	1,713.49	6.31	5.29	38.952	0.52	464.84	357.05	345.69	11.35	31.444		
1,800.00	1,777.42	1,811.29	1,809.95	6.86	5.63	45.231	-8.43	456.43	322.42	310.27	12.15	26.526		
1,900.00	1,870.36	1,898.13	1,896.13	7.44	5.95	51.682	-15.39	448.35	290.57	277.55	13.02	22.321		
2,000.00	1,963.30	1,984.30	1,981.72	8.05	6.26	59.160	-22.04	440.89	263.95	249.97	13.98	18.882		
2,100.00	2,056.24	2,072.31	2,069.15	8.67	6.59	67.986	-29.05	433.56	244.00	228.96	15.04	16.226		
2,200.00	2,149.18	2,159.19	2,155.46	9.31	6.92	77.620	-36.09	426.63	232.30	216.16	16.13	14.397		
2,277.14	2,220.88	2,227.93	2,223.79	9.82	7.17	85.533	-41.63	421.51	229.64	212.68	16.96	13.542	CC	
2,300.00	2,242.13	2,248.50	2,244.24	9.97	7.25	87.894	-43.20	420.02	229.87	212.68	17.19	13.373	ES	
2,400.00	2,335.07	2,337.23	2,332.51	10.63	7.59	97.857	-49.82	413.76	236.32	218.21	18.11	13.048	SF	
2,500.00	2,428.01	2,426.54	2,421.34	11.30	7.93	107.189	-56.53	407.46	251.15	232.27	18.89	13.297		
2,600.00	2,520.95	2,515.03	2,509.37	11.98	8.26	115.398	-63.06	401.21	272.86	253.32	19.54	13.966		
2,700.00	2,613.89	2,605.09	2,598.97	12.67	8.61	122.533	-69.80	395.07	300.09	279.96	20.14	14.904		
2,800.00	2,706.83	2,695.16	2,688.62	13.35	8.95	128.530	-76.04	389.16	330.87	310.16	20.71	15.979		
2,900.00	2,799.77	2,784.06	2,777.11	14.05	9.29	133.516	-82.20	383.24	364.70	343.43	21.26	17.151		
3,000.00	2,892.71	2,880.76	2,873.40	14.75	9.66	138.025	-88.56	377.09	400.43	378.52	21.91	18.278		
3,100.00	2,985.66	2,988.50	2,980.95	15.45	10.05	142.163	-92.37	372.05	434.69	412.04	22.65	19.190		
3,200.00	3,078.60	3,090.30	3,082.71	16.15	10.41	145.366	-93.32	369.62	467.11	443.76	23.35	20.009		
3,300.00	3,171.54	3,189.20	3,181.59	16.85	10.75	148.109	-92.71	367.73	499.09	475.07	24.01	20.783		
3,400.00	3,264.48	3,289.42	3,281.57	17.56	11.09	151.067	-88.32	362.68	530.73	506.08	24.65	21.531		
3,500.00	3,357.42	3,377.02	3,368.51	18.27	11.36	153.865	-81.17	354.81	562.89	537.74	25.15	22.381		
3,600.00	3,450.36	3,457.00	3,447.80	18.98	11.51	156.258	-74.99	346.28	597.60	572.10	25.50	23.434		
3,700.00	3,543.30	3,540.14	3,529.60	19.69	11.54	158.832	-67.13	334.12	634.74	609.03	25.71	24.684		
3,800.00	3,636.24	3,614.00	3,599.63	20.40	11.60	161.846	-53.37	315.32	674.54	648.71	25.83	26.114		
3,900.00	3,729.19	3,701.44	3,677.48	21.12	11.71	166.126	-27.78	285.11	716.96	690.98	25.98	27.599		
4,000.00	3,822.13	3,751.29	3,718.43	21.83	11.80	168.863	-8.69	264.11	763.69	737.76	25.93	29.447		
4,100.00	3,915.07	3,796.94	3,753.29	22.55	11.92	171.507	11.02	242.22	816.27	790.44	25.83	31.601		
4,200.00	4,007.31	3,835.00	3,780.43	23.29	12.05	148.188	29.11	222.61	874.12	848.47	25.65	34.081		
4,300.00	4,096.12	3,866.00	3,801.23	24.07	12.18	126.883	44.87	205.90	936.85	911.44	25.41	36.869		
4,400.00	4,178.77	3,866.00	3,801.23	24.87	12.18	108.605	44.87	205.90	1,003.13	978.27	24.87	40.338		
4,500.00	4,252.76	3,866.00	3,801.23	25.69	12.18	94.002	44.87	205.90	1,070.98	1,046.60	24.39	43.915		
4,600.00	4,315.85	3,866.00	3,801.23	26.54	12.18	82.286	44.87	205.90	1,138.25	1,114.23	24.02	47.391		
4,700.00	4,366.11	3,846.84	3,788.52	27.42	12.09	72.017	35.03	216.32	1,202.79	1,179.22	23.57	51.029		
4,800.00	4,401.92	3,835.00	3,780.43	28.35	12.05	64.379	29.11	222.61	1,263.23	1,239.84	23.39	53.997		
4,900.00	4,421.25	3,804.00	3,758.45	29.39	11.94	56.963	14.26	238.66	1,320.84	1,297.60	23.24	56.842		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795) - Kimbeto Wash Unit 793H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 405-MWD, 3457-MWD, 18922-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,000.00	4,424.72	3,772.00	3,734.57	30.56	11.85	52.740	-0.02	254.45	1,375.53	1,352.24	23.29	59.060	
5,100.00	4,425.12	3,759.46	3,724.87	31.84	11.82	52.343	-5.33	260.36	1,432.58	1,408.93	23.65	60.580	
5,200.00	4,425.52	3,741.00	3,710.21	33.24	11.78	51.753	-12.83	268.71	1,493.44	1,469.47	23.97	62.298	



