

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. 9. API Well No. 30-045-38431		
2. Name of Operator 3a. Address 3b. Phone No. (include area code)		10. Field and Pool, or Exploratory 11. Sec., T. R. M. or Blk. and Survey or Area 12. County or Parish 13. State		
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		14. Distance in miles and direction from nearest town or post office* 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 16. No of acres in lease 17. Spacing Unit dedicated to this well 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 19. Proposed Depth 20. BLM/BIA Bond No. in file 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration		
24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> 1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). </td> <td style="width: 50%; vertical-align: top;"> 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM. </td> </tr> </table>			1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).	4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.
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25. Signature Title		Name (Printed/Typed) Date		
Approved by (Signature) Title		Name (Printed/Typed) Office Date		

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)

- | | |
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2. A Drilling Plan.
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5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature Title	Name (Printed/Typed) Office	Date Date
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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 / 53 FNL / 1566 FWL / TWSP: 23N / RANGE: 9W / SECTION: 7 / LAT: 36.248547 / LONG: -107.833811 (TVD: 0 feet, MD: 0 feet)

PPP: LOT 1 / 440 FNL / 1014 FWL / TWSP: 23N / RANGE: 9W / SECTION: 7 / LAT: 36.247493 / LONG: -107.835678 (TVD: 4737 feet, MD: 4900 feet)

PPP: SESE / 569 FSL / 1 FEL / TWSP: 23N / RANGE: 10W / SECTION: 1 / LAT: 36.250286 / LONG: -107.839126 (TVD: 4882 feet, MD: 12810 feet)

PPP: LOT 7 / 1 FSL / 572 FWL / TWSP: 23N / RANGE: 9W / SECTION: 6 / LAT: 36.248712 / LONG: -107.837183 (TVD: 4882 feet, MD: 12810 feet)

BHL: LOT 4 / 232 FNL / 802 FWL / TWSP: 23N / RANGE: 10W / SECTION: 1 / LAT: 36.262574 / LONG: -107.854302 (TVD: 4882 feet, MD: 12810 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 30-045-38431	Pool Code 5860	Pool Name BISTI; S-GALLUP (O)
Property Code 336968	Property Name PONDEROSA UNIT	Well Number 112H
OGRID No. 371838	Operator Name DJR OPERATING, LLC	Ground Level Elevation 6802'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location (SHL)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
C	7	23N	9W		53' NORTH	1566' WEST	36.248547° N	107.833811° W	SAN JUAN

Bottom Hole Location (BHL)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
D	1	23N	10W	4	232' NORTH	802' WEST	36.262574° N	107.854302° W	SAN JUAN

Dedicated Acres SEC 7: LOT 1 (40.30 AC.); SEC 6: LOT 7 (40.39 AC.); SEC 1: SE/SE, NE/SE, NW/SE, SW/NE, SE/NW, LOT 3 & LOT 4 (279.16 AC.) = 359.85 ACRES	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N) N	Consolidation Code UNIT
Order Numbers: R-14194		Well Setbacks are under Common Ownership: ☒ Yes ☐ No		

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
C	7	23N	9W		53' NORTH	1566' WEST	36.248547° N	107.833811° W	SAN JUAN

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
D	7	23N	9W	1	440' NORTH	1014' WEST	36.247493° N	107.835678° W	SAN JUAN

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
D	1	23N	10W	4	232' NORTH	802' WEST	36.262574° N	107.854302° W	SAN JUAN

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

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

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

Shaw-Marie Ford
Signature

1/23/2025
Date

Shaw-Marie Ford
Printed Name

sford@enduringresources.com
E-mail Address

SURVEYOR CERTIFICATIONS

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.



Signature and Seal of Professional Surveyor:

Certificate Number

11393

Date of Survey

JUNE 26, 2024

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

○ FND 2 1/4" BC
GLO 1942

● FND 2 1/4" BC
GLO 1932



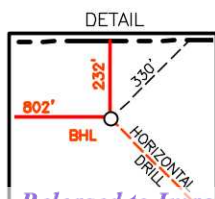
SURFACE LOCATION (SHL) ●
53' FNL 1566' FWL
SEC. 7, T23N, R9W
LAT. 36.248547° N (NAD83)
LONG. 107.833811° W (NAD83)

FIRST TAKE POINT (FTP) ◇
440' FNL 1014' FWL
SEC. 7, T23N, R9W
LAT. 36.247493° N (NAD83)
LONG. 107.835678° W (NAD83)

BOTTOM HOLE LOCATION (BHL) ○
232' FNL 802' FWL
SEC. 1, T23N, R10W
LAT. 36.262574° N (NAD83)
LONG. 107.854302° W (NAD83)

KICK OFF POINT (KOP) △
53' FNL 1566' FWL
SEC. 7, T23N, R9W
LAT. 36.248547° N (NAD83)
LONG. 107.833811° W (NAD83)

LAST TAKE POINT (LTP) □
232' FNL 802' FWL
SEC. 1, T23N, R10W
LAT. 36.262574° N (NAD83)
LONG. 107.854302° W (NAD83)



State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: DJR Operating, LLC **OGRID:** 371838 **Date:** 10 / 22 / 2024

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
Ponderosa 099H	TBD	C-07-23N-09W	87 FNL x 1615 FWL	383	488	136
Ponderosa 111H	TBD	C-07-23N-09W	64 FNL x 1582 FWL	407	519	145
Ponderosa 112H	TBD	C-07-23N-09W	53 FNL x 1566 FWL	420	535	149
Ponderosa 117H	TBD	C-07-23N-09W	76 FNL x 1598 FWL	371	472	132

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
Ponderosa 099H	TBD	12/16/2024	12/26/2024	02/14/2025	03/31/2025	03/31/2025
Ponderosa 111H	TBD	12/17/2024	12/27/2024	02/14/2025	03/31/2025	03/31/2025
Ponderosa 112H	TBD	12/18/2024	12/28/2024	02/14/2025	03/31/2025	03/31/2025
Ponderosa 117H	TBD	12/19/2024	12/29/2024	02/14/2025	03/31/2025	03/31/2025

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: <i>Shaw-Marie Ford</i>
Printed Name: Shaw-Marie Ford
Title: Regulatory Specialist
E-mail Address: sford@djrlc.com
Date: 10/22/2024
Phone: 505-716-3297
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
PONDEROSA UNIT 099H, 111H, 112H and 117H
NENW C-07-23N-09W

SEPARATION EQUIPMENT

DJR Operating, LLC (DJR) has pulled representative pressurized samples from wells in the same producing formation. DJR 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.



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
PONDEROSA UNIT 099H, 111H, 112H and 117H
NENW C-07-23N-09W

VENTING and FLARING

DJR Operating, LLC (DJR) has a natural gas system available prior to startup of completion operations. DJR 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, DJR utilizes the following from list A-I of Section 3 for its operations to minimize flaring:

- a) DJR 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) DJR'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.

DJR 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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
PONDEROSA UNIT 099H, 111H, 112H and 117H
NENW C-07-23N-09W

OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

DJR Operating, LLC (DJR) 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

- DJR 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, DJR will vent natural gas in order to avoid substantial impact. DJR 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, DJR utilizes the following:

- DJR 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 separators 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) DJR analyzes the natural gas samples twice per week.
 - 3) DJR routes the natural gas into a gathering pipeline as soon as the pipeline specifications are met.
 - 4) DJR provides the NMOCD with pipeline specifications and natural gas data.



19.15.27.8 D. Venting and flaring during production operations

During Production Operations DJR 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. DJR does not vent after the well achieves a stabilized rate and pressure.
 - b. DJR 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. DJR 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. DJR receives approval from the NMOCD.
 - b. DJR remains in compliance with the NM gas capture requirements.
 - c. DJR 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. DJR 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. DJR will install a flare designed to handle the full volume of vapors from the facility in case of the VRU failure and it is 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 DJR 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. DJR will conduct an AVO inspection on all components for leaks and defects on a weekly basis.
 5. DJR will make and keep records of AVO inspections which will be available to the NMOCD for at least 5 years.
 6. DJR 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. DJR will resolve emergencies as promptly as possible.

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

1. DJR will have meters on both the low- and high-pressure sides of the flares and the volumes will be recorded in DJR's SCADA system.
2. DJR 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. DJR'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. DJR 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. DJR 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. DJR will install measuring equipment whenever the NMOCD determines that metering is necessary.



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
PONDEROSA UNIT 099H, 111H, 112H and 117H
NENW C-07-23N-09W

BEST MANAGEMENT PRACTICES

DJR Operating, LLC (DJR) utilizes the following Best Management Practices to minimize venting during active and planned maintenance.

DJR 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.

DJR 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.

DJR 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.

DJR 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.

DJR 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.

DJR'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.

DJR 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: Ponderosa Unit 112H

API Number: Not yet assigned

State: New Mexico

County: San Juan

Surface Elevation: 6,802 ft ASL (GL) 6,826 ft ASL (KB)

Surface Location: 7-23-9 Sec-Twn-Rng 53 ft FNL 1,566 ft FWL

36.248547 ° N latitude 107.833811 ° W longitude (NAD 83)

BH Location: 1-23-10 Sec-Twn-Rng 232 ft FNL 802 ft FWL

36.262574 ° N latitude 107.854302 ° 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 36.8 miles to Nageezi Post Office; Right (SouthWest) on Cty Road 7800/7786 for 5.2 miles to 3-way intersection; Right (NorthWest) on Cty Road 7825 for 1.2 mi location access on right side to Ponderosa Unit 099H PAD. There are 9 wells staked on this pad, from SouthEast to North West: Ponderosa Unit 099H, 117H, 111H, 112H, 136H, 114H, 120H, 116H, 115H.

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	6,395	431	431	W	normal
	Kirtland	6,303	522	522	W	normal
	Fruitland	6,050	776	776	G, W	sub
	Pictured Cliffs	5,647	1,179	1,779	G, W	sub
	Lewis	5,488	1,338	1,340	G, W	normal
	Chacra	5,284	1,542	1,548	G, W	normal
	Cliff House	4,264	2,562	2,596	G, W	sub
	Menefee	4,256	2,570	2,603	G, W	normal
	Point Lookout	3,208	3,618	3,679	G, W	normal
	Mancos	3,076	3,750	3,815	O,G	sub (~0.38)
	Gallup (MNCS_A)	2,726	4,100	4,168	O,G	sub (~0.38)
	MNCS_B	2,616	4,210	4,278	O,G	sub (~0.38)
	MNCS_C	2,536	4,290	4,358	O,G	sub (~0.38)
	MNCS_Cms	2,496	4,330	4,398	O,G	sub (~0.38)
	MNCS_D	2,361	4,465	4,539	O,G	sub (~0.38)
	MNCS_E	2,225	4,601	4,696	O,G	sub (~0.38)
	MNCS_F	2,150	4,676	4,799	O,G	sub (~0.38)
	MNCS_G	2,089	4,737	4,900	O,G	sub (~0.38)
	MNCS_H	2,038	4,788	5,018	O,G	sub (~0.38)
	MNCS_I	2,007	4,819	5,136	O,G	sub (~0.38)
	FTP TARGET	2,089	4,737	4,900	O,G	sub (~0.38)
	PROJECTED TD	1,944	4,882	12,810	O,G	sub (~0.38)

Surface: Nacimiento

Oil & Gas Zones: Several gas bearing zones will be encountered; target formation is the Gallup

Pressure: Normal (0.43 psi/ft) or sub-normal pressure gradients anticipated in all formations

Max. pressure gradient: 0.43 psi/ft Evacuated hole gradient: 0.22 psi/ft

Maximum anticipated BH pressure, assuming maximum pressure gradient: 2,100 psi

Maximum anticipated surface pressure, assuming partially evacuated hole: 1,030 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 the there is no power to the accumulator.

FLUIDS AND SOLIDS CONTROL PROGRAM:

Fluid Measurement:

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

Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to 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:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	K-55	STC	2,020	3,520	564,000	423,000
Loading					153	1,033	110,988	110,988

Min. S.F.

13.21

3.41

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	5,192 ft (MD)	Hole Section Length:	4,842 ft
350 ft (TVD)	to	4,826 ft (TVD)	Casing Required:	5,192 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 13-3/8" casing to 1,500 psi for 30 minutes.

Casing Specs: Specs Loading Min. S.F.		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
	7	26.0	K-55	LTC	4,320	4,980	415,000	367,000
					2,108	1,306	217,720	217,720
					2.05	3.81	1.91	1.69

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	2.140	12.05	70%	0	429	918
Tail	Type III	14.6	1.380	6.64	20%	3,715	200	276

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.

5,192 ft (MD)	to	12,810 ft (MD)	Hole Section Length:	7,618 ft
4,826 ft (TVD)	to	4,882 ft (TVD)	Casing Required:	7,792 ft
Estimated KOP:		4,318 ft (MD)	4,250 ft (TVD)	
Estimated Liner Top:		5,018 ft (MD)	4,788 ft (TVD)	
Estimated Landing Point (FTP):		4,900 ft (MD)	4,737 ft (TVD)	
Estimated Lateral Length:		7,910 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					2,412	8,779	228,225	228,225
Min. S.F.					3.13	1.22	1.61	1.69

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	1.560	7.70	25%	5,018	620	967

Displacement 171 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

Spacer	S-8 Silica Flour	Avis 616 viscosifier	FP24 Defoamer .5	Plus 3K LCM 15	SS201 Surfactant 1			
	163.7 lbs/bbl	11.6 lb/bbl	lb/bbl	lb/bbl	gal/bbl			
Lead/Tail		Bentonite			IntegraGuard		FP24 Defoamer	
		BA90 Bonding	Viscosifier 8%	FL24 Fluid Loss .5%	GW86 Viscosifier	R7C Retarder .2%	0.3% BWOB, Anti-Static .01 lb/sx	
	ASTM Type I/II	Agent 5.0 lb/sx	BWOB	BWOB	.1% BWOB	BWOB		
				Bentonite		IntegraGuard		FP24 Defoamer
				Viscosifier 4%	FL24 Fluid Loss .4%	GW86 Viscosifier	R3 Retarder .5%	.3% BWOB, IntegraSeal 0.25
	Type G 50%	Pozzolan Fly Ash	BA90 Bonding	BWOB	BWOB	.1% BWOB	BWOB	lb/sx
		Extender 50%	Agent 3.0 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: 7,810

Est Frac Inform: 33 Frac Stages 125,000 bbls slick water 10,160,000 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 7/16/2024

Updated:

WELL NAME: **Ponderosa Unit 112H**

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

API Number: *Not yet assigned*

AFE Number: *Not yet assigned*

ER Well Number: *Not yet assigned*

State: **New Mexico**

County: **San Juan**

Surface Elev.: **6,802** ft ASL (GL) **6,826** ft ASL (KB)

Surface Location: **7-23-9** Sec-Twn- Rng **53** ft FNL **1,566** ft FWL

BH Location: **1-23-10** Sec-Twn- Rng **232** ft FNL **802** ft FWL

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

South on US Hwy 550 for 36.8 miles to Nageezi Post Office; Right (SouthWest) on Cty Road 7800/7786 for 5.2 miles to 3-way intersection; Right (NorthWest) on Cty Road 7825 for 1.2 mi location access on right side to Ponderosa Unit 099H PAD. There are 9 wells staked on this pad, from SouthEast to North West: Ponderosa Unit 099H, 117H, 111H, 112H, 136H, 114H, 120H, 116H, 115H.

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	5,192 ft
KOP (MD)	4,318 ft
KOP (TVD)	4,250 ft
Target (TVD)	4,737 ft
Curve BUR	10 °/100 ft
POE (MD)	4,900 ft
TD (MD)	12,810 ft
Lat Len (ft)	7,910 ft

WELL CONSTRUCTION SUMMARY:

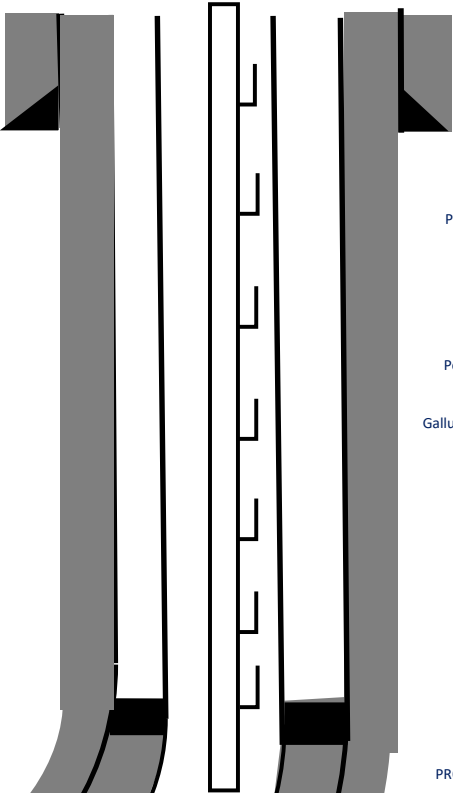
	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	12.250	350	9.625	36	K-55	STC	0	350
Intermediate	8.750	5,192	7	26.0	K-55	LTC	0	5,192
Production	6.125	12,810	4.500	11.6	P-110	BTC	5,018	12,810

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	2.14	12.05	0.1668	70%	0	429
Inter. (Tail)	Type III	14.6	1.38	6.64	0.1503	20%	3,715	200
Prod. (Lead)	0	0	0.000	0	0.1044	0%	0	0
Prod. (Tail)	G:POZ blend	13.3	1.560	7.7	0.0873	25%	5,018	620

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

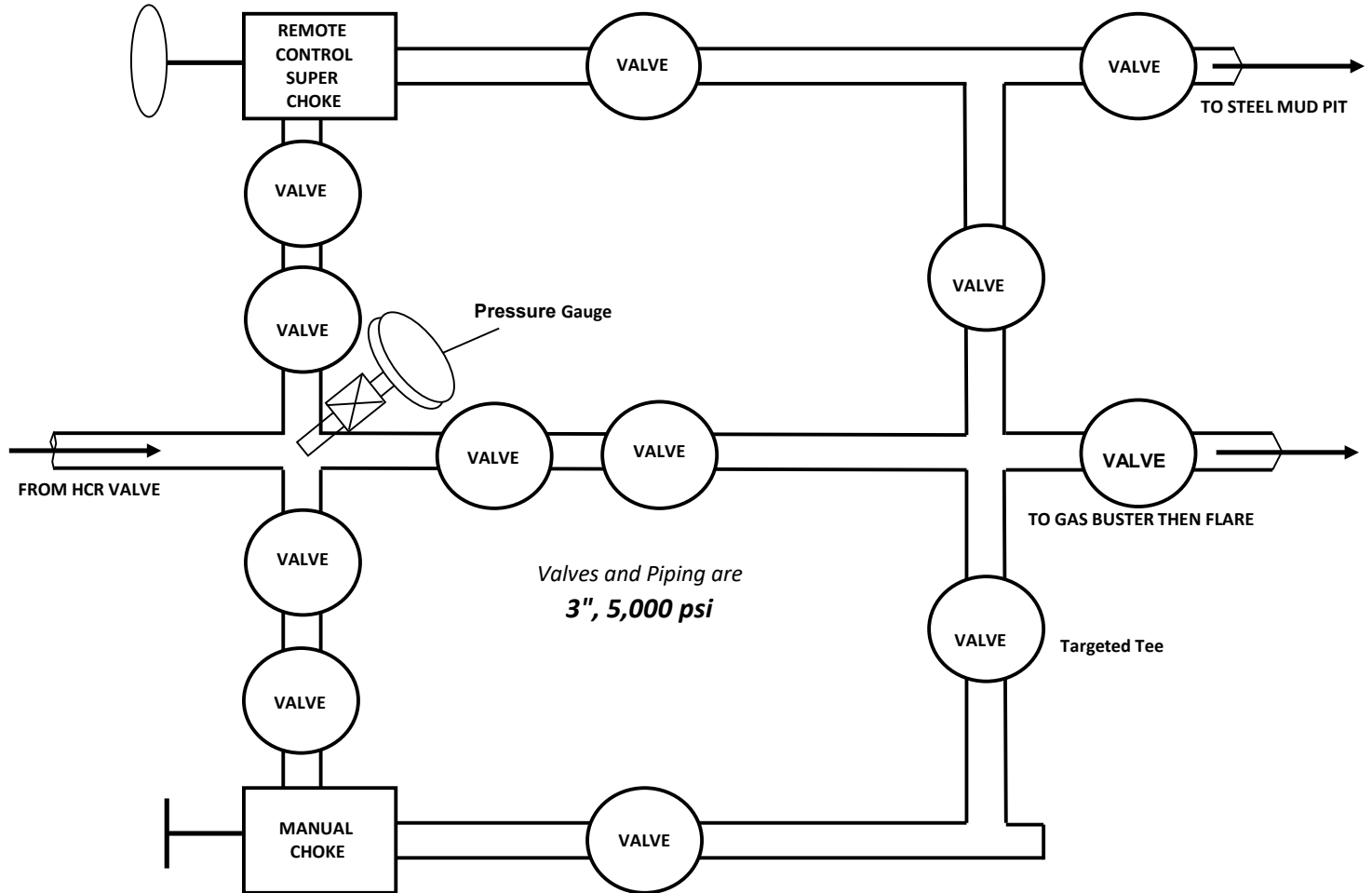


Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	431	431
Kirtland	522	522
Fruitland	776	776
Pictured Cliffs	1,179	1,779
Lewis	1,338	1,340
Chacra	1,542	1,548
Cliff House	2,562	2,596
Menefee	2,570	2,603
Point Lookout	3,618	3,679
Mancos	3,750	3,815
Gallup (MNCS_A)	4,100	4,168
MNCS_B	4,210	4,278
MNCS_C	4,290	4,358
MNCS_Cms	4,330	4,398
MNCS_D	4,465	4,539
MNCS_E	4,601	4,696
MNCS_F	4,676	4,799
MNCS_G	4,737	4,900
MNCS_H	4,788	5,018
MNCS_I	4,819	5,136
FTP TARGET	4,737	4,900
PROJECTED TD	4,882	12,810

Ponderosa Unit 112H

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.

