

Form 3160-3
(October 2024)

FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027

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

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address		9. API Well No. 30-043-21549
3b. Phone No. (include area code)		10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
		13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

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

- | | |
|---|---|
| <ul style="list-style-type: none"> 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). | <ul style="list-style-type: none"> 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		Office

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

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



(Continued on page 2)

*(Instructions on page 2)

Additional Operator Remarks

Location of Well

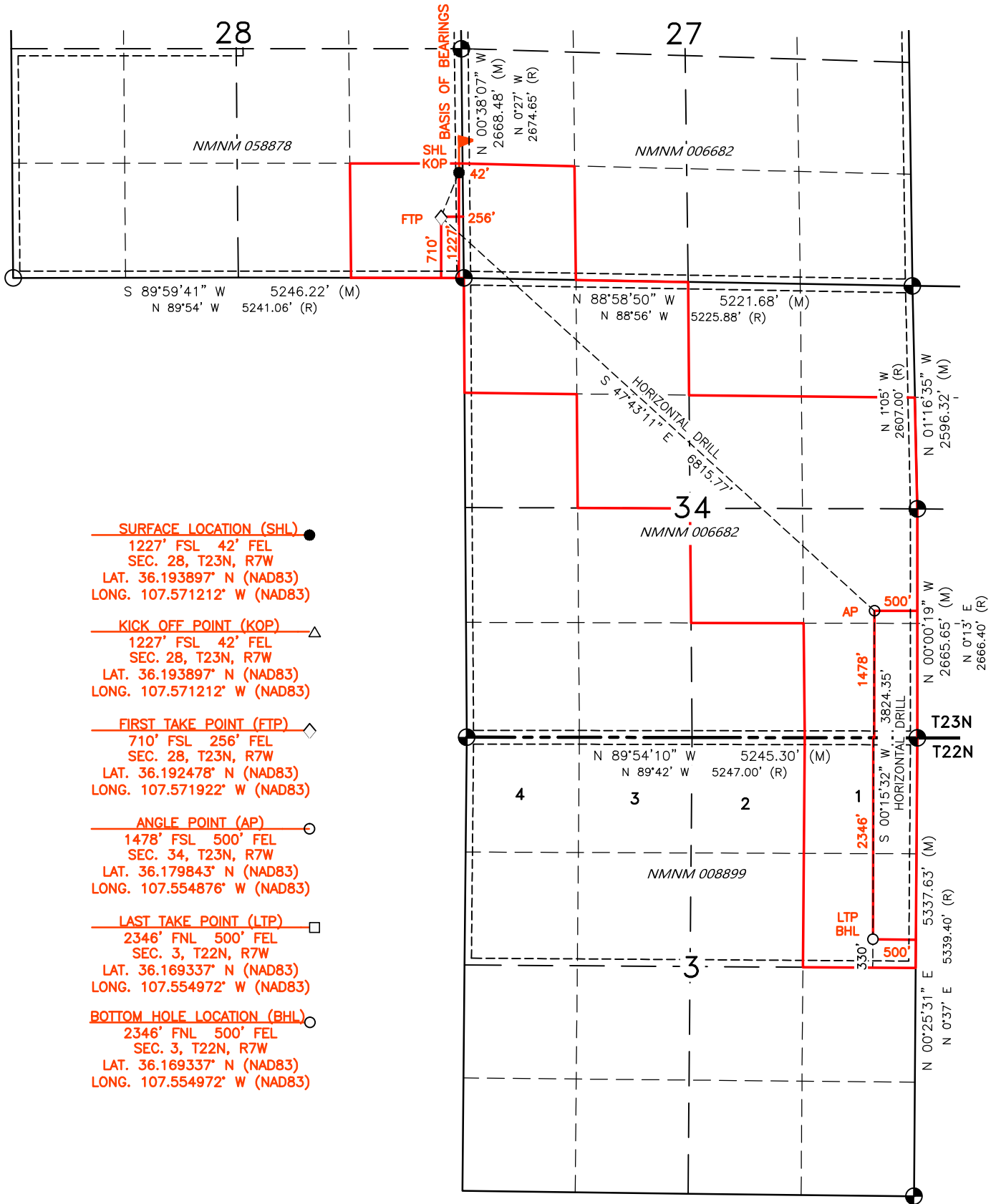
0. SHL: SESE / 1227 FSL / 42 FEL / TWSP: 23N / RANGE: 7W / SECTION: 28 / LAT: 36.193897 / LONG: -107.571212 (TVD: 0 feet, MD: 0 feet)
PPP: SESE / 710 FSL / 256 FEL / TWSP: 23N / RANGE: 7W / SECTION: 28 / LAT: 36.192478 / LONG: -107.571922 (TVD: 5149 feet, MD: 5249 feet)
PPP: SWSW / 475 FSL / 1 FWL / TWSP: 23N / RANGE: 7W / SECTION: 27 / LAT: 36.19183 / LONG: -107.571047 (TVD: 5284 feet, MD: 15253 feet)
PPP: NESE / 1478 FSL / 500 FEL / TWSP: 23N / RANGE: 7W / SECTION: 34 / LAT: 36.1190495 / LONG: -107.569247 (TVD: 5284 feet, MD: 15253 feet)
PPP: NWNW / 1 FNL / 527 FWL / TWSP: 22N / RANGE: 7W / SECTION: 34 / LAT: 36.1190495 / LONG: -107.569247 (TVD: 5284 feet, MD: 15253 feet)
PPP: LOT 1 / 1 FNL / 500 FEL / TWSP: 22N / RANGE: 7W / SECTION: 3 / LAT: 36.175782 / LONG: -107.554913 (TVD: 5284 feet, MD: 15253 feet)
BHL: SENE / 2346 FNL / 500 FEL / TWSP: 22N / RANGE: 7W / SECTION: 3 / LAT: 36.169337 / LONG: -107.554972 (TVD: 5284 feet, MD: 15253 feet)

BLM Point of Contact

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

FND 2.5" BC
GLO 1948

CALC



SURFACE LOCATION (SHL) ●
 1227' FSL 42' FEL
 SEC. 28, T23N, R7W
 LAT. 36.193897° N (NAD83)
 LONG. 107.571212° W (NAD83)

KICK OFF POINT (KOP) ▲
 1227' FSL 42' FEL
 SEC. 28, T23N, R7W
 LAT. 36.193897° N (NAD83)
 LONG. 107.571212° W (NAD83)

FIRST TAKE POINT (FTP) ◇
 710' FSL 256' FEL
 SEC. 28, T23N, R7W
 LAT. 36.192478° N (NAD83)
 LONG. 107.571922° W (NAD83)

ANGLE POINT (AP) ○
 1478' FSL 500' FEL
 SEC. 34, T23N, R7W
 LAT. 36.179843° N (NAD83)
 LONG. 107.554876° W (NAD83)

LAST TAKE POINT (LTP) □
 2346' FNL 500' FEL
 SEC. 3, T22N, R7W
 LAT. 36.169337° N (NAD83)
 LONG. 107.554972° W (NAD83)

BOTTOM HOLE LOCATION (BHL) ○
 2346' FNL 500' FEL
 SEC. 3, T22N, R7W
 LAT. 36.169337° N (NAD83)
 LONG. 107.554972° 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:** 2/14/2025

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

If Other, please describe:

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
N Alamito Unit 004H	TBD	P-28-23N-7W	1228 FSL 22 FEL	434	984	173
N Alamito Unit 301H	TBD	P-28-23N-7W	1228 FSL 2 FEL	374	849	150
N Alamito Unit 311H	TBD	P-28-23N-7W	1227 FSL 62 FEL	268	608	107
N Alamito Unit 312H	TBD	P-28-23N-7W	1227 FSL 42 FEL	459	1042	184
				3-year Decline	3-year Decline	3-year Decline
N Alamito Unit 004H	TBD	P-28-23N-7W	1228 FSL 22 FEL	98	392	39
N Alamito Unit 301H	TBD	P-28-23N-7W	1228 FSL 2 FEL	85	338	34
N Alamito Unit 311H	TBD	P-28-23N-7W	1227 FSL 62 FEL	61	242	24
N Alamito Unit 312H	TBD	P-28-23N-7W	1227 FSL 42 FEL	104	415	41

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
N Alamito Unit 004H	TBD	6/1/2026	6/10/2026	6/21/2026	7/1/2026	7/3/2026
N Alamito Unit 301H	TBD	6/2/2026	6/12/2026	6/21/2026	7/1/2026	7/3/2026
N Alamito Unit 311H	TBD	6/3/2026	6/13/2026	6/21/2026	7/1/2026	7/3/2026
N Alamito Unit 312H	TBD	6/4/2026	6/14/2026	6/21/2026	7/1/2026	7/3/2026

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 Valadez</i>
Printed Name: Shaw-Marie Valadez
Title: Regulatory Specialist
E-mail Address: sford@enduringresources.com
Date: 1/6/2026
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
North Alamito Unit 004H 301H 311H 312H

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
North Alamito Unit 004H 301H 311H 312H

VENTING and FLARING

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:

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



DJR Operating LLC.
OGRID No: 371838
NATURAL GAS MANAGEMENT PLAN
North Alamito Unit 004H 301H 311H 312H

OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

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 separator will be utilized initially to process volumes. In addition, separators will be tied into flowback tanks which will be tied into the gas processing equipment for sales down a pipeline. See Separation Equipment for details.
- Should the facility not yet be capable of processing gas, or the gas does not meet quality standards, then storage tanks will be set that are tied into gas busters or temporary flare to manage natural gas. This flare would meet the following requirements:
 - 1) An appropriately sized flare stack with an automatic igniter.
 - 2) 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.



DJR Operating LLC.

OGRID No: 371838

NATURAL GAS MANAGEMENT PLAN

North Alamito Unit 004H 301H 311H 312H

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 that designed to handle the full volume of vapors from the facility in case of the VRU failure and it its designed with an auto ignition system.
3. Flare stacks will appropriately sized and designed to ensure proper combustion efficiency.



DJR Operating LLC.
OGRID No: 371838

NATURAL GAS MANAGEMENT PLAN
North Alamito Unit 004H 301H 311H 312H

- 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
North Alamito Unit 004H 301H 311H 312H

BEST MANAGEMENT PRACTICES

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-H formation*

WELL INFORMATION:

Name: N Alamito Unit 312H

State: New Mexico

County: San Juan

Surface Elevation: 6,946 ft ASL (GL) 6,970 ft ASL (KB)
Surface Location: 28-23-7 Sec-Twn-Rng 1,227 ft FSL 42 ft FEL
 36.193897 ° N latitude 107.571212 ° W longitude (NAD 83)
BH Location: 3-22-7 Sec-Twn-Rng 2,346 ft FNL 500 ft FEL
 36.169337 ° N latitude 107.554972 ° 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 39.0 miles to MM 112.8; Right (South) on CR 7900/Indian Service Rte 7061 for 5.2 miles to fork (0.1 miles past T to Cty Rd 7950); Left (East) exiting CR 7900 for 5.6 miles to T; Left (North) for 1.2 miles to location NAU 232H pad. There are two existing wells on this pad; NAU 232H and 233H. There are four proposed new wells on this location, From West (location entrance) to East: N Alamito Unit 311H, 312H, 004H and 301H.

GEOLOGIC AND RESERVOIR INFORMATION:

<i>Prognosis:</i>	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	5,880	1,090	1,090	W	normal
	Kirtland	5,780	1,190	1,190	W	normal
	Fruitland	5,620	1,350	1,352	G, W	sub
	Pictured Cliffs	5,330	1,640	1,647	G, W	sub
	Lewis	5,170	1,800	1,810	G, W	normal
	Chacra	4,920	2,050	2,065	G, W	normal
	Cliff House	3,830	3,140	3,174	G, W	sub
	Menefee	3,790	3,180	3,215	G, W	normal
	Point Lookout	2,960	4,010	4,050	G, W	normal
	Mancos	2,745	4,225	4,265	O,G	sub (~0.38)
	Gallup (MNCS_A)	2,430	4,540	4,580	O,G	sub (~0.38)
	MNCS_B	2,335	4,635	4,675	O,G	sub (~0.38)
	MNCS_C	2,235	4,735	4,775	O,G	sub (~0.38)
	MNCS_Cms	2,200	4,770	4,810	O,G	sub (~0.38)
	MNCS_D	2,070	4,900	4,944	O,G	sub (~0.38)
	MNCS_E	1,945	5,025	5,083	O,G	sub (~0.38)
	MNCS_F	1,896	5,074	5,144	O,G	sub (~0.38)
	MNCS_G	1,821	5,149	5,249	O,G	sub (~0.38)
	MNCS_H	1,757	5,213	5,362	O,G	sub (~0.38)
	MNCS_I	1,703	5,267	5,507	O,G	sub (~0.38)
	FTP TARGET	1,821	5,149	5,249	O,G	sub (~0.38)
	PROJECTED BHL	1,771	5,199	15,253	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: 2,240 psi
Maximum anticipated surface pressure, assuming partially evacuated hole: 1,100 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 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 installed on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device. The valve will be maintained in the open position and shall only be closed when there is no power to the accumulator.

FLUIDS AND SOLIDS CONTROL PROGRAM:

Fluid Measurement:

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

Closed-Loop System:

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

Fluid Disposal:

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

Solids Disposal:

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

Fluid Program:

See "Detailed Drilling Plan" section and attached Newpark mud program for additional details.

DETAILED DRILLING PLAN:

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

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

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

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

Hole Size: 12-1/4"

Bit / Motor: Mill Tooth or PDC, no motor

MWD / Survey: No MWD, deviation survey

Logging: None

Casing Specs:	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	1,129	110,988	110,988
Min. S.F.					13.21	3.12	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	5,602 ft (MD)	Hole Section Length:	5,252 ft
350 ft (TVD)	to	5,282 ft (TVD)	Casing Required:	5,602 ft

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

Hole Size (inches): 8.75

Bit / Motor: 8-3/4" PDC bit w/mud motor

MWD / Survey: MWD Survey with inclination and azimuth survey (every 100' at a minimum), GR optional

Logging: None

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

Casing Specs:	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)	
Specs	7	26.0	K-55	LTC	4,320	4,980	415,000	367,000
Loading					2,307	1,402	227,016	227,016
Min. S.F.					1.87	3.55	1.83	1.62

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

MU Torque (ft lbs): Minimum: 3,400 Optimum: 4,530 Maximum: 5,660

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)
Lead	III:POZ Blend	12.5	2.150	12.05	70%	0	481	1,033
Tail	Type III	13.5	1.710	8.88	30%	4,165	170	290
Annular Capacity	0.16681	cuft/ft	7" casing x 9-5/8" casing annulus				Shoe Track L	44
	0.1503	cuft/ft	7" casing x 8-3/4" hole annulus				Casing ID	6.276
	0.2148	cuft/ft	7" casing casing volume				Est displacement bbls	212.7

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

Spacer	10 bbls water f/b	f/b	10 bbls water f/b	D-MPA-2 .4%	D-SA 1 1.4%				
Lead	ASTM Type III 90/10 Poz	D-CSE 1 5.0% BWOC Strength Enhancer	BWOC Fluid Loss & Gas Migration Control	D-MPA-2 1.2%	BWOC Fluid Loss & Gas Migration Control	D-CD 2 .4%	Cello Flace LCM .25 lb/sx	D-FP 1 .5% BWOC Defoamer	D-R1 1.2% Retarder
Tail	ASTM Type III 90/10 Poz	D-CSE 1 5.0% BWOC Strength Enhancer	BWOC Fluid Loss & Gas Migration Control	Cello Flace LCM .25 lb/sx	D-FP 1 .5% BWOC Defoamer	D-R1 0.3% Retarder			

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.