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795) - Kimbeto Wash Unit 794H - Original Hole - Surveys Original Hole													Offset Site Error: 0.00 ft
Survey Program: 405-MWD, 2491-MWD, 10807-MWD													Offset Well Error: 0.00 ft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	9.62	9.62	0.00	0.02	88.160	16.21	504.48	504.74				
100.00	100.00	110.84	110.84	0.27	0.19	88.185	15.98	504.34	504.60	504.14	0.46	1,096.860	
200.00	200.00	212.06	212.05	0.63	0.36	88.252	15.38	503.97	504.21	503.22	0.99	510.280	
300.00	300.00	313.27	313.26	0.99	0.53	88.362	14.39	503.36	503.58	502.07	1.52	332.150	
400.00	400.00	414.65	414.63	1.35	0.71	88.516	13.02	502.52	502.72	500.65	2.06	243.672	
500.00	500.00	517.15	517.10	1.71	1.08	88.742	11.01	501.22	501.40	498.61	2.79	179.655	
600.00	600.00	616.25	616.18	2.07	1.44	88.904	9.56	499.77	499.91	496.40	3.51	142.606	
700.00	700.00	713.57	713.49	2.43	1.79	89.027	8.47	498.77	498.86	494.65	4.21	118.401	
800.00	800.00	812.45	812.36	2.78	2.15	89.158	7.32	498.17	498.23	493.31	4.93	101.134	
900.00	900.00	910.07	909.97	3.14	2.49	89.225	6.73	497.72	497.77	492.14	5.63	88.383	
909.62	909.62	919.22	919.12	3.18	2.52	89.230	6.69	497.72	497.76	492.06	5.70	87.347	
1,000.00	1,000.00	998.13	998.03	3.50	2.80	89.255	6.48	498.40	498.57	492.28	6.29	79.225	
1,100.00	1,099.95	1,077.52	1,077.34	3.86	3.06	26.306	7.45	501.67	500.41	493.50	6.90	72.479	
1,200.00	1,199.63	1,152.89	1,152.38	4.21	3.32	26.366	9.43	508.31	502.23	494.75	7.48	67.140	
1,300.00	1,298.77	1,230.00	1,228.68	4.57	3.58	26.520	12.45	518.96	504.35	496.29	8.05	62.614	
1,400.00	1,397.08	1,304.11	1,301.45	4.95	3.85	26.883	15.15	532.72	506.61	498.00	8.61	58.856	
1,500.00	1,494.31	1,388.57	1,383.74	5.36	4.18	27.786	15.93	551.67	508.30	499.08	9.22	55.110	
1,600.00	1,590.18	1,475.47	1,467.91	5.81	4.55	29.305	13.70	573.14	508.14	498.26	9.87	51.463	
1,700.00	1,684.43	1,557.16	1,546.50	6.31	4.93	30.948	11.88	595.35	506.51	496.00	10.51	48.201	
1,747.42	1,728.66	1,594.05	1,581.69	6.57	5.11	31.710	11.27	606.41	506.09	495.29	10.80	46.847	
1,800.00	1,777.42	1,635.12	1,620.60	6.86	5.32	32.564	10.80	619.55	506.22	495.08	11.14	45.442	
1,900.00	1,870.36	1,713.35	1,693.87	7.44	5.75	34.005	10.85	646.93	510.33	498.53	11.80	43.260	
2,000.00	1,963.30	1,796.00	1,769.79	8.05	6.26	35.247	12.59	679.52	519.09	506.57	12.52	41.469	
2,100.00	2,056.24	1,881.39	1,847.02	8.67	6.85	36.215	16.41	715.76	530.95	517.66	13.29	39.942	
2,200.00	2,149.18	1,962.46	1,919.39	9.31	7.45	36.891	21.61	751.91	545.06	531.01	14.04	38.809	
2,300.00	2,242.13	2,052.47	1,998.38	9.97	8.17	37.446	28.32	794.52	562.00	547.08	14.92	37.657	
2,400.00	2,335.07	2,147.12	2,081.01	10.63	8.97	37.936	35.79	840.08	579.79	563.90	15.89	36.491	
2,500.00	2,428.01	2,257.40	2,177.53	11.30	9.92	38.504	44.29	892.74	597.28	580.22	17.06	35.001	
2,600.00	2,520.95	2,373.35	2,280.72	11.98	10.89	39.221	52.42	944.97	612.02	593.70	18.32	33.403	
2,700.00	2,613.89	2,476.91	2,373.96	12.67	11.61	39.958	58.87	989.57	624.90	605.57	19.32	32.339	
2,800.00	2,706.83	2,576.95	2,464.28	13.35	12.07	40.721	64.33	1,032.23	637.63	617.56	20.06	31.778	
2,900.00	2,799.77	2,680.00	2,557.58	14.05	12.54	41.429	70.70	1,075.53	649.59	628.75	20.84	31.167	
3,000.00	2,892.71	2,761.54	2,630.95	14.75	12.97	41.900	76.27	1,110.65	662.68	641.18	21.50	30.827	
3,100.00	2,985.66	2,860.89	2,719.21	15.45	13.54	42.318	83.94	1,155.60	677.77	655.45	22.32	30.368	
3,200.00	3,078.60	2,975.11	2,821.33	16.15	14.23	42.768	93.37	1,205.91	691.51	668.20	23.30	29.673	
3,300.00	3,171.54	3,089.33	2,924.56	16.85	14.92	43.243	103.11	1,253.79	702.96	678.63	24.33	28.898	