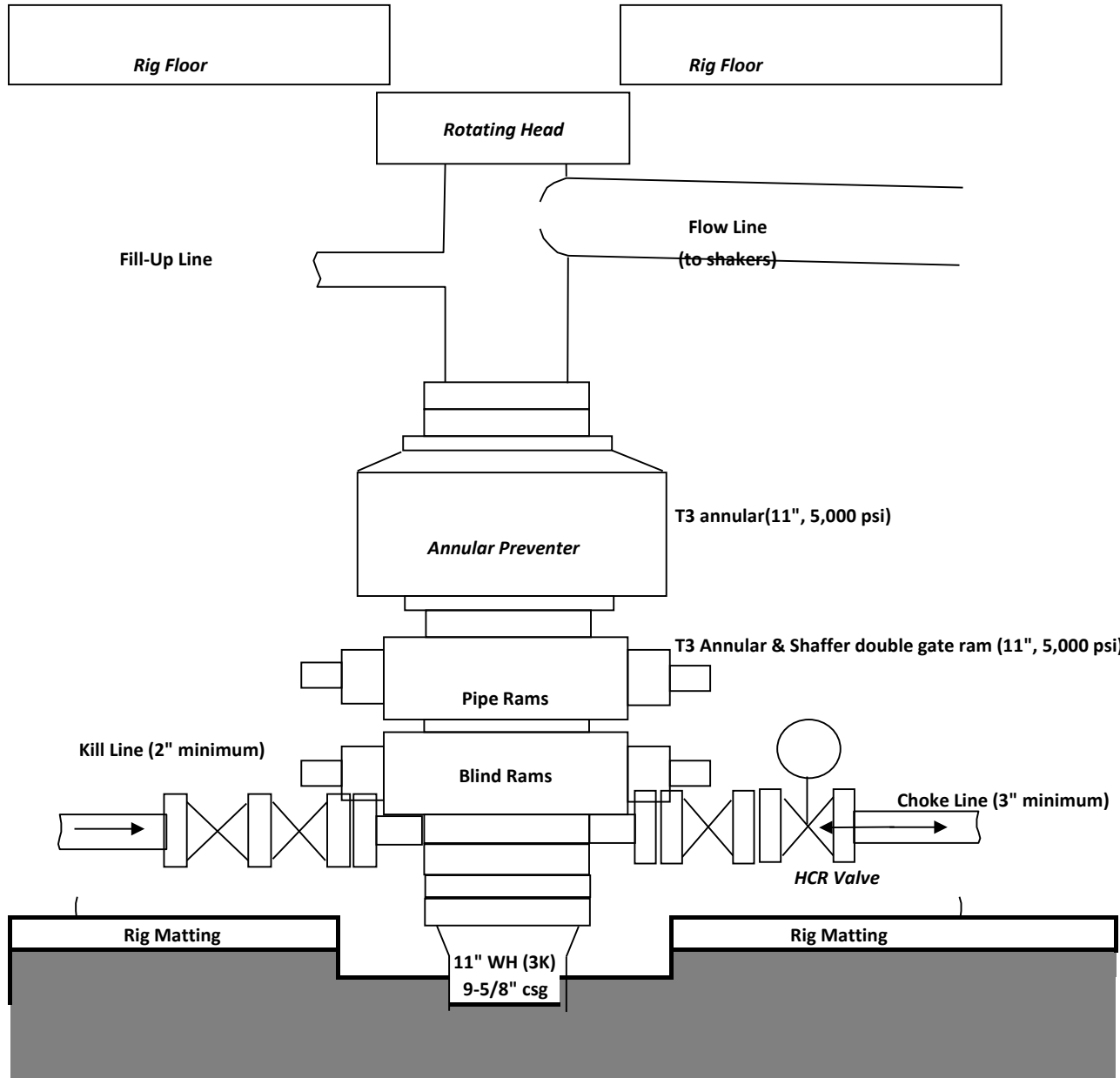
CHOKE MANIFOLD



Ponderosa Unit 112H

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: Ponderosa 112H
Site: Ponderosa (99, 111,112,114-117,120,136)
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=6802+25 @ 6827.00ft

Surface location:
Northing: 1909769.59
Easting: 2722950.82
Latitude: 36.24854700
Longitude: -107.83381100

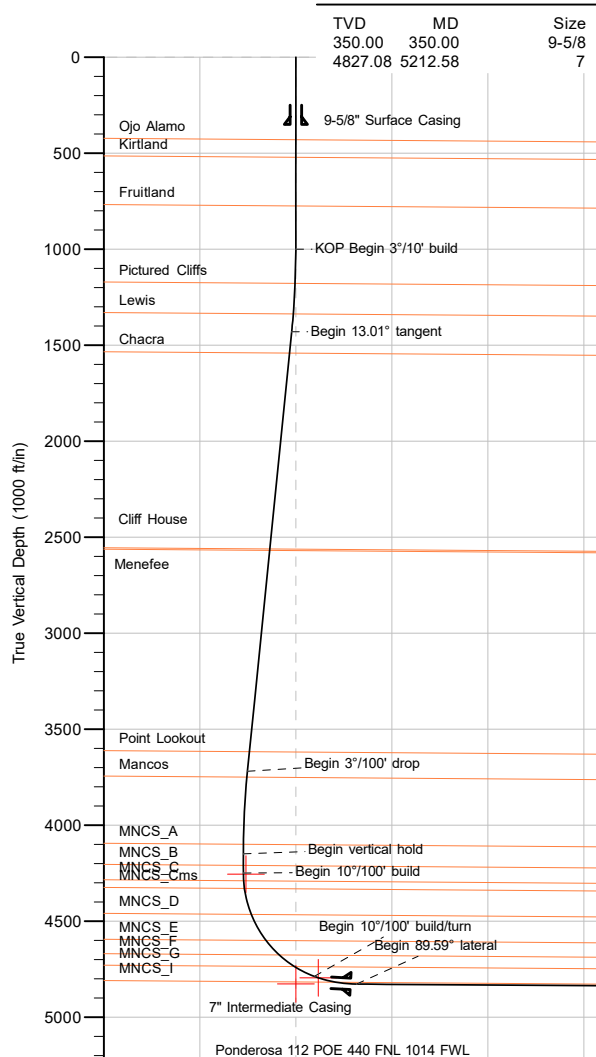


Azimuths to Grid North
True North: 0.00°
Magnetic North: 8.51°

Magnetic Field
Strength: 48995.3nT
Dip Angle: 62.68°
Date: 7/11/2024
Model: IGRF2020

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.512°

CASING DETAILS

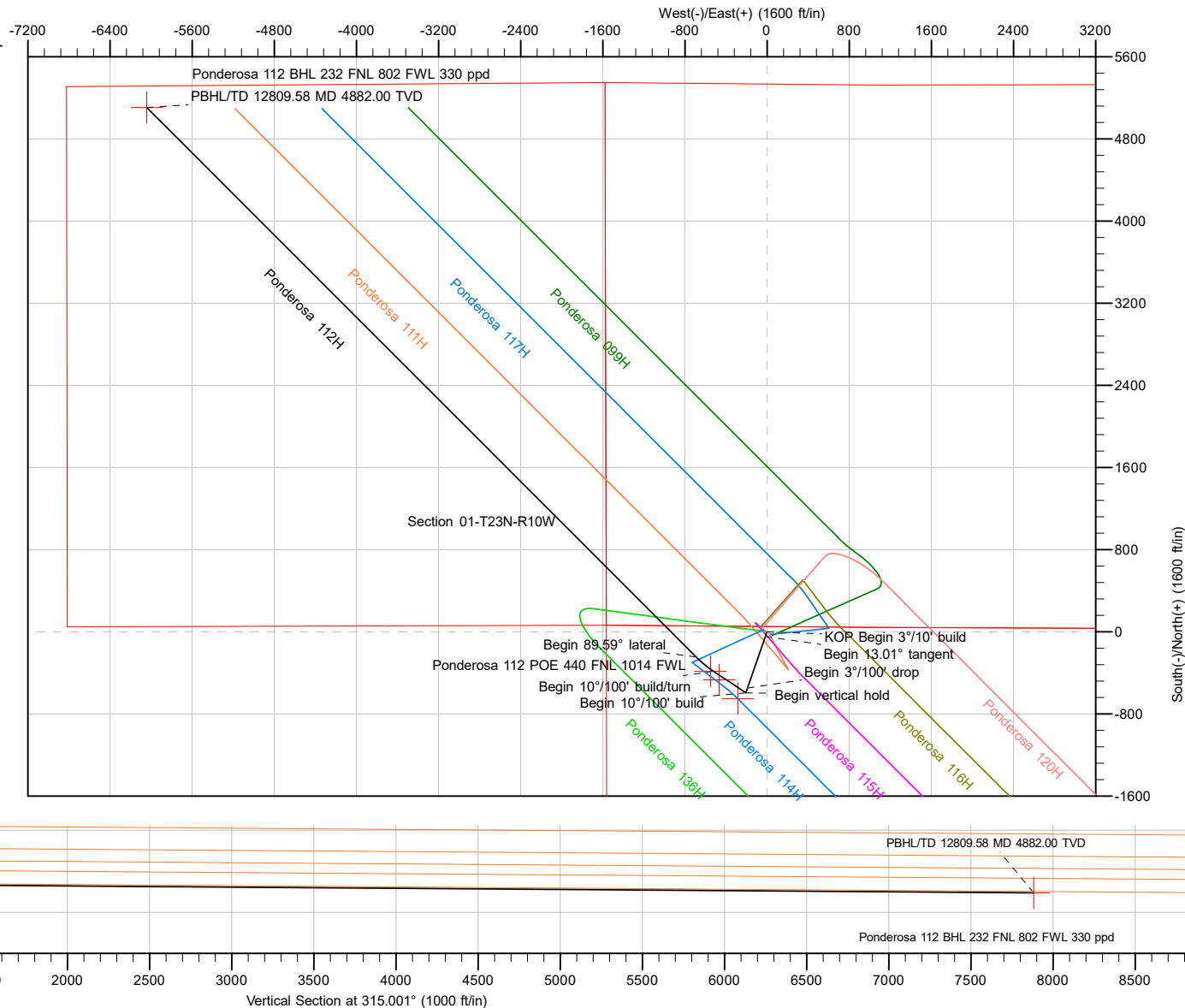


36)

Section Details										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
2	1000.00	0.00	0.000	1000.00	0.00	0.00	0.00	0.000	0.00	KOP Begin 3°/10' build
3	1433.78	13.01	199.221	1430.06	-46.32	-16.15	3.00	199.221	-21.33	Begin 13.01° tangent
4	3783.73	13.01	199.221	3719.66	-545.98	-190.35	0.00	0.000	-251.48	Begin 3°/100' drop
5	4217.51	0.00	0.000	4149.72	-592.30	-206.50	3.00	180.000	-272.81	Begin vertical hold
6	4317.51	0.00	0.000	4249.72	-592.30	-206.50	0.00	0.000	-272.81	Begin 10°/100' build
7	5017.51	70.00	303.600	4788.12	-383.67	-520.51	10.00	303.600	96.74	Begin 10°/100' build/turn
8	5242.98	89.59	315.001	4828.00	-243.52	-690.65	10.00	31.033	316.16	Begin 89.59° lateral
9	12809.58	89.59	315.001	4882.00	5106.83	-6040.81	0.00	0.000	7882.56	PBHL/TD 12809.58 MD 4882.00 TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Ponderosa 112 BHL 232 FNL 802 FWL 330 ppd	4882.00	5106.83	-6040.81	1914876.41	2716910.03	36.26257400	-107.85430200
Ponderosa 112 POE 440 FNL 1014 FWL	4795.00	-383.67	-550.51	1909385.92	2722400.32	36.24749300	-107.83567800
Ponderosa 112 vert	4255.06	-650.25	-283.94	1909119.34	2722666.88	36.24676071	-107.83477394
Ponderosa 112 VS=0	4827.00	-467.08	-467.10	1909302.51	2722483.72	36.24726388	-107.83539512

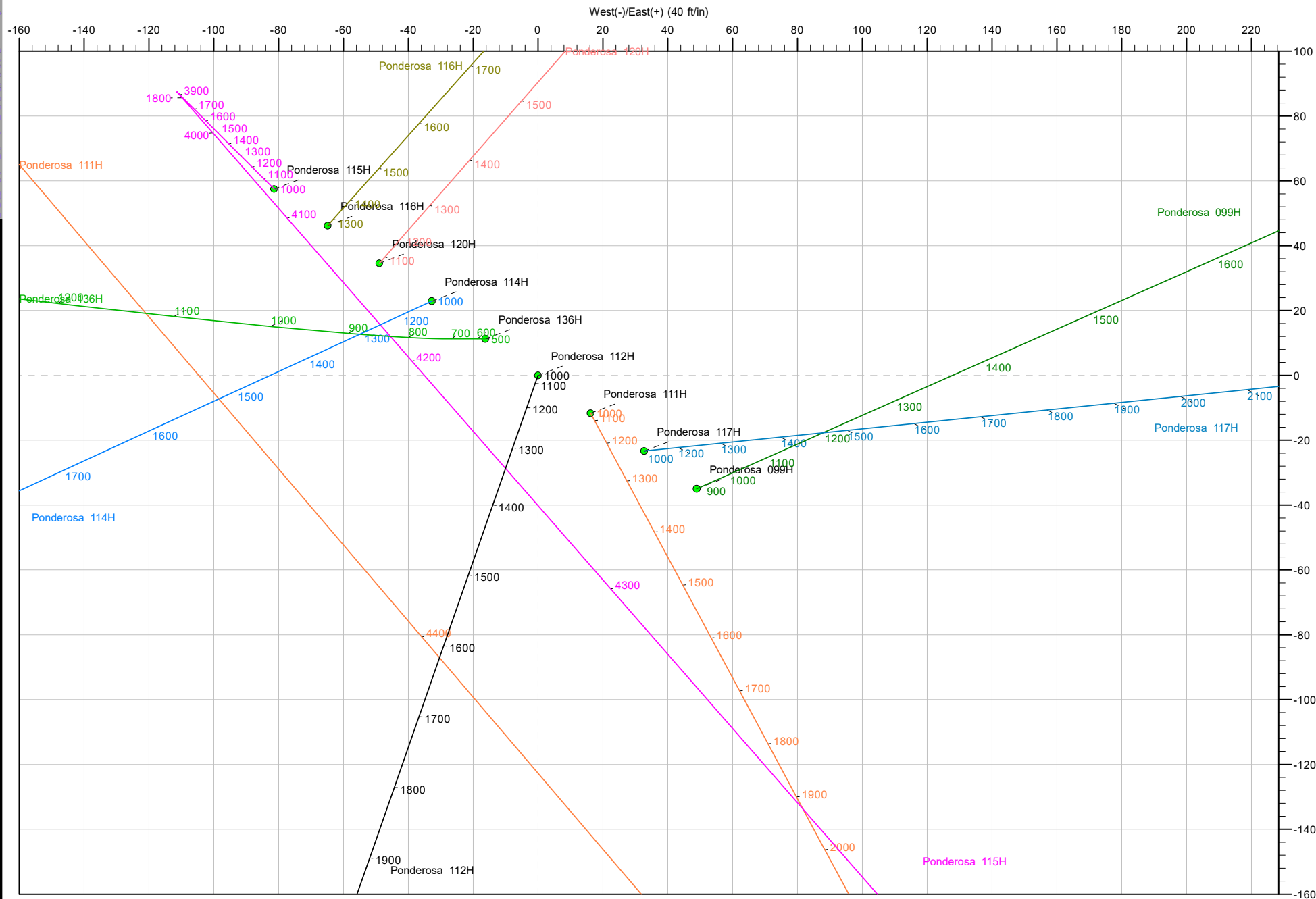


12:41, July 29 2024

Vertical Section at 315.001° (1000 ft/in)



Well: Ponderosa 112H
Site: Ponderosa (99, 111,112,114-117,120,136)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig:





Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	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		Ponderosa (99, 111,112,114-117,120,136)			
Site Position:		Northing:	1,909,734.64 usft	Latitude:	36.24845100
From:	Lat/Long	Easting:	2,722,999.77 usft	Longitude:	-107.83364500
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Ponderosa 112H, Surf loc: 53 FNL 1566 FWL Section 07-T23N-R09W					
Well Position	+N/-S	0.00 ft	Northing:	1,909,769.59 usft	Latitude:	36.24854700
	+E/-W	0.00 ft	Easting:	2,722,950.82 usft	Longitude:	-107.83381100
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,802.00 ft
Grid Convergence:		0.000 °				

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	7/11/2024	8.512	62.680	48,995.26122462

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	315.001	

Plan Survey Tool Program	Date	7/29/2024			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	12,809.58 rev0 (Original Hole)	MWD		
			OWSG MWD - Standard		



Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

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	
1,433.78	13.01	199.221	1,430.06	-46.32	-16.15	3.00	3.00	0.00	199.221	
3,783.73	13.01	199.221	3,719.66	-545.98	-190.35	0.00	0.00	0.00	0.000	
4,217.51	0.00	0.000	4,149.72	-592.30	-206.50	3.00	-3.00	0.00	180.000	
4,317.51	0.00	0.000	4,249.72	-592.30	-206.50	0.00	0.00	0.00	0.000	
5,017.51	70.00	303.600	4,788.12	-383.67	-520.51	10.00	10.00	0.00	303.600	
5,242.98	89.59	315.001	4,828.00	-243.52	-690.65	10.00	8.69	5.06	31.033	
12,809.58	89.59	315.001	4,882.00	5,106.83	-6,040.81	0.00	0.00	0.00	0.000	Ponderosa 112 BHL 2



Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	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
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
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									
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
431.00	0.00	0.000	431.00	0.00	0.00	0.00	0.00	0.00	0.00
Ojo Alamo									
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
522.00	0.00	0.000	522.00	0.00	0.00	0.00	0.00	0.00	0.00
Kirtland									
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
776.00	0.00	0.000	776.00	0.00	0.00	0.00	0.00	0.00	0.00
Fruitland									
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
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°/10° build									
1,100.00	3.00	199.221	1,099.95	-2.47	-0.86	-1.14	3.00	3.00	0.00
1,179.24	5.38	199.221	1,178.97	-7.94	-2.77	-3.66	3.00	3.00	0.00
Pictured Cliffs									
1,200.00	6.00	199.221	1,199.63	-9.88	-3.44	-4.55	3.00	3.00	0.00
1,300.00	9.00	199.221	1,298.77	-22.20	-7.74	-10.23	3.00	3.00	0.00
1,339.69	10.19	199.221	1,337.91	-28.45	-9.92	-13.10	3.00	3.00	0.00
Lewis									
1,400.00	12.00	199.221	1,397.08	-39.41	-13.74	-18.15	3.00	3.00	0.00
1,433.78	13.01	199.221	1,430.06	-46.32	-16.15	-21.33	3.00	3.00	0.00
Begin 13.01° tangent									
1,500.00	13.01	199.221	1,494.58	-60.40	-21.06	-27.82	0.00	0.00	0.00
1,548.43	13.01	199.221	1,541.77	-70.69	-24.65	-32.56	0.00	0.00	0.00
Chacra									
1,600.00	13.01	199.221	1,592.01	-81.66	-28.47	-37.61	0.00	0.00	0.00
1,700.00	13.01	199.221	1,689.44	-102.92	-35.88	-47.41	0.00	0.00	0.00
1,800.00	13.01	199.221	1,786.87	-124.18	-43.30	-57.20	0.00	0.00	0.00
1,900.00	13.01	199.221	1,884.31	-145.45	-50.71	-66.99	0.00	0.00	0.00
2,000.00	13.01	199.221	1,981.74	-166.71	-58.12	-76.79	0.00	0.00	0.00
2,100.00	13.01	199.221	2,079.17	-187.97	-65.54	-86.58	0.00	0.00	0.00
2,200.00	13.01	199.221	2,176.60	-209.24	-72.95	-96.37	0.00	0.00	0.00
2,300.00	13.01	199.221	2,274.03	-230.50	-80.36	-106.17	0.00	0.00	0.00
2,400.00	13.01	199.221	2,371.46	-251.76	-87.77	-115.96	0.00	0.00	0.00
2,500.00	13.01	199.221	2,468.90	-273.03	-95.19	-125.75	0.00	0.00	0.00
2,595.59	13.01	199.221	2,562.03	-293.35	-102.27	-135.12	0.00	0.00	0.00
Cliff House									
2,600.00	13.01	199.221	2,566.33	-294.29	-102.60	-135.55	0.00	0.00	0.00
2,603.80	13.01	199.221	2,570.03	-295.10	-102.88	-135.92	0.00	0.00	0.00
Menefee									
2,700.00	13.01	199.221	2,663.76	-315.55	-110.01	-145.34	0.00	0.00	0.00
2,800.00	13.01	199.221	2,761.19	-336.81	-117.43	-155.14	0.00	0.00	0.00
2,900.00	13.01	199.221	2,858.62	-358.08	-124.84	-164.93	0.00	0.00	0.00
3,000.00	13.01	199.221	2,956.05	-379.34	-132.25	-174.72	0.00	0.00	0.00
3,100.00	13.01	199.221	3,053.49	-400.60	-139.67	-184.52	0.00	0.00	0.00



Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	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)
3,200.00	13.01	199.221	3,150.92	-421.87	-147.08	-194.31	0.00	0.00	0.00
3,300.00	13.01	199.221	3,248.35	-443.13	-154.49	-204.10	0.00	0.00	0.00
3,400.00	13.01	199.221	3,345.78	-464.39	-161.91	-213.90	0.00	0.00	0.00
3,500.00	13.01	199.221	3,443.21	-485.65	-169.32	-223.69	0.00	0.00	0.00
3,600.00	13.01	199.221	3,540.65	-506.92	-176.73	-233.48	0.00	0.00	0.00
3,679.67	13.01	199.221	3,618.27	-523.86	-182.64	-241.29	0.00	0.00	0.00
Point Lookout									
3,700.00	13.01	199.221	3,638.08	-528.18	-184.15	-243.28	0.00	0.00	0.00
3,783.73	13.01	199.221	3,719.66	-545.98	-190.35	-251.48	0.00	0.00	0.00
Begin 3°/100' drop									
3,800.00	12.53	199.221	3,735.52	-549.38	-191.54	-253.04	3.00	-3.00	0.00
3,815.00	12.08	199.221	3,750.18	-552.40	-192.59	-254.43	3.00	-3.00	0.00
Mancos									
3,900.00	9.53	199.221	3,833.67	-567.44	-197.83	-261.36	3.00	-3.00	0.00
4,000.00	6.53	199.221	3,932.68	-580.62	-202.43	-267.43	3.00	-3.00	0.00
4,100.00	3.53	199.221	4,032.28	-588.89	-205.31	-271.24	3.00	-3.00	0.00
4,167.84	1.49	199.221	4,100.05	-591.69	-206.29	-272.53	3.00	-3.00	0.00
MNCS_A									
4,200.00	0.53	199.221	4,132.21	-592.22	-206.47	-272.78	3.00	-3.00	0.00
4,217.51	0.00	0.000	4,149.72	-592.30	-206.50	-272.81	3.00	-3.00	0.00
Begin vertical hold									
4,277.84	0.00	0.000	4,210.05	-592.30	-206.50	-272.81	0.00	0.00	0.00
MNCS_B									
4,300.00	0.00	0.000	4,232.21	-592.30	-206.50	-272.81	0.00	0.00	0.00
4,317.51	0.00	0.000	4,249.72	-592.30	-206.50	-272.81	0.00	0.00	0.00
Begin 10°/100' build									
4,350.00	3.25	303.600	4,282.19	-591.79	-207.27	-271.91	10.00	10.00	0.00
4,357.89	4.04	303.600	4,290.06	-591.51	-207.68	-271.42	10.00	10.00	0.00
MNCS_C									
4,398.15	8.06	303.600	4,330.09	-589.17	-211.22	-267.26	10.00	10.00	0.00
MNCS_Cms									
4,400.00	8.25	303.600	4,331.92	-589.02	-211.44	-267.00	10.00	10.00	0.00
4,450.00	13.25	303.600	4,381.03	-583.86	-219.20	-257.86	10.00	10.00	0.00
4,500.00	18.25	303.600	4,429.14	-576.35	-230.50	-244.56	10.00	10.00	0.00
4,538.58	22.11	303.600	4,465.34	-568.99	-241.58	-231.52	10.00	10.00	0.00
MNCS_D									
4,550.00	23.25	303.600	4,475.88	-566.55	-245.25	-227.21	10.00	10.00	0.00
4,600.00	28.25	303.600	4,520.90	-554.54	-263.34	-205.92	10.00	10.00	0.00
4,650.00	33.25	303.600	4,563.86	-540.40	-284.62	-180.87	10.00	10.00	0.00
4,695.52	37.80	303.600	4,600.89	-525.76	-306.64	-154.95	10.00	10.00	0.00
MNCS_E									
4,700.00	38.25	303.600	4,604.42	-524.24	-308.95	-152.24	10.00	10.00	0.00
4,750.00	43.25	303.600	4,642.29	-506.18	-336.12	-120.26	10.00	10.00	0.00
4,798.82	48.13	303.600	4,676.38	-486.85	-365.21	-86.02	10.00	10.00	0.00
MNCS_F									
4,800.00	48.25	303.600	4,677.17	-486.37	-365.94	-85.16	10.00	10.00	0.00
4,850.00	53.25	303.600	4,708.80	-464.95	-398.18	-47.22	10.00	10.00	0.00
4,900.00	58.25	303.600	4,736.93	-442.08	-432.59	-6.72	10.00	10.00	0.00
4,900.04	58.25	303.600	4,736.95	-442.06	-432.63	-6.68	0.00	0.00	0.00
MNCS_G									
4,950.00	63.25	303.600	4,761.35	-417.95	-468.92	36.03	10.01	10.01	0.00
5,000.00	68.25	303.600	4,781.88	-392.73	-506.88	80.70	10.00	10.00	0.00



Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	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)
5,017.51	70.00	303.600	4,788.12	-383.67	-520.51	96.74	10.00	10.00	0.00
Begin 10°/100' build/turn									
5,050.00	72.79	305.353	4,798.49	-366.25	-545.88	127.01	10.00	8.59	5.39
5,100.00	77.12	307.951	4,811.47	-337.42	-584.60	174.77	10.00	8.65	5.20
5,135.82	80.23	309.757	4,818.50	-315.39	-611.95	209.69	10.00	8.69	5.04
MNCS_I									
5,150.00	81.47	310.461	4,820.76	-306.37	-622.65	223.63	10.00	8.71	4.97
5,200.00	85.83	312.915	4,826.29	-273.33	-659.75	273.23	10.00	8.73	4.91
5,212.58	86.93	313.527	4,827.08	-264.73	-668.90	285.78	10.00	8.74	4.86
7" Intermediate Casing									
5,242.98	89.59	315.001	4,828.00	-243.52	-690.65	316.16	10.00	8.75	4.85
Begin 89.59° lateral									
5,300.00	89.59	315.001	4,828.41	-203.21	-730.97	373.18	0.00	0.00	0.00
5,400.00	89.59	315.001	4,829.12	-132.49	-801.68	473.17	0.00	0.00	0.00
5,500.00	89.59	315.001	4,829.84	-61.78	-872.39	573.17	0.00	0.00	0.00
5,600.00	89.59	315.001	4,830.55	8.93	-943.09	673.17	0.00	0.00	0.00
5,700.00	89.59	315.001	4,831.26	79.64	-1,013.80	773.17	0.00	0.00	0.00
5,800.00	89.59	315.001	4,831.98	150.35	-1,084.51	873.16	0.00	0.00	0.00
5,900.00	89.59	315.001	4,832.69	221.06	-1,155.22	973.16	0.00	0.00	0.00
6,000.00	89.59	315.001	4,833.40	291.77	-1,225.92	1,073.16	0.00	0.00	0.00
6,100.00	89.59	315.001	4,834.12	362.48	-1,296.63	1,173.16	0.00	0.00	0.00
6,200.00	89.59	315.001	4,834.83	433.19	-1,367.34	1,273.15	0.00	0.00	0.00
6,300.00	89.59	315.001	4,835.55	503.90	-1,438.05	1,373.15	0.00	0.00	0.00
6,400.00	89.59	315.001	4,836.26	574.61	-1,508.75	1,473.15	0.00	0.00	0.00
6,500.00	89.59	315.001	4,836.97	645.32	-1,579.46	1,573.15	0.00	0.00	0.00
6,600.00	89.59	315.001	4,837.69	716.03	-1,650.17	1,673.14	0.00	0.00	0.00
6,700.00	89.59	315.001	4,838.40	786.74	-1,720.88	1,773.14	0.00	0.00	0.00
6,800.00	89.59	315.001	4,839.11	857.45	-1,791.58	1,873.14	0.00	0.00	0.00
6,900.00	89.59	315.001	4,839.83	928.16	-1,862.29	1,973.13	0.00	0.00	0.00
7,000.00	89.59	315.001	4,840.54	998.87	-1,933.00	2,073.13	0.00	0.00	0.00
7,100.00	89.59	315.001	4,841.25	1,069.58	-2,003.71	2,173.13	0.00	0.00	0.00
7,200.00	89.59	315.001	4,841.97	1,140.29	-2,074.42	2,273.13	0.00	0.00	0.00
7,300.00	89.59	315.001	4,842.68	1,211.00	-2,145.12	2,373.12	0.00	0.00	0.00
7,400.00	89.59	315.001	4,843.40	1,281.71	-2,215.83	2,473.12	0.00	0.00	0.00
7,500.00	89.59	315.001	4,844.11	1,352.42	-2,286.54	2,573.12	0.00	0.00	0.00
7,600.00	89.59	315.001	4,844.82	1,423.13	-2,357.25	2,673.12	0.00	0.00	0.00
7,700.00	89.59	315.001	4,845.54	1,493.84	-2,427.95	2,773.11	0.00	0.00	0.00
7,800.00	89.59	315.001	4,846.25	1,564.55	-2,498.66	2,873.11	0.00	0.00	0.00
7,900.00	89.59	315.001	4,846.96	1,635.26	-2,569.37	2,973.11	0.00	0.00	0.00
8,000.00	89.59	315.001	4,847.68	1,705.97	-2,640.08	3,073.11	0.00	0.00	0.00
8,100.00	89.59	315.001	4,848.39	1,776.68	-2,710.78	3,173.10	0.00	0.00	0.00
8,200.00	89.59	315.001	4,849.10	1,847.39	-2,781.49	3,273.10	0.00	0.00	0.00
8,300.00	89.59	315.001	4,849.82	1,918.10	-2,852.20	3,373.10	0.00	0.00	0.00
8,400.00	89.59	315.001	4,850.53	1,988.81	-2,922.91	3,473.10	0.00	0.00	0.00
8,500.00	89.59	315.001	4,851.25	2,059.52	-2,993.61	3,573.09	0.00	0.00	0.00
8,600.00	89.59	315.001	4,851.96	2,130.23	-3,064.32	3,673.09	0.00	0.00	0.00
8,700.00	89.59	315.001	4,852.67	2,200.94	-3,135.03	3,773.09	0.00	0.00	0.00
8,800.00	89.59	315.001	4,853.39	2,271.65	-3,205.74	3,873.09	0.00	0.00	0.00
8,900.00	89.59	315.001	4,854.10	2,342.36	-3,276.44	3,973.08	0.00	0.00	0.00
9,000.00	89.59	315.001	4,854.81	2,413.07	-3,347.15	4,073.08	0.00	0.00	0.00
9,100.00	89.59	315.001	4,855.53	2,483.78	-3,417.86	4,173.08	0.00	0.00	0.00
9,200.00	89.59	315.001	4,856.24	2,554.49	-3,488.57	4,273.08	0.00	0.00	0.00
9,300.00	89.59	315.001	4,856.95	2,625.20	-3,559.27	4,373.07	0.00	0.00	0.00



Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	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)
9,400.00	89.59	315.001	4,857.67	2,695.91	-3,629.98	4,473.07	0.00	0.00	0.00
9,500.00	89.59	315.001	4,858.38	2,766.62	-3,700.69	4,573.07	0.00	0.00	0.00
9,600.00	89.59	315.001	4,859.10	2,837.33	-3,771.40	4,673.07	0.00	0.00	0.00
9,700.00	89.59	315.001	4,859.81	2,908.04	-3,842.10	4,773.06	0.00	0.00	0.00
9,800.00	89.59	315.001	4,860.52	2,978.75	-3,912.81	4,873.06	0.00	0.00	0.00
9,900.00	89.59	315.001	4,861.24	3,049.46	-3,983.52	4,973.06	0.00	0.00	0.00
10,000.00	89.59	315.001	4,861.95	3,120.17	-4,054.23	5,073.06	0.00	0.00	0.00
10,100.00	89.59	315.001	4,862.66	3,190.88	-4,124.93	5,173.05	0.00	0.00	0.00
10,200.00	89.59	315.001	4,863.38	3,261.59	-4,195.64	5,273.05	0.00	0.00	0.00
10,300.00	89.59	315.001	4,864.09	3,332.30	-4,266.35	5,373.05	0.00	0.00	0.00
10,400.00	89.59	315.001	4,864.80	3,403.02	-4,337.06	5,473.05	0.00	0.00	0.00
10,500.00	89.59	315.001	4,865.52	3,473.73	-4,407.76	5,573.04	0.00	0.00	0.00
10,600.00	89.59	315.001	4,866.23	3,544.44	-4,478.47	5,673.04	0.00	0.00	0.00
10,700.00	89.59	315.001	4,866.95	3,615.15	-4,549.18	5,773.04	0.00	0.00	0.00
10,800.00	89.59	315.001	4,867.66	3,685.86	-4,619.89	5,873.04	0.00	0.00	0.00
10,900.00	89.59	315.001	4,868.37	3,756.57	-4,690.59	5,973.03	0.00	0.00	0.00
11,000.00	89.59	315.001	4,869.09	3,827.28	-4,761.30	6,073.03	0.00	0.00	0.00
11,100.00	89.59	315.001	4,869.80	3,897.99	-4,832.01	6,173.03	0.00	0.00	0.00
11,200.00	89.59	315.001	4,870.51	3,968.70	-4,902.72	6,273.03	0.00	0.00	0.00
11,300.00	89.59	315.001	4,871.23	4,039.41	-4,973.42	6,373.02	0.00	0.00	0.00
11,400.00	89.59	315.001	4,871.94	4,110.12	-5,044.13	6,473.02	0.00	0.00	0.00
11,500.00	89.59	315.001	4,872.65	4,180.83	-5,114.84	6,573.02	0.00	0.00	0.00
11,600.00	89.59	315.001	4,873.37	4,251.54	-5,185.55	6,673.02	0.00	0.00	0.00
11,700.00	89.59	315.001	4,874.08	4,322.25	-5,256.26	6,773.01	0.00	0.00	0.00
11,800.00	89.59	315.001	4,874.80	4,392.96	-5,326.96	6,873.01	0.00	0.00	0.00
11,900.00	89.59	315.001	4,875.51	4,463.67	-5,397.67	6,973.01	0.00	0.00	0.00
12,000.00	89.59	315.001	4,876.22	4,534.38	-5,468.38	7,073.01	0.00	0.00	0.00
12,100.00	89.59	315.001	4,876.94	4,605.09	-5,539.09	7,173.00	0.00	0.00	0.00
12,200.00	89.59	315.001	4,877.65	4,675.80	-5,609.79	7,273.00	0.00	0.00	0.00
12,300.00	89.59	315.001	4,878.36	4,746.51	-5,680.50	7,373.00	0.00	0.00	0.00
12,400.00	89.59	315.001	4,879.08	4,817.22	-5,751.21	7,473.00	0.00	0.00	0.00
12,500.00	89.59	315.001	4,879.79	4,887.93	-5,821.92	7,572.99	0.00	0.00	0.00
12,600.00	89.59	315.001	4,880.50	4,958.64	-5,892.62	7,672.99	0.00	0.00	0.00
12,700.00	89.59	315.001	4,881.22	5,029.35	-5,963.33	7,772.99	0.00	0.00	0.00
12,809.58	89.59	315.001	4,882.00	5,106.83	-6,040.81	7,882.56	0.00	0.00	0.00
PBHL/TD 12809.58 MD 4882.00 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
5,212.58	4,827.08	7" Intermediate Casing	7	8-3/4



Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111, 112, 114-117, 120, 136)	North Reference:	Grid
Well:	Ponderosa 112H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
431.00	431.00	Ojo Alamo		0.410	315.001	
522.00	522.00	Kirtland		0.410	315.001	
776.00	776.00	Fruitland		0.410	315.001	
1,179.24	1,178.97	Pictured Cliffs		0.410	315.001	
1,339.69	1,337.91	Lewis		0.410	315.001	
1,548.43	1,541.77	Chacra		0.410	315.001	
2,595.59	2,562.03	Cliff House		0.410	315.001	
2,603.80	2,570.03	Menefee		0.410	315.001	
3,679.67	3,618.27	Point Lookout		0.410	315.001	
3,815.00	3,750.18	Mancos		0.410	315.001	
4,167.84	4,100.05	MNCS_A		0.410	315.001	
4,277.84	4,210.05	MNCS_B		0.410	315.001	
4,357.89	4,290.06	MNCS_C		0.410	315.001	
4,398.15	4,330.09	MNCS_Cms		0.410	315.001	
4,538.58	4,465.34	MNCS_D		0.410	315.001	
4,695.52	4,600.89	MNCS_E		0.410	315.001	
4,798.82	4,676.38	MNCS_F		0.410	315.001	
4,900.04	4,736.95	MNCS_G		0.410	315.001	
5,135.82	4,818.50	MNCS_I		0.410	315.001	

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°/10' build	
1,433.78	1,430.06	-46.32	-16.15	Begin 13.01° tangent	
3,783.73	3,719.66	-545.98	-190.35	Begin 3°/100' drop	
4,217.51	4,149.72	-592.30	-206.50	Begin vertical hold	
4,317.51	4,249.72	-592.30	-206.50	Begin 10°/100' build	
5,017.51	4,788.12	-383.67	-520.51	Begin 10°/100' build/turn	
5,242.98	4,828.00	-243.52	-690.65	Begin 89.59° lateral	
12,809.58	4,882.00	5,106.83	-6,040.81	PBHL/TD 12809.58 MD 4882.00 TVD	



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	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	Ponderosa (99, 111,112,114-117,120,136)				
Site Position:		Northing:	1,909,734.64 usft	Latitude:	36.24845100
From:	Lat/Long	Easting:	2,722,999.77 usft	Longitude:	-107.83364500
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Ponderosa 112H, Surf loc: 53 FNL 1566 FWL Section 07-T23N-R09W					
Well Position	+N/-S	0.00 ft	Northing:	1,909,769.59 usft	Latitude:	36.24854700
	+E/-W	0.00 ft	Easting:	2,722,950.82 usft	Longitude:	-107.83381100
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,802.00 ft
Grid Convergence:		0.000 °				

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	7/11/2024	8.512	62.680	48,995.26122462

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	315.001

Plan Survey Tool Program	Date	7/29/2024		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	12,809.58 rev0 (Original Hole)	MWD	
			OWSG MWD - Standard	



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

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	
1,433.78	13.01	199.221	1,430.06	-46.32	-16.15	3.00	3.00	0.00	199.221	
3,783.73	13.01	199.221	3,719.66	-545.98	-190.35	0.00	0.00	0.00	0.000	
4,217.51	0.00	0.000	4,149.72	-592.30	-206.50	3.00	-3.00	0.00	180.000	
4,317.51	0.00	0.000	4,249.72	-592.30	-206.50	0.00	0.00	0.00	0.000	
5,017.51	70.00	303.600	4,788.12	-383.67	-520.51	10.00	10.00	0.00	303.600	
5,242.98	89.59	315.001	4,828.00	-243.52	-690.65	10.00	8.69	5.06	31.033	
12,809.58	89.59	315.001	4,882.00	5,106.83	-6,040.81	0.00	0.00	0.00	0.000	Ponderosa 112 BHL 2



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111, 112, 114-117, 120, 136)	North Reference:	Grid
Well:	Ponderosa 112H	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	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
100.00	0.00	0.000	100.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
200.00	0.00	0.000	200.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
300.00	0.00	0.000	300.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
350.00	0.00	0.000	350.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
9-5/8" Surface Casing									
400.00	0.00	0.000	400.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
431.00	0.00	0.000	431.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
Ojo Alamo									
500.00	0.00	0.000	500.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
522.00	0.00	0.000	522.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
Kirtland									
600.00	0.00	0.000	600.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
700.00	0.00	0.000	700.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
776.00	0.00	0.000	776.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
Fruitland									
800.00	0.00	0.000	800.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
900.00	0.00	0.000	900.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
1,000.00	0.00	0.000	1,000.00	0.00	0.00	1,909,769.59	2,722,950.82	36.24854700	-107.83381100
KOP Begin 3°/10' build									
1,100.00	3.00	199.221	1,099.95	-2.47	-0.86	1,909,767.12	2,722,949.96	36.24854021	-107.83381392
1,179.24	5.38	199.221	1,178.97	-7.94	-2.77	1,909,761.65	2,722,948.06	36.24852520	-107.83382038
Pictured Cliffs									
1,200.00	6.00	199.221	1,199.63	-9.88	-3.44	1,909,759.71	2,722,947.38	36.24851986	-107.83382268
1,300.00	9.00	199.221	1,298.77	-22.20	-7.74	1,909,747.39	2,722,943.08	36.24848601	-107.83383725
1,339.69	10.19	199.221	1,337.91	-28.45	-9.92	1,909,741.14	2,722,940.91	36.24846884	-107.83384463
Lewis									
1,400.00	12.00	199.221	1,397.08	-39.41	-13.74	1,909,730.18	2,722,937.08	36.24843874	-107.83385759
1,433.78	13.01	199.221	1,430.06	-46.32	-16.15	1,909,723.27	2,722,934.68	36.24841976	-107.83386576
Begin 13.01° tangent									
1,500.00	13.01	199.221	1,494.58	-60.40	-21.06	1,909,709.19	2,722,929.77	36.24838109	-107.83388241
1,548.43	13.01	199.221	1,541.77	-70.69	-24.65	1,909,698.90	2,722,926.18	36.24835280	-107.83389458
Chacra									
1,600.00	13.01	199.221	1,592.01	-81.66	-28.47	1,909,687.93	2,722,922.35	36.24832268	-107.83390755
1,700.00	13.01	199.221	1,689.44	-102.92	-35.88	1,909,666.67	2,722,914.94	36.24826427	-107.83393269
1,800.00	13.01	199.221	1,786.87	-124.18	-43.30	1,909,645.41	2,722,907.53	36.24820585	-107.83395783
1,900.00	13.01	199.221	1,884.31	-145.45	-50.71	1,909,624.14	2,722,900.12	36.24814744	-107.83398297
2,000.00	13.01	199.221	1,981.74	-166.71	-58.12	1,909,602.88	2,722,892.70	36.24808903	-107.83400811
2,100.00	13.01	199.221	2,079.17	-187.97	-65.54	1,909,581.62	2,722,885.29	36.24803062	-107.83403325
2,200.00	13.01	199.221	2,176.60	-209.24	-72.95	1,909,560.35	2,722,877.88	36.24797221	-107.83405839
2,300.00	13.01	199.221	2,274.03	-230.50	-80.36	1,909,539.09	2,722,870.46	36.24791380	-107.83408353
2,400.00	13.01	199.221	2,371.46	-251.76	-87.77	1,909,517.83	2,722,863.05	36.24785539	-107.83410867
2,500.00	13.01	199.221	2,468.90	-273.03	-95.19	1,909,496.57	2,722,855.64	36.24779698	-107.83413381
2,595.59	13.01	199.221	2,562.03	-293.35	-102.27	1,909,476.24	2,722,848.55	36.24774114	-107.83415785
Cliff House									
2,600.00	13.01	199.221	2,566.33	-294.29	-102.60	1,909,475.30	2,722,848.22	36.24773857	-107.83415895
2,603.80	13.01	199.221	2,570.03	-295.10	-102.88	1,909,474.50	2,722,847.94	36.24773635	-107.83415991
Menefee									
2,700.00	13.01	199.221	2,663.76	-315.55	-110.01	1,909,454.04	2,722,840.81	36.24768016	-107.83418410
2,800.00	13.01	199.221	2,761.19	-336.81	-117.43	1,909,432.78	2,722,833.40	36.24762175	-107.83420924
2,900.00	13.01	199.221	2,858.62	-358.08	-124.84	1,909,411.51	2,722,825.98	36.24756333	-107.83423438
3,000.00	13.01	199.221	2,956.05	-379.34	-132.25	1,909,390.25	2,722,818.57	36.24750492	-107.83425952
3,100.00	13.01	199.221	3,053.49	-400.60	-139.67	1,909,368.99	2,722,811.16	36.24744651	-107.83428466



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	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	13.01	199.221	3,150.92	-421.87	-147.08	1,909,347.73	2,722,803.75	36.24738810	-107.83430980
3,300.00	13.01	199.221	3,248.35	-443.13	-154.49	1,909,326.46	2,722,796.33	36.24732969	-107.83433494
3,400.00	13.01	199.221	3,345.78	-464.39	-161.91	1,909,305.20	2,722,788.92	36.24727128	-107.83436008
3,500.00	13.01	199.221	3,443.21	-485.65	-169.32	1,909,283.94	2,722,781.51	36.24721287	-107.83438522
3,600.00	13.01	199.221	3,540.65	-506.92	-176.73	1,909,262.67	2,722,774.09	36.24715446	-107.83441036
3,679.67	13.01	199.221	3,618.27	-523.86	-182.64	1,909,245.73	2,722,768.19	36.24710792	-107.83443039
Point Lookout									
3,700.00	13.01	199.221	3,638.08	-528.18	-184.15	1,909,241.41	2,722,766.68	36.24709605	-107.83443550
3,783.73	13.01	199.221	3,719.66	-545.98	-190.35	1,909,223.61	2,722,760.47	36.24704714	-107.83445655
Begin 3°/100' drop									
3,800.00	12.53	199.221	3,735.52	-549.38	-191.54	1,909,220.21	2,722,759.29	36.24703781	-107.83446056
3,815.00	12.08	199.221	3,750.18	-552.40	-192.59	1,909,217.20	2,722,758.24	36.24702952	-107.83446413
Mancos									
3,900.00	9.53	199.221	3,833.67	-567.44	-197.83	1,909,202.16	2,722,752.99	36.24698821	-107.83448191
4,000.00	6.53	199.221	3,932.68	-580.62	-202.43	1,909,188.98	2,722,748.40	36.24695200	-107.83449750
4,100.00	3.53	199.221	4,032.28	-588.89	-205.31	1,909,180.70	2,722,745.51	36.24692928	-107.83450728
4,167.84	1.49	199.221	4,100.05	-591.69	-206.29	1,909,177.90	2,722,744.54	36.24692158	-107.83451059
MNCS_A									
4,200.00	0.53	199.221	4,132.21	-592.22	-206.47	1,909,177.37	2,722,744.35	36.24692011	-107.83451122
4,217.51	0.00	0.000	4,149.72	-592.30	-206.50	1,909,177.29	2,722,744.32	36.24691990	-107.83451131
Begin vertical hold									
4,277.84	0.00	0.000	4,210.05	-592.30	-206.50	1,909,177.29	2,722,744.32	36.24691990	-107.83451131
MNCS_B									
4,300.00	0.00	0.000	4,232.21	-592.30	-206.50	1,909,177.29	2,722,744.32	36.24691990	-107.83451131
4,317.51	0.00	0.000	4,249.72	-592.30	-206.50	1,909,177.29	2,722,744.32	36.24691990	-107.83451131
Begin 10°/100' build									
4,350.00	3.25	303.600	4,282.19	-591.79	-207.27	1,909,177.80	2,722,743.56	36.24692130	-107.83451391
4,357.89	4.04	303.600	4,290.06	-591.51	-207.68	1,909,178.08	2,722,743.14	36.24692206	-107.83451533
MNCS_C									
4,398.15	8.06	303.600	4,330.09	-589.17	-211.22	1,909,180.43	2,722,739.61	36.24692851	-107.83452731
MNCS_Cms									
4,400.00	8.25	303.600	4,331.92	-589.02	-211.44	1,909,180.57	2,722,739.39	36.24692891	-107.83452805
4,450.00	13.25	303.600	4,381.03	-583.86	-219.20	1,909,185.73	2,722,731.62	36.24694308	-107.83455439
4,500.00	18.25	303.600	4,429.14	-576.35	-230.50	1,909,193.24	2,722,720.32	36.24696371	-107.83459271
4,538.58	22.11	303.600	4,465.34	-568.99	-241.58	1,909,200.60	2,722,709.24	36.24698393	-107.83463029
MNCS_D									
4,550.00	23.25	303.600	4,475.88	-566.55	-245.25	1,909,203.04	2,722,705.57	36.24699063	-107.83464273
4,600.00	28.25	303.600	4,520.90	-554.54	-263.34	1,909,215.05	2,722,687.49	36.24702364	-107.83470407
4,650.00	33.25	303.600	4,563.86	-540.40	-284.62	1,909,229.20	2,722,666.20	36.24706249	-107.83477626
4,695.52	37.80	303.600	4,600.89	-525.76	-306.64	1,909,243.83	2,722,644.18	36.24710268	-107.83485095
MNCS_E									
4,700.00	38.25	303.600	4,604.42	-524.24	-308.95	1,909,245.36	2,722,641.88	36.24710688	-107.83485875
4,750.00	43.25	303.600	4,642.29	-506.18	-336.12	1,909,263.41	2,722,614.70	36.24715648	-107.83495091
4,798.82	48.13	303.600	4,676.38	-486.85	-365.21	1,909,282.74	2,722,585.61	36.24720957	-107.83504957
MNCS_F									
4,800.00	48.25	303.600	4,677.17	-486.37	-365.94	1,909,283.22	2,722,584.88	36.24721090	-107.83505205
4,850.00	53.25	303.600	4,708.80	-464.95	-398.18	1,909,304.64	2,722,552.64	36.24726974	-107.83516139
4,900.00	58.25	303.600	4,736.93	-442.08	-432.59	1,909,327.51	2,722,518.23	36.24733255	-107.83527810
4,900.04	58.25	303.600	4,736.95	-442.06	-432.63	1,909,327.53	2,722,518.20	36.24733261	-107.83527821
MNCS_G									
4,950.00	63.25	303.600	4,761.35	-417.95	-468.92	1,909,351.64	2,722,481.91	36.24739884	-107.83540129
5,000.00	68.25	303.600	4,781.88	-392.73	-506.88	1,909,376.86	2,722,443.95	36.24746812	-107.83553003