5,602 ft (MD)	to	15,253 ft (MD)	Hole Section Length:	9,651 ft
5,282 ft (TVD)	to	5,199 ft (TVD)	Casing Required:	9,801 ft
Estimated KOP:		4,752 ft (MD)	4,712 ft (TVD)	
Estimated Liner Top:		5,452 ft (MD)	5,250 ft (TVD)	
Estimated Landing Point (FTP):		5,249 ft (MD)	5,149 ft (TVD)	
Estimated Lateral Length:		10,004 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					2,568	8,797	252,679	252,679
Min. S.F.					2.94	1.22	1.45	1.52

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 (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)
Spacer	Water	8.4				0	10 bbls	
Spacer	IntegraGuard Star	10		35.7		0	20 bbls	
Tail	G:POZ blend	13.3	1.520	7.50	25%	5,452	760	1,155

Displacement 207 est bbls

Annular Capacities	Volume	Description
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
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 113.2 lbs/bbl
 Avis 616 viscosifier 4.0 lb/bbl
 Xcem-311 Defoamer .8 lb/bbl
 SS201 Surfactant 0.5 gal/bbl

Lead/Tail	Type G 50%	Pozzolan Fly Ash Extender 50%	Bentonite Viscosifier 4% BWOB	FL24 Fluid Loss .4% BWOB	IntegraGuard GW86 Viscosifier .1% BWOB	R3 Retarder .2% BWOB	Xcem-311 Defoamer 0.3% BWOB
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Notify NMOCD & BLM if cement is not circulated to surface.

Note: This well will not be considered an unorthodox well location as defined by NMAC19.15.16.15.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: 9,904

Est Frac Inform: 41 Frac Stages 159,000 bbls slick water 12,880,000 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

Prepared by: Greg Olson 7/18/2024

Updated: Greg Olson 5/1/2025

WELL NAME: N Alamito Unit 312H

OBJECTIVE: Drill, complete, and equip single lateral in the Mancos-H 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.: 6,946 ft ASL (GL) 6,970 ft ASL (KB)

Surface Location: 28-23-7 Sec-Twn- Rng 1,227 ft FSL 42 ft FEL

BH Location: 3-22-7 Sec-Twn- Rng 2346 ft FNL 500 ft FEL

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

South on US Hwy 550 for 39.0 miles to MM 112.8; Right (South) on CR 7900/Indian Service Rte 7061 for 5.2 miles to fork (0.1 miles past T to Cty Rd 7950); Left (East) exiting CR 7900 for 5.6 miles to T; Left (North) for 1.2 miles to location NAU 232H pad. There are two existing wells on this pad; NAU 232H and 233H. There are four proposed new wells on this location, From West (location entrance) to East: N Alamito Unit 311H, 312H, 004H and 301H.

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	5,602 ft
KOP (MD)	4,752 ft
KOP (TVD)	4,712 ft
POE (TVD)	5,149 ft
Curve BUR	10 °/100 ft
POE (MD)	5,249 ft
TD (MD)	15,253 ft
Lat Len (ft)	10,004 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	5,602	7	26.0	K-55	LTC	0	5,602
Production	6.125	15,253	4.500	11.6	P-110	BTC	5,452	15,253

CEMENT PROPERTIES SUMMARY:

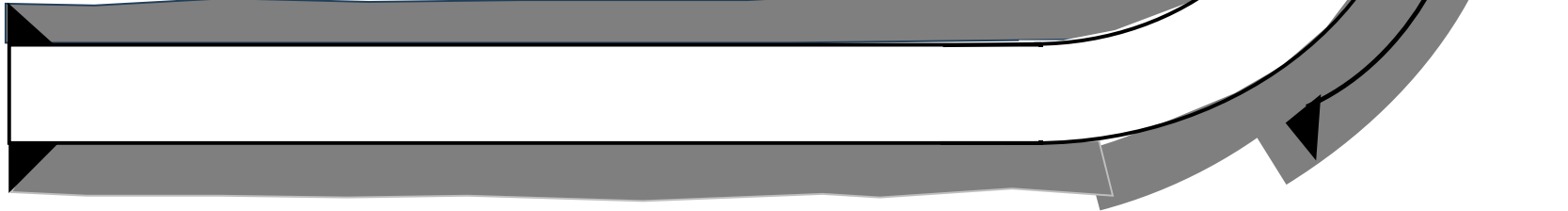
	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	TYPE I-II	14.5	1.61	7.41	0.3132	50%	0	114
Inter. (Lead)	III:POZ Blend	12.5	2.15	12.05	0.1668	70%	0	481
Inter. (Tail)	Type III	13.5	1.71	8.88	0.1503	30%	4,165	170
Prod. (Lead)	TegraGuard S	10	0.000	35.7	0.1044	0%	0	20 bbls
Prod. (Tail)	G:POZ blend	13.3	1.520	7.5	0.0873	25%	5,452	760

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

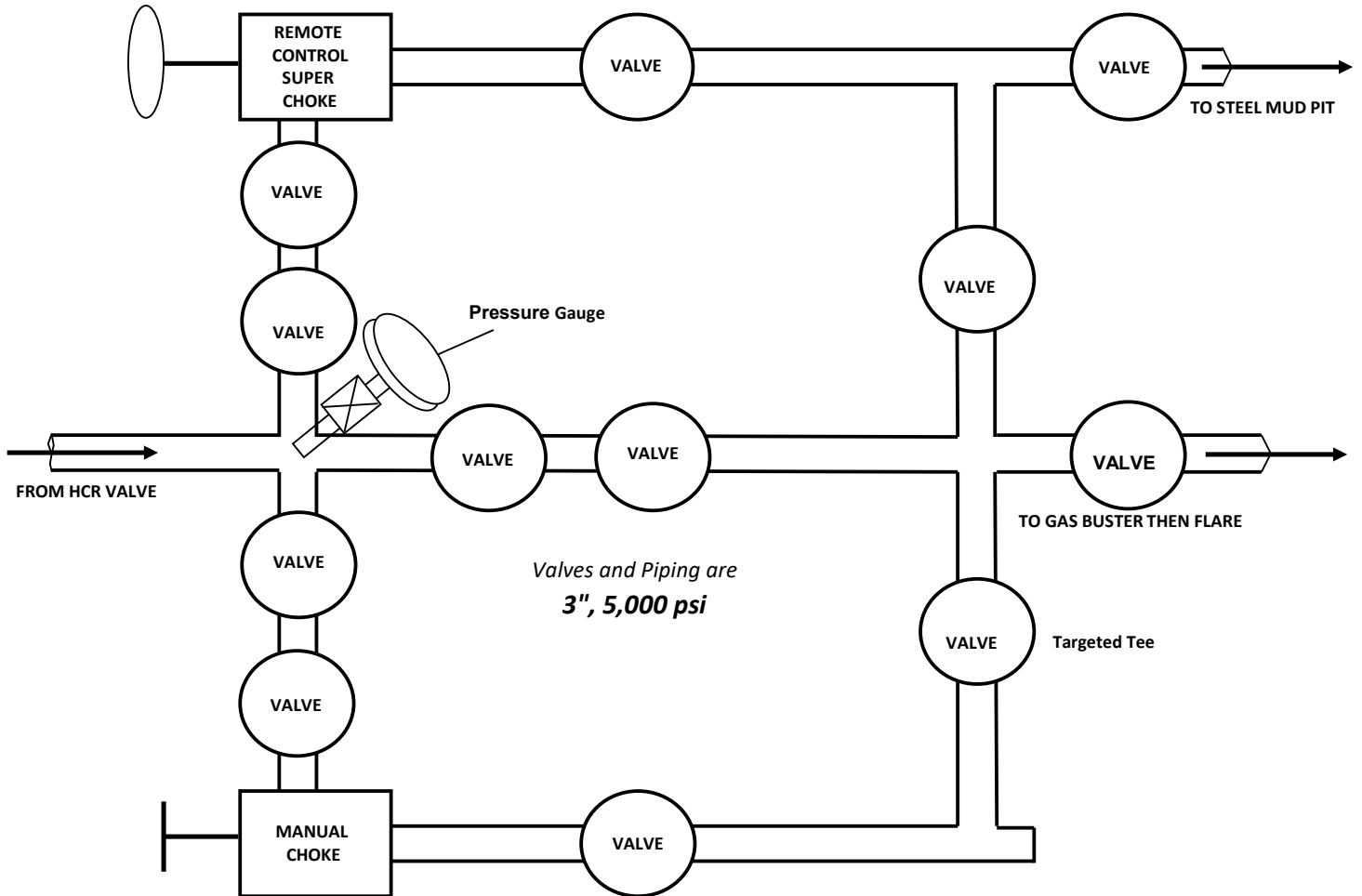


	Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	1,090	1,090	
Kirtland	1,190	1,190	
Fruitland	1,350	1,352	
Pictured Cliffs	1,640	1,647	
Lewis	1,800	1,810	
Chacra	2,050	2,065	
Cliff House	3,140	3,174	
Menefee	3,180	3,215	
Point Lookout	4,010	4,050	
Mancos	4,225	4,265	
Gallup (MNCS_A)	4,540	4,580	
MNCS_B	4,635	4,675	
MNCS_C	4,735	4,775	
MNCS_Cms	4,770	4,810	
MNCS_D	4,900	4,944	
MNCS_E	5,025	5,083	
MNCS_F	5,074	5,144	
MNCS_G	5,149	5,249	
MNCS_H	5,213	5,362	
MNCS_I	5,267	5,507	
FTP TARGET	5,149	5,249	
PROJECTED BHL	5,199	15,253	

N ALAMITO UNIT 312H

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.

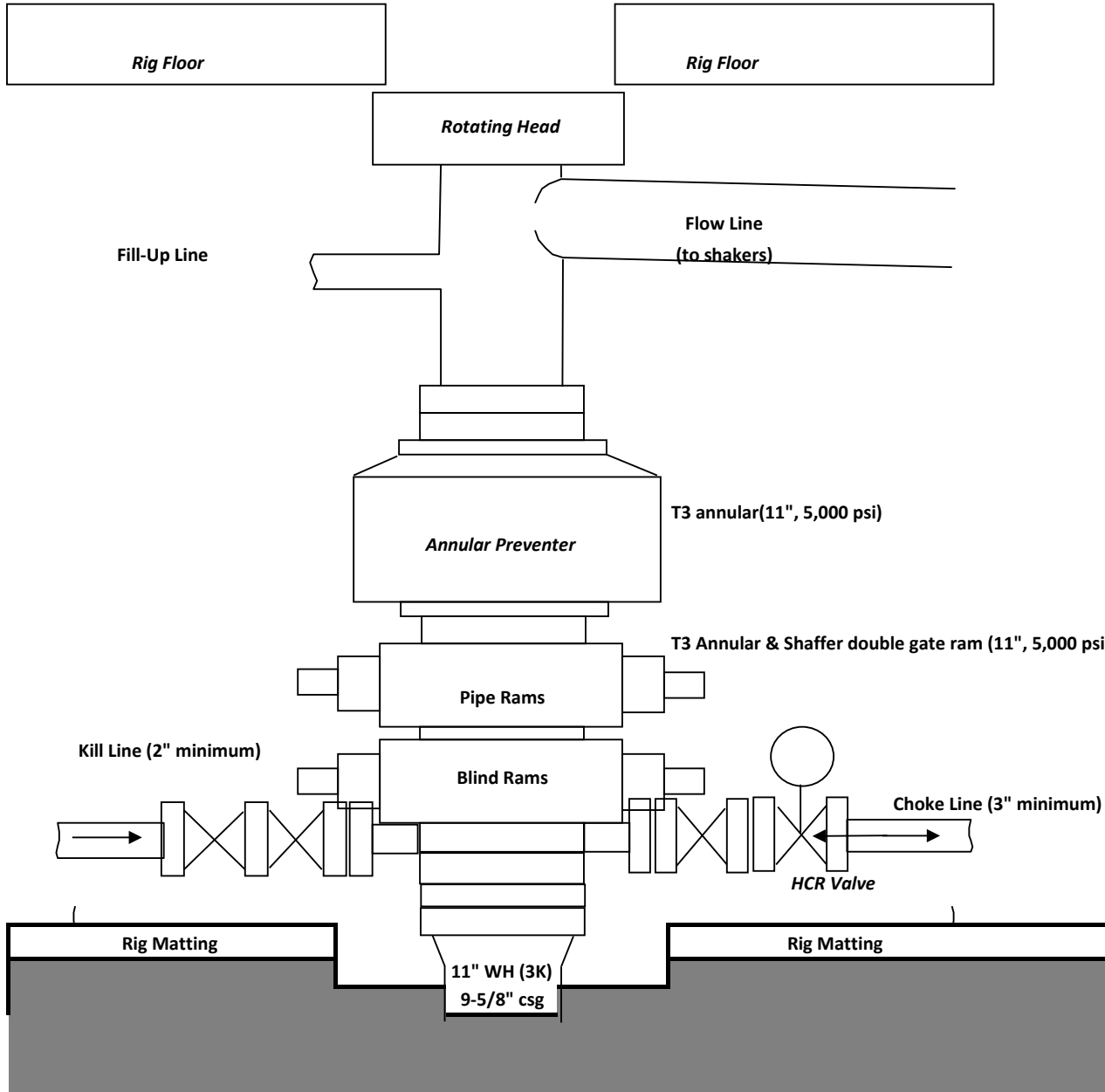
CHOKE MANIFOLD



N ALAMITO UNIT 312H

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

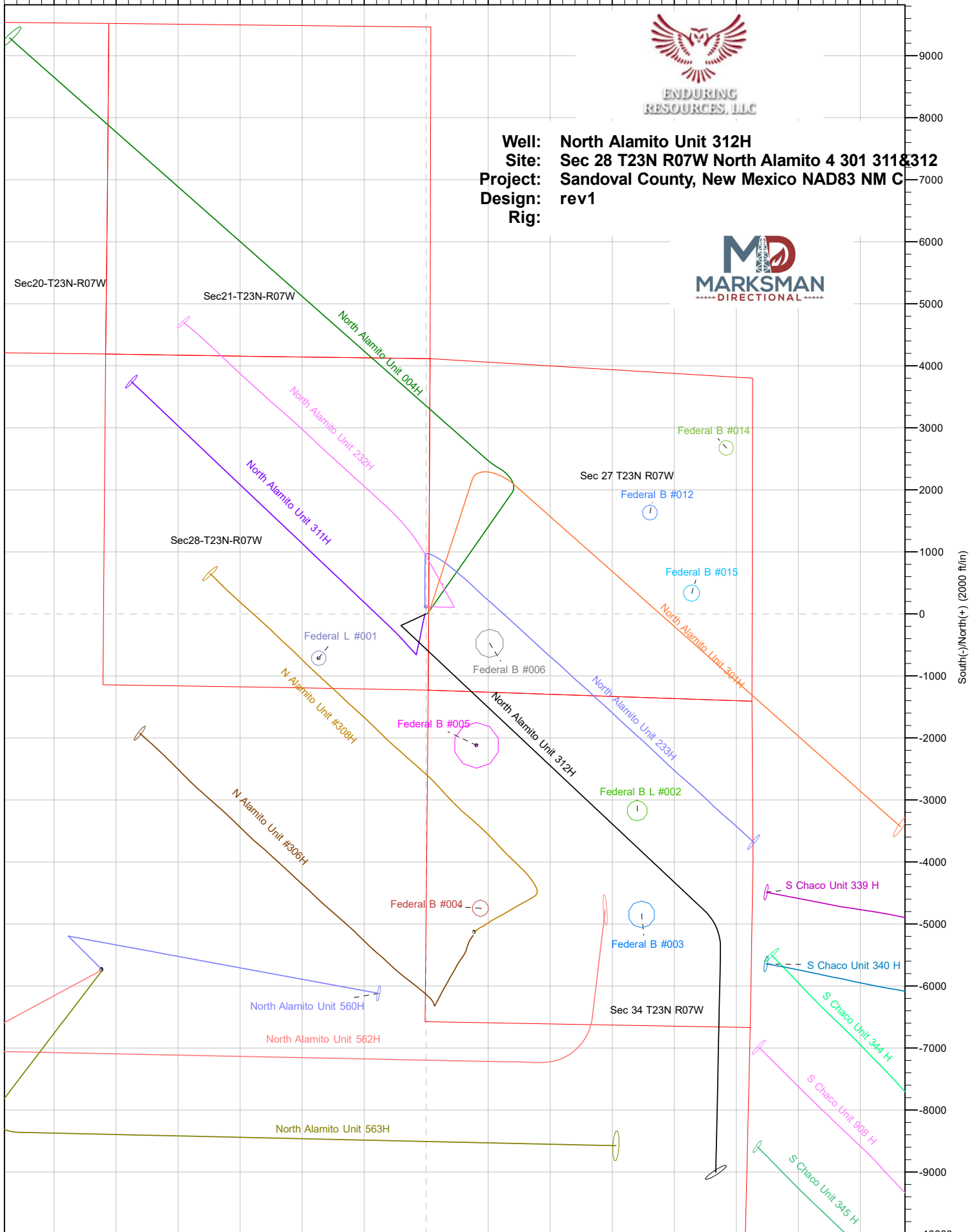


West(-)/East(+) (2000 ft/in)