3,400.00	3,264.48	3,196.75	3,021.42	17.56	15.59	43.410	115.81	1,298.44	713.20	687.90	25.30	28.193	
3,500.00	3,357.42	3,336.38	3,148.81	18.27	16.44	43.562	134.54	1,352.40	720.05	693.57	26.49	27.184	
3,600.00	3,450.36	3,458.43	3,262.49	18.98	17.13	43.875	150.56	1,393.81	722.06	694.48	27.58	26.184	
3,700.00	3,543.30	4,109.92	3,817.10	19.69	18.97	29.068	439.12	1,415.04	698.54	675.80	22.74	30.721	
3,800.00	3,636.24	4,280.40	3,919.49	20.40	18.98	15.845	558.04	1,349.43	628.83	607.17	21.67	29.024	
3,900.00	3,729.19	4,331.15	3,946.35	21.12	18.97	10.559	594.32	1,326.24	558.23	535.30	22.94	24.339	
4,000.00	3,822.13	4,429.35	3,991.08	21.83	18.96	-1.831	665.85	1,276.22	490.67	466.33	24.35	20.153	
4,100.00	3,915.07	4,476.93	4,007.06	22.55	18.95	-8.864	701.41	1,248.97	430.62	403.63	26.99	15.955	
4,200.00	4,007.31	4,492.81	4,011.49	23.29	18.95	-35.016	713.39	1,239.53	386.10	356.43	29.67	13.013	
4,300.00	4,096.12	4,487.15	4,009.96	24.07	18.95	-51.761	709.11	1,242.91	365.89	334.51	31.38	11.660	
4,320.80	4,113.90	4,484.26	4,009.16	24.23	18.95	-53.787	706.93	1,244.63	365.26	333.71	31.55	11.577 CC, ES, SF	
4,400.00	4,178.77	4,469.51	4,004.83	24.87	18.95	-57.909	695.84	1,253.34	374.03	342.44	31.59	11.840	
4,500.00	4,252.76	4,443.81	3,996.36	25.69	18.96	-56.700	676.62	1,268.14	406.89	375.97	30.92	13.159	
4,600.00	4,315.85	4,413.67	3,984.95	26.54	18.96	-50.941	654.23	1,284.77	456.36	425.94	30.42	15.002	
4,700.00	4,366.11	4,379.87	3,970.34	27.42	18.97	-42.929	629.42	1,302.49	514.66	484.12	30.54	16.851	
4,800.00	4,401.92	4,338.00	3,949.92	28.35	18.97	-34.625	599.23	1,323.05	575.64	544.59	31.05	18.542	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795) - Kimbeto Wash Unit 794H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 405-MWD, 2491-MWD, 10807-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4,900.00	4,421.25	4,276.99	3,917.71	29.39	18.98	-27.680	555.59	1,350.98	631.71	600.48	31.23	20.227	
5,000.00	4,424.72	4,224.67	3,889.39	30.56	18.99	-23.989	517.92	1,373.69	679.29	647.12	32.17	21.114	
5,100.00	4,425.12	4,181.00	3,863.31	31.84	18.98	-22.160	487.21	1,390.51	730.76	697.41	33.35	21.911	
5,200.00	4,425.52	4,149.00	3,843.00	33.24	18.98	-20.834	465.25	1,401.89	787.70	752.95	34.74	22.671	
5,300.00	4,425.92	4,105.37	3,814.01	34.73	18.97	-19.088	436.12	1,416.50	849.19	813.75	35.43	23.966	
5,400.00	4,426.32	4,071.93	3,790.78	36.31	18.96	-17.779	414.31	1,426.65	914.76	878.49	36.28	25.216	
5,500.00	4,426.72	4,041.61	3,768.90	37.97	18.95	-16.615	395.03	1,434.96	984.06	947.05	37.01	26.588	
5,600.00	4,427.12	4,011.79	3,746.78	39.69	18.93	-15.478	376.37	1,442.12	1,056.49	1,018.92	37.57	28.121	
5,700.00	4,427.52	3,992.00	3,731.81	41.48	18.91	-14.735	364.15	1,446.40	1,131.65	1,093.39	38.26	29.574	
5,800.00	4,427.92	3,960.00	3,707.06	43.31	18.89	-13.554	344.80	1,452.47	1,209.16	1,170.69	38.47	31.433	
5,900.00	4,428.32	3,942.55	3,693.26	45.19	18.87	-12.925	334.51	1,455.34	1,288.92	1,249.96	38.96	33.083	
6,000.00	4,428.72	3,929.00	3,682.38	47.11	18.85	-12.448	326.70	1,457.39	1,370.66	1,331.22	39.43	34.758	
6,100.00	4,429.12	3,897.00	3,656.29	49.06	18.81	-11.348	308.66	1,461.56	1,454.01	1,414.62	39.39	36.911	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: W Lybrook Unit - W Lybrook Unit No. 735H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 21-GYRO-NS, 532-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Rule Assigned:											
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
4,100.00	3,915.07	13,963.20	4,612.42	22.55	211.52	-23.541	1,445.12	1,858.38	1,472.54	1,263.12	209.42	7.032	
4,200.00	4,007.31	13,943.89	4,612.39	23.29	211.08	-48.712	1,431.66	1,872.23	1,409.71	1,196.08	213.63	6.599	