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	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
5,017.51	70.00	303.600	4,788.12	-383.67	-520.51	1,909,385.92	2,722,430.32	36.24749300	-107.83557625
Begin 10°/100' build/turn									
5,050.00	72.79	305.353	4,798.49	-366.25	-545.88	1,909,403.35	2,722,404.94	36.24754088	-107.83566231
5,100.00	77.12	307.951	4,811.47	-337.42	-584.60	1,909,432.17	2,722,366.22	36.24762005	-107.83579363
5,135.82	80.23	309.757	4,818.50	-315.39	-611.95	1,909,454.20	2,722,338.88	36.24768058	-107.83588637
MNCS_I									
5,150.00	81.47	310.461	4,820.76	-306.37	-622.65	1,909,463.22	2,722,328.17	36.24770535	-107.83592268
5,200.00	85.83	312.915	4,826.29	-273.33	-659.75	1,909,496.26	2,722,291.08	36.24779612	-107.83604849
5,212.58	86.93	313.527	4,827.08	-264.73	-668.90	1,909,504.86	2,722,281.93	36.24781974	-107.83607951
7" Intermediate Casing									
5,242.98	89.59	315.001	4,828.00	-243.52	-690.65	1,909,526.07	2,722,260.17	36.24787799	-107.83615331
Begin 89.59° lateral									
5,300.00	89.59	315.001	4,828.41	-203.21	-730.97	1,909,566.39	2,722,219.85	36.24798874	-107.83629005
5,400.00	89.59	315.001	4,829.12	-132.49	-801.68	1,909,637.10	2,722,149.15	36.24818298	-107.83652985
5,500.00	89.59	315.001	4,829.84	-61.78	-872.39	1,909,707.81	2,722,078.44	36.24837722	-107.83676966
5,600.00	89.59	315.001	4,830.55	8.93	-943.09	1,909,778.52	2,722,007.73	36.24857146	-107.83700948
5,700.00	89.59	315.001	4,831.26	79.64	-1,013.80	1,909,849.23	2,721,937.02	36.24876570	-107.83724929
5,800.00	89.59	315.001	4,831.98	150.35	-1,084.51	1,909,919.94	2,721,866.32	36.24895994	-107.83748910
5,900.00	89.59	315.001	4,832.69	221.06	-1,155.22	1,909,990.65	2,721,795.61	36.24915418	-107.83772892
6,000.00	89.59	315.001	4,833.40	291.77	-1,225.92	1,910,061.36	2,721,724.90	36.24934842	-107.83796873
6,100.00	89.59	315.001	4,834.12	362.48	-1,296.63	1,910,132.07	2,721,654.20	36.24954265	-107.83820855
6,200.00	89.59	315.001	4,834.83	433.19	-1,367.34	1,910,202.78	2,721,583.49	36.24973689	-107.83844837
6,300.00	89.59	315.001	4,835.55	503.90	-1,438.05	1,910,273.49	2,721,512.78	36.24993112	-107.83868819
6,400.00	89.59	315.001	4,836.26	574.61	-1,508.75	1,910,344.20	2,721,442.07	36.25012536	-107.83892801
6,500.00	89.59	315.001	4,836.97	645.32	-1,579.46	1,910,414.91	2,721,371.37	36.25031959	-107.83916783
6,600.00	89.59	315.001	4,837.69	716.03	-1,650.17	1,910,485.62	2,721,300.66	36.25051383	-107.83940766
6,700.00	89.59	315.001	4,838.40	786.74	-1,720.88	1,910,556.33	2,721,229.95	36.25070806	-107.83964748
6,800.00	89.59	315.001	4,839.11	857.45	-1,791.58	1,910,627.04	2,721,159.24	36.25090230	-107.83988731
6,900.00	89.59	315.001	4,839.83	928.16	-1,862.29	1,910,697.75	2,721,088.54	36.25109653	-107.84012713
7,000.00	89.59	315.001	4,840.54	998.87	-1,933.00	1,910,768.46	2,721,017.83	36.25129076	-107.84036696
7,100.00	89.59	315.001	4,841.25	1,069.58	-2,003.71	1,910,839.17	2,720,947.12	36.25148499	-107.84060679
7,200.00	89.59	315.001	4,841.97	1,140.29	-2,074.42	1,910,909.88	2,720,876.41	36.25167922	-107.84084662
7,300.00	89.59	315.001	4,842.68	1,211.00	-2,145.12	1,910,980.59	2,720,805.71	36.25187345	-107.84108645
7,400.00	89.59	315.001	4,843.40	1,281.71	-2,215.83	1,911,051.30	2,720,735.00	36.25206768	-107.84132628
7,500.00	89.59	315.001	4,844.11	1,352.42	-2,286.54	1,911,122.01	2,720,664.29	36.25226191	-107.84156612
7,600.00	89.59	315.001	4,844.82	1,423.13	-2,357.25	1,911,192.72	2,720,593.58	36.25245614	-107.84180595
7,700.00	89.59	315.001	4,845.54	1,493.84	-2,427.95	1,911,263.43	2,720,522.88	36.25265037	-107.84204579
7,800.00	89.59	315.001	4,846.25	1,564.55	-2,498.66	1,911,334.14	2,720,452.17	36.25284460	-107.84228563
7,900.00	89.59	315.001	4,846.96	1,635.26	-2,569.37	1,911,404.85	2,720,381.46	36.25303883	-107.84252547
8,000.00	89.59	315.001	4,847.68	1,705.97	-2,640.08	1,911,475.56	2,720,310.75	36.25323306	-107.84276531
8,100.00	89.59	315.001	4,848.39	1,776.68	-2,710.78	1,911,546.27	2,720,240.05	36.25342728	-107.84300515
8,200.00	89.59	315.001	4,849.10	1,847.39	-2,781.49	1,911,616.98	2,720,169.34	36.25362151	-107.84324499
8,300.00	89.59	315.001	4,849.82	1,918.10	-2,852.20	1,911,687.69	2,720,098.63	36.25381574	-107.84348483
8,400.00	89.59	315.001	4,850.53	1,988.81	-2,922.91	1,911,758.40	2,720,027.92	36.25400996	-107.84372468
8,500.00	89.59	315.001	4,851.25	2,059.52	-2,993.61	1,911,829.11	2,719,957.22	36.25420419	-107.84396452
8,600.00	89.59	315.001	4,851.96	2,130.23	-3,064.32	1,911,899.82	2,719,886.51	36.25439841	-107.84420437
8,700.00	89.59	315.001	4,852.67	2,200.94	-3,135.03	1,911,970.53	2,719,815.80	36.25459263	-107.84444422
8,800.00	89.59	315.001	4,853.39	2,271.65	-3,205.74	1,912,041.24	2,719,745.09	36.25478686	-107.84468407
8,900.00	89.59	315.001	4,854.10	2,342.36	-3,276.44	1,912,111.95	2,719,674.39	36.25498108	-107.84492392
9,000.00	89.59	315.001	4,854.81	2,413.07	-3,347.15	1,912,182.66	2,719,603.68	36.25517530	-107.84516377
9,100.00	89.59	315.001	4,855.53	2,483.78	-3,417.86	1,912,253.37	2,719,532.97	36.25536953	-107.84540362
9,200.00	89.59	315.001	4,856.24	2,554.49	-3,488.57	1,912,324.08	2,719,462.27	36.25556375	-107.84564348
9,300.00	89.59	315.001	4,856.95	2,625.20	-3,559.27	1,912,394.79	2,719,391.56	36.25575797	-107.84588333
9,400.00	89.59	315.001	4,857.67	2,695.91	-3,629.98	1,912,465.50	2,719,320.85	36.25595219	-107.84612319



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111, 112, 114-117, 120, 136)	North Reference:	Grid
Well:	Ponderosa 112H	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	
9,500.00	89.59	315.001	4,858.38	2,766.62	-3,700.69	1,912,536.21	2,719,250.14	36.25614641	-107.84636305	
9,600.00	89.59	315.001	4,859.10	2,837.33	-3,771.40	1,912,606.92	2,719,179.44	36.25634063	-107.84660291	
9,700.00	89.59	315.001	4,859.81	2,908.04	-3,842.10	1,912,677.63	2,719,108.73	36.25653485	-107.84684277	
9,800.00	89.59	315.001	4,860.52	2,978.75	-3,912.81	1,912,748.34	2,719,038.02	36.25672907	-107.84708263	
9,900.00	89.59	315.001	4,861.24	3,049.46	-3,983.52	1,912,819.05	2,718,967.31	36.25692328	-107.84732249	
10,000.00	89.59	315.001	4,861.95	3,120.17	-4,054.23	1,912,889.76	2,718,896.61	36.25711750	-107.84756235	
10,100.00	89.59	315.001	4,862.66	3,190.88	-4,124.93	1,912,960.47	2,718,825.90	36.25731172	-107.84780222	
10,200.00	89.59	315.001	4,863.38	3,261.59	-4,195.64	1,913,031.18	2,718,755.19	36.25750594	-107.84804208	
10,300.00	89.59	315.001	4,864.09	3,332.30	-4,266.35	1,913,101.89	2,718,684.48	36.25770015	-107.84828195	
10,400.00	89.59	315.001	4,864.80	3,403.02	-4,337.06	1,913,172.60	2,718,613.78	36.25789437	-107.84852182	
10,500.00	89.59	315.001	4,865.52	3,473.73	-4,407.76	1,913,243.31	2,718,543.07	36.25808858	-107.84876169	
10,600.00	89.59	315.001	4,866.23	3,544.44	-4,478.47	1,913,314.02	2,718,472.36	36.25828280	-107.84900156	
10,700.00	89.59	315.001	4,866.95	3,615.15	-4,549.18	1,913,384.73	2,718,401.65	36.25847701	-107.84924143	
10,800.00	89.59	315.001	4,867.66	3,685.86	-4,619.89	1,913,455.44	2,718,330.95	36.25867123	-107.84948131	
10,900.00	89.59	315.001	4,868.37	3,756.57	-4,690.59	1,913,526.15	2,718,260.24	36.25886544	-107.84972118	
11,000.00	89.59	315.001	4,869.09	3,827.28	-4,761.30	1,913,596.86	2,718,189.53	36.25905965	-107.84996106	
11,100.00	89.59	315.001	4,869.80	3,897.99	-4,832.01	1,913,667.57	2,718,118.82	36.25925386	-107.85020093	
11,200.00	89.59	315.001	4,870.51	3,968.70	-4,902.72	1,913,738.28	2,718,048.12	36.25944808	-107.85044081	
11,300.00	89.59	315.001	4,871.23	4,039.41	-4,973.42	1,913,808.99	2,717,977.41	36.25964229	-107.85068069	
11,400.00	89.59	315.001	4,871.94	4,110.12	-5,044.13	1,913,879.70	2,717,906.70	36.25983650	-107.85092057	
11,500.00	89.59	315.001	4,872.65	4,180.83	-5,114.84	1,913,950.41	2,717,835.99	36.26003071	-107.85116045	
11,600.00	89.59	315.001	4,873.37	4,251.54	-5,185.55	1,914,021.12	2,717,765.29	36.26022492	-107.85140033	
11,700.00	89.59	315.001	4,874.08	4,322.25	-5,256.26	1,914,091.83	2,717,694.58	36.26041913	-107.85164022	
11,800.00	89.59	315.001	4,874.80	4,392.96	-5,326.96	1,914,162.54	2,717,623.87	36.26061334	-107.85188010	
11,900.00	89.59	315.001	4,875.51	4,463.67	-5,397.67	1,914,233.25	2,717,553.16	36.26080755	-107.85211999	
12,000.00	89.59	315.001	4,876.22	4,534.38	-5,468.38	1,914,303.96	2,717,482.46	36.26100175	-107.85235988	
12,100.00	89.59	315.001	4,876.94	4,605.09	-5,539.09	1,914,374.67	2,717,411.75	36.26119596	-107.85259976	
12,200.00	89.59	315.001	4,877.65	4,675.80	-5,609.79	1,914,445.38	2,717,341.04	36.26139017	-107.85283965	
12,300.00	89.59	315.001	4,878.36	4,746.51	-5,680.50	1,914,516.09	2,717,270.34	36.26158437	-107.85307955	
12,400.00	89.59	315.001	4,879.08	4,817.22	-5,751.21	1,914,586.80	2,717,199.63	36.26177858	-107.85331944	
12,500.00	89.59	315.001	4,879.79	4,887.93	-5,821.92	1,914,657.51	2,717,128.92	36.26197279	-107.85355933	
12,600.00	89.59	315.001	4,880.50	4,958.64	-5,892.62	1,914,728.22	2,717,058.21	36.26216699	-107.85379923	
12,700.00	89.59	315.001	4,881.22	5,029.35	-5,963.33	1,914,798.93	2,716,987.51	36.26236120	-107.85403912	
12,809.58	89.59	315.001	4,882.00	5,106.83	-6,040.81	1,914,876.41	2,716,910.03	36.26257400	-107.85430200	
PBHL/TD 12809.58 MD 4882.00 TVD										



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
Ponderosa 112 vert	0.00	0.000	4,255.06	-650.25	-283.94	1,909,119.34	2,722,666.88	36.24676071	-107.83477394
- plan misses target center by 96.71ft at 4323.77ft MD (4255.98 TVD, -592.28 N, -206.53 E)									
- Point									
Ponderosa 112 POE 440	0.00	0.000	4,795.00	-383.67	-550.51	1,909,385.92	2,722,400.32	36.24749300	-107.83567800
- plan misses target center by 16.97ft at 5043.15ft MD (4796.43 TVD, -370.01 N, -540.54 E)									
- Point									
Ponderosa 112 VS=0	0.00	0.000	4,827.00	-467.08	-467.10	1,909,302.51	2,722,483.73	36.24726388	-107.83539512
- plan misses target center by 81.98ft at 4950.79ft MD (4761.71 TVD, -417.56 N, -469.51 E)									
- Point									
Ponderosa 112 BHL 232	0.00	0.000	4,882.00	5,106.83	-6,040.81	1,914,876.41	2,716,910.03	36.26257400	-107.85430200
- plan hits target center									
- Point									

Casing Points					
	Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter
	(ft)	(ft)	Name	(")	(")
	350.00	350.00	9-5/8" Surface Casing	9-5/8	12-1/4
	5,212.58	4,827.08	7" Intermediate Casing	7	8-3/4

Formations						
	Measured Depth	Vertical Depth			Dip	Dip
	(ft)	(ft)	Name	Lithology	(°)	Direction (°)
	431.00	431.00	Ojo Alamo		0.410	315.001
	522.00	522.00	Kirtland		0.410	315.001
	776.00	776.00	Fruitland		0.410	315.001
	1,179.24	1,178.97	Pictured Cliffs		0.410	315.001
	1,339.69	1,337.91	Lewis		0.410	315.001
	1,548.43	1,541.77	Chacra		0.410	315.001
	2,595.59	2,562.03	Cliff House		0.410	315.001
	2,603.80	2,570.03	Menefee		0.410	315.001
	3,679.67	3,618.27	Point Lookout		0.410	315.001
	3,815.00	3,750.18	Mancos		0.410	315.001
	4,167.84	4,100.05	MNCS_A		0.410	315.001
	4,277.84	4,210.05	MNCS_B		0.410	315.001
	4,357.89	4,290.06	MNCS_C		0.410	315.001
	4,398.15	4,330.09	MNCS_Cms		0.410	315.001
	4,538.58	4,465.34	MNCS_D		0.410	315.001
	4,695.52	4,600.89	MNCS_E		0.410	315.001
	4,798.82	4,676.38	MNCS_F		0.410	315.001
	4,900.04	4,736.95	MNCS_G		0.410	315.001
	5,135.82	4,818.50	MNCS_I		0.410	315.001



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Ponderosa 112H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6802+25 @ 6827.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6802+25 @ 6827.00ft
Site:	Ponderosa (99, 111,112,114-117,120,136)	North Reference:	Grid
Well:	Ponderosa 112H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,000.00	1,000.00	0.00	0.00	KOP Begin 3°/10' build	
1,433.78	1,430.06	-46.32	-16.15	Begin 13.01° tangent	
3,783.73	3,719.66	-545.98	-190.35	Begin 3°/100' drop	
4,217.51	4,149.72	-592.30	-206.50	Begin vertical hold	
4,317.51	4,249.72	-592.30	-206.50	Begin 10°/100' build	
5,017.51	4,788.12	-383.67	-520.51	Begin 10°/100' build/turn	
5,242.98	4,828.00	-243.52	-690.65	Begin 89.59° lateral	
12,809.58	4,882.00	5,106.83	-6,040.81	PBHL/TD 12809.58 MD 4882.00 TVD	



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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 1,480.96ft	Error Surface:	Ellipsoid Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	7/29/2024		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	12,809.58	rev0 (Original Hole)	MWD	OWSG MWD - Standard	

Summary						
Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation	Warning
	Measured	Measured	Between	Between		
	Depth	Depth	Centres	Ellipses	Factor	
	(ft)	(ft)	(ft)	(ft)		
Ponderosa (99, 111,112,114-117,120,136)						
Ponderosa 099H - Original Hole - rev0	800.00	800.00	60.14	54.59	10.824	CC, ES
Ponderosa 099H - Original Hole - rev0	1,000.00	996.15	65.97	59.01	9.484	SF
Ponderosa 111H - Original Hole - rev0	1,000.00	1,000.00	19.97	12.98	2.856	CC, ES
Ponderosa 111H - Original Hole - rev0	12,200.00	11,891.10	716.05	447.52	2.667	SF
Ponderosa 114H - Original Hole - rev0	1,000.00	1,000.00	39.96	32.97	5.717	CC
Ponderosa 114H - Original Hole - rev0	4,930.00	4,963.62	62.30	26.34	1.732	Level 3<2.00, ES, SF
Ponderosa 115H - Original Hole - rev0	1,000.00	1,000.00	99.65	92.66	14.256	CC, ES
Ponderosa 115H - Original Hole - rev0	1,200.00	1,194.21	112.41	104.07	13.473	SF
Ponderosa 116H - Original Hole - rev0	1,000.00	1,000.00	79.66	72.67	11.396	CC, ES
Ponderosa 116H - Original Hole - rev0	1,300.00	1,298.02	89.55	80.48	9.874	SF
Ponderosa 117H - Original Hole - rev0	1,000.00	1,000.00	40.17	33.18	5.747	CC, ES
Ponderosa 117H - Original Hole - rev0	11,600.00	11,729.63	1,200.26	884.47	3.801	SF
Ponderosa 120H - Original Hole - rev0	1,000.00	1,000.00	59.93	52.94	8.574	CC
Ponderosa 120H - Original Hole - rev0	1,100.00	1,100.06	60.60	52.91	7.883	ES
Ponderosa 120H - Original Hole - rev0	1,200.00	1,198.56	65.01	56.65	7.769	SF
Ponderosa 136H - Original Hole - rev0	500.00	500.00	19.76	16.35	5.802	CC, ES
Ponderosa 136H - Original Hole - rev0	600.00	599.07	21.94	17.83	5.336	SF

Offset Design:	Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 099H - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	0.00	0.00	0.00	125.526	-34.95	48.95	60.14					
100.00	100.00	100.00	100.00	0.27	0.27	125.526	-34.95	48.95	60.14	59.60	0.54	111.848		
200.00	200.00	200.00	200.00	0.63	0.63	125.526	-34.95	48.95	60.14	58.89	1.25	47.935		
300.00	300.00	300.00	300.00	0.99	0.99	125.526	-34.95	48.95	60.14	58.17	1.97	30.504		
400.00	400.00	400.00	400.00	1.34	1.34	125.526	-34.95	48.95	60.14	57.45	2.69	22.370		
500.00	500.00	500.00	500.00	1.70	1.70	125.526	-34.95	48.95	60.14	56.74	3.41	17.660		
600.00	600.00	600.00	600.00	2.06	2.06	125.526	-34.95	48.95	60.14	56.02	4.12	14.589		
700.00	700.00	700.00	700.00	2.42	2.42	125.526	-34.95	48.95	60.14	55.30	4.84	12.428		
800.00	800.00	800.00	800.00	2.78	2.78	125.526	-34.95	48.95	60.14	54.59	5.56	10.824	CC, ES	
900.00	900.00	898.34	898.29	3.14	3.13	123.494	-33.92	51.26	61.49	55.23	6.26	9.821		
1,000.00	1,000.00	996.15	995.81	3.50	3.47	117.962	-30.87	58.15	65.97	59.01	6.96	9.484	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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 099H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		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	
1,100.00	1,099.95	1,092.64	1,091.50	3.84	3.83	-90.453	-25.88	69.40	74.54	66.93	7.62	9.788	
1,200.00	1,199.63	1,186.53	1,183.89	4.17	4.19	-102.097	-19.15	84.58	89.90	81.67	8.23	10.925	
1,300.00	1,298.77	1,276.72	1,271.78	4.51	4.56	-112.736	-10.96	103.06	114.59	105.78	8.81	13.002	
1,400.00	1,397.08	1,362.32	1,354.23	4.87	4.94	-120.867	-1.64	124.08	149.19	139.81	9.38	15.908	
1,500.00	1,494.58	1,443.10	1,431.02	5.26	5.34	-127.137	8.52	147.00	192.44	182.52	9.91	19.412	
1,600.00	1,592.01	1,520.27	1,503.32	5.67	5.76	-131.396	19.44	171.65	241.11	230.68	10.43	23.121	
1,700.00	1,689.44	1,596.45	1,573.60	6.10	6.20	-134.264	31.35	198.50	293.91	282.95	10.96	26.816	
1,800.00	1,786.87	1,679.83	1,650.17	6.54	6.73	-136.476	44.72	228.68	348.12	336.49	11.63	29.941	
1,900.00	1,884.31	1,763.20	1,726.73	6.99	7.27	-138.097	58.10	258.85	402.61	390.30	12.31	32.716	
2,000.00	1,981.74	1,846.58	1,803.29	7.45	7.83	-139.335	71.48	289.03	457.27	444.27	13.00	35.186	
2,100.00	2,079.17	1,929.95	1,879.86	7.92	8.41	-140.310	84.85	319.21	512.04	498.35	13.69	37.391	
2,200.00	2,176.60	2,013.33	1,956.42	8.39	8.99	-141.098	98.23	349.39	566.91	552.50	14.40	39.366	
2,300.00	2,274.03	2,096.71	2,032.98	8.87	9.58	-141.747	111.61	379.56	621.83	606.72	15.12	41.140	
2,400.00	2,371.46	2,180.08	2,109.55	9.35	10.18	-142.291	124.98	409.74	676.80	660.97	15.84	42.738	
2,500.00	2,468.90	2,263.46	2,186.11	9.84	10.79	-142.753	138.36	439.92	731.81	715.25	16.56	44.186	
2,600.00	2,566.33	2,346.83	2,262.67	10.33	11.40	-143.152	151.74	470.10	786.85	769.55	17.29	45.502	
2,700.00	2,663.76	2,430.21	2,339.24	10.82	12.02	-143.498	165.11	500.27	841.91	823.88	18.03	46.702	
2,800.00	2,761.19	2,513.59	2,415.80	11.31	12.64	-143.801	178.49	530.45	896.98	878.22	18.77	47.799	
2,900.00	2,858.62	2,596.96	2,492.36	11.81	13.26	-144.070	191.87	560.63	952.08	932.57	19.51	48.806	
3,000.00	2,956.05	2,680.34	2,568.93	12.31	13.88	-144.309	205.24	590.81	1,007.18	986.93	20.25	49.732	
3,100.00	3,053.49	2,763.71	2,645.49	12.81	14.51	-144.524	218.62	620.98	1,062.30	1,041.30	21.00	50.586	
3,200.00	3,150.92	2,847.09	2,722.05	13.31	15.14	-144.717	232.00	651.16	1,117.43	1,095.68	21.75	51.376	
3,300.00	3,248.35	2,930.47	2,798.62	13.81	15.77	-144.893	245.37	681.34	1,172.56	1,150.06	22.50	52.108	
3,400.00	3,345.78	3,013.84	2,875.18	14.31	16.40	-145.052	258.75	711.52	1,227.71	1,204.45	23.26	52.789	
3,500.00	3,443.21	3,097.22	2,951.74	14.82	17.04	-145.198	272.13	741.69	1,282.85	1,258.84	24.01	53.423	
3,600.00	3,540.65	3,180.59	3,028.31	15.32	17.67	-145.332	285.50	771.87	1,338.01	1,313.24	24.77	54.014	
3,700.00	3,638.08	3,263.97	3,104.87	15.83	18.31	-145.455	298.88	802.05	1,393.17	1,367.64	25.53	54.567	
3,800.00	3,735.52	3,347.38	3,181.46	16.34	18.95	-145.748	312.26	832.24	1,448.28	1,421.99	26.29	55.085	