-6000 -5000 -4000 -3000 -2000 -1000 0 1000 2000 3000 4000 5000 6000 7000



Well: North Alamito Unit 312H
Site: Sec 28 T23N R07W North Alamito 4 301 311&312
Project: Sandoval County, New Mexico NAD83 NM C
Design: rev1
Rig:



10:51, December 10 2025



Well: North Alamito Unit 312H
Site: North Alamito Unit (4, 301,311 & 312)
Project: Sandoval County, New Mexico NAD83 NmW
Design: rev0
Rig:

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
North Alamito 312H vert	4711.60	-193.50	-401.49	1889786.81	2800032.21	36.19336841	-107.57257444
North Alamito 312H LTP 2346 FNL 500 FEL	5199.00	-5927.00	4817.47	1891053.32	2805251.15	36.16933700	-107.55497200
North Alamito 312H FTP 710 FSL 256 FEL	5289.00	-517.11	-208.10	1889463.20	2800225.59	36.19247800	-107.57192200
North Alamito 312H vs=0	5289.00	-227.71	-381.04	1889752.60	2800052.65	36.19327429	-107.57250545

CASING DETAILS

TVD	MD	Name
350.00	350.00	9-5/8" Surface Casing
5282.38	5601.55	7" Intermediate Casing

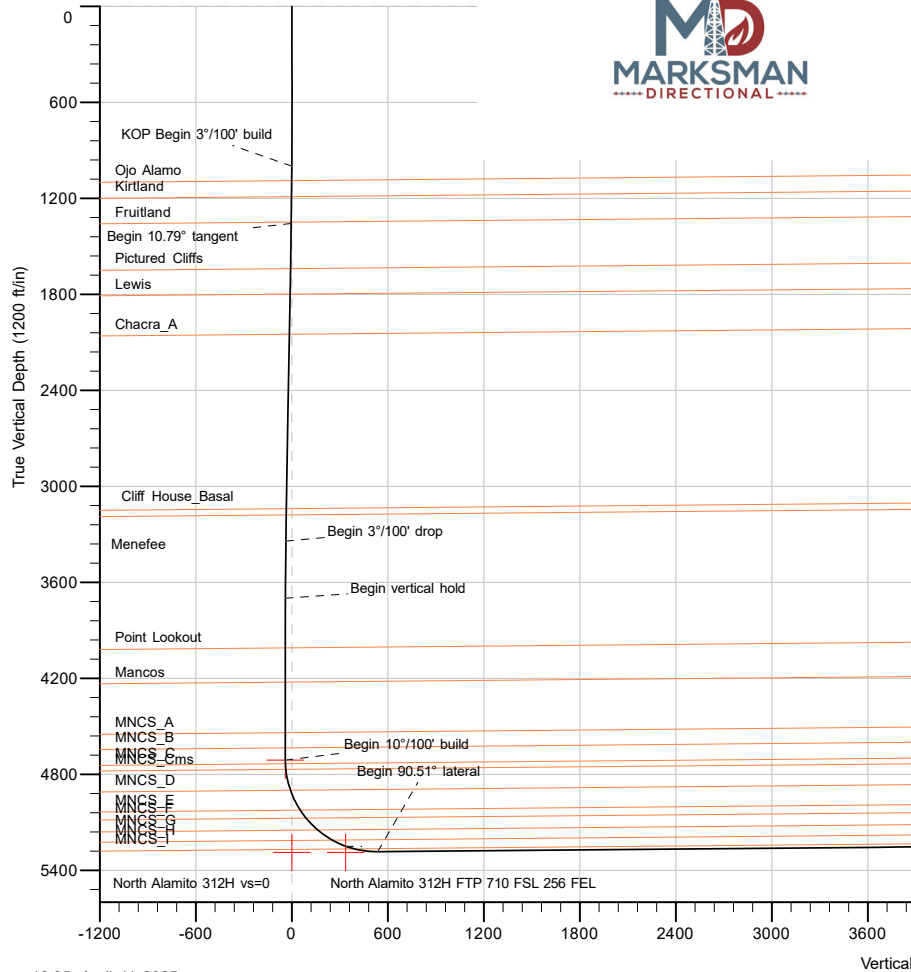
Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Western Zone
 System Datum: Mean Sea Level
 Depth Reference: RKB=6946+23.5 @ 6969.50ft

Surface location:	Northing	Easting	Latitude	Longitude
	1889980.31	2800433.69	36.19389700	-107.57121200

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.156°

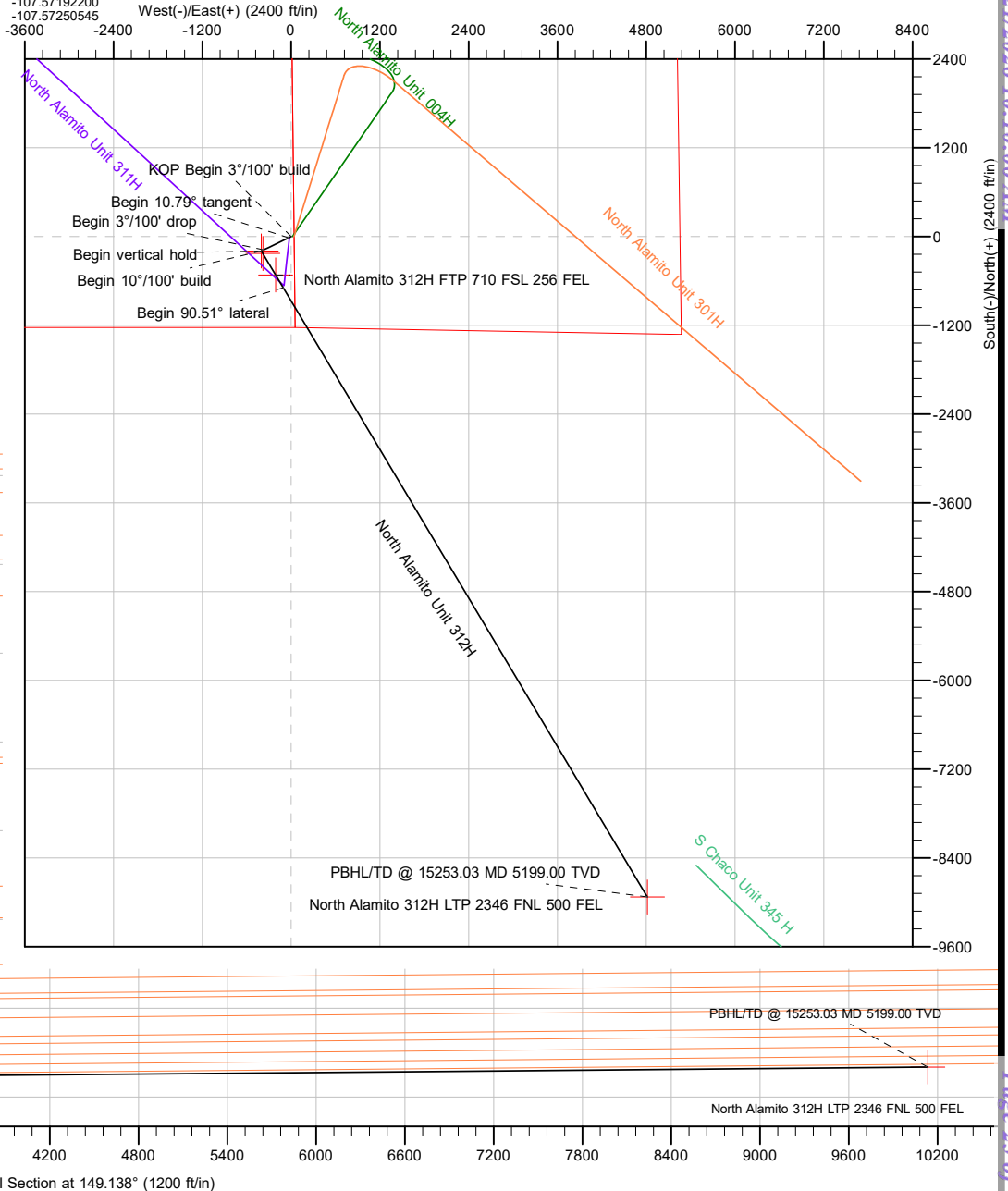


Azimuths to Grid North
 True North: -0.15°
 Magnetic North: 8.16°
 Magnetic Field
 Strength: 48919.8nT
 Dip Angle: 62.66°
 Date: 4/10/2025
 Model: IGRF2020



Section Details

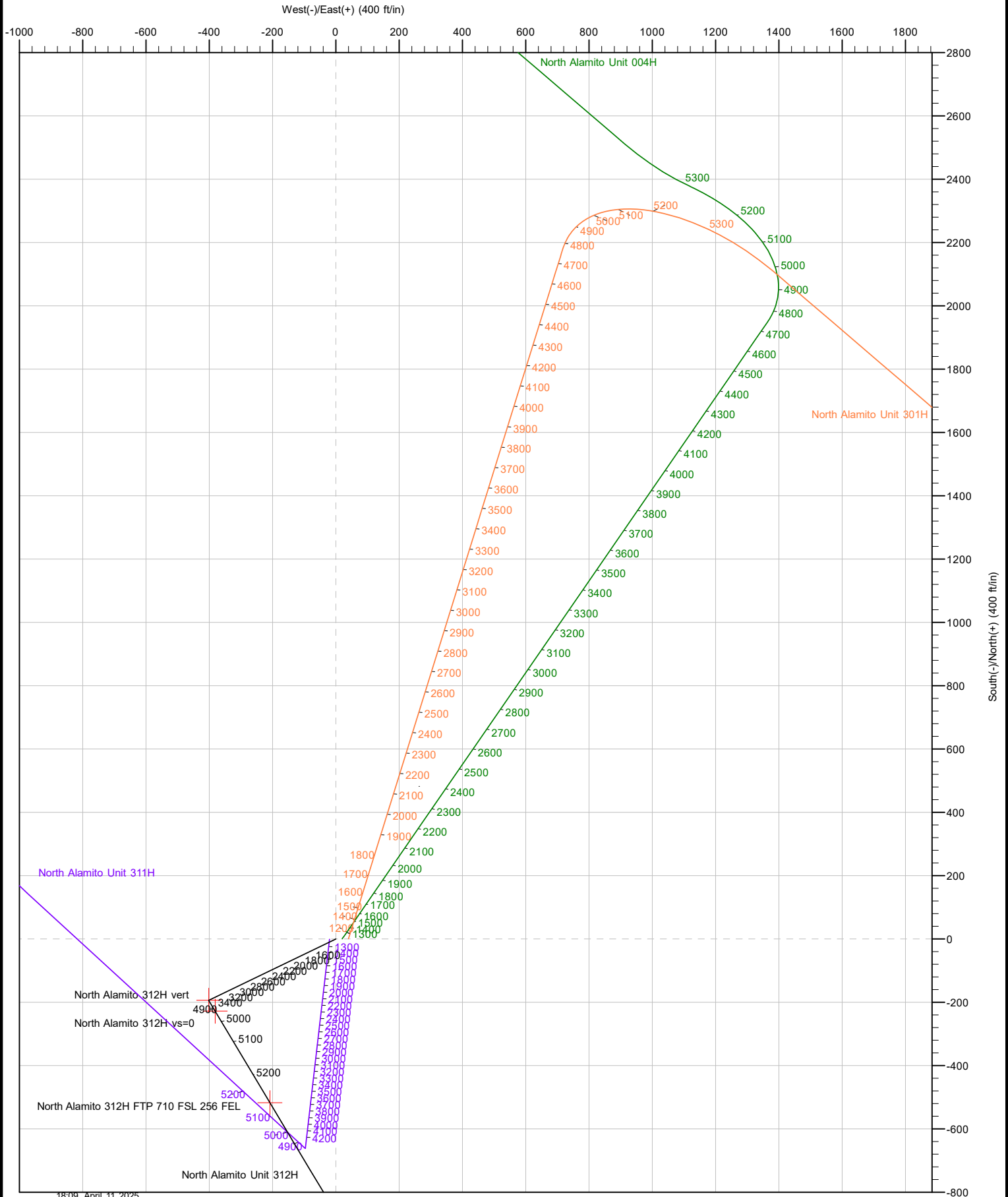
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.000	0.00	
2	1000.00	0.00	0.000	1000.00	0.00	0.00	0.00	0.000	0.00	KOP Begin 3°/100' build
3	1359.55	10.79	244.268	1357.43	-14.65	-30.40	3.00	244.268	-3.02	Begin 10.79° tangent
4	3380.40	10.79	244.268	3342.57	-178.85	-371.09	0.00	0.000	-36.83	Begin 3°/100' drop
5	3739.95	0.00	0.000	3700.00	-193.50	-401.49	3.00	180.000	-39.85	Begin vertical hold
6	4751.55	0.00	0.000	4711.60	-193.50	-401.49	0.00	0.000	-39.85	Begin 10°/100' build
7	5451.55	70.00	149.138	5250.00	-517.11	-208.10	10.00	149.138	337.14	
8	5656.65	90.51	149.138	5284.54	-689.71	-104.96	10.00	0.001	538.21	Begin 90.51° lateral
9	15253.03	90.51	149.138	5199.00	-8927.00	4817.47	0.00	0.000	0134.21	PBHL/TD



Vertical Section at 149.138° (1200 ft/in)



Well: North Alamito Unit 312H
Site: North Alamito Unit (4, 301,311 & 312)
Project: Sandoval County, New Mexico NAD83 NmW
Design: rev0
Rig:



18:09, April 11 2025



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project	Sandoval County, New Mexico NAD83 NmW		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	North Alamito Unit (4, 301,311 & 312)				
Site Position:		Northing:	1,889,980.73 usft	Latitude:	36.19389800
From:	Lat/Long	Easting:	2,800,453.76 usft	Longitude:	-107.57114400
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	North Alamito Unit 312H, Surf loc: 1227 FSL 42 FEL Section 28-T23N-R07W					
Well Position	+N/-S	0.00 ft	Northing:	1,889,980.31 usft	Latitude:	36.19389700
	+E/-W	0.00 ft	Easting:	2,800,433.70 usft	Longitude:	-107.57121200
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,946.00 ft
Grid Convergence:	0.155 °					