4,300.00	4,096.12	13,907.64	4,612.26	24.07	210.25	-68.583	1,406.39	1,898.21	1,355.80	1,138.50	217.30	6.239	
4,400.00	4,178.77	13,855.74	4,611.90	24.87	209.06	-80.549	1,370.17	1,935.39	1,312.36	1,092.18	220.18	5.960	
4,500.00	4,252.76	13,790.60	4,611.60	25.69	207.57	-87.392	1,324.61	1,981.94	1,280.05	1,057.91	222.14	5.762	
4,600.00	4,315.85	13,696.38	4,611.58	26.54	205.42	-90.521	1,258.19	2,048.76	1,258.32	1,035.54	222.78	5.648	
4,700.00	4,366.11	13,598.91	4,611.69	27.42	203.21	-91.892	1,188.63	2,117.05	1,245.81	1,023.06	222.75	5.593	
4,800.00	4,401.92	13,498.41	4,612.08	28.35	200.93	-91.718	1,116.38	2,186.89	1,241.13	1,018.85	222.28	5.584	
4,900.00	4,421.25	13,413.00	4,611.45	29.39	198.99	-91.125	1,055.04	2,246.32	1,239.03	1,016.96	222.08	5.579	
5,000.00	4,424.72	13,321.00	4,610.70	30.56	196.90	-90.993	989.65	2,311.03	1,238.42	1,016.84	221.59	5.589	
5,004.55	4,424.74	13,321.98	4,610.70	30.62	196.92	-90.993	990.34	2,310.34	1,238.42	1,016.74	221.68	5.587	
5,100.00	4,425.12	13,224.09	4,610.39	31.84	194.69	-90.961	921.18	2,379.61	1,238.49	1,017.46	221.03	5.603	
5,200.00	4,425.52	13,111.99	4,609.20	33.24	192.14	-90.886	841.57	2,458.53	1,238.03	1,017.89	220.14	5.624	
5,300.00	4,425.92	13,012.44	4,608.93	34.73	189.88	-90.855	770.16	2,527.88	1,236.57	1,016.88	219.68	5.629	
5,346.82	4,426.11	12,977.74	4,609.09	35.46	189.09	-90.857	745.50	2,552.30	1,236.34	1,016.50	219.84	5.624	
5,400.00	4,426.32	12,932.81	4,609.44	36.31	188.07	-90.864	713.89	2,584.22	1,236.59	1,016.73	219.85	5.625	
5,500.00	4,426.72	12,837.47	4,609.78	37.97	185.89	-90.862	646.96	2,652.12	1,237.30	1,017.69	219.61	5.634	
5,600.00	4,427.12	12,748.60	4,608.92	39.69	183.86	-90.805	585.20	2,716.01	1,238.97	1,019.38	219.59	5.642	
5,700.00	4,427.52	12,642.50	4,607.16	41.48	181.43	-90.703	511.42	2,792.24	1,240.56	1,021.40	219.16	5.661	
5,800.00	4,427.92	12,539.11	4,603.12	43.31	179.06	-90.497	439.44	2,866.35	1,241.98	1,023.13	218.85	5.675	
5,900.00	4,428.32	12,431.25	4,599.86	45.19	176.60	-90.326	363.88	2,943.25	1,242.83	1,024.39	218.43	5.690	
6,000.00	4,428.72	12,314.18	4,598.10	47.11	173.94	-90.223	281.08	3,026.00	1,242.81	1,025.06	217.75	5.708	
6,100.00	4,429.12	12,208.89	4,596.60	49.06	171.55	-90.135	205.84	3,099.62	1,241.71	1,024.28	217.42	5.711	
6,200.00	4,429.51	12,116.64	4,595.36	51.05	169.45	-90.061	140.01	3,164.25	1,240.79	1,023.26	217.52	5.704	
6,300.00	4,429.91	12,021.49	4,594.38	53.06	167.29	-89.998	72.51	3,231.30	1,240.44	1,022.90	217.54	5.702	
6,400.00	4,430.31	11,914.72	4,594.05	55.09	164.87	-89.963	-3.41	3,306.37	1,239.88	1,022.67	217.21	5.708	
6,500.00	4,430.71	11,814.89	4,594.56	57.14	162.60	-89.968	-74.55	3,376.41	1,239.10	1,021.99	217.10	5.707	
6,600.00	4,431.11	11,705.88	4,595.38	59.22	160.13	-89.986	-152.32	3,452.79	1,238.22	1,021.50	216.71	5.714	
6,700.00	4,431.51	11,603.83	4,595.74	61.31	157.83	-89.983	-225.77	3,523.63	1,236.40	1,019.84	216.56	5.709	
6,800.00	4,431.91	11,512.13	4,594.54	63.41	155.75	-89.911	-291.46	3,587.60	1,235.07	1,018.31	216.76	5.698	
6,859.50	4,432.15	11,464.65	4,593.73	64.67	154.67	-89.865	-325.25	3,620.94	1,234.70	1,017.60	217.10	5.687	
6,900.00	4,432.31	11,436.95	4,593.17	65.53	154.04	-89.833	-344.74	3,640.62	1,234.91	1,017.47	217.44	5.679	
7,000.00	4,432.71	11,325.66	4,590.70	67.66	151.51	-89.698	-422.16	3,720.52	1,236.60	1,019.55	217.05	5.697	
7,100.00	4,433.11	11,189.79	4,589.71	69.80	148.44	-89.627	-519.74	3,815.05	1,234.93	1,019.10	215.83	5.722	
7,200.00	4,433.51	11,079.36	4,589.42	71.95	145.96	-89.592	-600.39	3,890.49	1,231.59	1,016.17	215.42	5.717	
7,300.00	4,433.91	11,001.25	4,589.16	74.11	144.20	-89.564	-657.46	3,943.82	1,228.35	1,012.18	216.17	5.682	