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 111H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		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	
0.00	0.00	0.00	0.00	0.00	0.00	125.690	-11.65	16.22	19.97				
100.00	100.00	100.00	100.00	0.27	0.27	125.690	-11.65	16.22	19.97	19.43	0.54	37.134	
200.00	200.00	200.00	200.00	0.63	0.63	125.690	-11.65	16.22	19.97	18.71	1.25	15.915	
300.00	300.00	300.00	300.00	0.99	0.99	125.690	-11.65	16.22	19.97	18.00	1.97	10.127	
400.00	400.00	400.00	400.00	1.34	1.34	125.690	-11.65	16.22	19.97	17.28	2.69	7.427	
500.00	500.00	500.00	500.00	1.70	1.70	125.690	-11.65	16.22	19.97	16.56	3.41	5.863	
600.00	600.00	600.00	600.00	2.06	2.06	125.690	-11.65	16.22	19.97	15.84	4.12	4.844	
700.00	700.00	700.00	700.00	2.42	2.42	125.690	-11.65	16.22	19.97	15.13	4.84	4.126	
800.00	800.00	800.00	800.00	2.78	2.78	125.690	-11.65	16.22	19.97	14.41	5.56	3.594	
900.00	900.00	900.00	900.00	3.14	3.14	125.690	-11.65	16.22	19.97	13.69	6.27	3.183	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	125.690	-11.65	16.22	19.97	12.98	6.99	2.856 CC, ES	
1,100.00	1,099.95	1,099.03	1,098.98	3.84	3.83	-77.087	-13.91	17.43	21.60	13.93	7.66	2.818	
1,200.00	1,199.63	1,197.80	1,197.44	4.17	4.16	-84.995	-20.67	21.06	26.86	18.56	8.30	3.236	
1,300.00	1,298.77	1,296.06	1,294.87	4.51	4.50	-92.743	-31.83	27.05	36.30	27.35	8.96	4.054	
1,400.00	1,397.08	1,394.26	1,391.57	4.87	4.85	-98.932	-46.94	35.15	49.78	40.12	9.66	5.153	
1,500.00	1,494.58	1,492.87	1,488.52	5.26	5.23	-105.540	-62.77	43.65	65.04	54.61	10.42	6.238	
1,600.00	1,592.01	1,591.44	1,585.45	5.67	5.62	-109.904	-78.60	52.15	80.94	69.73	11.21	7.219	
1,700.00	1,689.44	1,690.02	1,682.37	6.10	6.02	-112.826	-94.43	60.64	97.16	85.14	12.02	8.084	
1,800.00	1,786.87	1,788.60	1,779.30	6.54	6.43	-114.910	-110.25	69.14	113.55	100.71	12.84	8.843	
1,900.00	1,884.31	1,887.17	1,876.22	6.99	6.84	-116.467	-126.08	77.63	130.05	116.37	13.68	9.509	
2,000.00	1,981.74	1,985.75	1,973.15	7.45	7.26	-117.673	-141.91	86.13	146.62	132.09	14.52	10.095	
2,100.00	2,079.17	2,084.32	2,070.07	7.92	7.69	-118.634	-157.74	94.62	163.24	147.86	15.38	10.614	
2,200.00	2,176.60	2,182.90	2,166.99	8.39	8.12	-119.418	-173.57	103.12	179.90	163.65	16.25	11.074	
2,300.00	2,274.03	2,281.47	2,263.92	8.87	8.55	-120.068	-189.40	111.61	196.58	179.47	17.12	11.484	
2,400.00	2,371.46	2,380.05	2,360.84	9.35	8.99	-120.617	-205.23	120.11	213.29	195.30	18.00	11.852	
2,500.00	2,468.90	2,478.62	2,457.77	9.84	9.43	-121.086	-221.05	128.60	230.01	211.14	18.88	12.184	
2,600.00	2,566.33	2,577.20	2,554.69	10.33	9.87	-121.492	-236.88	137.10	246.75	226.98	19.77	12.483	
2,700.00	2,663.76	2,675.78	2,651.62	10.82	10.31	-121.846	-252.71	145.59	263.50	242.84	20.66	12.755	
2,800.00	2,761.19	2,774.35	2,748.54	11.31	10.76	-122.157	-268.54	154.09	280.25	258.70	21.55	13.002	
2,900.00	2,858.62	2,872.93	2,845.47	11.81	11.20	-122.434	-284.37	162.58	297.01	274.56	22.45	13.229	
3,000.00	2,956.05	2,971.50	2,942.39	12.31	11.65	-122.681	-300.20	171.08	313.78	290.43	23.35	13.436	
3,100.00	3,053.49	3,070.08	3,039.32	12.81	12.10	-122.903	-316.03	179.57	330.56	306.30	24.26	13.627	
3,200.00	3,150.92	3,168.65	3,136.24	13.31	12.55	-123.103	-331.85	188.07	347.33	322.17	25.16	13.804	
3,300.00	3,248.35	3,270.94	3,237.14	13.81	13.00	-123.594	-346.58	195.97	363.69	337.61	26.08	13.947	
3,400.00	3,345.78	3,373.74	3,339.29	14.31	13.41	-124.856	-356.63	201.36	378.97	352.03	26.94	14.068	
3,500.00	3,443.21	3,475.76	3,441.13	14.82	13.78	-126.795	-361.80	204.14	393.46	365.74	27.72	14.192	
3,600.00	3,540.65	3,575.28	3,540.65	15.32	14.09	-129.220	-362.60	204.57	407.70	379.28	28.42	14.345	
3,700.00	3,638.08	3,672.71	3,638.08	15.83	14.38	-131.552	-362.60	204.57	422.51	393.43	29.08	14.531	
3,800.00	3,735.52	3,770.16	3,735.52	16.34	14.67	-133.777	-362.60	204.57	437.93	408.21	29.72	14.733	
3,900.00	3,833.67	3,868.30	3,833.67	16.81	14.97	-135.801	-362.60	204.57	451.53	421.17	30.37	14.870	
4,000.00	3,932.68	3,980.94	3,946.02	17.24	15.28	-138.057	-358.11	200.74	460.68	429.68	31.01	14.858	
4,100.00	4,032.28	4,092.12	4,053.83	17.61	15.51	-142.100	-337.97	183.57	463.30	431.91	31.40	14.756	
4,200.00	4,132.21	4,190.06	4,143.02	17.94	15.65	-147.270	-307.40	157.51	462.30	430.72	31.58	14.638	
4,234.95	4,167.16	4,220.77	4,169.43	18.03	15.69	-149.224	-295.48	147.34	462.02	430.42	31.60	14.622	
4,300.00	4,232.21	4,272.94	4,212.24	18.21	15.77	46.317	-272.82	128.02	463.00	431.46	31.55	14.677	
4,400.00	4,331.92	4,344.11	4,265.93	18.48	15.88	96.489	-237.31	97.75	472.92	441.69	31.22	15.146	
4,500.00	4,429.14	4,411.26	4,310.92	18.72	16.04	89.878	-199.42	65.44	493.60	462.92	30.68	16.088	
4,600.00	4,520.90	4,475.52	4,348.23	18.92	16.25	83.292	-159.64	31.53	522.21	492.18	30.04	17.386	
4,700.00	4,604.42	4,537.58	4,378.50	19.10	16.52	77.060	-118.44	-3.60	555.83	526.38	29.45	18.871	
4,800.00	4,677.17	4,598.62	4,402.39	19.24	16.86	71.425	-75.72	-40.02	591.91	562.80	29.11	20.335	
4,900.00	4,736.93	4,650.00	4,417.78	19.39	17.21	66.698	-38.43	-71.81	628.46	599.44	29.01	21.660	
5,000.00	4,781.88	4,715.37	4,430.91	19.60	17.75	62.577	10.28	-113.34	663.68	634.13	29.55	22.463	

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 111H - 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)			
5,100.00	4,811.47	4,773.36	4,436.39	20.04	18.29	59.205	54.19	-150.78	694.44	664.06	30.38	22.856	
5,200.00	4,826.29	4,885.62	4,437.57	20.83	19.54	57.198	138.18	-225.23	713.61	681.46	32.15	22.197	
5,300.00	4,828.41	5,004.59	4,438.41	21.88	21.12	56.974	222.98	-308.66	715.59	681.09	34.50	20.743	
5,400.00	4,829.12	5,104.59	4,439.12	23.14	22.64	56.974	293.69	-379.37	715.60	678.68	36.92	19.384	
5,500.00	4,829.84	5,204.59	4,439.82	24.58	24.27	56.973	364.40	-450.08	715.60	676.03	39.57	18.085	
5,600.00	4,830.55	5,304.59	4,440.53	26.14	26.01	56.973	435.11	-520.78	715.61	673.20	42.41	16.875	
5,700.00	4,831.26	5,404.59	4,441.23	27.80	27.83	56.972	505.82	-591.49	715.61	670.22	45.40	15.764	
5,800.00	4,831.98	5,504.59	4,441.94	29.55	29.71	56.972	576.53	-662.20	715.62	667.11	48.51	14.753	
5,900.00	4,832.69	5,604.59	4,442.64	31.37	31.65	56.971	647.24	-732.91	715.62	663.91	51.71	13.838	
6,000.00	4,833.40	5,704.59	4,443.35	33.24	33.64	56.971	717.95	-803.61	715.63	660.63	55.00	13.011	
6,100.00	4,834.12	5,804.59	4,444.05	35.17	35.66	56.970	788.66	-874.32	715.63	657.28	58.35	12.265	
6,200.00	4,834.83	5,904.59	4,444.76	37.14	37.71	56.970	859.37	-945.03	715.64	653.88	61.75	11.589	
6,300.00	4,835.55	6,004.59	4,445.47	39.14	39.79	56.969	930.08	-1,015.74	715.64	650.44	65.20	10.977	
6,400.00	4,836.26	6,104.59	4,446.17	41.17	41.90	56.969	1,000.79	-1,086.44	715.65	646.97	68.68	10.421	
6,500.00	4,836.97	6,204.59	4,446.88	43.23	44.02	56.968	1,071.50	-1,157.15	715.65	643.47	72.18	9.914	
6,600.00	4,837.69	6,304.59	4,447.58	45.32	46.16	56.968	1,142.21	-1,227.86	715.66	639.94	75.71	9.452	
6,700.00	4,838.40	6,404.59	4,448.29	47.42	48.31	56.967	1,212.92	-1,298.56	715.66	636.40	79.26	9.029	
6,800.00	4,839.11	6,504.59	4,448.99	49.53	50.47	56.967	1,283.63	-1,369.27	715.66	632.84	82.83	8.640	
6,900.00	4,839.83	6,604.59	4,449.70	51.67	52.65	56.966	1,354.34	-1,439.98	715.67	629.26	86.41	8.283	
7,000.00	4,840.54	6,704.59	4,450.41	53.81	54.84	56.966	1,425.06	-1,510.69	715.67	625.68	89.99	7.953	
7,100.00	4,841.25	6,804.59	4,451.11	55.97	57.03	56.965	1,495.77	-1,581.39	715.68	622.09	93.58	7.647	
7,200.00	4,841.97	6,904.59	4,451.82	58.14	59.23	56.964	1,566.48	-1,652.10	715.68	618.50	97.18	7.364	
7,300.00	4,842.68	7,004.59	4,452.52	60.32	61.44	56.964	1,637.19	-1,722.81	715.69	614.90	100.78	7.101	
7,400.00	4,843.40	7,104.59	4,453.23	62.50	63.66	56.963	1,707.90	-1,793.52	715.69	611.31	104.39	6.856	
7,500.00	4,844.11	7,204.59	4,453.93	64.70	65.88	56.963	1,778.61	-1,864.22	715.70	607.71	107.99	6.627	
7,600.00	4,844.82	7,304.59	4,454.64	66.90	68.11	56.962	1,849.32	-1,934.93	715.70	604.11	111.60	6.413	
7,700.00	4,845.54	7,404.59	4,455.34	69.10	70.34	56.962	1,920.03	-2,005.64	715.71	600.51	115.20	6.213	
7,800.00	4,846.25	7,504.59	4,456.05	71.32	72.57	56.961	1,990.74	-2,076.34	715.71	596.91	118.80	6.024	
7,900.00	4,846.96	7,604.59	4,456.76	73.53	74.81	56.961	2,061.45	-2,147.05	715.72	593.32	122.40	5.847	
8,000.00	4,847.68	7,704.59	4,457.46	75.75	77.05	56.960	2,132.16	-2,217.76	715.72	589.73	126.00	5.680	
8,100.00	4,848.39	7,804.59	4,458.17	77.98	79.30	56.960	2,202.87	-2,288.47	715.73	586.14	129.59	5.523	
8,200.00	4,849.10	7,904.59	4,458.87	80.21	81.54	56.959	2,273.58	-2,359.17	715.73	582.56	133.17	5.374	
8,300.00	4,849.82	8,004.59	4,459.58	82.44	83.79	56.959	2,344.29	-2,429.88	715.74	578.98	136.75	5.234	
8,400.00	4,850.53	8,104.59	4,460.28	84.68	86.05	56.958	2,415.00	-2,500.59	715.74	575.41	140.33	5.100	
8,500.00	4,851.25	8,204.59	4,460.99	86.92	88.30	56.958	2,485.71	-2,571.30	715.75	571.85	143.90	4.974	
8,600.00	4,851.96	8,304.59	4,461.69	89.16	90.56	56.957	2,556.42	-2,642.00	715.75	568.29	147.46	4.854	
8,700.00	4,852.67	8,404.59	4,462.40	91.41	92.82	56.957	2,627.13	-2,712.71	715.76	564.74	151.02	4.740	
8,800.00	4,853.39	8,504.59	4,463.11	93.66	95.08	56.956	2,697.85	-2,783.42	715.76	561.20	154.56	4.631	
8,900.00	4,854.10	8,604.59	4,463.81	95.91	97.34	56.956	2,768.56	-2,854.12	715.77	557.66	158.10	4.527	
9,000.00	4,854.81	8,704.59	4,464.52	98.16	99.60	56.955	2,839.27	-2,924.83	715.77	554.14	161.63	4.428	
9,100.00	4,855.53	8,804.59	4,465.22	100.41	101.87	56.955	2,909.98	-2,995.54	715.77	550.62	165.16	4.334	
9,200.00	4,856.24	8,904.59	4,465.93	102.67	104.13	56.954	2,980.69	-3,066.25	715.78	547.11	168.67	4.244	
9,300.00	4,856.95	9,004.59	4,466.63	104.92	106.40	56.954	3,051.40	-3,136.95	715.78	543.61	172.18	4.157	
9,400.00	4,857.67	9,104.59	4,467.34	107.18	108.67	56.953	3,122.11	-3,207.66	715.79	540.12	175.67	4.075	
9,500.00	4,858.38	9,204.59	4,468.04	109.44	110.94	56.953	3,192.82	-3,278.37	715.79	536.63	179.16	3.995	
9,600.00	4,859.10	9,304.59	4,468.75	111.71	113.21	56.952	3,263.53	-3,349.08	715.80	533.16	182.64	3.919	
9,700.00	4,859.81	9,404.59	4,469.46	113.97	115.48	56.951	3,334.24	-3,419.78	715.80	529.70	186.10	3.846	
9,800.00	4,860.52	9,504.59	4,470.16	116.23	117.75	56.951	3,404.95	-3,490.49	715.81	526.25	189.56	3.776	
9,900.00	4,861.24	9,604.59	4,470.87	118.50	120.03	56.950	3,475.66	-3,561.20	715.81	522.81	193.01	3.709	
10,000.00	4,861.95	9,704.59	4,471.57	120.77	122.30	56.950	3,546.37	-3,631.90	715.82	519.38	196.44	3.644	
10,100.00	4,862.66	9,804.59	4,472.28	123.03	124.58	56.949	3,617.08	-3,702.61	715.82	515.96	199.87	3.582	
10,200.00	4,863.38	9,904.59	4,472.98	125.30	126.85	56.949	3,687.79	-3,773.32	715.83	512.55	203.28	3.521	

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 111H - Original Hole - rev0											Offset Site Error:	0.00 ft
Survey Program: 0-MWD											Offset Well Error:	0.00 ft
Reference	Offset	Rule Assigned:										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)		Warning
10,300.00	4,864.09	10,004.59	4,473.69	127.57	129.13	56.948	3,758.50	-3,844.03	715.83	509.15	206.68	3.463
10,400.00	4,864.80	10,104.59	4,474.39	129.84	131.41	56.948	3,829.21	-3,914.73	715.84	505.76	210.07	3.408
10,500.00	4,865.52	10,204.59	4,475.10	132.12	133.69	56.947	3,899.93	-3,985.44	715.84	502.39	213.45	3.354
10,600.00	4,866.23	10,304.59	4,475.81	134.39	135.97	56.947	3,970.64	-4,056.15	715.85	499.03	216.82	3.302
10,700.00	4,866.95	10,404.59	4,476.51	136.66	138.24	56.946	4,041.35	-4,126.85	715.85	495.68	220.18	3.251
10,800.00	4,867.66	10,504.59	4,477.22	138.94	140.52	56.946	4,112.06	-4,197.56	715.86	492.34	223.52	3.203
10,900.00	4,868.37	10,604.59	4,477.92	141.21	142.80	56.945	4,182.77	-4,268.27	715.86	489.01	226.85	3.156
11,000.00	4,869.09	10,704.59	4,478.63	143.49	145.08	56.945	4,253.48	-4,338.98	715.87	485.70	230.17	3.110
11,100.00	4,869.80	10,804.59	4,479.33	145.76	147.37	56.944	4,324.19	-4,409.68	715.87	482.39	233.48	3.066
11,200.00	4,870.51	10,904.59	4,480.04	148.04	149.65	56.944	4,394.90	-4,480.39	715.88	479.11	236.77	3.024
11,300.00	4,871.23	11,004.59	4,480.75	150.32	151.93	56.943	4,465.61	-4,551.10	715.88	475.83	240.05	2.982
11,400.00	4,871.94	11,104.59	4,481.45	152.59	154.21	56.943	4,536.32	-4,621.81	715.89	472.57	243.32	2.942
11,500.00	4,872.65	11,204.59	4,482.16	154.87	156.49	56.942	4,607.03	-4,692.51	715.89	469.32	246.57	2.903
11,600.00	4,873.37	11,304.59	4,482.86	157.15	158.78	56.942	4,677.74	-4,763.22	715.89	466.08	249.81	2.866
11,700.00	4,874.08	11,404.59	4,483.57	159.43	161.06	56.941	4,748.45	-4,833.93	715.90	462.86	253.04	2.829
11,800.00	4,874.80	11,504.59	4,484.27	161.71	163.35	56.941	4,819.16	-4,904.63	715.90	459.65	256.26	2.794
11,900.00	4,875.51	11,604.59	4,484.98	163.99	165.63	56.940	4,889.87	-4,975.34	715.91	456.45	259.46	2.759
12,000.00	4,876.22	11,704.59	4,485.68	166.27	167.91	56.940	4,960.58	-5,046.05	715.91	453.27	262.64	2.726
12,100.00	4,876.94	11,804.59	4,486.39	168.55	170.20	56.939	5,031.29	-5,116.76	715.92	450.10	265.82	2.693
12,105.76	4,876.98	11,810.35	4,486.43	168.68	170.33	56.939	5,035.36	-5,120.83	715.92	449.92	266.00	2.691
12,200.00	4,877.65	11,891.10	4,487.00	170.83	172.18	56.939	5,092.46	-5,177.92	716.05	447.52	268.53	2.667 SF
12,300.00	4,878.36	11,891.10	4,487.00	173.11	172.18	56.939	5,092.46	-5,177.92	724.87	460.90	263.96	2.746
12,400.00	4,879.08	11,891.10	4,487.00	175.40	172.18	56.939	5,092.46	-5,177.92	747.09	494.27	252.82	2.955
12,500.00	4,879.79	11,891.10	4,487.00	177.68	172.18	56.939	5,092.46	-5,177.92	781.57	543.95	237.62	3.289
12,600.00	4,880.50	11,891.10	4,487.00	179.96	172.18	56.939	5,092.46	-5,177.92	826.77	605.94	220.83	3.744
12,700.00	4,881.22	11,891.10	4,487.00	182.24	172.18	56.939	5,092.46	-5,177.92	881.06	676.87	204.18	4.315
12,800.00	4,881.93	11,891.10	4,487.00	184.53	172.18	56.939	5,092.46	-5,177.92	942.85	754.23	188.62	4.999
12,809.58	4,882.00	11,891.10	4,487.00	184.75	172.18	56.939	5,092.46	-5,177.92	949.11	761.91	187.20	5.070

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 114H - 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)			
0.00	0.00	0.00	0.00	0.00	0.00	-54.981	22.93	-32.73	39.96				
100.00	100.00	100.00	100.00	0.27	0.27	-54.981	22.93	-32.73	39.96	39.43	0.54	74.323	
200.00	200.00	200.00	200.00	0.63	0.63	-54.981	22.93	-32.73	39.96	38.71	1.25	31.853	
300.00	300.00	300.00	300.00	0.99	0.99	-54.981	22.93	-32.73	39.96	37.99	1.97	20.270	
400.00	400.00	400.00	400.00	1.34	1.34	-54.981	22.93	-32.73	39.96	37.28	2.69	14.865	
500.00	500.00	500.00	500.00	1.70	1.70	-54.981	22.93	-32.73	39.96	36.56	3.41	11.735	
600.00	600.00	600.00	600.00	2.06	2.06	-54.981	22.93	-32.73	39.96	35.84	4.12	9.694	
700.00	700.00	700.00	700.00	2.42	2.42	-54.981	22.93	-32.73	39.96	35.12	4.84	8.258	
800.00	800.00	800.00	800.00	2.78	2.78	-54.981	22.93	-32.73	39.96	34.41	5.56	7.193	
900.00	900.00	900.00	900.00	3.14	3.14	-54.981	22.93	-32.73	39.96	33.69	6.27	6.371	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-54.981	22.93	-32.73	39.96	32.97	6.99	5.717 CC	
1,100.00	1,099.95	1,098.91	1,098.87	3.84	3.84	106.123	21.86	-35.06	41.98	34.31	7.67	5.473	
1,200.00	1,199.63	1,197.59	1,197.23	4.17	4.17	106.917	18.67	-42.01	48.04	39.71	8.33	5.767	
1,300.00	1,298.77	1,295.78	1,294.60	4.51	4.52	107.830	13.39	-53.50	58.12	49.12	9.01	6.453	
1,400.00	1,397.08	1,393.26	1,390.49	4.87	4.88	108.607	6.09	-69.39	72.19	62.48	9.71	7.432	
1,500.00	1,494.58	1,489.89	1,484.53	5.26	5.27	108.818	-3.15	-89.51	89.80	79.34	10.46	8.587	
1,600.00	1,592.01	1,586.52	1,577.45	5.67	5.70	107.047	-14.22	-113.61	109.59	98.35	11.24	9.752	
1,700.00	1,689.44	1,684.38	1,671.29	6.10	6.16	105.432	-25.80	-138.83	129.91	117.83	12.08	10.756	
1,800.00	1,786.87	1,782.24	1,765.13	6.54	6.64	104.255	-37.38	-164.05	150.30	137.35	12.95	11.608	
1,900.00	1,884.31	1,880.10	1,858.97	6.99	7.14	103.358	-48.97	-189.27	170.74	156.89	13.84	12.336	
2,000.00	1,981.74	1,977.96	1,952.82	7.45	7.65	102.654	-60.55	-214.50	191.20	176.45	14.75	12.961	
2,100.00	2,079.17	2,075.82	2,046.66	7.92	8.17	102.086	-72.14	-239.72	211.69	196.01	15.68	13.501	
2,200.00	2,176.60	2,173.68	2,140.50	8.39	8.70	101.618	-83.72	-264.94	232.20	215.58	16.62	13.970	
2,300.00	2,274.03	2,271.53	2,234.34	8.87	9.24	101.225	-95.30	-290.16	252.72	235.15	17.57	14.381	
2,400.00	2,371.46	2,369.39	2,328.18	9.35	9.78	100.892	-106.89	-315.38	273.25	254.72	18.53	14.743	
2,500.00	2,468.90	2,467.25	2,422.02	9.84	10.33	100.606	-118.47	-340.60	293.79	274.28	19.50	15.063	
2,600.00	2,566.33	2,565.11	2,515.86	10.33	10.88	100.357	-130.05	-365.82	314.33	293.85	20.48	15.349	
2,700.00	2,663.76	2,662.97	2,609.70	10.82	11.44	100.138	-141.64	-391.04	334.88	313.42	21.46	15.605	
2,800.00	2,761.19	2,760.83	2,703.54	11.31	12.00	99.945	-153.22	-416.26	355.43	332.99	22.45	15.835	
2,900.00	2,858.62	2,858.69	2,797.38	11.81	12.56	99.772	-164.81	-441.48	375.99	352.55	23.44	16.042	
3,000.00	2,956.05	2,956.54	2,891.22	12.31	13.13	99.618	-176.39	-466.70	396.55	372.11	24.43	16.231	
3,100.00	3,053.49	3,054.40	2,985.06	12.81	13.69	99.479	-187.97	-491.92	417.11	391.68	25.43	16.403	
3,200.00	3,150.92	3,152.26	3,078.90	13.31	14.26	99.353	-199.56	-517.14	437.67	411.24	26.43	16.560	
3,300.00	3,248.35	3,250.12	3,172.74	13.81	14.83	99.238	-211.14	-542.37	458.24	430.80	27.43	16.704	
3,400.00	3,345.78	3,347.98	3,266.58	14.31	15.41	99.133	-222.73	-567.59	478.80	450.36	28.44	16.836	
3,500.00	3,443.21	3,445.84	3,360.42	14.82	15.98	99.037	-234.31	-592.81	499.37	469.92	29.45	16.959	
3,600.00	3,540.65	3,543.70	3,454.26	15.32	16.56	98.948	-245.89	-618.03	519.94	489.48	30.46	17.072	
3,700.00	3,638.08	3,641.55	3,548.10	15.83	17.13	98.867	-257.48	-643.25	540.51	509.04	31.47	17.177	
3,800.00	3,735.52	3,747.88	3,650.24	16.34	17.74	98.924	-269.81	-670.10	560.76	528.20	32.57	17.219	
3,900.00	3,833.67	3,867.39	3,766.56	16.81	18.37	99.474	-281.21	-694.92	577.51	543.80	33.71	17.131	
4,000.00	3,932.68	3,988.32	3,885.78	17.24	18.92	99.869	-289.63	-713.25	589.76	555.04	34.72	16.988	
4,100.00	4,032.28	4,110.26	4,007.04	17.61	19.38	100.121	-294.91	-724.76	597.40	561.83	35.57	16.796	
4,200.00	4,132.21	4,232.73	4,129.39	17.94	19.75	100.236	-296.96	-729.21	600.37	564.11	36.26	16.556	
4,300.00	4,232.21	5,225.82	4,818.97	18.21	20.70	-116.538	-637.55	-297.11	595.44	581.21	14.24	41.821	
4,400.00	4,331.92	5,225.85	4,818.97	18.48	20.70	-106.405	-637.57	-297.09	496.91	482.48	14.43	34.442	
4,500.00	4,429.14	5,185.46	4,815.28	18.72	20.68	-127.642	-610.19	-326.54	399.35	384.39	14.95	26.709	
4,600.00	4,520.90	5,137.76	4,807.51	18.92	20.67	-135.143	-579.09	-361.85	304.06	288.22	15.84	19.197	
4,700.00	4,604.42	5,087.28	4,795.32	19.10	20.67	-134.730	-547.86	-399.56	212.63	195.46	17.17	12.384	
4,800.00	4,677.17	5,034.51	4,778.31	19.24	20.68	-124.970	-517.28	-439.04	128.56	108.67	19.89	6.464	
4,900.00	4,736.93	4,979.76	4,755.97	19.39	20.68	-98.147	-487.08	-478.84	67.27	36.39	30.88	2.178	
4,930.00	4,752.04	4,963.62	4,748.49	19.44	20.68	-86.254	-478.43	-490.23	62.30	26.34	35.96	1.732 Level 3<2.00, ES, SF	
5,000.00	4,781.88	4,926.29	4,729.65	19.60	20.68	-57.910	-458.95	-515.89	84.82	53.51	31.31	2.709	