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	4/10/2025	8.310	62.655	48,919.82008953

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	149.138

Plan Survey Tool Program	Date	4/11/2025		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,253.03 rev0 (Original Hole)	MWD	
			OWSG MWD - Standard	



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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	
1,359.55	10.79	244.268	1,357.43	-14.65	-30.40	3.00	3.00	0.00	244.268	
3,380.40	10.79	244.268	3,342.57	-178.85	-371.09	0.00	0.00	0.00	0.000	
3,739.95	0.00	0.000	3,700.00	-193.50	-401.49	3.00	-3.00	0.00	180.000	
4,751.55	0.00	0.000	4,711.60	-193.50	-401.49	0.00	0.00	0.00	0.000	North Alamito 312H v
5,451.55	70.00	149.138	5,250.00	-517.11	-208.10	10.00	10.00	0.00	149.138	
5,656.65	90.51	149.138	5,284.54	-689.71	-104.96	10.00	10.00	0.00	0.001	
15,253.03	90.51	149.138	5,199.00	-8,927.00	4,817.47	0.00	0.00	0.00	0.000	North Alamito 312H L



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
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"/100' build										
1,090.04	2.70	244.268	1,090.00	-0.92	-1.91	-0.19	3.00	3.00	0.00	
Ojo Alamo										
1,100.00	3.00	244.268	1,099.95	-1.14	-2.36	-0.23	3.00	3.00	0.00	
1,190.32	5.71	244.268	1,190.01	-4.11	-8.54	-0.85	3.00	3.00	0.00	
Kirtland										
1,200.00	6.00	244.268	1,199.63	-4.54	-9.42	-0.94	3.00	3.00	0.00	
1,300.00	9.00	244.268	1,298.77	-10.21	-21.18	-2.10	3.00	3.00	0.00	
1,352.02	10.56	244.268	1,350.03	-14.04	-29.14	-2.89	3.00	3.00	0.00	
Fruitland										
1,359.55	10.79	244.268	1,357.43	-14.65	-30.40	-3.02	3.00	3.00	0.00	
Begin 10.79° tangent										
1,400.00	10.79	244.268	1,397.17	-17.94	-37.22	-3.69	0.00	0.00	0.00	
1,500.00	10.79	244.268	1,495.40	-26.06	-54.08	-5.37	0.00	0.00	0.00	
1,600.00	10.79	244.268	1,593.63	-34.19	-70.94	-7.04	0.00	0.00	0.00	
1,647.27	10.79	244.268	1,640.07	-38.03	-78.91	-7.83	0.00	0.00	0.00	
Pictured Cliffs										
1,700.00	10.79	244.268	1,691.86	-42.31	-87.79	-8.71	0.00	0.00	0.00	
1,800.00	10.79	244.268	1,790.10	-50.44	-104.65	-10.39	0.00	0.00	0.00	
1,810.18	10.79	244.268	1,800.09	-51.27	-106.37	-10.56	0.00	0.00	0.00	
Lewis										
1,900.00	10.79	244.268	1,888.33	-58.56	-121.51	-12.06	0.00	0.00	0.00	
2,000.00	10.79	244.268	1,986.56	-66.69	-138.37	-13.73	0.00	0.00	0.00	
2,064.71	10.79	244.268	2,050.13	-71.95	-149.28	-14.82	0.00	0.00	0.00	
Chacra_A										
2,100.00	10.79	244.268	2,084.80	-74.81	-155.23	-15.41	0.00	0.00	0.00	
2,200.00	10.79	244.268	2,183.03	-82.94	-172.09	-17.08	0.00	0.00	0.00	
2,300.00	10.79	244.268	2,281.26	-91.06	-188.95	-18.75	0.00	0.00	0.00	
2,400.00	10.79	244.268	2,379.50	-99.19	-205.81	-20.43	0.00	0.00	0.00	
2,500.00	10.79	244.268	2,477.73	-107.32	-222.67	-22.10	0.00	0.00	0.00	
2,600.00	10.79	244.268	2,575.96	-115.44	-239.53	-23.78	0.00	0.00	0.00	
2,700.00	10.79	244.268	2,674.20	-123.57	-256.38	-25.45	0.00	0.00	0.00	
2,800.00	10.79	244.268	2,772.43	-131.69	-273.24	-27.12	0.00	0.00	0.00	
2,900.00	10.79	244.268	2,870.66	-139.82	-290.10	-28.80	0.00	0.00	0.00	
3,000.00	10.79	244.268	2,968.90	-147.94	-306.96	-30.47	0.00	0.00	0.00	
3,100.00	10.79	244.268	3,067.13	-156.07	-323.82	-32.14	0.00	0.00	0.00	
3,174.48	10.79	244.268	3,140.30	-162.12	-336.38	-33.39	0.00	0.00	0.00	
Cliff House_Basal										
3,200.00	10.79	244.268	3,165.36	-164.19	-340.68	-33.82	0.00	0.00	0.00	
3,215.21	10.79	244.268	3,180.30	-165.43	-343.24	-34.07	0.00	0.00	0.00	



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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)	
Menefee										
3,300.00	10.79	244.268	3,263.60	-172.32	-357.54	-35.49	0.00	0.00	0.00	
3,380.40	10.79	244.268	3,342.57	-178.85	-371.09	-36.83	0.00	0.00	0.00	
Begin 3°/100' drop										
3,400.00	10.20	244.268	3,361.85	-180.40	-374.31	-37.15	3.00	-3.00	0.00	
3,500.00	7.20	244.268	3,460.69	-186.96	-387.93	-38.51	3.00	-3.00	0.00	
3,600.00	4.20	244.268	3,560.18	-191.27	-396.87	-39.39	3.00	-3.00	0.00	
3,700.00	1.20	244.268	3,660.06	-193.32	-401.11	-39.81	3.00	-3.00	0.00	
3,739.95	0.00	0.000	3,700.00	-193.50	-401.49	-39.85	3.00	-3.00	0.00	
Begin vertical hold										
3,800.00	0.00	0.000	3,760.05	-193.50	-401.49	-39.85	0.00	0.00	0.00	
3,900.00	0.00	0.000	3,860.05	-193.50	-401.49	-39.85	0.00	0.00	0.00	
4,000.00	0.00	0.000	3,960.05	-193.50	-401.49	-39.85	0.00	0.00	0.00	
4,050.30	0.00	0.000	4,010.35	-193.50	-401.49	-39.85	0.00	0.00	0.00	
Point Lookout										
4,100.00	0.00	0.000	4,060.05	-193.50	-401.49	-39.85	0.00	0.00	0.00	
4,200.00	0.00	0.000	4,160.05	-193.50	-401.49	-39.85	0.00	0.00	0.00	
4,265.30	0.00	0.000	4,225.35	-193.50	-401.49	-39.85	0.00	0.00	0.00	
Mancos										
4,300.00	0.00	0.000	4,260.05	-193.50	-401.49	-39.85	0.00	0.00	0.00	
4,400.00	0.00	0.000	4,360.05	-193.50	-401.49	-39.85	0.00	0.00	0.00	
4,500.00	0.00	0.000	4,460.05	-193.50	-401.49	-39.85	0.00	0.00	0.00	
4,580.30	0.00	0.000	4,540.35	-193.50	-401.49	-39.85	0.00	0.00	0.00	
MNCS_A										
4,600.00	0.00	0.000	4,560.05	-193.50	-401.49	-39.85	0.00	0.00	0.00	
4,675.30	0.00	0.000	4,635.35	-193.50	-401.49	-39.85	0.00	0.00	0.00	
MNCS_B										
4,700.00	0.00	0.000	4,660.05	-193.50	-401.49	-39.85	0.00	0.00	0.00	
4,751.55	0.00	0.000	4,711.60	-193.50	-401.49	-39.85	0.00	0.00	0.00	
Begin 10°/100' build										
4,775.30	2.38	149.138	4,735.35	-193.92	-401.24	-39.36	10.00	10.00	0.00	
MNCS_C										
4,800.00	4.85	149.138	4,760.00	-195.26	-400.44	-37.80	10.00	10.00	0.00	
4,810.38	5.88	149.138	4,770.33	-196.09	-399.94	-36.83	10.00	10.00	0.00	
MNCS_Cms										
4,850.00	9.85	149.138	4,809.57	-200.74	-397.16	-31.41	10.00	10.00	0.00	
4,900.00	14.85	149.138	4,858.40	-209.92	-391.68	-20.73	10.00	10.00	0.00	
4,943.59	19.20	149.138	4,900.07	-220.87	-385.13	-7.97	10.00	10.00	0.00	
MNCS_D										
4,950.00	19.85	149.138	4,906.11	-222.71	-384.04	-5.82	10.00	10.00	0.00	
5,000.00	24.85	149.138	4,952.34	-239.02	-374.29	13.18	10.00	10.00	0.00	
5,050.00	29.85	149.138	4,996.74	-258.73	-362.51	36.14	10.00	10.00	0.00	
5,082.59	33.10	149.138	5,024.53	-273.33	-353.78	53.15	10.00	10.00	0.00	
MNCS_E										
5,100.00	34.85	149.138	5,038.97	-281.69	-348.79	62.88	10.00	10.00	0.00	
5,144.16	39.26	149.138	5,074.20	-304.52	-335.14	89.49	10.00	10.00	0.00	
MNCS_F										
5,150.00	39.85	149.138	5,078.71	-307.72	-333.24	93.20	10.00	10.00	0.00	
5,200.00	44.85	149.138	5,115.65	-336.62	-315.97	126.87	10.00	10.00	0.00	
5,248.51	49.70	149.138	5,148.55	-367.20	-297.69	162.50	10.00	10.00	0.00	
MNCS_G										
5,250.00	49.85	149.138	5,149.52	-368.17	-297.11	163.63	10.00	10.00	0.00	



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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)	
5,300.00	54.85	149.138	5,180.05	-402.14	-276.81	203.21	10.00	10.00	0.00	
5,350.00	59.85	149.138	5,207.02	-438.27	-255.22	245.29	10.00	10.00	0.00	
5,361.56	61.00	149.138	5,212.73	-446.90	-250.06	255.34	10.00	10.00	0.00	
MNCS_H										
5,400.00	64.85	149.138	5,230.22	-476.27	-232.51	289.56	10.00	10.00	0.00	
5,451.55	70.00	149.138	5,250.00	-517.11	-208.10	337.14	10.00	10.00	0.00	
5,500.00	74.85	149.138	5,264.63	-556.75	-184.41	383.32	10.00	10.00	0.00	
5,507.41	75.59	149.138	5,266.52	-562.91	-180.74	390.49	10.00	10.00	0.00	
MNCS_I										
5,550.00	79.85	149.138	5,275.58	-598.62	-159.40	432.09	10.00	10.00	0.00	
5,600.00	84.85	149.138	5,282.24	-641.14	-133.98	481.63	10.00	10.00	0.00	
5,601.55	85.00	149.138	5,282.38	-642.47	-133.19	483.17	10.00	10.00	0.00	
7" Intermediate Casing										
5,650.00	89.85	149.138	5,284.56	-684.00	-108.37	531.56	10.00	10.00	0.00	
5,656.65	90.51	149.138	5,284.54	-689.71	-104.96	538.21	10.00	10.00	0.00	
Begin 90.51° lateral										
5,700.00	90.51	149.138	5,284.15	-726.92	-82.72	581.56	0.00	0.00	0.00	
5,800.00	90.51	149.138	5,283.26	-812.76	-31.43	681.56	0.00	0.00	0.00	
5,900.00	90.51	149.138	5,282.37	-898.60	19.86	781.55	0.00	0.00	0.00	
6,000.00	90.51	149.138	5,281.47	-984.44	71.16	881.55	0.00	0.00	0.00	
6,100.00	90.51	149.138	5,280.58	-1,070.27	122.45	981.54	0.00	0.00	0.00	
6,200.00	90.51	149.138	5,279.69	-1,156.11	173.75	1,081.54	0.00	0.00	0.00	
6,300.00	90.51	149.138	5,278.80	-1,241.95	225.04	1,181.54	0.00	0.00	0.00	
6,400.00	90.51	149.138	5,277.91	-1,327.79	276.34	1,281.53	0.00	0.00	0.00	
6,500.00	90.51	149.138	5,277.02	-1,413.62	327.63	1,381.53	0.00	0.00	0.00	
6,600.00	90.51	149.138	5,276.13	-1,499.46	378.93	1,481.52	0.00	0.00	0.00	
6,700.00	90.51	149.138	5,275.24	-1,585.30	430.22	1,581.52	0.00	0.00	0.00	
6,800.00	90.51	149.138	5,274.34	-1,671.13	481.52	1,681.52	0.00	0.00	0.00	
6,900.00	90.51	149.138	5,273.45	-1,756.97	532.81	1,781.51	0.00	0.00	0.00	
7,000.00	90.51	149.138	5,272.56	-1,842.81	584.11	1,881.51	0.00	0.00	0.00	
7,100.00	90.51	149.138	5,271.67	-1,928.65	635.40	1,981.50	0.00	0.00	0.00	
7,200.00	90.51	149.138	5,270.78	-2,014.48	686.70	2,081.50	0.00	0.00	0.00	
7,300.00	90.51	149.138	5,269.89	-2,100.32	737.99	2,181.50	0.00	0.00	0.00	
7,400.00	90.51	149.138	5,269.00	-2,186.16	789.28	2,281.49	0.00	0.00	0.00	
7,500.00	90.51	149.138	5,268.10	-2,272.00	840.58	2,381.49	0.00	0.00	0.00	
7,600.00	90.51	149.138	5,267.21	-2,357.83	891.87	2,481.48	0.00	0.00	0.00	
7,700.00	90.51	149.138	5,266.32	-2,443.67	943.17	2,581.48	0.00	0.00	0.00	
7,800.00	90.51	149.138	5,265.43	-2,529.51	994.46	2,681.48	0.00	0.00	0.00	
7,900.00	90.51	149.138	5,264.54	-2,615.35	1,045.76	2,781.47	0.00	0.00	0.00	
8,000.00	90.51	149.138	5,263.65	-2,701.18	1,097.05	2,881.47	0.00	0.00	0.00	
8,100.00	90.51	149.138	5,262.76	-2,787.02	1,148.35	2,981.46	0.00	0.00	0.00	
8,200.00	90.51	149.138	5,261.87	-2,872.86	1,199.64	3,081.46	0.00	0.00	0.00	
8,300.00	90.51	149.138	5,260.97	-2,958.70	1,250.94	3,181.46	0.00	0.00	0.00	
8,400.00	90.51	149.138	5,260.08	-3,044.53	1,302.23	3,281.45	0.00	0.00	0.00	
8,500.00	90.51	149.138	5,259.19	-3,130.37	1,353.53	3,381.45	0.00	0.00	0.00	
8,600.00	90.51	149.138	5,258.30	-3,216.21	1,404.82	3,481.44	0.00	0.00	0.00	
8,700.00	90.51	149.138	5,257.41	-3,302.05	1,456.11	3,581.44	0.00	0.00	0.00	
8,800.00	90.51	149.138	5,256.52	-3,387.88	1,507.41	3,681.44	0.00	0.00	0.00	
8,900.00	90.51	149.138	5,255.63	-3,473.72	1,558.70	3,781.43	0.00	0.00	0.00	
9,000.00	90.51	149.138	5,254.74	-3,559.56	1,610.00	3,881.43	0.00	0.00	0.00	
9,100.00	90.51	149.138	5,253.84	-3,645.40	1,661.29	3,981.42	0.00	0.00	0.00	
9,200.00	90.51	149.138	5,252.95	-3,731.23	1,712.59	4,081.42	0.00	0.00	0.00	
9,300.00	90.51	149.138	5,252.06	-3,817.07	1,763.88	4,181.42	0.00	0.00	0.00	