7,346.72	4,434.10	10,977.24	4,588.90	75.12	143.66	-89.548	-674.59	3,960.63	1,227.91	1,011.03	216.88	5.662	
7,400.00	4,434.31	10,933.00	4,588.05	76.27	142.65	-89.500	-705.33	3,992.43	1,228.70	1,011.57	217.13	5.659	
7,500.00	4,434.71	10,851.51	4,586.51	78.45	140.79	-89.414	-761.30	4,051.64	1,231.28	1,013.70	217.59	5.659	
7,600.00	4,435.11	10,739.52	4,585.77	80.63	138.24	-89.360	-839.21	4,132.09	1,232.89	1,015.67	217.22	5.676	
7,700.00	4,435.51	10,653.02	4,584.96	82.82	136.27	-89.307	-899.22	4,194.38	1,234.75	1,017.22	217.53	5.676	
7,800.00	4,435.91	10,536.62	4,583.08	85.01	133.62	-89.199	-980.08	4,278.08	1,236.51	1,019.46	217.06	5.697	
7,900.00	4,436.31	10,426.17	4,582.42	87.21	131.12	-89.149	-1,057.89	4,356.47	1,236.87	1,020.14	216.73	5.707	
8,000.00	4,436.70	10,322.58	4,581.74	89.42	128.77	-89.098	-1,131.04	4,429.82	1,237.03	1,020.43	216.60	5.711	
8,100.00	4,437.10	10,217.60	4,581.52	91.62	126.40	-89.068	-1,205.53	4,503.78	1,236.68	1,020.25	216.43	5.714	
8,200.00	4,437.50	10,113.31	4,580.87	93.84	124.04	-89.018	-1,279.77	4,577.02	1,236.02	1,019.73	216.29	5.715	
8,300.00	4,437.90	10,009.31	4,580.08	96.05	121.70	-88.961	-1,354.07	4,649.80	1,235.01	1,018.85	216.16	5.713	
8,395.36	4,438.28	9,928.38	4,580.10	98.17	119.88	-88.947	-1,411.66	4,706.65	1,234.41	1,017.80	216.61	5.699	
8,400.00	4,438.30	9,924.51	4,580.12	98.27	119.79	-88.947	-1,414.40	4,709.39	1,234.41	1,017.78	216.63	5.698	
8,500.00	4,438.70	9,820.24	4,580.72	100.50	117.44	-88.956	-1,488.09	4,783.16	1,234.46	1,017.97	216.50	5.702	
8,600.00	4,439.10	9,723.24	4,580.43	102.72	115.25	-88.924	-1,556.86	4,851.56	1,234.21	1,017.63	216.59	5.698	
8,700.00	4,439.50	9,599.13	4,578.86	104.95	112.46	-88.826	-1,645.94	4,937.96	1,232.60	1,016.78	215.82	5.711	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: W Lybrook Unit - W Lybrook Unit No. 735H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 21-GYRO-NS, 532-MWD												Offset Well Error:	0.00 ft
Reference												Rule Assigned:	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
8,800.00	4,439.90	9,518.99	4,576.64	107.19	110.66	-88.707	-1,703.24	4,993.94	1,231.49	1,015.00	216.49	5.688	
8,900.00	4,440.30	9,416.39	4,575.92	109.42	108.35	-88.655	-1,776.07	5,066.19	1,231.11	1,014.69	216.42	5.688	
9,000.00	4,440.70	9,303.31	4,576.17	111.66	105.82	-88.643	-1,857.06	5,145.10	1,229.79	1,013.78	216.01	5.693	
9,100.00	4,441.10	9,215.19	4,573.87	113.90	103.84	-88.518	-1,920.31	5,206.41	1,228.35	1,011.92	216.43	5.675	
9,130.11	4,441.22	9,193.46	4,573.02	114.57	103.36	-88.474	-1,935.73	5,221.70	1,228.25	1,011.55	216.70	5.668	
9,200.00	4,441.50	9,140.14	4,570.60	116.14	102.16	-88.352	-1,973.14	5,259.62	1,228.80	1,011.59	217.20	5.657	
9,300.00	4,441.90	9,040.91	4,567.08	118.38	99.92	-88.171	-2,042.44	5,330.55	1,230.08	1,012.84	217.24	5.662	
9,400.00	4,442.30	8,955.61	4,566.47	120.63	98.00	-88.130	-2,101.53	5,392.06	1,232.12	1,014.48	217.64	5.661	
9,500.00	4,442.70	8,860.06	4,567.77	122.88	95.84	-88.177	-2,167.12	5,461.52	1,234.95	1,017.20	217.75	5.671	
9,600.00	4,443.10	8,749.19	4,570.15	125.13	93.34	-88.271	-2,243.45	5,541.90	1,237.48	1,020.00	217.48	5.690	
9,700.00	4,443.49	8,640.05	4,572.22	127.38	90.90	-88.349	-2,319.26	5,620.39	1,239.16	1,021.92	217.25	5.704	
9,800.00	4,443.89	8,547.68	4,572.47	129.63	88.82	-88.345	-2,383.70	5,686.56	1,240.52	1,023.04	217.48	5.704	
9,900.00	4,444.29	8,460.34	4,572.29	131.89	86.87	-88.323	-2,443.64	5,750.08	1,243.37	1,025.55	217.82	5.708	
10,000.00	4,444.69	8,338.49	4,571.54	134.14	84.14	-88.270	-2,528.19	5,837.83	1,245.21	1,027.94	217.27	5.731	