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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:	Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 114H - Original Hole - rev0												Offset Site Error:	0.00 ft				
	Survey Program:		0-MWD		Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Rule Assigned:		Offset Well Error:	
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	Warning					
5,100.00	4,811.47	4,874.05	4,699.86	20.04	20.67	-31.136	-433.02	-550.06	150.95	122.37	28.58	5.282						
5,200.00	4,826.29	4,823.58	4,667.48	20.83	20.66	-17.368	-409.62	-580.88	223.64	193.64	30.00	7.455						
5,300.00	4,828.41	4,775.72	4,633.75	21.88	20.64	-12.957	-389.11	-607.90	295.97	263.99	31.98	9.255						
5,400.00	4,829.12	4,734.79	4,602.74	23.14	20.61	-12.092	-372.96	-629.17	372.61	339.02	33.59	11.093						
5,500.00	4,829.84	4,700.00	4,574.93	24.58	20.59	-11.406	-360.33	-645.82	453.25	418.41	34.84	13.011						
5,600.00	4,830.55	4,670.60	4,550.49	26.14	20.57	-10.860	-350.46	-658.82	537.03	501.21	35.82	14.993						
5,700.00	4,831.26	4,650.00	4,532.87	27.80	20.55	-10.495	-344.00	-667.33	623.34	586.62	36.71	16.978						
5,800.00	4,831.98	4,623.39	4,509.57	29.55	20.52	-10.043	-336.23	-677.56	711.56	674.34	37.21	19.120						
5,900.00	4,832.69	4,600.00	4,488.61	31.37	20.50	-9.663	-329.95	-685.84	801.45	763.80	37.64	21.291						
6,000.00	4,833.40	4,600.00	4,488.61	33.24	20.50	-9.663	-329.95	-685.84	892.81	854.51	38.30	23.310						
6,100.00	4,834.12	4,572.93	4,463.86	35.17	20.46	-9.243	-323.34	-694.55	984.85	946.38	38.47	25.602						
6,200.00	4,834.83	4,550.00	4,442.50	37.14	20.44	-8.901	-318.29	-701.20	1,078.14	1,039.49	38.65	27.896						
6,300.00	4,835.55	4,550.00	4,442.50	39.14	20.44	-8.901	-318.29	-701.20	1,171.93	1,132.92	39.01	30.041						
6,400.00	4,836.26	4,550.00	4,442.50	41.17	20.44	-8.901	-318.29	-701.20	1,266.67	1,227.37	39.30	32.233						
6,500.00	4,836.97	4,528.29	4,421.99	43.23	20.40	-8.590	-313.99	-706.86	1,361.59	1,322.21	39.38	34.577						
6,600.00	4,837.69	4,519.74	4,413.84	45.32	20.39	-8.471	-312.43	-708.92	1,457.16	1,417.63	39.53	36.859						

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 115H - 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)			
0.00	0.00	0.00	0.00	0.00	0.00	-54.749	57.52	-81.38	99.65				
100.00	100.00	100.00	100.00	0.27	0.27	-54.749	57.52	-81.38	99.65	99.12	0.54	185.330	
200.00	200.00	200.00	200.00	0.63	0.63	-54.749	57.52	-81.38	99.65	98.40	1.25	79.427	
300.00	300.00	300.00	300.00	0.99	0.99	-54.749	57.52	-81.38	99.65	97.68	1.97	50.545	
400.00	400.00	400.00	400.00	1.34	1.34	-54.749	57.52	-81.38	99.65	96.97	2.69	37.066	
500.00	500.00	500.00	500.00	1.70	1.70	-54.749	57.52	-81.38	99.65	96.25	3.41	29.263	
600.00	600.00	600.00	600.00	2.06	2.06	-54.749	57.52	-81.38	99.65	95.53	4.12	24.174	
700.00	700.00	700.00	700.00	2.42	2.42	-54.749	57.52	-81.38	99.65	94.81	4.84	20.592	
800.00	800.00	800.00	800.00	2.78	2.78	-54.749	57.52	-81.38	99.65	94.10	5.56	17.935	
900.00	900.00	900.00	900.00	3.14	3.14	-54.749	57.52	-81.38	99.65	93.38	6.27	15.885	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-54.749	57.52	-81.38	99.65	92.66	6.99	14.256 CC, ES	
1,100.00	1,099.95	1,094.83	1,094.73	3.84	3.83	107.637	60.52	-84.39	104.75	97.08	7.66	13.673	
1,200.00	1,199.63	1,194.21	1,193.98	4.17	4.19	111.583	64.06	-87.93	112.41	104.07	8.34	13.473 SF	
1,300.00	1,298.77	1,292.93	1,292.58	4.51	4.54	117.091	67.58	-91.44	122.90	113.87	9.04	13.601	
1,400.00	1,397.08	1,390.72	1,390.25	4.87	4.89	123.379	71.06	-94.93	137.26	127.52	9.74	14.090	
1,500.00	1,494.58	1,487.61	1,487.01	5.26	5.24	129.736	74.51	-98.38	155.68	145.22	10.46	14.888	
1,600.00	1,592.01	1,584.43	1,583.70	5.67	5.59	134.915	77.96	-101.83	175.87	164.70	11.17	15.744	
1,700.00	1,689.44	1,681.24	1,680.39	6.10	5.94	139.021	81.41	-105.27	197.17	185.28	11.89	16.588	
1,800.00	1,786.87	1,778.06	1,777.09	6.54	6.29	142.326	84.86	-108.72	219.26	206.66	12.60	17.398	
1,900.00	1,884.31	1,885.37	1,884.31	6.99	6.68	145.489	87.52	-111.38	240.73	227.36	13.37	18.000	
2,000.00	1,981.74	1,982.80	1,981.74	7.45	7.02	148.285	87.52	-111.38	259.75	245.66	14.09	18.434	
2,100.00	2,079.17	2,080.23	2,079.17	7.92	7.37	150.699	87.52	-111.38	279.28	264.47	14.81	18.863	
2,200.00	2,176.60	2,177.66	2,176.60	8.39	7.72	152.799	87.52	-111.38	299.23	283.71	15.52	19.279	
2,300.00	2,274.03	2,275.09	2,274.03	8.87	8.06	154.636	87.52	-111.38	319.52	303.29	16.24	19.680	
2,400.00	2,371.46	2,372.53	2,371.46	9.35	8.41	156.255	87.52	-111.38	340.10	323.15	16.95	20.064	
2,500.00	2,468.90	2,469.96	2,468.90	9.84	8.76	157.689	87.52	-111.38	360.90	343.24	17.67	20.429	
2,600.00	2,566.33	2,567.39	2,566.33	10.33	9.11	158.968	87.52	-111.38	381.91	363.52	18.38	20.775	
2,700.00	2,663.76	2,664.82	2,663.76	10.82	9.46	160.113	87.52	-111.38	403.07	383.97	19.10	21.104	
2,800.00	2,761.19	2,762.25	2,761.19	11.31	9.80	161.145	87.52	-111.38	424.37	404.56	19.82	21.415	
2,900.00	2,858.62	2,859.68	2,858.62	11.81	10.15	162.078	87.52	-111.38	445.80	425.26	20.53	21.709	
3,000.00	2,956.05	2,957.12	2,956.05	12.31	10.50	162.925	87.52	-111.38	467.32	446.07	21.25	21.988	
3,100.00	3,053.49	3,054.55	3,053.49	12.81	10.85	163.699	87.52	-111.38	488.94	466.96	21.97	22.252	
3,200.00	3,150.92	3,151.98	3,150.92	13.31	11.20	164.407	87.52	-111.38	510.63	487.94	22.69	22.502	
3,300.00	3,248.35	3,249.41	3,248.35	13.81	11.54	165.057	87.52	-111.38	532.39	508.98	23.41	22.739	
3,400.00	3,345.78	3,346.84	3,345.78	14.31	11.89	165.656	87.52	-111.38	554.22	530.08	24.13	22.964	
3,500.00	3,443.21	3,444.27	3,443.21	14.82	12.24	166.210	87.52	-111.38	576.09	551.23	24.86	23.177	
3,600.00	3,540.65	3,541.71	3,540.65	15.32	12.59	166.724	87.52	-111.38	598.01	572.44	25.58	23.380	
3,700.00	3,638.08	3,639.14	3,638.08	15.83	12.94	167.201	87.52	-111.38	619.98	593.68	26.30	23.572	
3,800.00	3,735.52	3,736.58	3,735.52	16.34	13.29	167.668	87.52	-111.38	641.92	614.90	27.02	23.753	
3,900.00	3,833.67	3,834.73	3,833.67	16.81	13.64	168.140	87.52	-111.38	660.63	632.89	27.74	23.812	
4,000.00	3,932.68	4,149.23	4,136.42	17.24	14.66	173.529	34.81	-65.38	662.60	634.18	28.43	23.308	
4,100.00	4,032.28	4,399.93	4,323.71	17.61	15.75	-173.108	-88.48	42.23	629.77	601.36	28.41	22.164	
4,200.00	4,132.21	4,517.65	4,383.24	17.94	16.60	-162.874	-164.82	108.86	587.48	557.42	30.06	19.547	
4,300.00	4,232.21	4,578.83	4,405.63	18.21	17.14	42.528	-207.69	146.28	549.96	517.88	32.09	17.141	
4,400.00	4,331.92	4,609.53	4,414.56	18.48	17.45	103.926	-229.82	165.59	527.26	493.61	33.65	15.668	
4,453.47	4,384.40	4,614.28	4,415.79	18.61	17.50	104.767	-233.27	168.61	523.93	489.90	34.03	15.396	
4,500.00	4,429.14	4,613.89	4,415.69	18.72	17.49	104.477	-232.98	168.36	526.47	492.40	34.07	15.451	
4,600.00	4,520.90	4,600.00	4,411.95	18.92	17.35	100.770	-222.91	159.56	548.35	515.07	33.28	16.476	
4,700.00	4,604.42	4,582.58	4,406.81	19.10	17.18	94.506	-210.37	148.62	589.01	557.04	31.97	18.425	
4,800.00	4,677.17	4,556.13	4,398.03	19.24	16.93	85.547	-191.57	132.21	642.63	612.09	30.54	21.040	
4,900.00	4,736.93	4,525.49	4,386.44	19.39	16.66	75.389	-170.21	113.57	703.60	674.17	29.42	23.912	
5,000.00	4,781.88	4,500.00	4,375.66	19.60	16.45	65.858	-152.81	98.38	767.41	738.51	28.90	26.558	

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 115H - 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		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		
5,100.00	4,811.47	4,450.00	4,351.57	20.04	16.08	57.676	-119.81	69.58	828.74	800.42	28.32	29.262		
5,200.00	4,826.29	4,418.52	4,334.48	20.83	15.87	52.989	-99.90	52.20	882.51	854.09	28.42	31.051		
5,300.00	4,828.41	4,380.79	4,312.12	21.88	15.65	50.792	-77.00	32.22	930.02	901.39	28.63	32.486		
5,400.00	4,829.12	4,350.00	4,292.42	23.14	15.48	49.794	-59.18	16.66	981.38	952.35	29.03	33.809		
5,500.00	4,829.84	4,315.17	4,268.65	24.58	15.30	48.625	-40.01	-0.08	1,037.46	1,008.09	29.37	35.320		
5,600.00	4,830.55	4,300.00	4,257.82	26.14	15.23	48.106	-32.01	-7.06	1,098.11	1,068.12	29.99	36.614		
5,700.00	4,831.26	4,250.00	4,220.20	27.80	15.02	46.364	-7.21	-28.70	1,162.48	1,132.37	30.10	38.617		
5,800.00	4,831.98	4,250.00	4,220.20	29.55	15.02	46.364	-7.21	-28.70	1,230.37	1,199.55	30.82	39.916		
5,900.00	4,832.69	4,218.28	4,194.91	31.37	14.90	45.244	7.21	-41.28	1,301.28	1,270.17	31.11	41.823		
6,000.00	4,833.40	4,200.00	4,179.86	33.24	14.83	44.598	15.03	-48.11	1,375.12	1,343.62	31.50	43.654		
6,100.00	4,834.12	4,182.48	4,165.14	35.17	14.77	43.978	22.18	-54.35	1,451.41	1,419.56	31.85	45.563		

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 116H - 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)				
0.00	0.00	0.00	0.00	0.00	0.00	-54.523	46.23	-64.87	79.66					
100.00	100.00	100.00	100.00	0.27	0.27	-54.523	46.23	-64.87	79.66	79.12	0.54	148.142		
200.00	200.00	200.00	200.00	0.63	0.63	-54.523	46.23	-64.87	79.66	78.40	1.25	63.489		
300.00	300.00	300.00	300.00	0.99	0.99	-54.523	46.23	-64.87	79.66	77.69	1.97	40.402		
400.00	400.00	400.00	400.00	1.34	1.34	-54.523	46.23	-64.87	79.66	76.97	2.69	29.628		
500.00	500.00	500.00	500.00	1.70	1.70	-54.523	46.23	-64.87	79.66	76.25	3.41	23.391		
600.00	600.00	600.00	600.00	2.06	2.06	-54.523	46.23	-64.87	79.66	75.53	4.12	19.323		
700.00	700.00	700.00	700.00	2.42	2.42	-54.523	46.23	-64.87	79.66	74.82	4.84	16.460		
800.00	800.00	800.00	800.00	2.78	2.78	-54.523	46.23	-64.87	79.66	74.10	5.56	14.336		
900.00	900.00	900.00	900.00	3.14	3.14	-54.523	46.23	-64.87	79.66	73.38	6.27	12.698		
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-54.523	46.23	-64.87	79.66	72.67	6.99	11.396 CC, ES		
1,100.00	1,099.95	1,099.95	1,099.95	3.84	3.85	108.024	46.23	-64.87	80.43	72.74	7.69	10.460		
1,200.00	1,199.63	1,199.63	1,199.63	4.17	4.21	113.077	46.23	-64.87	83.19	74.82	8.38	9.932		
1,300.00	1,298.77	1,298.02	1,297.98	4.51	4.56	122.129	48.11	-63.19	89.55	80.48	9.07	9.874 SF		
1,400.00	1,397.08	1,393.40	1,393.07	4.87	4.90	134.171	53.52	-58.34	103.16	93.40	9.76	10.571		
1,500.00	1,494.58	1,484.90	1,483.84	5.26	5.23	145.847	62.04	-50.72	126.43	116.01	10.42	12.134		
1,600.00	1,592.01	1,573.14	1,570.77	5.67	5.56	154.975	73.30	-40.63	156.89	145.86	11.03	14.228		
1,700.00	1,689.44	1,658.01	1,653.63	6.10	5.89	161.835	86.96	-28.42	193.37	181.78	11.59	16.690		
1,800.00	1,786.87	1,747.17	1,740.18	6.54	6.25	167.195	102.91	-14.13	233.67	221.46	12.21	19.139		
1,900.00	1,884.31	1,836.75	1,827.14	6.99	6.63	171.028	118.95	0.22	275.26	262.40	12.85	21.415		
2,000.00	1,981.74	1,926.34	1,914.10	7.45	7.03	173.871	134.98	14.57	317.61	304.11	13.51	23.516		
2,100.00	2,079.17	2,015.92	2,001.06	7.92	7.43	176.052	151.02	28.93	360.47	346.31	14.17	25.446		
2,200.00	2,176.60	2,105.51	2,088.02	8.39	7.83	177.775	167.06	43.28	403.67	388.84	14.83	27.214		
2,300.00	2,274.03	2,195.09	2,174.98	8.87	8.25	179.167	183.09	57.64	447.12	431.61	15.51	28.835		
2,400.00	2,371.46	2,284.67	2,261.94	9.35	8.67	-179.685	199.13	71.99	490.74	474.55	16.18	30.322		
2,500.00	2,468.90	2,374.26	2,348.90	9.84	9.10	-178.724	215.16	86.35	534.49	517.63	16.87	31.690		
2,600.00	2,566.33	2,463.84	2,435.86	10.33	9.53	-177.907	231.20	100.70	578.35	560.80	17.55	32.951		
2,700.00	2,663.76	2,553.43	2,522.82	10.82	9.96	-177.205	247.24	115.06	622.29	604.05	18.24	34.116		
2,800.00	2,761.19	2,643.01	2,609.79	11.31	10.40	-176.595	263.27	129.41	666.30	647.37	18.93	35.194		
2,900.00	2,858.62	2,732.59	2,696.75	11.81	10.84	-176.061	279.31	143.76	710.36	690.74	19.63	36.195		
3,000.00	2,956.05	2,822.18	2,783.71	12.31	11.28	-175.589	295.35	158.12	754.47	734.14	20.32	37.126		
3,100.00	3,053.49	2,911.76	2,870.67	12.81	11.73	-175.168	311.38	172.47	798.61	777.59	21.02	37.993		
3,200.00	3,150.92	3,001.35	2,957.63	13.31	12.18	-174.792	327.42	186.83	842.78	821.06	21.72	38.802		
3,300.00	3,248.35	3,090.93	3,044.59	13.81	12.63	-174.453	343.45	201.18	886.98	864.56	22.42	39.559		
3,400.00	3,345.78	3,180.51	3,131.55	14.31	13.08	-174.146	359.49	215.54	931.20	908.08	23.13	40.268		
3,500.00	3,443.21	3,270.10	3,218.51	14.82	13.53	-173.867	375.53	229.89	975.45	951.62	23.83	40.933		
3,600.00	3,540.65	3,359.68	3,305.47	15.32	13.98	-173.612	391.56	244.25	1,019.70	995.17	24.54	41.559		
3,700.00	3,638.08	3,449.27	3,392.43	15.83	14.44	-173.379	407.60	258.60	1,063.98	1,038.73	25.24	42.149		
3,800.00	3,735.52	3,538.88	3,479.42	16.34	14.89	-173.191	423.64	272.96	1,108.20	1,082.25	25.95	42.703		
3,900.00	3,833.67	3,629.91	3,567.78	16.81	15.36	-173.131	439.94	287.54	1,149.38	1,122.72	26.66	43.113		
4,000.00	3,932.68	3,722.92	3,658.07	17.24	15.83	-173.033	456.59	302.45	1,185.79	1,158.42	27.37	43.323		
4,100.00	4,032.28	3,885.42	3,816.51	17.61	16.64	-172.750	483.36	326.42	1,216.15	1,187.50	28.64	42.459		
4,200.00	4,132.21	4,144.69	4,073.81	17.94	17.66	-172.485	505.90	346.59	1,230.92	1,200.60	30.33	40.585		
4,300.00	4,232.21	4,303.12	4,232.21	18.21	18.15	26.759	507.62	348.13	1,231.85	1,200.62	31.22	39.456		
4,400.00	4,331.92	4,940.64	4,764.88	18.48	19.64	99.666	277.85	522.22	1,215.39	1,183.28	32.11	37.848		
4,500.00	4,429.14	5,039.73	4,806.45	18.72	20.02	107.445	206.27	576.46	1,185.77	1,152.37	33.40	35.504		
4,600.00	4,520.90	5,031.71	4,803.67	18.92	19.98	108.711	212.26	571.92	1,168.58	1,134.33	34.26	34.113		
4,675.40	4,584.78	5,010.52	4,795.82	19.05	19.89	108.050	227.94	560.03	1,164.71	1,130.03	34.68	33.585		
4,700.00	4,604.42	5,002.30	4,792.58	19.10	19.86	107.615	233.97	555.47	1,165.11	1,130.34	34.78	33.503		
4,800.00	4,677.17	4,964.95	4,776.51	19.24	19.72	104.912	260.83	535.12	1,174.77	1,139.69	35.08	33.489		
4,900.00	4,736.93	4,923.66	4,756.22	19.39	19.59	100.893	289.49	513.40	1,196.03	1,160.77	35.26	33.923		
5,000.00	4,781.88	4,879.99	4,732.02	19.60	19.48	95.785	318.45	491.46	1,226.76	1,191.32	35.44	34.615		

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 116H - Original Hole - rev0													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		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		
5,100.00	4,811.47	4,834.65	4,704.03	20.04	19.38	89.365	346.88	469.92	1,261.68	1,225.97	35.71	35.331		
5,200.00	4,826.29	4,788.30	4,672.60	20.83	19.28	84.135	374.01	449.36	1,293.37	1,257.26	36.11	35.820		
5,300.00	4,828.41	4,750.00	4,644.62	21.88	19.21	81.741	394.85	433.57	1,321.97	1,285.31	36.66	36.060		
5,400.00	4,829.12	4,700.00	4,605.58	23.14	19.11	80.015	419.73	414.72	1,354.46	1,317.20	37.26	36.354		
5,500.00	4,829.84	4,671.46	4,582.13	24.58	19.05	78.990	432.68	404.91	1,391.88	1,353.89	37.99	36.634		
5,600.00	4,830.55	4,650.00	4,563.97	26.14	19.01	78.203	441.80	398.00	1,434.22	1,395.45	38.77	36.996		