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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	90.51	149.138	5,251.17	-3,902.91	1,815.18	4,281.41	0.00	0.00	0.00	
9,500.00	90.51	149.138	5,250.28	-3,988.75	1,866.47	4,381.41	0.00	0.00	0.00	
9,600.00	90.51	149.138	5,249.39	-4,074.58	1,917.77	4,481.40	0.00	0.00	0.00	
9,700.00	90.51	149.138	5,248.50	-4,160.42	1,969.06	4,581.40	0.00	0.00	0.00	
9,800.00	90.51	149.138	5,247.60	-4,246.26	2,020.36	4,681.40	0.00	0.00	0.00	
9,900.00	90.51	149.138	5,246.71	-4,332.10	2,071.65	4,781.39	0.00	0.00	0.00	
10,000.00	90.51	149.138	5,245.82	-4,417.93	2,122.94	4,881.39	0.00	0.00	0.00	
10,100.00	90.51	149.138	5,244.93	-4,503.77	2,174.24	4,981.38	0.00	0.00	0.00	
10,200.00	90.51	149.138	5,244.04	-4,589.61	2,225.53	5,081.38	0.00	0.00	0.00	
10,300.00	90.51	149.138	5,243.15	-4,675.45	2,276.83	5,181.38	0.00	0.00	0.00	
10,400.00	90.51	149.138	5,242.26	-4,761.28	2,328.12	5,281.37	0.00	0.00	0.00	
10,500.00	90.51	149.138	5,241.37	-4,847.12	2,379.42	5,381.37	0.00	0.00	0.00	
10,600.00	90.51	149.138	5,240.47	-4,932.96	2,430.71	5,481.36	0.00	0.00	0.00	
10,700.00	90.51	149.138	5,239.58	-5,018.80	2,482.01	5,581.36	0.00	0.00	0.00	
10,800.00	90.51	149.138	5,238.69	-5,104.63	2,533.30	5,681.36	0.00	0.00	0.00	
10,900.00	90.51	149.138	5,237.80	-5,190.47	2,584.60	5,781.35	0.00	0.00	0.00	
11,000.00	90.51	149.138	5,236.91	-5,276.31	2,635.89	5,881.35	0.00	0.00	0.00	
11,100.00	90.51	149.138	5,236.02	-5,362.15	2,687.19	5,981.34	0.00	0.00	0.00	
11,200.00	90.51	149.138	5,235.13	-5,447.98	2,738.48	6,081.34	0.00	0.00	0.00	
11,300.00	90.51	149.138	5,234.23	-5,533.82	2,789.77	6,181.34	0.00	0.00	0.00	
11,400.00	90.51	149.138	5,233.34	-5,619.66	2,841.07	6,281.33	0.00	0.00	0.00	
11,500.00	90.51	149.138	5,232.45	-5,705.49	2,892.36	6,381.33	0.00	0.00	0.00	
11,600.00	90.51	149.138	5,231.56	-5,791.33	2,943.66	6,481.32	0.00	0.00	0.00	
11,700.00	90.51	149.138	5,230.67	-5,877.17	2,994.95	6,581.32	0.00	0.00	0.00	
11,800.00	90.51	149.138	5,229.78	-5,963.01	3,046.25	6,681.32	0.00	0.00	0.00	
11,900.00	90.51	149.138	5,228.89	-6,048.84	3,097.54	6,781.31	0.00	0.00	0.00	
12,000.00	90.51	149.138	5,228.00	-6,134.68	3,148.84	6,881.31	0.00	0.00	0.00	
12,100.00	90.51	149.138	5,227.10	-6,220.52	3,200.13	6,981.31	0.00	0.00	0.00	
12,200.00	90.51	149.138	5,226.21	-6,306.36	3,251.43	7,081.30	0.00	0.00	0.00	
12,300.00	90.51	149.138	5,225.32	-6,392.19	3,302.72	7,181.30	0.00	0.00	0.00	
12,400.00	90.51	149.138	5,224.43	-6,478.03	3,354.02	7,281.29	0.00	0.00	0.00	
12,500.00	90.51	149.138	5,223.54	-6,563.87	3,405.31	7,381.29	0.00	0.00	0.00	
12,600.00	90.51	149.138	5,222.65	-6,649.71	3,456.60	7,481.29	0.00	0.00	0.00	
12,700.00	90.51	149.138	5,221.76	-6,735.54	3,507.90	7,581.28	0.00	0.00	0.00	
12,800.00	90.51	149.138	5,220.86	-6,821.38	3,559.19	7,681.28	0.00	0.00	0.00	
12,900.00	90.51	149.138	5,219.97	-6,907.22	3,610.49	7,781.27	0.00	0.00	0.00	
13,000.00	90.51	149.138	5,219.08	-6,993.06	3,661.78	7,881.27	0.00	0.00	0.00	
13,100.00	90.51	149.138	5,218.19	-7,078.89	3,713.08	7,981.27	0.00	0.00	0.00	
13,200.00	90.51	149.138	5,217.30	-7,164.73	3,764.37	8,081.26	0.00	0.00	0.00	
13,300.00	90.51	149.138	5,216.41	-7,250.57	3,815.67	8,181.26	0.00	0.00	0.00	
13,400.00	90.51	149.138	5,215.52	-7,336.41	3,866.96	8,281.25	0.00	0.00	0.00	
13,500.00	90.51	149.138	5,214.63	-7,422.24	3,918.26	8,381.25	0.00	0.00	0.00	
13,600.00	90.51	149.138	5,213.73	-7,508.08	3,969.55	8,481.25	0.00	0.00	0.00	
13,700.00	90.51	149.138	5,212.84	-7,593.92	4,020.85	8,581.24	0.00	0.00	0.00	
13,800.00	90.51	149.138	5,211.95	-7,679.76	4,072.14	8,681.24	0.00	0.00	0.00	
13,900.00	90.51	149.138	5,211.06	-7,765.59	4,123.43	8,781.23	0.00	0.00	0.00	
14,000.00	90.51	149.138	5,210.17	-7,851.43	4,174.73	8,881.23	0.00	0.00	0.00	
14,100.00	90.51	149.138	5,209.28	-7,937.27	4,226.02	8,981.23	0.00	0.00	0.00	
14,200.00	90.51	149.138	5,208.39	-8,023.11	4,277.32	9,081.22	0.00	0.00	0.00	
14,300.00	90.51	149.138	5,207.49	-8,108.94	4,328.61	9,181.22	0.00	0.00	0.00	
14,400.00	90.51	149.138	5,206.60	-8,194.78	4,379.91	9,281.21	0.00	0.00	0.00	
14,500.00	90.51	149.138	5,205.71	-8,280.62	4,431.20	9,381.21	0.00	0.00	0.00	
14,600.00	90.51	149.138	5,204.82	-8,366.46	4,482.50	9,481.21	0.00	0.00	0.00	
14,700.00	90.51	149.138	5,203.93	-8,452.29	4,533.79	9,581.20	0.00	0.00	0.00	



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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)	
14,800.00	90.51	149.138	5,203.04	-8,538.13	4,585.09	9,681.20	0.00	0.00	0.00	
14,900.00	90.51	149.138	5,202.15	-8,623.97	4,636.38	9,781.19	0.00	0.00	0.00	
15,000.00	90.51	149.138	5,201.26	-8,709.81	4,687.68	9,881.19	0.00	0.00	0.00	
15,100.00	90.51	149.138	5,200.36	-8,795.64	4,738.97	9,981.19	0.00	0.00	0.00	
15,200.00	90.51	149.138	5,199.47	-8,881.48	4,790.27	10,081.18	0.00	0.00	0.00	
15,253.03	90.51	149.138	5,199.00	-8,927.00	4,817.47	10,134.21	0.00	0.00	0.00	
PBHL/TD @ 15253.03 MD 5199.00 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	
5,601.55	5,282.38	7" Intermediate Casing	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,090.04	1,090.00	Ojo Alamo		-0.510	149.138
1,190.32	1,190.01	Kirtland		-0.510	149.138
1,352.02	1,350.03	Fruitland		-0.510	149.138
1,647.27	1,640.07	Pictured Cliffs		-0.510	149.138
1,810.18	1,800.09	Lewis		-0.510	149.138
2,064.71	2,050.13	Chacra_A		-0.510	149.138
3,174.48	3,140.30	Cliff House_Basal		-0.510	149.138
3,215.21	3,180.30	Menefee		-0.510	149.138
4,050.30	4,010.35	Point Lookout		-0.510	149.138
4,265.30	4,225.35	Mancos		-0.510	149.138
4,580.30	4,540.35	MNCS_A		-0.510	149.138
4,675.30	4,635.35	MNCS_B		-0.510	149.138
4,775.30	4,735.35	MNCS_C		-0.510	149.138
4,810.38	4,770.33	MNCS_Cms		-0.510	149.138
4,943.59	4,900.07	MNCS_D		-0.510	149.138
5,082.59	5,024.53	MNCS_E		-0.510	149.138
5,144.16	5,074.20	MNCS_F		-0.510	149.138
5,248.51	5,148.55	MNCS_G		-0.510	149.138
5,361.56	5,212.73	MNCS_H		-0.510	149.138
5,507.41	5,266.52	MNCS_I		-0.510	149.138



Planning Report



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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°/100' build	
1,359.55	1,357.43	-14.65	-30.40	Begin 10.79° tangent	
3,380.40	3,342.57	-178.85	-371.09	Begin 3°/100' drop	
3,739.95	3,700.00	-193.50	-401.49	Begin vertical hold	
4,751.55	4,711.60	-193.50	-401.49	Begin 10°/100' build	
5,451.55	5,250.00	-517.11	-208.10		
5,656.65	5,284.54	-689.71	-104.96	Begin 90.51° lateral	
15,253.03	5,199.00	-8,927.00	4,817.47	PBHL/TD @ 15253.03 MD 5199.00 TVD	



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project	Sandoval County, New Mexico NAD83 NmW		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	North Alamito Unit (4, 301,311 & 312)				
Site Position:		Northing:	1,889,980.73 usft	Latitude:	36.19389800
From:	Lat/Long	Easting:	2,800,453.76 usft	Longitude:	-107.57114400
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	North Alamito Unit 312H, Surf loc: 1227 FSL 42 FEL Section 28-T23N-R07W					
Well Position	+N/-S	0.00 ft	Northing:	1,889,980.31 usft	Latitude:	36.19389700
	+E/-W	0.00 ft	Easting:	2,800,433.70 usft	Longitude:	-107.57121200
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft	Ground Level:	6,946.00 ft
Grid Convergence:	0.155 °					

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	4/10/2025	8.310	62.655	48,919.82008953

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	149.138	

Plan Survey Tool Program	Date	4/11/2025			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	15,253.03 rev0 (Original Hole)	MWD	OWSG MWD - Standard	



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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	
1,359.55	10.79	244.268	1,357.43	-14.65	-30.40	3.00	3.00	0.00	244.268	
3,380.40	10.79	244.268	3,342.57	-178.85	-371.09	0.00	0.00	0.00	0.000	
3,739.95	0.00	0.000	3,700.00	-193.50	-401.49	3.00	-3.00	0.00	180.000	
4,751.55	0.00	0.000	4,711.60	-193.50	-401.49	0.00	0.00	0.00	0.000	North Alamito 312H v
5,451.55	70.00	149.138	5,250.00	-517.11	-208.10	10.00	10.00	0.00	149.138	
5,656.65	90.51	149.138	5,284.54	-689.71	-104.96	10.00	10.00	0.00	0.001	
15,253.03	90.51	149.138	5,199.00	-8,927.00	4,817.47	0.00	0.00	0.00	0.000	North Alamito 312H L



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
100.00	0.00	0.000	100.00	0.00	0.00	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
200.00	0.00	0.000	200.00	0.00	0.00	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
300.00	0.00	0.000	300.00	0.00	0.00	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
350.00	0.00	0.000	350.00	0.00	0.00	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
9-5/8" Surface Casing										
400.00	0.00	0.000	400.00	0.00	0.00	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
500.00	0.00	0.000	500.00	0.00	0.00	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
600.00	0.00	0.000	600.00	0.00	0.00	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
700.00	0.00	0.000	700.00	0.00	0.00	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
800.00	0.00	0.000	800.00	0.00	0.00	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
900.00	0.00	0.000	900.00	0.00	0.00	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	1,889,980.31	2,800,433.70	36.19389700	-107.57121200	
KOP Begin 3"/100' build										
1,090.04	2.70	244.268	1,090.00	-0.92	-1.91	1,889,979.39	2,800,431.79	36.19389448	-107.57121849	
Ojo Alamo										
1,100.00	3.00	244.268	1,099.95	-1.14	-2.36	1,889,979.17	2,800,431.34	36.19389390	-107.57122001	
1,190.32	5.71	244.268	1,190.01	-4.11	-8.54	1,889,976.19	2,800,425.16	36.19388576	-107.57124097	
Kirtland										
1,200.00	6.00	244.268	1,199.63	-4.54	-9.42	1,889,975.77	2,800,424.27	36.19388459	-107.57124399	
1,300.00	9.00	244.268	1,298.77	-10.21	-21.18	1,889,970.10	2,800,412.52	36.19386911	-107.57128388	
1,352.02	10.56	244.268	1,350.03	-14.04	-29.14	1,889,966.26	2,800,404.56	36.19385863	-107.57131089	
Fruitland										
1,359.55	10.79	244.268	1,357.43	-14.65	-30.40	1,889,965.66	2,800,403.30	36.19385698	-107.57131516	
Begin 10.79° tangent										
1,400.00	10.79	244.268	1,397.17	-17.94	-37.22	1,889,962.37	2,800,396.48	36.19384800	-107.57133830	
1,500.00	10.79	244.268	1,495.40	-26.06	-54.08	1,889,954.25	2,800,379.62	36.19382581	-107.57139551	
1,600.00	10.79	244.268	1,593.63	-34.19	-70.94	1,889,946.12	2,800,362.76	36.19380361	-107.57145272	
1,647.27	10.79	244.268	1,640.07	-38.03	-78.91	1,889,942.28	2,800,354.79	36.19379312	-107.57147977	
Pictured Cliffs										
1,700.00	10.79	244.268	1,691.86	-42.31	-87.79	1,889,937.99	2,800,345.90	36.19378141	-107.57150993	
1,800.00	10.79	244.268	1,790.10	-50.44	-104.65	1,889,929.87	2,800,329.04	36.19375922	-107.57156714	
1,810.18	10.79	244.268	1,800.09	-51.27	-106.37	1,889,929.04	2,800,327.33	36.19375696	-107.57157297	
Lewis										
1,900.00	10.79	244.268	1,888.33	-58.56	-121.51	1,889,921.74	2,800,312.18	36.19373702	-107.57162435	
2,000.00	10.79	244.268	1,986.56	-66.69	-138.37	1,889,913.62	2,800,295.33	36.19371483	-107.57168157	
2,064.71	10.79	244.268	2,050.13	-71.95	-149.28	1,889,908.36	2,800,284.42	36.19370046	-107.57171859	
Chacra_A										
2,100.00	10.79	244.268	2,084.80	-74.81	-155.23	1,889,905.49	2,800,278.47	36.19369263	-107.57173878	
2,200.00	10.79	244.268	2,183.03	-82.94	-172.09	1,889,897.37	2,800,261.61	36.19367044	-107.57179599	
2,300.00	10.79	244.268	2,281.26	-91.06	-188.95	1,889,889.24	2,800,244.75	36.19364824	-107.57185320	
2,400.00	10.79	244.268	2,379.50	-99.19	-205.81	1,889,881.12	2,800,227.89	36.19362604	-107.57191041	
2,500.00	10.79	244.268	2,477.73	-107.32	-222.67	1,889,872.99	2,800,211.03	36.19360385	-107.57196762	
2,600.00	10.79	244.268	2,575.96	-115.44	-239.53	1,889,864.87	2,800,194.17	36.19358165	-107.57202483	
2,700.00	10.79	244.268	2,674.20	-123.57	-256.38	1,889,856.74	2,800,177.31	36.19355946	-107.57208204	
2,800.00	10.79	244.268	2,772.43	-131.69	-273.24	1,889,848.62	2,800,160.45	36.19353726	-107.57213925	
2,900.00	10.79	244.268	2,870.66	-139.82	-290.10	1,889,840.49	2,800,143.60	36.19351506	-107.57219646	
3,000.00	10.79	244.268	2,968.90	-147.94	-306.96	1,889,832.37	2,800,126.74	36.19349287	-107.57225367	
3,100.00	10.79	244.268	3,067.13	-156.07	-323.82	1,889,824.24	2,800,109.88	36.19347067	-107.57231088	
3,174.48	10.79	244.268	3,140.30	-162.12	-336.38	1,889,818.19	2,800,097.32	36.19345414	-107.57235349	
Cliff House_Basal										
3,200.00	10.79	244.268	3,165.36	-164.19	-340.68	1,889,816.12	2,800,093.02	36.19344848	-107.57236809	