10,100.00	4,445.09	8,236.94	4,569.83	136.40	81.87	-88.174	-2,599.27	5,910.34	1,246.28	1,029.01	217.27	5.736	
10,200.00	4,445.49	8,105.13	4,567.17	138.66	78.94	-88.028	-2,692.34	6,003.62	1,246.58	1,030.24	216.34	5.762	
10,300.00	4,445.89	8,004.09	4,564.52	140.91	76.71	-87.885	-2,764.84	6,073.94	1,245.16	1,028.79	216.37	5.755	
10,400.00	4,446.29	7,877.83	4,562.43	143.17	73.95	-87.760	-2,856.50	6,160.75	1,242.51	1,026.99	215.52	5.765	
10,500.00	4,446.69	7,757.69	4,561.02	145.44	71.33	-87.662	-2,945.20	6,241.77	1,238.06	1,023.23	214.83	5.763	
10,600.00	4,447.09	7,656.81	4,560.54	147.70	69.15	-87.611	-3,020.36	6,309.05	1,232.57	1,017.67	214.90	5.736	
10,700.00	4,447.49	7,542.19	4,559.47	149.96	66.68	-87.526	-3,105.99	6,385.23	1,226.83	1,012.44	214.39	5.723	
10,800.00	4,447.89	7,443.00	4,558.63	152.23	64.56	-87.455	-3,180.58	6,450.61	1,220.32	1,005.77	214.54	5.688	
10,900.00	4,448.29	7,349.00	4,557.53	154.49	62.55	-87.373	-3,251.02	6,512.85	1,214.22	999.29	214.93	5.649	
11,000.00	4,448.69	7,259.14	4,556.23	156.76	60.63	-87.284	-3,317.99	6,572.74	1,208.72	993.22	215.50	5.609	
11,100.00	4,449.09	7,189.15	4,555.19	159.02	59.13	-87.215	-3,369.47	6,620.14	1,204.72	987.90	216.82	5.556	
11,191.60	4,449.45	7,130.21	4,554.20	161.10	57.86	-87.154	-3,411.80	6,661.15	1,203.40	985.33	218.07	5.518	
11,200.00	4,449.49	7,125.14	4,554.10	161.29	57.75	-87.148	-3,415.38	6,664.73	1,203.41	985.22	218.19	5.515	
11,300.00	4,449.89	7,065.52	4,552.74	163.56	56.47	-87.075	-3,456.77	6,707.61	1,205.34	985.89	219.44	5.493	
11,400.00	4,450.29	6,951.54	4,550.52	165.83	54.00	-86.956	-3,534.80	6,790.68	1,208.61	989.41	219.20	5.514	
11,500.00	4,450.68	6,810.56	4,550.16	168.10	51.00	-86.915	-3,634.05	6,890.79	1,208.94	990.85	218.10	5.543	
11,600.00	4,451.08	6,701.88	4,550.34	170.37	48.71	-86.899	-3,711.98	6,966.54	1,207.53	989.55	217.98	5.540	
11,700.00	4,451.48	6,590.00	4,549.07	172.64	46.38	-86.810	-3,792.82	7,043.86	1,205.39	987.64	217.75	5.536	
11,774.71	4,451.78	6,546.89	4,548.25	174.34	45.49	-86.762	-3,823.76	7,073.87	1,204.38	985.38	219.00	5.499	
11,800.00	4,451.88	6,532.61	4,547.95	174.91	45.19	-86.745	-3,833.82	7,084.00	1,204.50	985.09	219.40	5.490	
11,900.00	4,452.28	6,452.34	4,545.97	177.18	43.52	-86.641	-3,889.19	7,142.08	1,206.89	986.70	220.18	5.481	
12,000.00	4,452.68	6,356.93	4,543.70	179.45	41.56	-86.521	-3,955.27	7,210.86	1,209.08	988.54	220.53	5.483	
12,100.00	4,453.08	6,271.46	4,542.86	181.73	39.81	-86.475	-4,013.31	7,273.60	1,212.98	991.82	221.15	5.485	
12,200.00	4,453.48	6,153.33	4,542.36	184.00	37.44	-86.440	-4,093.99	7,359.89	1,216.38	995.39	220.99	5.504	
12,300.00	4,453.88	6,028.00	4,541.75	186.28	34.98	-86.394	-4,181.18	7,449.91	1,218.05	997.44	220.61	5.521	
12,400.00	4,454.28	5,910.18	4,540.76	188.55	32.74	-86.324	-4,264.86	7,532.83	1,217.63	997.18	220.45	5.523	
12,500.00	4,454.68	5,820.30	4,541.21	190.83	31.09	-86.327	-4,328.66	7,596.14	1,217.23	995.98	221.25	5.502	
12,600.00	4,455.08	5,710.54	4,541.72	193.10	29.14	-86.329	-4,406.69	7,673.33	1,216.69	995.21	221.47	5.494	
12,700.00	4,455.48	5,593.61	4,540.27	195.38	27.22	-86.234	-4,490.51	7,754.84	1,215.45	993.94	221.51	5.487	
12,800.00	4,455.88	5,487.62	4,539.56	197.65	25.87	-86.170	-4,567.69	7,827.48	1,212.47	990.47	221.99	5.462	
12,900.00	4,456.28	5,383.41	4,541.42	199.93	25.43	-86.230	-4,643.28	7,899.19	1,209.76	986.83	222.92	5.427	
13,000.00	4,456.68	5,269.83	4,542.76	202.21	25.40	-86.259	-4,726.46	7,976.52	1,206.07	982.86	223.21	5.403	
13,081.11	4,457.00	5,187.77	4,541.65	204.06	25.47	-86.180	-4,786.87	8,032.03	1,202.74	978.65	224.09	5.367 CC, ES, SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6529+23.5 @ 6552.50ft