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 117H - 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	125.445	-23.30	32.73	40.17				
100.00	100.00	100.00	100.00	0.27	0.27	125.445	-23.30	32.73	40.17	39.64	0.54	74.714	
200.00	200.00	200.00	200.00	0.63	0.63	125.445	-23.30	32.73	40.17	38.92	1.25	32.020	
300.00	300.00	300.00	300.00	0.99	0.99	125.445	-23.30	32.73	40.17	38.20	1.97	20.377	
400.00	400.00	400.00	400.00	1.34	1.34	125.445	-23.30	32.73	40.17	37.49	2.69	14.943	
500.00	500.00	500.00	500.00	1.70	1.70	125.445	-23.30	32.73	40.17	36.77	3.41	11.797	
600.00	600.00	600.00	600.00	2.06	2.06	125.445	-23.30	32.73	40.17	36.05	4.12	9.745	
700.00	700.00	700.00	700.00	2.42	2.42	125.445	-23.30	32.73	40.17	35.33	4.84	8.302	
800.00	800.00	800.00	800.00	2.78	2.78	125.445	-23.30	32.73	40.17	34.62	5.56	7.230	
900.00	900.00	900.00	900.00	3.14	3.14	125.445	-23.30	32.73	40.17	33.90	6.27	6.404	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	125.445	-23.30	32.73	40.17	33.18	6.99	5.747	CC, ES
1,100.00	1,099.95	1,098.26	1,098.21	3.84	3.84	-79.439	-23.04	35.24	41.59	33.92	7.67	5.422	
1,200.00	1,199.63	1,195.39	1,195.05	4.17	4.18	-93.564	-22.29	42.66	47.97	39.66	8.31	5.771	
1,300.00	1,298.77	1,290.36	1,289.24	4.51	4.52	-108.736	-21.07	54.65	63.12	54.18	8.94	7.063	
1,400.00	1,397.08	1,382.19	1,379.64	4.87	4.87	-119.873	-19.44	70.65	88.45	78.90	9.55	9.259	
1,500.00	1,494.58	1,475.46	1,470.99	5.26	5.24	-127.640	-17.53	89.40	120.81	110.56	10.25	11.786	
1,600.00	1,592.01	1,568.95	1,562.55	5.67	5.62	-132.391	-15.62	108.21	154.64	143.69	10.95	14.123	
1,700.00	1,689.44	1,662.44	1,654.11	6.10	6.02	-135.440	-13.70	127.03	189.07	177.40	11.67	16.205	
1,800.00	1,786.87	1,755.93	1,745.66	6.54	6.42	-137.551	-11.79	145.84	223.84	211.45	12.39	18.063	
1,900.00	1,884.31	1,849.42	1,837.22	6.99	6.83	-139.096	-9.87	164.65	258.80	245.67	13.12	19.719	
2,000.00	1,981.74	1,942.91	1,928.78	7.45	7.25	-140.274	-7.96	183.46	293.89	280.02	13.86	21.197	
2,100.00	2,079.17	2,036.41	2,020.34	7.92	7.67	-141.201	-6.04	202.27	329.06	314.45	14.61	22.521	
2,200.00	2,176.60	2,129.90	2,111.90	8.39	8.09	-141.949	-4.13	221.08	364.29	348.93	15.36	23.712	
2,300.00	2,274.03	2,223.39	2,203.46	8.87	8.52	-142.565	-2.21	239.90	399.57	383.45	16.12	24.787	
2,400.00	2,371.46	2,316.88	2,295.02	9.35	8.95	-143.081	-0.30	258.71	434.89	418.01	16.88	25.762	
2,500.00	2,468.90	2,410.37	2,386.58	9.84	9.39	-143.520	1.62	277.52	470.23	452.58	17.65	26.648	
2,600.00	2,566.33	2,503.86	2,478.14	10.33	9.82	-143.898	3.53	296.33	505.59	487.17	18.41	27.457	
2,700.00	2,663.76	2,597.35	2,569.69	10.82	10.26	-144.226	5.45	315.14	540.97	521.78	19.18	28.198	
2,800.00	2,761.19	2,690.84	2,661.25	11.31	10.70	-144.514	7.36	333.95	576.36	556.40	19.96	28.878	
2,900.00	2,858.62	2,784.33	2,752.81	11.81	11.14	-144.769	9.27	352.77	611.76	591.03	20.73	29.505	
3,000.00	2,956.05	2,877.82	2,844.37	12.31	11.59	-144.996	11.19	371.58	647.17	625.66	21.51	30.084	
3,100.00	3,053.49	2,971.32	2,935.93	12.81	12.03	-145.199	13.10	390.39	682.59	660.30	22.29	30.620	
3,200.00	3,150.92	3,064.81	3,027.49	13.31	12.48	-145.382	15.02	409.20	718.02	694.94	23.07	31.118	
3,300.00	3,248.35	3,158.30	3,119.05	13.81	12.92	-145.548	16.93	428.01	753.45	729.59	23.86	31.582	
3,400.00	3,345.78	3,251.79	3,210.61	14.31	13.37	-145.699	18.85	446.82	788.89	764.25	24.64	32.015	
3,500.00	3,443.21	3,345.28	3,302.17	14.82	13.82	-145.837	20.76	465.64	824.33	798.90	25.43	32.419	
3,600.00	3,540.65	3,438.77	3,393.72	15.32	14.27	-145.964	22.68	484.45	859.77	833.56	26.21	32.798	
3,700.00	3,638.08	3,532.26	3,485.28	15.83	14.72	-146.081	24.59	503.26	895.22	868.22	27.00	33.153	
3,800.00	3,735.52	3,625.77	3,576.86	16.34	15.17	-146.288	26.51	522.07	930.62	902.83	27.79	33.486	
3,900.00	3,833.67	3,720.25	3,669.39	16.81	15.62	-146.840	28.44	541.08	963.36	934.78	28.57	33.717	
4,000.00	3,932.68	3,816.02	3,763.18	17.24	16.09	-147.133	30.40	560.35	991.92	962.58	29.34	33.808	
4,100.00	4,032.28	3,978.74	3,923.53	17.61	16.81	-147.080	33.18	587.60	1,013.65	983.05	30.60	33.124	
4,200.00	4,132.21	4,160.39	4,104.54	17.94	17.48	-147.003	34.63	601.93	1,023.35	991.59	31.76	32.226	
4,300.00	4,232.21	4,288.07	4,232.21	18.21	17.87	52.235	34.73	602.90	1,023.86	991.37	32.49	31.513	
4,400.00	4,331.92	4,381.77	4,325.80	18.48	18.13	108.544	37.37	601.10	1,025.97	992.91	33.06	31.035	
4,500.00	4,429.14	4,472.38	4,414.77	18.72	18.35	107.920	51.08	591.70	1,034.36	1,000.85	33.51	30.868	
4,600.00	4,520.90	4,562.79	4,499.83	18.92	18.52	106.736	76.12	574.56	1,048.93	1,015.05	33.87	30.967	
4,700.00	4,604.42	4,652.79	4,578.74	19.10	18.66	105.021	111.69	550.20	1,069.21	1,035.01	34.20	31.265	
4,800.00	4,677.17	4,742.36	4,649.60	19.24	18.76	102.823	156.77	519.34	1,094.58	1,060.01	34.57	31.663	
4,900.00	4,736.93	4,831.61	4,710.89	19.39	18.83	100.212	210.20	482.76	1,124.28	1,089.19	35.09	32.039	
5,000.00	4,781.88	4,920.86	4,761.39	19.60	18.87	97.275	270.82	441.24	1,157.44	1,121.58	35.86	32.277	
5,100.00	4,811.47	5,011.71	4,800.46	20.04	18.90	93.469	338.41	394.97	1,190.14	1,153.19	36.95	32.210	

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 117H - 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)			
5,200.00	4,826.29	5,331.32	4,843.67	20.83	21.34	90.981	574.67	188.45	1,199.52	1,158.50	41.02	29.246	
5,300.00	4,828.41	5,431.28	4,844.43	21.88	22.65	90.765	645.35	117.77	1,200.28	1,156.84	43.44	27.631	
5,400.00	4,829.12	5,531.28	4,845.18	23.14	24.09	90.767	716.06	47.06	1,200.28	1,154.09	46.19	25.985	
5,500.00	4,829.84	5,631.28	4,845.94	24.58	25.66	90.769	786.77	-23.64	1,200.28	1,151.06	49.22	24.386	
5,600.00	4,830.55	5,731.28	4,846.69	26.14	27.33	90.771	857.48	-94.35	1,200.28	1,147.80	52.47	22.873	
5,700.00	4,831.26	5,831.28	4,847.45	27.80	29.07	90.773	928.19	-165.06	1,200.28	1,144.36	55.92	21.465	
5,800.00	4,831.98	5,931.28	4,848.21	29.55	30.89	90.775	998.90	-235.77	1,200.28	1,140.76	59.52	20.167	
5,900.00	4,832.69	6,031.28	4,848.96	31.37	32.77	90.777	1,069.61	-306.48	1,200.28	1,137.03	63.24	18.978	
6,000.00	4,833.40	6,131.28	4,849.72	33.24	34.69	90.779	1,140.32	-377.18	1,200.28	1,133.20	67.08	17.893	
6,100.00	4,834.12	6,231.28	4,850.47	35.17	36.66	90.781	1,211.03	-447.89	1,200.28	1,129.27	71.00	16.904	
6,200.00	4,834.83	6,331.28	4,851.23	37.14	38.66	90.783	1,281.73	-518.60	1,200.28	1,125.27	75.00	16.003	
6,300.00	4,835.55	6,431.28	4,851.98	39.14	40.69	90.785	1,352.44	-589.31	1,200.27	1,121.21	79.07	15.180	
6,400.00	4,836.26	6,531.28	4,852.74	41.17	42.75	90.787	1,423.15	-660.02	1,200.27	1,117.09	83.19	14.428	
6,500.00	4,836.97	6,631.28	4,853.49	43.23	44.83	90.789	1,493.86	-730.72	1,200.27	1,112.92	87.36	13.740	
6,600.00	4,837.69	6,731.28	4,854.25	45.32	46.93	90.791	1,564.57	-801.43	1,200.27	1,108.71	91.56	13.109	
6,700.00	4,838.40	6,831.28	4,855.00	47.42	49.05	90.793	1,635.28	-872.14	1,200.27	1,104.47	95.80	12.528	
6,800.00	4,839.11	6,931.28	4,855.76	49.53	51.18	90.795	1,705.99	-942.85	1,200.27	1,100.20	100.08	11.993	
6,900.00	4,839.83	7,031.28	4,856.51	51.67	53.33	90.797	1,776.70	-1,013.56	1,200.27	1,095.89	104.38	11.499	
7,000.00	4,840.54	7,131.28	4,857.27	53.81	55.49	90.799	1,847.41	-1,084.26	1,200.27	1,091.57	108.70	11.042	
7,100.00	4,841.25	7,231.28	4,858.02	55.97	57.66	90.801	1,918.12	-1,154.97	1,200.27	1,087.23	113.05	10.617	
7,200.00	4,841.97	7,331.28	4,858.78	58.14	59.83	90.803	1,988.83	-1,225.68	1,200.27	1,082.86	117.41	10.223	
7,300.00	4,842.68	7,431.28	4,859.53	60.32	62.02	90.805	2,059.54	-1,296.39	1,200.27	1,078.48	121.79	9.855	
7,400.00	4,843.40	7,531.28	4,860.29	62.50	64.21	90.807	2,130.25	-1,367.10	1,200.27	1,074.09	126.19	9.512	
7,500.00	4,844.11	7,631.28	4,861.05	64.70	66.41	90.809	2,200.96	-1,437.80	1,200.27	1,069.68	130.59	9.191	
7,600.00	4,844.82	7,731.28	4,861.80	66.90	68.62	90.811	2,271.67	-1,508.51	1,200.27	1,065.26	135.01	8.890	
7,700.00	4,845.54	7,831.28	4,862.56	69.10	70.83	90.812	2,342.37	-1,579.22	1,200.27	1,060.82	139.45	8.607	
7,800.00	4,846.25	7,931.28	4,863.31	71.32	73.05	90.814	2,413.08	-1,649.93	1,200.27	1,056.38	143.89	8.342	
7,900.00	4,846.96	8,031.28	4,864.07	73.53	75.27	90.816	2,483.79	-1,720.64	1,200.27	1,051.93	148.34	8.091	
8,000.00	4,847.68	8,131.28	4,864.82	75.75	77.50	90.818	2,554.50	-1,791.34	1,200.27	1,047.47	152.80	7.855	
8,100.00	4,848.39	8,231.28	4,865.58	77.98	79.73	90.820	2,625.21	-1,862.05	1,200.27	1,043.00	157.26	7.632	
8,200.00	4,849.10	8,331.28	4,866.33	80.21	81.96	90.822	2,695.92	-1,932.76	1,200.27	1,038.53	161.74	7.421	
8,300.00	4,849.82	8,431.28	4,867.09	82.44	84.20	90.824	2,766.63	-2,003.47	1,200.27	1,034.05	166.22	7.221	
8,400.00	4,850.53	8,531.28	4,867.84	84.68	86.44	90.826	2,837.34	-2,074.18	1,200.27	1,029.56	170.70	7.031	
8,500.00	4,851.25	8,631.28	4,868.60	86.92	88.68	90.828	2,908.05	-2,144.88	1,200.27	1,025.07	175.19	6.851	
8,600.00	4,851.96	8,731.28	4,869.35	89.16	90.93	90.830	2,978.76	-2,215.59	1,200.27	1,020.58	179.69	6.680	
8,700.00	4,852.67	8,831.28	4,870.11	91.41	93.18	90.832	3,049.47	-2,286.30	1,200.27	1,016.08	184.19	6.516	
8,800.00	4,853.39	8,931.28	4,870.86	93.66	95.43	90.834	3,120.18	-2,357.01	1,200.27	1,011.57	188.70	6.361	
8,900.00	4,854.10	9,031.28	4,871.62	95.91	97.68	90.836	3,190.89	-2,427.72	1,200.27	1,007.06	193.21	6.212	
9,000.00	4,854.81	9,131.28	4,872.37	98.16	99.93	90.838	3,261.60	-2,498.42	1,200.27	1,002.55	197.72	6.071	
9,100.00	4,855.53	9,231.28	4,873.13	100.41	102.19	90.840	3,332.31	-2,569.13	1,200.27	998.03	202.23	5.935	
9,200.00	4,856.24	9,331.28	4,873.89	102.67	104.45	90.842	3,403.01	-2,639.84	1,200.27	993.51	206.75	5.805	
9,300.00	4,856.95	9,431.28	4,874.64	104.92	106.71	90.844	3,473.72	-2,710.55	1,200.26	988.99	211.28	5.681	
9,400.00	4,857.67	9,531.28	4,875.40	107.18	108.97	90.846	3,544.43	-2,781.26	1,200.26	984.46	215.80	5.562	
9,500.00	4,858.38	9,631.28	4,876.15	109.44	111.23	90.848	3,615.14	-2,851.96	1,200.26	979.93	220.33	5.448	
9,600.00	4,859.10	9,731.28	4,876.91	111.71	113.50	90.850	3,685.85	-2,922.67	1,200.26	975.40	224.86	5.338	
9,700.00	4,859.81	9,831.28	4,877.66	113.97	115.76	90.852	3,756.56	-2,993.38	1,200.26	970.87	229.39	5.232	
9,800.00	4,860.52	9,931.28	4,878.42	116.23	118.03	90.854	3,827.27	-3,064.09	1,200.26	966.33	233.93	5.131	
9,900.00	4,861.24	10,031.28	4,879.17	118.50	120.29	90.856	3,897.98	-3,134.80	1,200.26	961.80	238.47	5.033	
10,000.00	4,861.95	10,131.28	4,879.93	120.77	122.56	90.858	3,968.69	-3,205.50	1,200.26	957.26	243.01	4.939	
10,100.00	4,862.66	10,231.28	4,880.68	123.03	124.83	90.860	4,039.40	-3,276.21	1,200.26	952.72	247.55	4.849	
10,200.00	4,863.38	10,331.28	4,881.44	125.30	127.10	90.862	4,110.11	-3,346.92	1,200.26	948.17	252.09	4.761	
10,300.00	4,864.09	10,431.28	4,882.19	127.57	129.37	90.864	4,180.82	-3,417.63	1,200.26	943.63	256.63	4.677	

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 117H - 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)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.00	4,864.80	10,531.28	4,882.95	129.84	131.64	90.866	4,251.53	-3,488.34	1,200.26	939.08	261.18	4.596	
10,500.00	4,865.52	10,631.28	4,883.70	132.12	133.92	90.868	4,322.24	-3,559.04	1,200.26	934.53	265.73	4.517	
10,600.00	4,866.23	10,731.28	4,884.46	134.39	136.19	90.870	4,392.94	-3,629.75	1,200.26	929.98	270.28	4.441	
10,700.00	4,866.95	10,831.28	4,885.21	136.66	138.46	90.872	4,463.65	-3,700.46	1,200.26	925.43	274.83	4.367	
10,800.00	4,867.66	10,931.28	4,885.97	138.94	140.74	90.874	4,534.36	-3,771.17	1,200.26	920.88	279.38	4.296	
10,900.00	4,868.37	11,031.28	4,886.73	141.21	143.02	90.876	4,605.07	-3,841.88	1,200.26	916.33	283.93	4.227	
11,000.00	4,869.09	11,131.28	4,887.48	143.49	145.29	90.878	4,675.78	-3,912.58	1,200.26	911.77	288.49	4.161	
11,100.00	4,869.80	11,231.28	4,888.24	145.76	147.57	90.880	4,746.49	-3,983.29	1,200.26	907.22	293.04	4.096	
11,200.00	4,870.51	11,331.28	4,888.99	148.04	149.85	90.882	4,817.20	-4,054.00	1,200.26	902.66	297.60	4.033	
11,300.00	4,871.23	11,431.28	4,889.75	150.32	152.12	90.884	4,887.91	-4,124.71	1,200.26	898.10	302.16	3.972	
11,400.00	4,871.94	11,531.28	4,890.50	152.59	154.40	90.886	4,958.62	-4,195.42	1,200.26	893.55	306.71	3.913	
11,500.00	4,872.65	11,631.28	4,891.26	154.87	156.68	90.888	5,029.33	-4,266.12	1,200.26	888.99	311.27	3.856	
11,596.61	4,873.34	11,727.89	4,891.99	157.07	158.88	90.890	5,097.64	-4,334.44	1,200.26	884.58	315.68	3.802	
11,600.00	4,873.37	11,729.63	4,892.00	157.15	158.92	90.890	5,098.87	-4,335.66	1,200.26	884.47	315.79	3.801 SF	
11,700.00	4,874.08	11,729.63	4,892.00	159.43	158.92	90.890	5,098.87	-4,335.66	1,204.55	888.25	316.30	3.808	
11,800.00	4,874.80	11,729.63	4,892.00	161.71	158.92	90.890	5,098.87	-4,335.66	1,217.08	903.11	313.97	3.876	
11,900.00	4,875.51	11,729.63	4,892.00	163.99	158.92	90.890	5,098.87	-4,335.66	1,237.58	928.49	309.09	4.004	
12,000.00	4,876.22	11,729.63	4,892.00	166.27	158.92	90.890	5,098.87	-4,335.66	1,265.68	963.57	302.10	4.190	
12,100.00	4,876.94	11,729.63	4,892.00	168.55	158.92	90.890	5,098.87	-4,335.66	1,300.87	1,007.35	293.52	4.432	
12,200.00	4,877.65	11,729.63	4,892.00	170.83	158.92	90.890	5,098.87	-4,335.66	1,342.61	1,058.74	283.87	4.730	
12,300.00	4,878.36	11,729.63	4,892.00	173.11	158.92	90.890	5,098.87	-4,335.66	1,390.30	1,116.69	273.61	5.081	
12,400.00	4,879.08	11,729.63	4,892.00	175.40	158.92	90.890	5,098.87	-4,335.66	1,443.35	1,180.23	263.12	5.486	

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 120H - 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)			
0.00	0.00	0.00	0.00	0.00	0.00	-54.757	34.58	-48.95	59.93				
100.00	100.00	100.00	100.00	0.27	0.27	-54.757	34.58	-48.95	59.93	59.39	0.54	111.455	
200.00	200.00	200.00	200.00	0.63	0.63	-54.757	34.58	-48.95	59.93	58.68	1.25	47.767	
300.00	300.00	300.00	300.00	0.99	0.99	-54.757	34.58	-48.95	59.93	57.96	1.97	30.397	
400.00	400.00	400.00	400.00	1.34	1.34	-54.757	34.58	-48.95	59.93	57.24	2.69	22.291	
500.00	500.00	500.00	500.00	1.70	1.70	-54.757	34.58	-48.95	59.93	56.53	3.41	17.598	
600.00	600.00	600.00	600.00	2.06	2.06	-54.757	34.58	-48.95	59.93	55.81	4.12	14.538	
700.00	700.00	700.00	700.00	2.42	2.42	-54.757	34.58	-48.95	59.93	55.09	4.84	12.384	
800.00	800.00	800.00	800.00	2.78	2.78	-54.757	34.58	-48.95	59.93	54.37	5.56	10.786	
900.00	900.00	900.00	900.00	3.14	3.14	-54.757	34.58	-48.95	59.93	53.66	6.27	9.553	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-54.757	34.58	-48.95	59.93	52.94	6.99	8.574 CC	
1,100.00	1,099.95	1,100.06	1,100.02	3.84	3.85	110.848	36.55	-47.22	60.60	52.91	7.69	7.883 ES	
1,200.00	1,199.63	1,198.56	1,198.20	4.17	4.21	123.976	42.34	-42.15	65.01	56.65	8.37	7.769 SF	
1,300.00	1,298.77	1,294.01	1,292.85	4.51	4.55	140.362	51.57	-34.06	78.55	69.51	9.04	8.685	
1,400.00	1,397.08	1,385.14	1,382.54	4.87	4.90	154.180	63.69	-23.44	104.57	94.89	9.68	10.802	
1,500.00	1,494.58	1,471.40	1,466.63	5.26	5.24	163.901	78.11	-10.80	141.67	131.41	10.26	13.804	
1,600.00	1,592.01	1,553.88	1,546.15	5.67	5.59	170.297	94.56	3.62	184.90	174.11	10.79	17.143	
1,700.00	1,689.44	1,632.64	1,621.13	6.10	5.95	174.679	112.67	19.48	232.83	221.55	11.28	20.638	
1,800.00	1,786.87	1,713.78	1,697.52	6.54	6.35	178.010	133.26	37.53	284.25	272.41	11.84	24.013	
1,900.00	1,884.31	1,798.30	1,776.98	6.99	6.79	-179.531	154.90	56.49	336.47	324.01	12.46	27.003	
2,000.00	1,981.74	1,882.81	1,856.45	7.45	7.25	-177.726	176.53	75.44	389.03	375.94	13.10	29.704	
2,100.00	2,079.17	1,967.32	1,935.92	7.92	7.72	-176.346	198.16	94.40	441.81	428.07	13.74	32.150	
2,200.00	2,176.60	2,051.83	2,015.38	8.39	8.20	-175.259	219.79	113.35	494.73	480.34	14.39	34.369	
2,300.00	2,274.03	2,136.34	2,094.85	8.87	8.70	-174.381	241.42	132.31	547.76	532.71	15.05	36.388	
2,400.00	2,371.46	2,220.85	2,174.31	9.35	9.20	-173.657	263.05	151.26	600.86	585.15	15.72	38.228	
2,500.00	2,468.90	2,305.36	2,253.78	9.84	9.70	-173.051	284.68	170.22	654.03	637.64	16.39	39.911	
2,600.00	2,566.33	2,389.87	2,333.25	10.33	10.21	-172.535	306.31	189.17	707.23	690.17	17.06	41.453	
2,700.00	2,663.76	2,474.38	2,412.71	10.82	10.73	-172.091	327.94	208.13	760.47	742.74	17.74	42.870	
2,800.00	2,761.19	2,558.89	2,492.18	11.31	11.25	-171.705	349.57	227.08	813.74	795.32	18.42	44.177	
2,900.00	2,858.62	2,643.40	2,571.65	11.81	11.78	-171.367	371.20	246.04	867.04	847.93	19.10	45.385	
3,000.00	2,956.05	2,727.91	2,651.11	12.31	12.30	-171.067	392.83	264.99	920.35	900.56	19.79	46.506	
3,100.00	3,053.49	2,812.43	2,730.58	12.81	12.83	-170.800	414.46	283.95	973.68	953.20	20.48	47.546	
3,200.00	3,150.92	2,896.94	2,810.04	13.31	13.37	-170.561	436.10	302.90	1,027.02	1,005.85	21.17	48.514	
3,300.00	3,248.35	2,981.45	2,889.51	13.81	13.90	-170.346	457.73	321.86	1,080.38	1,058.52	21.86	49.417	
3,400.00	3,345.78	3,065.96	2,968.98	14.31	14.44	-170.151	479.36	340.82	1,133.74	1,111.18	22.56	50.260	
3,500.00	3,443.21	3,150.47	3,048.44	14.82	14.98	-169.973	500.99	359.77	1,187.11	1,163.86	23.25	51.050	
3,600.00	3,540.65	3,234.98	3,127.91	15.32	15.52	-169.810	522.62	378.73	1,240.49	1,216.54	23.95	51.791	
3,700.00	3,638.08	3,319.49	3,207.38	15.83	16.06	-169.661	544.25	397.68	1,293.88	1,269.23	24.65	52.487	
3,800.00	3,735.52	3,404.04	3,286.88	16.34	16.60	-169.579	565.89	416.64	1,347.22	1,321.86	25.35	53.141	
3,900.00	3,833.67	3,490.29	3,367.98	16.81	17.16	-169.737	587.97	435.99	1,397.69	1,371.64	26.05	53.645	
4,000.00	3,932.68	3,578.98	3,451.38	17.24	17.73	-169.824	610.67	455.88	1,443.67	1,416.90	26.76	53.942	