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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	
3,215.21	10.79	244.268	3,180.30	-165.43	-343.24	1,889,814.88	2,800,090.45	36.19344510	-107.57237679	
Menefee										
3,300.00	10.79	244.268	3,263.60	-172.32	-357.54	1,889,807.99	2,800,076.16	36.19342628	-107.57242530	
3,380.40	10.79	244.268	3,342.57	-178.85	-371.09	1,889,801.46	2,800,062.61	36.19340843	-107.57247129	
Begin 3°/100' drop										
3,400.00	10.20	244.268	3,361.85	-180.40	-374.31	1,889,799.91	2,800,059.39	36.19340420	-107.57248221	
3,500.00	7.20	244.268	3,460.69	-186.96	-387.93	1,889,793.34	2,800,045.77	36.19338627	-107.57252843	
3,600.00	4.20	244.268	3,560.18	-191.27	-396.87	1,889,789.03	2,800,036.82	36.19337449	-107.57255878	
3,700.00	1.20	244.268	3,660.06	-193.32	-401.11	1,889,786.99	2,800,032.58	36.19336891	-107.57257317	
3,739.95	0.00	0.000	3,700.00	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
Begin vertical hold										
3,800.00	0.00	0.000	3,760.05	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
3,900.00	0.00	0.000	3,860.05	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
4,000.00	0.00	0.000	3,960.05	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
4,050.30	0.00	0.000	4,010.35	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
Point Lookout										
4,100.00	0.00	0.000	4,060.05	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
4,200.00	0.00	0.000	4,160.05	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
4,265.30	0.00	0.000	4,225.35	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
Mancos										
4,300.00	0.00	0.000	4,260.05	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
4,400.00	0.00	0.000	4,360.05	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
4,500.00	0.00	0.000	4,460.05	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
4,580.30	0.00	0.000	4,540.35	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
MNCS_A										
4,600.00	0.00	0.000	4,560.05	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
4,675.30	0.00	0.000	4,635.35	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
MNCS_B										
4,700.00	0.00	0.000	4,660.05	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
4,751.55	0.00	0.000	4,711.60	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
Begin 10°/100' build										
4,775.30	2.38	149.138	4,735.35	-193.92	-401.24	1,889,786.39	2,800,032.46	36.19336725	-107.57257360	
MNCS_C										
4,800.00	4.85	149.138	4,760.00	-195.26	-400.44	1,889,785.05	2,800,033.26	36.19336358	-107.57257090	
4,810.38	5.88	149.138	4,770.33	-196.09	-399.94	1,889,784.22	2,800,033.76	36.19336129	-107.57256923	
MNCS_Cms										
4,850.00	9.85	149.138	4,809.57	-200.74	-397.16	1,889,779.56	2,800,036.54	36.19334848	-107.57255984	
4,900.00	14.85	149.138	4,858.40	-209.92	-391.68	1,889,770.39	2,800,042.02	36.19332324	-107.57254135	
4,943.59	19.20	149.138	4,900.07	-220.87	-385.13	1,889,759.44	2,800,048.56	36.19329310	-107.57251926	
MNCS_D										
4,950.00	19.85	149.138	4,906.11	-222.71	-384.04	1,889,757.60	2,800,049.66	36.19328805	-107.57251556	
5,000.00	24.85	149.138	4,952.34	-239.02	-374.29	1,889,741.29	2,800,059.41	36.19324316	-107.57248267	
5,050.00	29.85	149.138	4,996.74	-258.73	-362.51	1,889,721.58	2,800,071.19	36.19318893	-107.57244293	
5,082.59	33.10	149.138	5,024.53	-273.33	-353.78	1,889,706.97	2,800,079.92	36.19314875	-107.57241349	
MNCS_E										
5,100.00	34.85	149.138	5,038.97	-281.69	-348.79	1,889,698.62	2,800,084.91	36.19312577	-107.57239665	
5,144.16	39.26	149.138	5,074.20	-304.52	-335.14	1,889,675.78	2,800,098.55	36.19306293	-107.57235061	
MNCS_F										
5,150.00	39.85	149.138	5,078.71	-307.72	-333.24	1,889,672.59	2,800,100.46	36.19305415	-107.57234417	
5,200.00	44.85	149.138	5,115.65	-336.62	-315.97	1,889,643.69	2,800,117.73	36.19297463	-107.57228590	
5,248.51	49.70	149.138	5,148.55	-367.20	-297.69	1,889,613.11	2,800,136.01	36.19289049	-107.57222425	
MNCS_G										
5,250.00	49.85	149.138	5,149.52	-368.17	-297.11	1,889,612.14	2,800,136.59	36.19288780	-107.57222228	



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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	
5,300.00	54.85	149.138	5,180.05	-402.14	-276.81	1,889,578.17	2,800,156.89	36.19279434	-107.57215380	
5,350.00	59.85	149.138	5,207.02	-438.27	-255.22	1,889,542.04	2,800,178.48	36.19269494	-107.57208096	
5,361.56	61.00	149.138	5,212.73	-446.90	-250.06	1,889,533.41	2,800,183.63	36.19267120	-107.57206357	
MNCS_H										
5,400.00	64.85	149.138	5,230.22	-476.27	-232.51	1,889,504.04	2,800,201.19	36.19259037	-107.57200434	
5,451.55	70.00	149.138	5,250.00	-517.11	-208.10	1,889,463.19	2,800,225.59	36.19247799	-107.57192200	
5,500.00	74.85	149.138	5,264.63	-556.75	-184.41	1,889,423.55	2,800,249.28	36.19236892	-107.57184208	
5,507.41	75.59	149.138	5,266.52	-562.91	-180.74	1,889,417.40	2,800,252.96	36.19235200	-107.57182968	
MNCS_I										
5,550.00	79.85	149.138	5,275.58	-598.62	-159.40	1,889,381.69	2,800,274.30	36.19225373	-107.57175768	
5,600.00	84.85	149.138	5,282.24	-641.14	-133.98	1,889,339.17	2,800,299.71	36.19213673	-107.57167195	
5,601.55	85.00	149.138	5,282.38	-642.47	-133.19	1,889,337.84	2,800,300.50	36.19213308	-107.57166928	
7" Intermediate Casing										
5,650.00	89.85	149.138	5,284.56	-684.00	-108.37	1,889,296.31	2,800,325.33	36.19201880	-107.57158554	
5,656.65	90.51	149.138	5,284.54	-689.71	-104.96	1,889,290.60	2,800,328.74	36.19200308	-107.57157403	
Begin 90.51° lateral										
5,700.00	90.51	149.138	5,284.15	-726.92	-82.72	1,889,253.39	2,800,350.97	36.19190070	-107.57149901	
5,800.00	90.51	149.138	5,283.26	-812.76	-31.43	1,889,167.55	2,800,402.27	36.19166452	-107.57132596	
5,900.00	90.51	149.138	5,282.37	-898.60	19.86	1,889,081.71	2,800,453.56	36.19142834	-107.57115291	
6,000.00	90.51	149.138	5,281.47	-984.44	71.16	1,888,995.87	2,800,504.86	36.19119216	-107.57097986	
6,100.00	90.51	149.138	5,280.58	-1,070.27	122.45	1,888,910.04	2,800,556.15	36.19095597	-107.57080681	
6,200.00	90.51	149.138	5,279.69	-1,156.11	173.75	1,888,824.20	2,800,607.45	36.19071979	-107.57063376	
6,300.00	90.51	149.138	5,278.80	-1,241.95	225.04	1,888,738.36	2,800,658.74	36.19048361	-107.57046072	
6,400.00	90.51	149.138	5,277.91	-1,327.79	276.34	1,888,652.53	2,800,710.03	36.19024742	-107.57028767	
6,500.00	90.51	149.138	5,277.02	-1,413.62	327.63	1,888,566.69	2,800,761.33	36.19001124	-107.57011463	
6,600.00	90.51	149.138	5,276.13	-1,499.46	378.93	1,888,480.85	2,800,812.62	36.18977506	-107.56994158	
6,700.00	90.51	149.138	5,275.24	-1,585.30	430.22	1,888,395.01	2,800,863.92	36.18953887	-107.56976854	
6,800.00	90.51	149.138	5,274.34	-1,671.13	481.52	1,888,309.18	2,800,915.21	36.18930269	-107.56959550	
6,900.00	90.51	149.138	5,273.45	-1,756.97	532.81	1,888,223.34	2,800,966.51	36.18906650	-107.56942246	
7,000.00	90.51	149.138	5,272.56	-1,842.81	584.11	1,888,137.50	2,801,017.80	36.18883032	-107.56924942	
7,100.00	90.51	149.138	5,271.67	-1,928.65	635.40	1,888,051.66	2,801,069.10	36.18859413	-107.56907638	
7,200.00	90.51	149.138	5,270.78	-2,014.48	686.70	1,887,965.83	2,801,120.39	36.18835795	-107.56890335	
7,300.00	90.51	149.138	5,269.89	-2,100.32	737.99	1,887,879.99	2,801,171.68	36.18812176	-107.56873031	
7,400.00	90.51	149.138	5,269.00	-2,186.16	789.28	1,887,794.15	2,801,222.98	36.18788557	-107.56855727	
7,500.00	90.51	149.138	5,268.10	-2,272.00	840.58	1,887,708.32	2,801,274.27	36.18764939	-107.56838424	
7,600.00	90.51	149.138	5,267.21	-2,357.83	891.87	1,887,622.48	2,801,325.57	36.18741320	-107.56821121	
7,700.00	90.51	149.138	5,266.32	-2,443.67	943.17	1,887,536.64	2,801,376.86	36.18717701	-107.56803817	
7,800.00	90.51	149.138	5,265.43	-2,529.51	994.46	1,887,450.80	2,801,428.16	36.18694083	-107.56786514	
7,900.00	90.51	149.138	5,264.54	-2,615.35	1,045.76	1,887,364.97	2,801,479.45	36.18670464	-107.56769211	
8,000.00	90.51	149.138	5,263.65	-2,701.18	1,097.05	1,887,279.13	2,801,530.75	36.18646845	-107.56751909	
8,100.00	90.51	149.138	5,262.76	-2,787.02	1,148.35	1,887,193.29	2,801,582.04	36.18623226	-107.56734606	
8,200.00	90.51	149.138	5,261.87	-2,872.86	1,199.64	1,887,107.45	2,801,633.34	36.18599608	-107.56717303	
8,300.00	90.51	149.138	5,260.97	-2,958.70	1,250.94	1,887,021.62	2,801,684.63	36.18575989	-107.56700000	
8,400.00	90.51	149.138	5,260.08	-3,044.53	1,302.23	1,886,935.78	2,801,735.92	36.18552370	-107.56682698	
8,500.00	90.51	149.138	5,259.19	-3,130.37	1,353.53	1,886,849.94	2,801,787.22	36.18528751	-107.56665396	
8,600.00	90.51	149.138	5,258.30	-3,216.21	1,404.82	1,886,764.11	2,801,838.51	36.18505132	-107.56648093	
8,700.00	90.51	149.138	5,257.41	-3,302.05	1,456.11	1,886,678.27	2,801,889.81	36.18481513	-107.56630791	
8,800.00	90.51	149.138	5,256.52	-3,387.88	1,507.41	1,886,592.43	2,801,941.10	36.18457894	-107.56613489	
8,900.00	90.51	149.138	5,255.63	-3,473.72	1,558.70	1,886,506.59	2,801,992.40	36.18434275	-107.56596187	
9,000.00	90.51	149.138	5,254.74	-3,559.56	1,610.00	1,886,420.76	2,802,043.69	36.18410656	-107.56578885	
9,100.00	90.51	149.138	5,253.84	-3,645.40	1,661.29	1,886,334.92	2,802,094.99	36.18387037	-107.56561584	
9,200.00	90.51	149.138	5,252.95	-3,731.23	1,712.59	1,886,249.08	2,802,146.28	36.18363418	-107.56544282	
9,300.00	90.51	149.138	5,252.06	-3,817.07	1,763.88	1,886,163.24	2,802,197.58	36.18339799	-107.56526980	
9,400.00	90.51	149.138	5,251.17	-3,902.91	1,815.18	1,886,077.41	2,802,248.87	36.18316180	-107.56509679	