Offset Depths are relative to Offset Datum

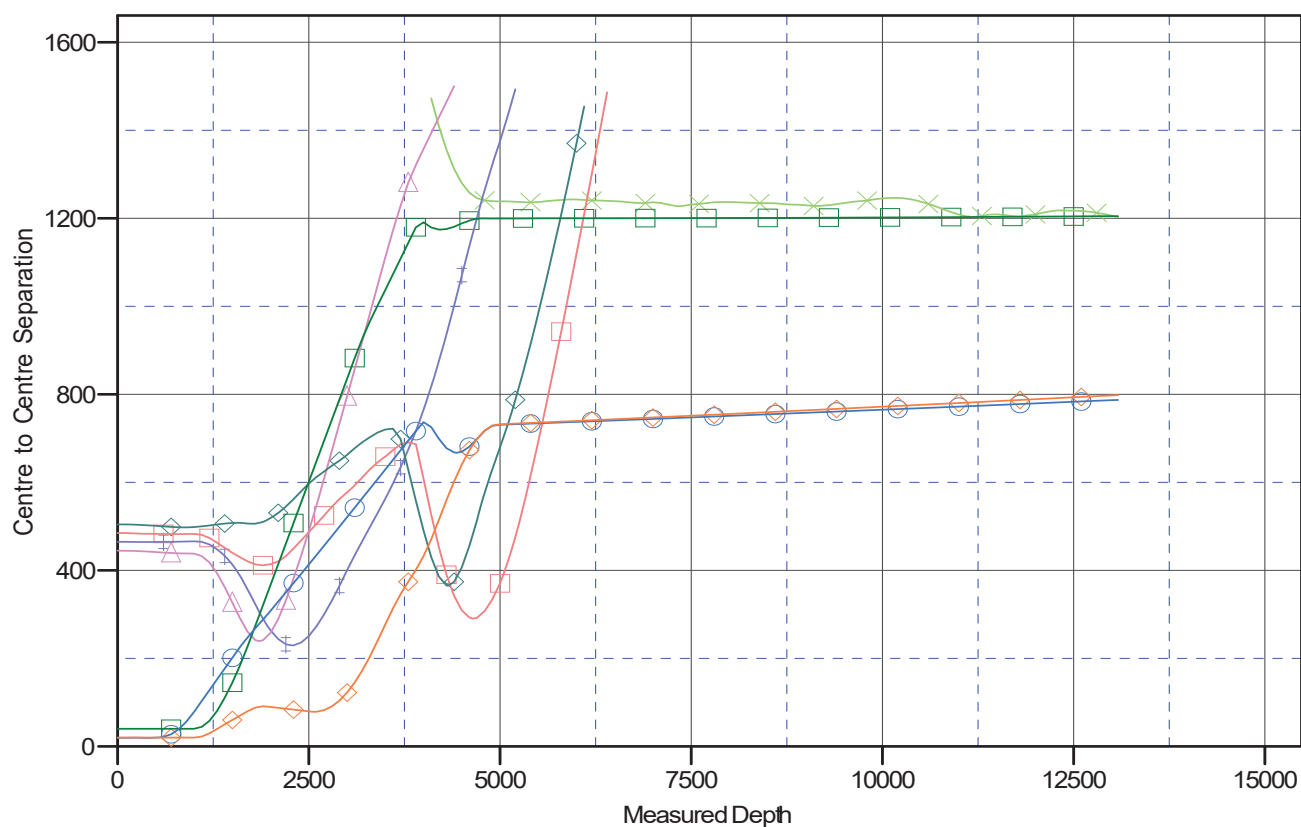
Central Meridian is -107.83333333

Coordinates are relative to: Greater Lybrook Unit 38H

Coordinate System is US State Plane 1983, New Mexico Western Zone

Grid Convergence at Surface is: 0.022°

Ladder Plot



LEGEND

- WL Lybrook Unit 36.735H Original Hole Surveys Original Hole V0
- Kimbeb Wash Unit 793H Original Hole Surveys Original Hole V0
- Greater Lybrook Unit 38H Original Hole rev0 V0
- Kimbeb Wash Unit 774H Original Hole Surveys Original Hole V0
- Kimbeb Wash Unit 794H Original Hole Surveys Original Hole V0
- Greater Lybrook Unit 38H Original Hole rev0 V0
- Kimbeb Wash Unit 772H Original Hole Surveys Original Hole V0
- Greater Lybrook Unit 38H Original Hole rev0 V0

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 38H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6529+23.5 @ 6552.50ft
Reference Site:	Greater Lybrook (36, 37, 38 & 39)	MD Reference:	RKB=6529+23.5 @ 6552.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 38H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6529+23.5 @ 6552.50ft