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 136H - 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	-55.167	11.28	-16.22	19.76				
100.00	100.00	100.00	100.00	0.27	0.27	-55.167	11.28	-16.22	19.76	19.22	0.54	36.743	
200.00	200.00	200.00	200.00	0.63	0.63	-55.167	11.28	-16.22	19.76	18.50	1.25	15.747	
300.00	300.00	300.00	300.00	0.99	0.99	-55.167	11.28	-16.22	19.76	17.79	1.97	10.021	
400.00	400.00	400.00	400.00	1.34	1.34	-55.167	11.28	-16.22	19.76	17.07	2.69	7.349	
500.00	500.00	500.00	500.00	1.70	1.70	-55.167	11.28	-16.22	19.76	16.35	3.41	5.802 CC, ES	
600.00	600.00	599.07	599.02	2.06	2.05	-59.007	11.28	-18.79	21.94	17.83	4.11	5.336 SF	
700.00	700.00	697.61	697.26	2.42	2.40	-66.880	11.28	-26.43	28.87	24.06	4.81	6.006	
800.00	800.00	795.04	793.87	2.78	2.76	-73.331	11.66	-38.93	41.10	35.61	5.49	7.487	
900.00	900.00	890.96	888.25	3.14	3.14	-77.133	12.79	-55.97	58.61	52.45	6.16	9.521	
1,000.00	1,000.00	984.93	979.77	3.50	3.56	-79.272	14.62	-77.19	81.13	74.32	6.80	11.926	
1,100.00	1,099.95	1,076.71	1,068.03	3.84	4.00	80.816	17.11	-102.17	108.01	100.60	7.41	14.570	
1,200.00	1,199.63	1,166.00	1,152.66	4.17	4.49	81.994	20.19	-130.47	138.73	130.73	8.00	17.349	
1,300.00	1,298.77	1,252.42	1,233.21	4.51	5.02	83.813	23.77	-161.54	173.40	164.81	8.58	20.202	
1,400.00	1,397.08	1,335.67	1,309.40	4.87	5.59	85.709	27.78	-194.85	212.14	202.95	9.19	23.078	
1,500.00	1,494.58	1,415.63	1,381.13	5.26	6.19	88.140	32.14	-229.89	255.04	245.22	9.82	25.959	
1,600.00	1,592.01	1,492.56	1,448.69	5.67	6.83	90.087	36.80	-266.37	301.95	291.48	10.46	28.857	
1,700.00	1,689.44	1,566.40	1,512.10	6.10	7.51	91.362	41.69	-303.89	352.41	341.31	11.10	31.749	
1,800.00	1,786.87	1,640.48	1,574.25	6.54	8.23	92.223	46.99	-343.84	406.00	394.23	11.78	34.479	
1,900.00	1,884.31	1,724.18	1,644.00	6.99	9.09	92.943	53.10	-389.71	460.53	447.89	12.64	36.448	
2,000.00	1,981.74	1,807.88	1,713.75	7.45	9.97	93.511	59.21	-435.57	515.10	501.58	13.51	38.116	
2,100.00	2,079.17	1,891.58	1,783.50	7.92	10.87	93.970	65.31	-481.44	569.70	555.29	14.41	39.538	
2,200.00	2,176.60	1,975.28	1,853.25	8.39	11.77	94.349	71.42	-527.30	624.31	609.00	15.32	40.759	
2,300.00	2,274.03	2,058.99	1,922.99	8.87	12.69	94.668	77.53	-573.17	678.95	662.71	16.24	41.817	
2,400.00	2,371.46	2,142.69	1,992.74	9.35	13.61	94.939	83.64	-619.04	733.60	716.43	17.16	42.739	
2,500.00	2,468.90	2,226.39	2,062.49	9.84	14.54	95.172	89.75	-664.90	788.25	770.15	18.10	43.550	
2,600.00	2,566.33	2,310.09	2,132.24	10.33	15.47	95.375	95.86	-710.77	842.92	823.88	19.04	44.266	
2,700.00	2,663.76	2,393.79	2,201.99	10.82	16.41	95.553	101.96	-756.63	897.59	877.60	19.99	44.900	
2,800.00	2,761.19	2,477.49	2,271.74	11.31	17.35	95.711	108.07	-802.50	952.27	931.32	20.94	45.466	
2,900.00	2,858.62	2,561.19	2,341.49	11.81	18.29	95.852	114.18	-848.36	1,006.95	985.04	21.90	45.973	
3,000.00	2,956.05	2,644.89	2,411.24	12.31	19.23	95.978	120.29	-894.23	1,061.63	1,038.77	22.87	46.430	
3,100.00	3,053.49	2,728.59	2,480.98	12.81	20.18	96.092	126.40	-940.10	1,116.32	1,092.49	23.83	46.843	
3,200.00	3,150.92	2,812.30	2,550.73	13.31	21.13	96.196	132.51	-985.96	1,171.01	1,146.21	24.80	47.219	
3,300.00	3,248.35	2,896.00	2,620.48	13.81	22.08	96.290	138.61	-1,031.83	1,225.71	1,199.94	25.77	47.561	
3,400.00	3,345.78	2,979.70	2,690.23	14.31	23.03	96.376	144.72	-1,077.69	1,280.40	1,253.66	26.75	47.873	
3,500.00	3,443.21	3,063.88	2,760.01	14.82	24.00	96.455	150.83	-1,124.16	1,335.29	1,308.42	27.75	48.185	
3,600.00	3,540.65	3,147.85	2,829.83	15.32	25.00	96.528	156.94	-1,171.21	1,390.00	1,362.11	28.75	48.497	
3,700.00	3,638.08	3,232.32	2,899.73	15.83	26.00	96.595	163.05	-1,218.26	1,444.71	1,415.71	29.75	48.809	
3,800.00	3,735.52	3,316.79	2,969.88	16.34	27.00	96.656	169.16	-1,266.31	1,499.42	1,469.42	30.75	49.121	
3,900.00	3,833.67	3,398.26	3,039.98	16.81	28.00	96.712	175.27	-1,314.36	1,554.13	1,523.43	31.75	49.433	
4,000.00	3,932.68	3,479.49	3,110.23	17.24	29.00	96.763	181.38	-1,362.41	1,608.84	1,578.14	32.75	49.745	
4,100.00	4,032.28	3,560.46	3,180.53	17.61	30.00	96.810	187.49	-1,410.46	1,663.55	1,632.45	33.75	50.057	
4,200.00	4,132.21	3,640.16	3,250.88	17.94	31.00	96.852	193.60	-1,458.51	1,718.26	1,687.16	34.75	50.369	
4,300.00	4,232.21	3,719.35	3,321.23	18.21	32.00	96.890	199.71	-1,506.56	1,772.97	1,741.87	35.75	50.681	
4,400.00	4,331.92	3,797.70	3,391.53	18.48	33.00	96.923	205.82	-1,554.61	1,827.68	1,796.58	36.75	50.993	
4,500.00	4,429.14	3,875.45	3,461.83	18.72	34.00	96.951	211.93	-1,602.66	1,882.39	1,851.29	37.75	51.305	
4,568.52	4,492.77	3,951.12	3,532.13	18.86	35.00	96.974	218.04	-1,650.71	1,937.10	1,905.80	38.75	51.617	
4,600.00	4,520.90	4,026.33	3,602.43	18.92	36.00	96.992	224.15	-1,698.76	1,991.81	1,960.31	39.75	51.929	
4,700.00	4,604.42	4,100.42	3,672.73	19.10	37.00	97.005	230.26	-1,746.81	2,046.52	2,014.82	40.75	52.241	
4,800.00	4,677.17	4,174.97	3,743.03	19.24	38.00	97.013	236.37	-1,794.86	2,101.23	2,069.53	41.75	52.553	
4,900.00	4,736.93	4,249.02	3,813.33	19.39	39.00	97.017	242.48	-1,842.91	2,155.94	2,124.24	42.75	52.865	
5,000.00	4,781.88	4,318.66	3,883.63	19.60	40.00	97.017	248.59	-1,890.96	2,210.65	2,178.95	43.75	53.177	

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 Ponderosa 112H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6802+25 @ 6827.00ft
Reference Site:	Ponderosa (99, 111,112,114-117,120,136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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: Ponderosa (99, 111,112,114-117,120,136) - Ponderosa 136H - Original Hole - rev0													Offset Site Error:	0.00 ft
Survey Program:		0-MWD					Rule Assigned:				Offset Well Error:	0.00 ft		
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			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)	Minimum Separation (ft)		Separation Factor	
5,100.00	4,811.47	5,953.91	4,432.46	20.04	41.66	-57.341	-765.42	-1,017.11	716.86	662.89	53.97	13.282		
5,200.00	4,826.29	5,855.33	4,433.29	20.83	40.81	-56.729	-695.72	-1,086.81	717.81	664.57	53.24	13.482		
5,300.00	4,828.41	5,755.37	4,434.13	21.88	40.09	-56.683	-625.04	-1,157.49	717.86	664.77	53.09	13.521		
5,400.00	4,829.12	5,655.37	4,434.97	23.14	39.50	-56.692	-554.33	-1,228.20	717.79	664.59	53.20	13.493		
5,500.00	4,829.84	5,555.37	4,435.81	24.58	39.03	-56.701	-483.62	-1,298.91	717.72	664.22	53.51	13.414		
5,600.00	4,830.55	5,455.37	4,436.65	26.14	38.67	-56.709	-412.91	-1,369.62	717.65	663.65	54.00	13.290		
5,700.00	4,831.26	5,355.37	4,437.50	27.80	38.42	-56.718	-342.21	-1,440.33	717.58	662.91	54.67	13.125		
5,760.83	4,831.70	5,295.03	4,438.00	28.86	38.30	-56.723	-299.54	-1,482.99	717.54	662.37	55.17	13.005		
5,800.00	4,831.98	5,271.54	4,437.72	29.55	38.27	-56.693	-282.93	-1,499.60	717.96	662.00	55.97	12.828		
5,900.00	4,832.69	5,212.81	4,432.80	31.37	38.20	-56.339	-241.57	-1,540.97	723.00	665.04	57.96	12.474		
6,000.00	4,833.40	5,150.00	4,420.95	33.24	38.14	-55.533	-197.98	-1,584.56	733.88	674.22	59.66	12.300		
6,100.00	4,834.12	5,100.00	4,406.74	35.17	38.11	-54.599	-164.09	-1,618.44	750.66	689.13	61.53	12.200		
6,200.00	4,834.83	5,039.21	4,384.04	37.14	38.10	-53.125	-123.69	-1,657.75	773.09	710.32	62.77	12.316		
6,300.00	4,835.55	4,979.95	4,356.64	39.14	38.12	-51.331	-84.63	-1,692.84	800.40	736.70	63.69	12.566		
6,400.00	4,836.26	4,927.07	4,328.03	41.17	38.16	-49.475	-50.35	-1,721.14	833.05	768.62	64.43	12.929		
6,500.00	4,836.97	4,880.35	4,299.68	43.23	38.20	-47.669	-20.77	-1,743.56	871.37	806.38	64.98	13.409		
6,600.00	4,837.69	4,850.00	4,279.83	45.32	38.23	-46.426	-2.00	-1,756.77	915.50	849.83	65.67	13.941		
6,700.00	4,838.40	4,800.00	4,244.79	47.42	38.28	-44.287	27.98	-1,776.06	964.95	899.49	65.45	14.743		
6,800.00	4,839.11	4,771.68	4,223.76	49.53	38.31	-43.036	44.38	-1,785.59	1,019.70	954.09	65.61	15.542		
6,900.00	4,839.83	4,750.00	4,207.12	51.67	38.33	-42.065	56.61	-1,792.17	1,079.28	1,013.56	65.72	16.422		
7,000.00	4,840.54	4,719.34	4,182.82	53.81	38.36	-40.676	73.39	-1,800.42	1,143.10	1,077.69	65.41	17.475		
7,100.00	4,841.25	4,700.00	4,167.08	55.97	38.38	-39.795	83.65	-1,804.97	1,210.81	1,145.55	65.27	18.552		
7,200.00	4,841.97	4,678.26	4,149.01	58.14	38.39	-38.803	94.86	-1,809.48	1,281.91	1,216.96	64.95	19.736		
7,300.00	4,842.68	4,650.00	4,124.98	60.32	38.41	-37.512	108.91	-1,814.36	1,356.13	1,291.71	64.42	21.051		
7,400.00	4,843.40	4,650.00	4,124.98	62.50	38.41	-37.512	108.91	-1,814.36	1,432.74	1,368.27	64.48	22.221		

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Anticollision Report

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Reference Site:	Ponderosa (99, 111, 112, 114-117, 120, 136)	MD Reference:	RKB=6802+25 @ 6827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ponderosa 112H	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=6802+25 @ 6827.00ft

Offset Depths are relative to Offset Datum

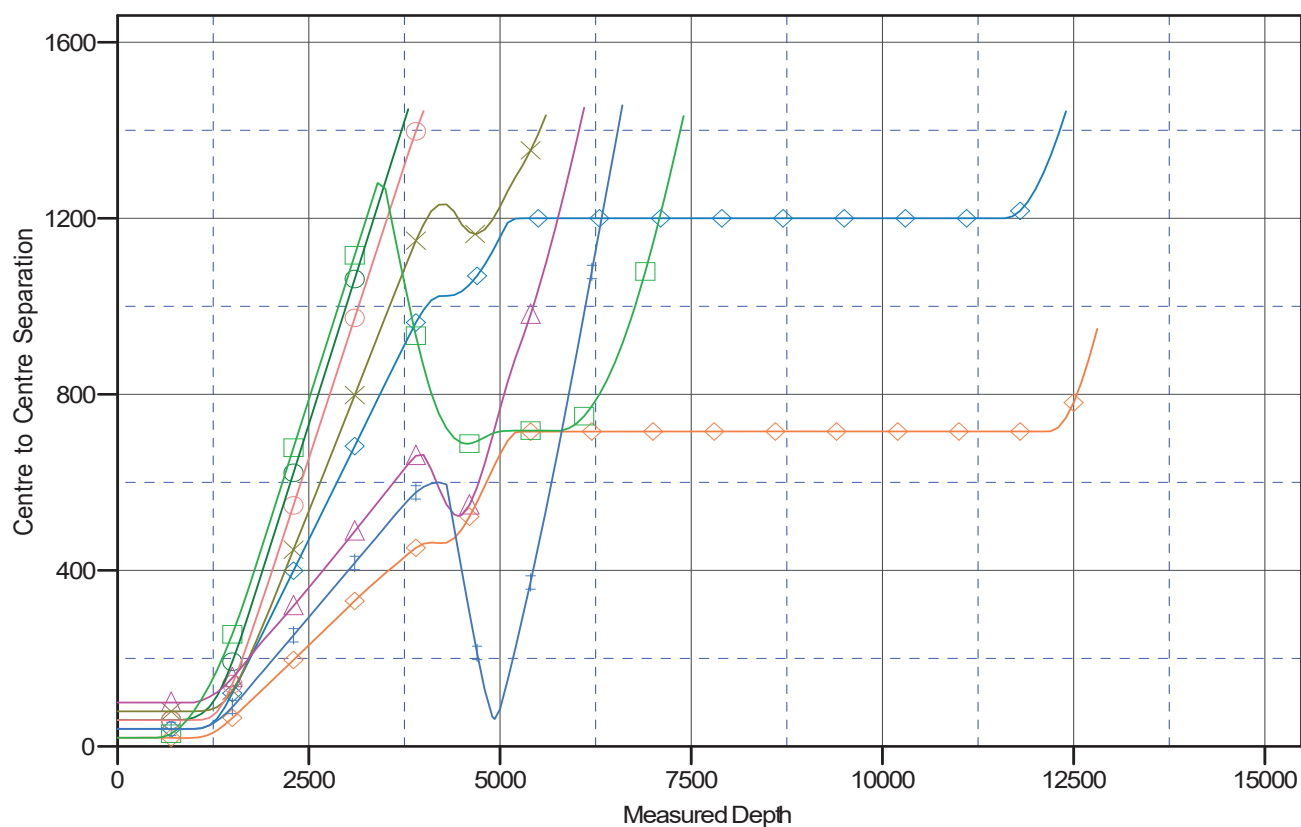
Central Meridian is -107.8333333

Coordinates are relative to: Ponderosa 112H

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

Grid Convergence at Surface is: 0.000°

Ladder Plot



LEGEND

Ponderosa 099H Original Hole rev0/0	Ponderosa 120H Original Hole rev0/0	Ponderosa 136H Original Hole rev0/0
Ponderosa 117H Original Hole rev0/0	Ponderosa 111H Original Hole rev0/0	Ponderosa 114H Original Hole rev0/0
Ponderosa 116H Original Hole rev0/0	Ponderosa 115H Original Hole rev0/0	

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Anticollision Report

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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=6802+25 @ 6827.00ft

Offset Depths are relative to Offset Datum

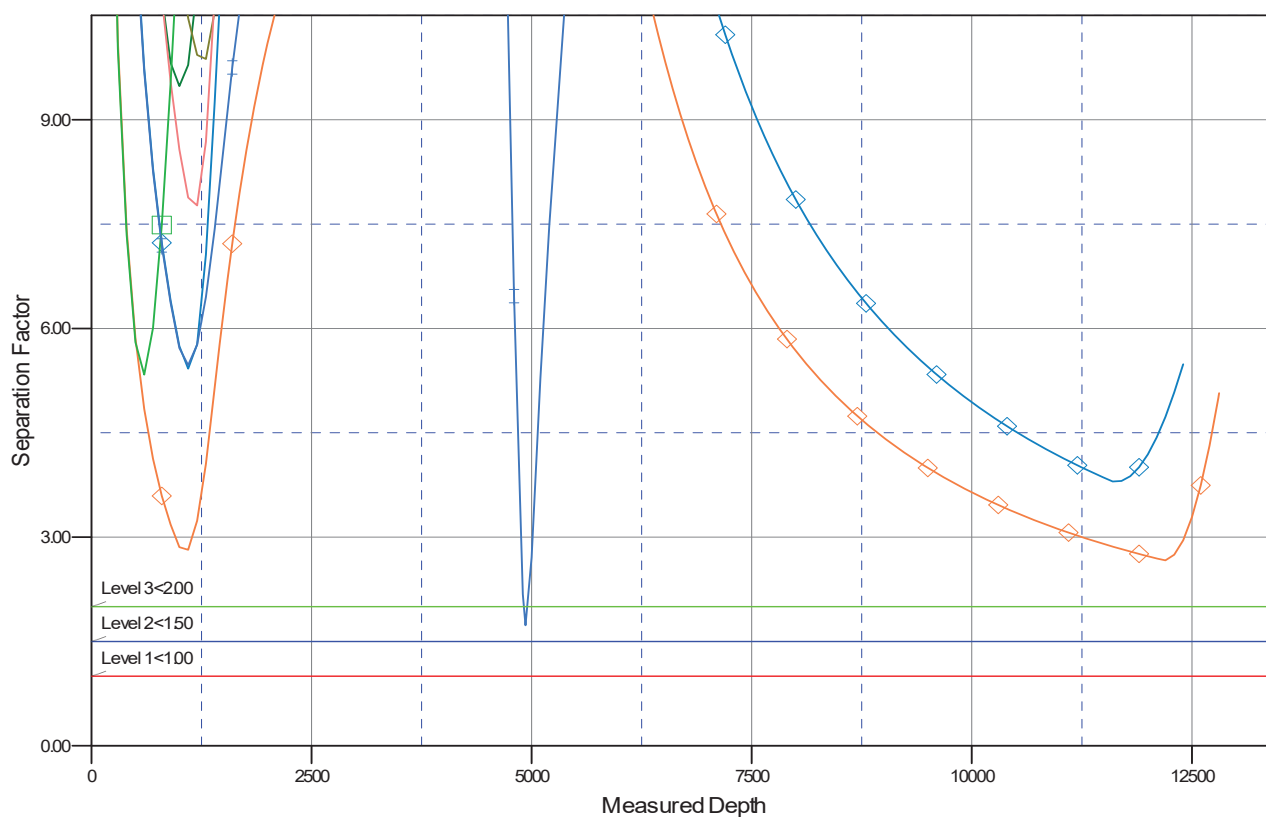
Central Meridian is -107.8333333

Coordinates are relative to: Ponderosa 112H

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

Grid Convergence at Surface is: 0.000°

Separation Factor Plot



LEGEND

Ponderosa 099H Original Hole rev0/0	Ponderosa 120H Original Hole rev0/0	Ponderosa 136H Original Hole rev0/0
Ponderosa 117H Original Hole rev0/0	Ponderosa 111H Original Hole rev0/0	Ponderosa 114H Original Hole rev0/0
Ponderosa 116H Original Hole rev0/0	Ponderosa 115H Original Hole rev0/0	

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)

* DJR OPERATING LLC
#112H PONDEROSA UNIT
Lease: NMNM19816 Agreement: NMNM106318743

SH: Lot 1 Section 7, T. 23N., R. 9W.
San Juan County, New Mexico
BH: Lot 4 Section 1, T. 23N., R. 10W.
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. Unless drilling operations are commenced within three years according to 43 CFR 3171.14, approval of the Application for Permit to Drill will expire. No extensions will be granted.

- L. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the tool pusher shall maintain rig surveillance at all times, unless the well is secured with blowout preventers or cement plugs.
- M. If for any reason, drilling operations are suspended for more than 90 days, a written notice must be provided to this office outlining your plans for this well.
- N. **Commingling:** No production (oil, gas, and water) from the subject well should start until Sundry Notices (if necessary) granting variances from applicable regulations as related to commingling and off-lease measurement are approved by this office. (See 43 CFR 3173.14)

II. REPORTING REQUIREMENTS

- A. For reporting purposes, all well Sundry notices, well completion and other well actions shall be referenced by the appropriate lease, communitization agreement and/or unit agreement numbers.
- B. The following reports shall be filed with the BLM-Authorized Officer online through AFMSS 2 within 30 days after the work is completed.
 - 1. Provide complete information concerning.
 - a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.
 - b. Intervals tested, perforated (include size, number and location of perforations), acidized, or fractured; and results obtained. Provide date work was done on well completion report and completion sundry notice.
 - c. Subsequent Report of Abandonment, show the way the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.
 - 2. Well Completion Report will be submitted with 30 days after well has been completed.
 - a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.
 - 3. Submit a cement evaluation log if cement is not circulated to surface.
- C. Production Startup Notification is required no later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site or resumes production in the case of a well which has been off production for more than 90 days. The operator shall notify the Authorized Officer by letter or Sundry Notice, Form 3160-5, or orally to be followed by a letter or Sundry Notice, of the date on which such production has begun or resumed. CFR 43 3162.4-1(c).

III. DRILLER'S LOG

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

IV. GAS FLARING

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

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

V. SAFETY

- A. All rig heating stoves are to be of the explosion-proof type.
- B. Rig safety lines are to be installed.
- C. Hard hats and other Personal Protective Equipment (PPE) must be utilized.

VI. CHANGE OF PLANS OR ABANDONMENT

- A. Any changes of plans required to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.I.
- B. If the well is dry, it is to be plugged in accordance with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.I. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section II.B.1c.
- C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drill site without prior approval from the BLM-Authorized Officer.

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.
- B. Emergency program changes after hours contact:

Virgil Lucero (505) 793-1836
Dustin Porch (505) 386-9876
Kenneth Rennick (505) 564-7742
Matthew Kade (505) 564-7736

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Action 424158

CONDITIONS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 424158
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
scrues76	Cement is required to circulate on both surface and intermediate1 strings of casing.	1/23/2025
scrues76	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	1/23/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	2/10/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	2/10/2025
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.	2/10/2025
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.	2/10/2025