Planning Report - Geographic



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Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
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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	90.51	149.138	5,250.28	-3,988.75	1,866.47	1,885,991.57	2,802,300.16	36.18292561	-107.56492378	
9,600.00	90.51	149.138	5,249.39	-4,074.58	1,917.77	1,885,905.73	2,802,351.46	36.18268941	-107.56475076	
9,700.00	90.51	149.138	5,248.50	-4,160.42	1,969.06	1,885,819.90	2,802,402.75	36.18245322	-107.56457775	
9,800.00	90.51	149.138	5,247.60	-4,246.26	2,020.36	1,885,734.06	2,802,454.05	36.18221703	-107.56440474	
9,900.00	90.51	149.138	5,246.71	-4,332.10	2,071.65	1,885,648.22	2,802,505.34	36.18198084	-107.56423173	
10,000.00	90.51	149.138	5,245.82	-4,417.93	2,122.94	1,885,562.38	2,802,556.64	36.18174464	-107.56405873	
10,100.00	90.51	149.138	5,244.93	-4,503.77	2,174.24	1,885,476.55	2,802,607.93	36.18150845	-107.56388572	
10,200.00	90.51	149.138	5,244.04	-4,589.61	2,225.53	1,885,390.71	2,802,659.23	36.18127226	-107.56371271	
10,300.00	90.51	149.138	5,243.15	-4,675.45	2,276.83	1,885,304.87	2,802,710.52	36.18103607	-107.56353971	
10,400.00	90.51	149.138	5,242.26	-4,761.28	2,328.12	1,885,219.03	2,802,761.82	36.18079987	-107.56336670	
10,500.00	90.51	149.138	5,241.37	-4,847.12	2,379.42	1,885,133.20	2,802,813.11	36.18056368	-107.56319370	
10,600.00	90.51	149.138	5,240.47	-4,932.96	2,430.71	1,885,047.36	2,802,864.40	36.18032748	-107.56302070	
10,700.00	90.51	149.138	5,239.58	-5,018.80	2,482.01	1,884,961.52	2,802,915.70	36.18009129	-107.56284770	
10,800.00	90.51	149.138	5,238.69	-5,104.63	2,533.30	1,884,875.69	2,802,966.99	36.17985509	-107.56267470	
10,900.00	90.51	149.138	5,237.80	-5,190.47	2,584.60	1,884,789.85	2,803,018.29	36.17961890	-107.56250170	
11,000.00	90.51	149.138	5,236.91	-5,276.31	2,635.89	1,884,704.01	2,803,069.58	36.17938270	-107.56232870	
11,100.00	90.51	149.138	5,236.02	-5,362.15	2,687.19	1,884,618.17	2,803,120.88	36.17914651	-107.56215570	
11,200.00	90.51	149.138	5,235.13	-5,447.98	2,738.48	1,884,532.34	2,803,172.17	36.17891031	-107.56198271	
11,300.00	90.51	149.138	5,234.23	-5,533.82	2,789.77	1,884,446.50	2,803,223.47	36.17867412	-107.56180971	
11,400.00	90.51	149.138	5,233.34	-5,619.66	2,841.07	1,884,360.66	2,803,274.76	36.17843792	-107.56163672	
11,500.00	90.51	149.138	5,232.45	-5,705.49	2,892.36	1,884,274.82	2,803,326.05	36.17820172	-107.56146373	
11,600.00	90.51	149.138	5,231.56	-5,791.33	2,943.66	1,884,188.99	2,803,377.35	36.17796553	-107.56129074	
11,700.00	90.51	149.138	5,230.67	-5,877.17	2,994.95	1,884,103.15	2,803,428.64	36.17772933	-107.56111774	
11,800.00	90.51	149.138	5,229.78	-5,963.01	3,046.25	1,884,017.31	2,803,479.94	36.17749313	-107.56094476	
11,900.00	90.51	149.138	5,228.89	-6,048.84	3,097.54	1,883,931.48	2,803,531.23	36.17725693	-107.56077177	
12,000.00	90.51	149.138	5,228.00	-6,134.68	3,148.84	1,883,845.64	2,803,582.53	36.17702074	-107.56059878	
12,100.00	90.51	149.138	5,227.10	-6,220.52	3,200.13	1,883,759.80	2,803,633.82	36.17678454	-107.56042579	
12,200.00	90.51	149.138	5,226.21	-6,306.36	3,251.43	1,883,673.96	2,803,685.12	36.17654834	-107.56025281	
12,300.00	90.51	149.138	5,225.32	-6,392.19	3,302.72	1,883,588.13	2,803,736.41	36.17631214	-107.56007982	
12,400.00	90.51	149.138	5,224.43	-6,478.03	3,354.02	1,883,502.29	2,803,787.71	36.17607594	-107.55990684	
12,500.00	90.51	149.138	5,223.54	-6,563.87	3,405.31	1,883,416.45	2,803,839.00	36.17583974	-107.55973386	
12,600.00	90.51	149.138	5,222.65	-6,649.71	3,456.60	1,883,330.61	2,803,890.29	36.17560354	-107.55956088	
12,700.00	90.51	149.138	5,221.76	-6,735.54	3,507.90	1,883,244.78	2,803,941.59	36.17536734	-107.55938790	
12,800.00	90.51	149.138	5,220.86	-6,821.38	3,559.19	1,883,158.94	2,803,992.88	36.17513114	-107.55921492	
12,900.00	90.51	149.138	5,219.97	-6,907.22	3,610.49	1,883,073.10	2,804,044.18	36.17489494	-107.55904194	
13,000.00	90.51	149.138	5,219.08	-6,993.06	3,661.78	1,882,987.27	2,804,095.47	36.17465874	-107.55886896	
13,100.00	90.51	149.138	5,218.19	-7,078.89	3,713.08	1,882,901.43	2,804,146.77	36.17442254	-107.55869599	
13,200.00	90.51	149.138	5,217.30	-7,164.73	3,764.37	1,882,815.59	2,804,198.06	36.17418634	-107.55852301	
13,300.00	90.51	149.138	5,216.41	-7,250.57	3,815.67	1,882,729.75	2,804,249.36	36.17395014	-107.55835004	
13,400.00	90.51	149.138	5,215.52	-7,336.41	3,866.96	1,882,643.92	2,804,300.65	36.17371394	-107.55817706	
13,500.00	90.51	149.138	5,214.63	-7,422.24	3,918.26	1,882,558.08	2,804,351.95	36.17347774	-107.55800409	
13,600.00	90.51	149.138	5,213.73	-7,508.08	3,969.55	1,882,472.24	2,804,403.24	36.17324154	-107.55783112	
13,700.00	90.51	149.138	5,212.84	-7,593.92	4,020.85	1,882,386.40	2,804,454.53	36.17300533	-107.55765815	
13,800.00	90.51	149.138	5,211.95	-7,679.76	4,072.14	1,882,300.57	2,804,505.83	36.17276913	-107.55748518	
13,900.00	90.51	149.138	5,211.06	-7,765.59	4,123.43	1,882,214.73	2,804,557.12	36.17253293	-107.55731221	
14,000.00	90.51	149.138	5,210.17	-7,851.43	4,174.73	1,882,128.89	2,804,608.42	36.17229672	-107.55713925	
14,100.00	90.51	149.138	5,209.28	-7,937.27	4,226.02	1,882,043.06	2,804,659.71	36.17206052	-107.55696628	
14,200.00	90.51	149.138	5,208.39	-8,023.11	4,277.32	1,881,957.22	2,804,711.01	36.17182432	-107.55679332	
14,300.00	90.51	149.138	5,207.49	-8,108.94	4,328.61	1,881,871.38	2,804,762.30	36.17158811	-107.55662035	
14,400.00	90.51	149.138	5,206.60	-8,194.78	4,379.91	1,881,785.54	2,804,813.60	36.17135191	-107.55644739	
14,500.00	90.51	149.138	5,205.71	-8,280.62	4,431.20	1,881,699.71	2,804,864.89	36.17111571	-107.55627443	
14,600.00	90.51	149.138	5,204.82	-8,366.46	4,482.50	1,881,613.87	2,804,916.19	36.17087950	-107.55610147	
14,700.00	90.51	149.138	5,203.93	-8,452.29	4,533.79	1,881,528.03	2,804,967.48	36.17064330	-107.55592851	
14,800.00	90.51	149.138	5,203.04	-8,538.13	4,585.09	1,881,442.19	2,805,018.77	36.17040709	-107.55575555	
14,900.00	90.51	149.138	5,202.15	-8,623.97	4,636.38	1,881,356.36	2,805,070.07	36.17017089	-107.55558259	



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	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	
15,000.00	90.51	149.138	5,201.26	-8,709.81	4,687.68	1,881,270.52	2,805,121.36	36.16993468	-107.55540964	
15,100.00	90.51	149.138	5,200.36	-8,795.64	4,738.97	1,881,184.68	2,805,172.66	36.16969848	-107.55523668	
15,200.00	90.51	149.138	5,199.47	-8,881.48	4,790.27	1,881,098.85	2,805,223.95	36.16946227	-107.55506373	
15,253.03	90.51	149.138	5,199.00	-8,927.00	4,817.47	1,881,053.32	2,805,251.16	36.16933700	-107.55497200	
PBHL/TD @ 15253.03 MD 5199.00 TVD										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
North Alamito 312H vert - plan hits target center - Point	0.00	0.000	4,711.60	-193.50	-401.49	1,889,786.81	2,800,032.21	36.19336841	-107.57257445	
North Alamito 312H LTP - plan hits target center - Point	0.00	0.000	5,199.00	-8,927.00	4,817.47	1,881,053.32	2,805,251.16	36.16933700	-107.55497200	
North Alamito 312H vs=(- plan misses target center by 212.91ft at 5224.44ft MD (5132.60 TVD, -351.72 N, -306.94 E) - Point	0.00	0.000	5,289.00	-227.71	-381.04	1,889,752.60	2,800,052.66	36.19327429	-107.57250545	
North Alamito 312H FTP - plan misses target center by 36.80ft at 5463.32ft MD (5253.92 TVD, -526.65 N, -202.40 E) - Point	0.00	0.000	5,289.00	-517.11	-208.10	1,889,463.20	2,800,225.59	36.19247800	-107.57192200	

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	
5,601.55	5,282.38	7" Intermediate Casing	7	8-3/4	



Planning Report - Geographic



Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Project:	Sandoval County, New Mexico NAD83 NmW	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site:	North Alamito Unit (4, 301,311 & 312)	North Reference:	Grid
Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,090.04	1,090.00	Ojo Alamo		-0.510	149.138
1,190.32	1,190.01	Kirtland		-0.510	149.138
1,352.02	1,350.03	Fruitland		-0.510	149.138
1,647.27	1,640.07	Pictured Cliffs		-0.510	149.138
1,810.18	1,800.09	Lewis		-0.510	149.138
2,064.71	2,050.13	Chacra_A		-0.510	149.138
3,174.48	3,140.30	Cliff House_Basal		-0.510	149.138
3,215.21	3,180.30	Menefee		-0.510	149.138
4,050.30	4,010.35	Point Lookout		-0.510	149.138
4,265.30	4,225.35	Mancos		-0.510	149.138
4,580.30	4,540.35	MNCS_A		-0.510	149.138
4,675.30	4,635.35	MNCS_B		-0.510	149.138
4,775.30	4,735.35	MNCS_C		-0.510	149.138
4,810.38	4,770.33	MNCS_Cms		-0.510	149.138
4,943.59	4,900.07	MNCS_D		-0.510	149.138
5,082.59	5,024.53	MNCS_E		-0.510	149.138
5,144.16	5,074.20	MNCS_F		-0.510	149.138
5,248.51	5,148.55	MNCS_G		-0.510	149.138
5,361.56	5,212.73	MNCS_H		-0.510	149.138
5,507.41	5,266.52	MNCS_I		-0.510	149.138

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°/100' build	
1,359.55	1,357.43	-14.65	-30.40	Begin 10.79° tangent	
3,380.40	3,342.57	-178.85	-371.09	Begin 3°/100' drop	
3,739.95	3,700.00	-193.50	-401.49	Begin vertical hold	
4,751.55	4,711.60	-193.50	-401.49	Begin 10°/100' build	
5,451.55	5,250.00	-517.11	-208.10		
5,656.65	5,284.54	-689.71	-104.96	Begin 90.51° lateral	
15,253.03	5,199.00	-8,927.00	4,817.47	PBHL/TD @ 15253.03 MD 5199.00 TVD	



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Reference	rev1		
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 1,808.90ft	Error Surface:	Ellipsoid Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	12/10/2025		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	16,088.86	rev1 (Original Hole)	MWD	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance		Separation Factor	Warning
			Between Centres (ft)	Between Ellipses (ft)		
North Alamito Unit (560, 562 & 563)						
North Alamito Unit 562H - Original Hole - rev0	10,300.00	17,745.07	1,135.10	809.81	3.489	SF
North Alamito Unit 562H - Original Hole - rev0	10,500.00	17,745.07	1,095.68	795.21	3.647	ES
North Alamito Unit 562H - Original Hole - rev0	10,619.83	17,745.07	1,089.11	809.84	3.900	CC
North Alamito Unit 563H - Original Hole - rev0	14,900.00	16,052.21	1,802.67	1,506.71	6.091	SF
North Alamito Unit 563H - Original Hole - rev0	15,600.00	16,052.21	1,621.86	1,405.81	7.507	ES
North Alamito Unit 563H - Original Hole - rev0	15,692.26	16,052.21	1,619.23	1,408.03	7.667	CC
S Chaco Unit						
S Chaco Unit 339 H - Original Hole - Surveys Original Ho	12,035.90	10,586.00	974.46	744.20	4.232	CC
S Chaco Unit 339 H - Original Hole - Surveys Original Ho	12,100.00	10,586.00	979.05	736.73	4.040	ES
S Chaco Unit 339 H - Original Hole - Surveys Original Ho	12,200.00	10,586.00	1,004.15	745.90	3.888	SF
S Chaco Unit 340 H - Original Hole - Surveys Original Ho	12,711.61	10,662.00	740.03	603.02	5.401	CC
S Chaco Unit 340 H - Original Hole - Surveys Original Ho	12,900.00	10,662.00	763.63	583.00	4.228	ES
S Chaco Unit 340 H - Original Hole - Surveys Original Ho	13,200.00	10,662.00	886.66	635.24	3.527	SF
S Chaco Unit 344 Pad (344, 345 & 908)						
S Chaco Unit 344 H - Original Hole - Surveys Original Ho	12,565.75	12,152.00	825.68	629.55	4.210	CC
S Chaco Unit 344 H - Original Hole - Surveys Original Ho	12,800.00	12,152.00	858.27	586.51	3.158	ES
S Chaco Unit 344 H - Original Hole - Surveys Original Ho	13,000.00	12,152.00	932.91	619.30	2.975	SF
S Chaco Unit 345 H - Original Hole - Surveys Original Ho	15,660.96	10,375.00	663.34	469.84	3.428	CC
S Chaco Unit 345 H - Original Hole - Surveys Original Ho	15,900.00	10,375.00	705.09	428.83	2.552	ES
S Chaco Unit 345 H - Original Hole - Surveys Original Ho	16,000.00	10,375.00	744.96	446.18	2.493	SF
S Chaco Unit 908 H - Original Hole - Surveys Original Ho	14,056.78	12,493.00	652.04	460.01	3.396	CC
S Chaco Unit 908 H - Original Hole - Surveys Original Ho	14,300.00	12,493.00	695.93	401.97	2.367	ES
S Chaco Unit 908 H - Original Hole - Surveys Original Ho	14,400.00	12,493.00	736.86	415.95	2.296	SF
Sec 27 T23N R07W						
Federal B #006 - Orig Hole - Inc only	6,318.50	5,265.37	768.71	511.83	2.993	CC, ES, SF

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Sec 28 T23N R07W North Alamito 4 301 311&312						
North Alamito Unit 004H - Original Hole - rev1	600.00	600.00	20.07	15.94	4.856	CC, ES
North Alamito Unit 004H - Original Hole - rev1	700.00	699.31	21.68	16.83	4.474	SF
North Alamito Unit 232H - Orig Hole - MWD surveys	100.00	89.30	119.87	119.44	279.828	CC
North Alamito Unit 232H - Orig Hole - MWD surveys	900.00	889.36	119.95	114.34	21.400	ES
North Alamito Unit 232H - Orig Hole - MWD surveys	1,300.00	1,282.62	135.31	126.80	15.910	SF
North Alamito Unit 233H - Orig Hole - MWD surveys	100.00	89.31	90.03	89.60	210.179	CC
North Alamito Unit 233H - Orig Hole - MWD surveys	200.00	189.09	90.37	89.41	94.235	ES
North Alamito Unit 233H - Orig Hole - MWD surveys	11,700.00	12,068.00	1,349.83	1,039.45	4.349	SF
North Alamito Unit 301H - Original Hole - rev1	800.00	800.00	40.14	34.57	7.211	CC, ES
North Alamito Unit 301H - Original Hole - rev1	1,000.00	997.98	44.50	37.51	6.370	SF
North Alamito Unit 311H - Original Hole - rev1	1,000.00	1,000.00	19.78	12.77	2.825	CC, ES
North Alamito Unit 311H - Original Hole - rev1	1,100.00	1,099.69	20.48	12.78	2.660	SF
Sec 34 T23N R07W						
Federal B #003 - Orig Hole - Inc only surveys	11,096.71	5,268.83	739.36	388.51	2.107	CC
Federal B #003 - Orig Hole - Inc only surveys	11,100.00	5,268.82	739.36	388.42	2.107	ES, SF
Federal B #005 - Orig Hole - Inc only	7,289.80	5,224.59	573.54	159.14	1.384	Level 3<2.00, CC
Federal B #005 - Orig Hole - Inc only	7,300.00	5,224.56	573.63	158.96	1.383	Level 3<2.00, ES, SF
Federal B L #002 - Orig Hole - Inc only surveys	9,900.00	5,242.45	431.27	157.35	1.574	Level 3<2.00, CC
Federal B L #002 - Orig Hole - Inc only surveys	9,904.45	5,242.44	431.28	157.31	1.574	Level 3<2.00, ES, SF