Offset Depths are relative to Offset Datum

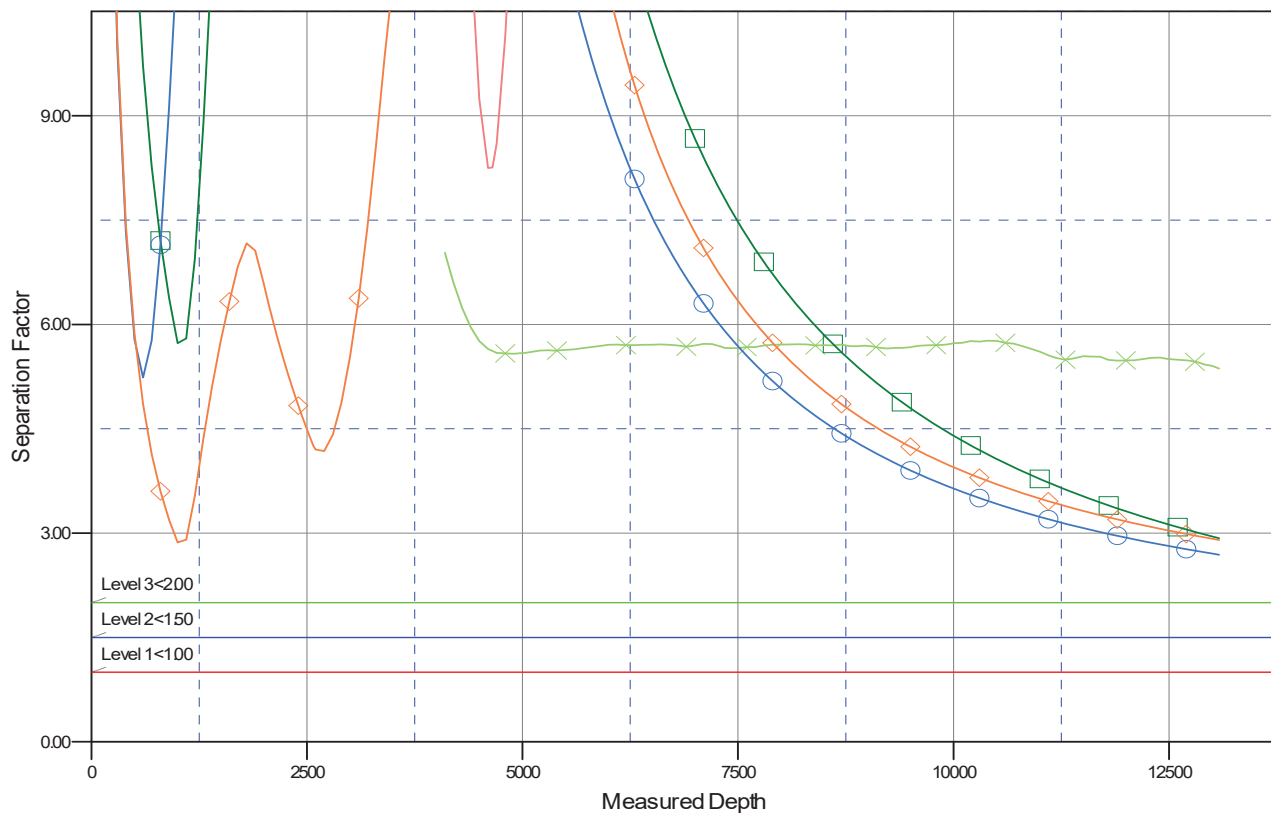
Central Meridian is -107.8333333

Coordinates are relative to: Greater Lybrook Unit 38H

Coordinate System is US State Plane 1983, New Mexico Western Zone

Grid Convergence at Surface is: 0.022°

Separation Factor Plot



LEGEND

W Lybrook Unit 36, 37, 38 & 39 Original Hole Survey Original Hole V0	Kimbet Wash Unit 77, 74, 73, 72 Original Hole Survey Original Hole V0	Greater Lybrook Unit 38H Original Hole Survey Original Hole V0
Kimbet Wash Unit 793H Original Hole Survey Original Hole V0	Kimbet Wash Unit 794H Original Hole Survey Original Hole V0	Greater Lybrook Unit 38H Original Hole Survey Original Hole V0
Kimbet Wash Unit 772H Original Hole Survey Original Hole V0	Greater Lybrook Unit 38H Original Hole Survey Original Hole V0	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



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
#038H GREATER LYBROOK UNIT
Lease: N0G14031939 Agreement: NMNM144419X

SH: NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 28, T. 23N., R. 09W.
San Juan County, New Mexico
BH: NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 34, T. 23N., R. 09W.
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 all casing strings below the conductor 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. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.
- D. ☐ 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.
- E. ☐ 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.

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

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. 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.
- L. 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.
- M. **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.

VII. PHONE NUMBERS

- A. For BOPE tests, cementing, and plugging operations the phone number is 505-564-7750 and must be called 24 hours in advance in order that a BLM representative may witness the operations.

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

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oed/contact-us>

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

ACKNOWLEDGMENTS

Action 524906

ACKNOWLEDGMENTS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way Centennial, CO 80111	OGRID: 372286
	Action Number: 524906
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

☒	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
-------------------------------------	--

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

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oed/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 524906

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way Centennial, CO 80111	OGRID: 372286
	Action Number: 524906
	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.	11/10/2025
sford	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	11/10/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	12/22/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/22/2025
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.	12/22/2025
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.	12/22/2025