Offset Design: North Alamito Unit (560, 562 & 563) - North Alamito Unit 562H - Original Hole - rev0													Offset Site Error:	0.00 ft		
Survey Program: 0-MWD													Rule Assigned:		Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning			
9,200.00	5,277.67	17,745.07	5,199.00	94.79	252.38	89.752	-4,774.05	2,887.13	1,789.43	1,483.36	306.08	5.846				
9,300.00	5,277.40	17,745.07	5,199.00	97.07	252.38	89.752	-4,774.05	2,887.13	1,711.17	1,400.26	310.91	5.504				
9,400.00	5,277.12	17,745.07	5,199.00	99.35	252.38	89.752	-4,774.05	2,887.13	1,635.28	1,319.45	315.83	5.178				
9,500.00	5,276.84	17,745.07	5,199.00	101.64	252.38	89.752	-4,774.05	2,887.13	1,562.11	1,241.37	320.73	4.870				
9,600.00	5,276.56	17,745.07	5,199.00	103.93	252.38	89.752	-4,774.05	2,887.13	1,492.05	1,166.59	325.46	4.584				
9,700.00	5,276.28	17,745.07	5,199.00	106.21	252.38	89.752	-4,774.05	2,887.13	1,425.57	1,095.75	329.81	4.322				
9,800.00	5,276.00	17,745.07	5,199.00	108.50	252.38	89.752	-4,774.05	2,887.13	1,363.19	1,029.70	333.49	4.088				
9,900.00	5,275.72	17,745.07	5,199.00	110.80	252.38	89.752	-4,774.05	2,887.13	1,305.49	969.40	336.09	3.884				
10,000.00	5,275.44	17,745.07	5,199.00	113.09	252.38	89.752	-4,774.05	2,887.13	1,253.14	915.98	337.15	3.717				
10,100.00	5,275.16	17,745.07	5,199.00	115.38	252.38	89.752	-4,774.05	2,887.13	1,206.81	870.72	336.09	3.591				
10,200.00	5,274.88	17,745.07	5,199.00	117.68	252.38	89.752	-4,774.05	2,887.13	1,167.23	834.91	332.31	3.512				
10,300.00	5,274.60	17,745.07	5,199.00	119.98	252.38	89.752	-4,774.05	2,887.13	1,135.10	809.81	325.29	3.489	SF			
10,400.00	5,274.32	17,745.07	5,199.00	122.28	252.38	89.752	-4,774.05	2,887.13	1,111.07	796.39	314.68	3.531				
10,500.00	5,274.04	17,745.07	5,199.00	124.58	252.38	89.752	-4,774.05	2,887.13	1,095.68	795.21	300.47	3.647	ES			
10,600.00	5,273.77	17,745.07	5,199.00	126.88	252.38	89.752	-4,774.05	2,887.13	1,089.29	806.24	283.05	3.848				
10,619.83	5,273.71	17,745.07	5,199.00	127.33	252.38	89.752	-4,774.05	2,887.13	1,089.11	809.84	279.27	3.900	CC			
10,700.00	5,273.49	17,745.07	5,199.00	129.18	252.38	89.752	-4,774.05	2,887.13	1,092.06	828.87	263.19	4.149				
10,800.00	5,273.21	17,745.07	5,199.00	131.48	252.38	89.752	-4,774.05	2,887.13	1,103.91	861.96	241.95	4.563				
10,900.00	5,272.93	17,745.07	5,199.00	133.78	252.38	89.752	-4,774.05	2,887.13	1,124.57	903.99	220.58	5.098				
11,000.00	5,272.65	17,745.07	5,199.00	136.09	252.38	89.752	-4,774.05	2,887.13	1,153.56	953.15	200.41	5.756				
11,100.00	5,272.37	17,745.07	5,199.00	138.39	252.38	89.752	-4,774.05	2,887.13	1,190.26	1,007.62	182.64	6.517				
11,200.00	5,272.09	17,745.07	5,199.00	140.70	252.38	89.752	-4,774.05	2,887.13	1,234.00	1,065.89	168.11	7.340				
11,300.00	5,271.81	17,745.07	5,199.00	143.00	252.38	89.752	-4,774.05	2,887.13	1,284.05	1,126.92	157.14	8.171				

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: North Alamito Unit (560, 562 & 563) - North Alamito Unit 562H - Original Hole - rev0													Offset Site Error:	0.00 ft		
Survey Program: 0-MWD													Offset Well Error:	0.00 ft		
Reference													Rule Assigned:			
Offset				Semi Major Axis			Offset Wellbore Centre		Distance		Minimum Separation		Separation Factor		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				
11,400.00	5,271.53	17,745.07	5,199.00	145.31	252.38	89.752	-4,774.05	2,887.13	1,339.71	1,190.10	149.61	8.955				
11,500.00	5,271.25	17,745.07	5,199.00	147.62	252.38	89.752	-4,774.05	2,887.13	1,400.31	1,255.12	145.19	9.645				
11,600.00	5,270.97	17,745.07	5,199.00	149.93	252.38	89.752	-4,774.05	2,887.13	1,465.23	1,321.84	143.39	10.218				
11,700.00	5,270.69	17,745.07	5,199.00	152.24	252.38	89.752	-4,774.05	2,887.13	1,533.93	1,390.22	143.71	10.674				
11,800.00	5,270.41	17,745.07	5,199.00	154.54	252.38	89.755	-4,774.05	2,887.13	1,605.91	1,460.28	145.62	11.028				
11,900.00	5,270.13	17,745.07	5,199.00	156.80	252.38	89.801	-4,774.05	2,887.13	1,676.19	1,527.37	148.82	11.264				
12,000.00	5,269.86	17,745.07	5,199.00	158.91	252.38	89.839	-4,774.05	2,887.13	1,740.71	1,587.54	153.17	11.364				
12,100.00	5,269.58	17,702.56	5,198.15	160.85	252.32	89.845	-4,816.25	2,882.08	1,798.67	1,642.59	156.08	11.524				

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: North Alamito Unit (560, 562 & 563) - North Alamito Unit 563H - 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		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
14,900.00	5,221.68	16,052.21	5,124.00	191.47	250.46	89.555	-8,575.15	3,061.32	1,802.67	1,506.71	295.95	6.091 SF		
15,000.00	5,219.77	16,052.21	5,124.00	192.61	250.46	89.555	-8,575.15	3,061.32	1,761.01	1,477.50	283.51	6.211		
15,100.00	5,217.86	16,052.21	5,124.00	193.77	250.46	89.555	-8,575.15	3,061.32	1,724.15	1,453.63	270.52	6.373		
15,200.00	5,215.96	16,052.21	5,124.00	194.93	250.46	89.555	-8,575.15	3,061.32	1,692.41	1,434.97	257.44	6.574		
15,300.00	5,214.05	16,052.21	5,124.00	196.11	250.46	89.555	-8,575.15	3,061.32	1,666.07	1,421.23	244.84	6.805		
15,400.00	5,212.14	16,052.21	5,124.00	197.28	250.46	89.555	-8,575.15	3,061.32	1,645.40	1,412.03	233.37	7.051		
15,500.00	5,210.23	16,052.21	5,124.00	198.47	250.46	89.555	-8,575.15	3,061.32	1,630.61	1,406.98	223.63	7.292		
15,600.00	5,208.33	16,052.21	5,124.00	199.66	250.46	89.555	-8,575.15	3,061.32	1,621.86	1,405.81	216.05	7.507 ES		
15,692.26	5,206.57	16,052.21	5,124.00	200.77	250.46	89.555	-8,575.15	3,061.32	1,619.23	1,408.03	211.21	7.667 CC		
15,700.00	5,206.42	16,052.21	5,124.00	200.86	250.46	89.555	-8,575.15	3,061.32	1,619.25	1,408.36	210.89	7.678		
15,800.00	5,204.51	16,052.21	5,124.00	202.07	250.46	89.555	-8,575.15	3,061.32	1,622.81	1,414.67	208.15	7.797		
15,900.00	5,202.60	16,052.21	5,124.00	203.28	250.46	89.555	-8,575.15	3,061.32	1,632.51	1,424.91	207.59	7.864		
16,000.00	5,200.70	16,052.21	5,124.00	204.50	250.46	89.555	-8,575.15	3,061.32	1,648.22	1,439.38	208.84	7.892		
16,088.99	5,199.00	16,052.21	5,124.00	205.60	250.46	89.555	-8,575.15	3,061.32	1,667.13	1,456.10	211.03	7.900		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: S Chaco Unit - S Chaco Unit 339 H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 44-GYRO-NS, 356-MWD, 10586-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)				
10,800.00	5,273.21	10,586.00	5,371.04	131.48	131.59	-88.312	-4,487.53	5,482.58	1,761.02	1,665.92	95.10	18.518		
10,900.00	5,272.93	10,586.00	5,371.04	133.78	131.59	-88.312	-4,487.53	5,482.58	1,675.75	1,577.41	98.34	17.041		
11,000.00	5,272.65	10,586.00	5,371.04	136.09	131.59	-88.312	-4,487.53	5,482.58	1,592.19	1,489.90	102.29	15.565		
11,100.00	5,272.37	10,586.00	5,371.04	138.39	131.59	-88.312	-4,487.53	5,482.58	1,510.63	1,403.49	107.15	14.099		
11,200.00	5,272.09	10,586.00	5,371.04	140.70	131.59	-88.312	-4,487.53	5,482.58	1,431.42	1,318.32	113.10	12.656		
11,300.00	5,271.81	10,586.00	5,371.04	143.00	131.59	-88.312	-4,487.53	5,482.58	1,354.95	1,234.57	120.39	11.255		
11,400.00	5,271.53	10,586.00	5,371.04	145.31	131.59	-88.312	-4,487.53	5,482.58	1,281.74	1,152.49	129.24	9.917		
11,500.00	5,271.25	10,586.00	5,371.04	147.62	131.59	-88.312	-4,487.53	5,482.58	1,212.35	1,072.44	139.91	8.665		
11,600.00	5,270.97	10,586.00	5,371.04	149.93	131.59	-88.312	-4,487.53	5,482.58	1,147.49	994.94	152.55	7.522		
11,700.00	5,270.69	10,586.00	5,371.04	152.24	131.59	-88.312	-4,487.53	5,482.58	1,087.97	920.72	167.25	6.505		
11,800.00	5,270.41	10,586.00	5,371.04	154.54	131.59	-88.317	-4,487.53	5,482.58	1,034.72	850.81	183.91	5.626		
11,900.00	5,270.13	10,586.00	5,371.04	156.80	131.59	-88.385	-4,487.53	5,482.58	994.96	792.11	202.85	4.905		
12,000.00	5,269.86	10,586.00	5,371.04	158.91	131.59	-88.404	-4,487.53	5,482.58	975.91	752.79	223.12	4.374		
12,035.90	5,269.76	10,586.00	5,371.04	159.61	131.59	-88.400	-4,487.53	5,482.58	974.46	744.20	230.26	4.232 CC		
12,100.00	5,269.58	10,586.00	5,371.04	160.85	131.59	-88.378	-4,487.53	5,482.58	979.05	736.73	242.32	4.040 ES		
12,200.00	5,269.30	10,586.00	5,371.04	162.58	131.59	-88.305	-4,487.53	5,482.58	1,004.15	745.90	258.24	3.888 SF		
12,300.00	5,269.02	10,586.00	5,371.04	164.08	131.59	-88.177	-4,487.53	5,482.58	1,049.26	779.43	269.83	3.889		
12,400.00	5,268.74	10,586.00	5,371.04	165.33	131.59	-87.916	-4,487.53	5,482.58	1,111.34	834.03	277.31	4.008		
12,500.00	5,267.45	10,586.00	5,371.04	166.35	131.59	-86.569	-4,487.53	5,482.58	1,186.67	905.00	281.67	4.213		
12,600.00	5,265.54	10,586.00	5,371.04	167.30	131.59	-86.569	-4,487.53	5,482.58	1,267.76	983.47	284.29	4.459		
12,700.00	5,263.64	10,586.00	5,371.04	168.25	131.59	-86.569	-4,487.53	5,482.58	1,351.39	1,065.52	285.87	4.727		
12,800.00	5,261.73	10,586.00	5,371.04	169.21	131.59	-86.569	-4,487.53	5,482.58	1,437.11	1,150.40	286.71	5.012		
12,900.00	5,259.82	10,586.00	5,371.04	170.19	131.59	-86.569	-4,487.53	5,482.58	1,524.57	1,237.52	287.05	5.311		
13,000.00	5,257.91	10,586.00	5,371.04	171.17	131.59	-86.569	-4,487.53	5,482.58	1,613.49	1,326.45	287.04	5.621		
13,100.00	5,256.01	10,586.00	5,371.04	172.16	131.59	-86.569	-4,487.53	5,482.58	1,703.64	1,416.85	286.79	5.940		
13,200.00	5,254.10	10,586.00	5,371.04	173.16	131.59	-86.569	-4,487.53	5,482.58	1,794.83	1,508.45	286.38	6.267		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: S Chaco Unit - S Chaco Unit 340 H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 14-GYRO-NS, 359-MWD, 10662-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
11,300.00	5,271.81	10,662.00	5,343.92	143.00	132.43	-45.686	-5,644.20	5,480.66	1,807.44	1,713.61	93.84	19.262		
11,400.00	5,271.53	10,662.00	5,343.92	145.31	132.43	-45.686	-5,644.20	5,480.66	1,707.53	1,613.67	93.86	18.193		
11,500.00	5,271.25	10,662.00	5,343.92	147.62	132.43	-45.686	-5,644.20	5,480.66	1,607.63	1,513.75	93.88	17.125		
11,600.00	5,270.97	10,662.00	5,343.92	149.93	132.43	-45.686	-5,644.20	5,480.66	1,507.74	1,413.84	93.90	16.057		
11,700.00	5,270.69	10,662.00	5,343.92	152.24	132.43	-45.686	-5,644.20	5,480.66	1,407.87	1,313.94	93.93	14.989		
11,800.00	5,270.41	10,662.00	5,343.92	154.54	132.43	-49.833	-5,644.20	5,480.66	1,308.01	1,214.05	93.96	13.921		
11,900.00	5,270.13	10,662.00	5,343.92	156.80	132.43	-76.458	-5,644.20	5,480.66	1,208.78	1,114.83	93.95	12.866		
12,000.00	5,269.86	10,662.00	5,343.92	158.91	132.43	-81.644	-5,644.20	5,480.66	1,112.03	1,018.02	94.00	11.830		
12,100.00	5,269.58	10,662.00	5,343.92	160.85	132.43	-83.735	-5,644.20	5,480.66	1,020.09	925.59	94.49	10.795		
12,200.00	5,269.30	10,662.00	5,343.92	162.58	132.43	-84.814	-5,644.20	5,480.66	935.95	839.97	95.98	9.752		
12,300.00	5,269.02	10,662.00	5,343.92	164.08	132.43	-85.429	-5,644.20	5,480.66	863.32	764.36	98.96	8.724		
12,400.00	5,268.74	10,662.00	5,343.92	165.33	132.43	-85.812	-5,644.20	5,480.66	806.54	702.81	103.73	7.775		
12,500.00	5,267.45	10,662.00	5,343.92	166.35	132.43	-86.281	-5,644.20	5,480.66	769.69	659.16	110.53	6.964		
12,600.00	5,265.54	10,662.00	5,343.92	167.30	132.43	-86.281	-5,644.20	5,480.66	748.40	628.07	120.32	6.220		
12,700.00	5,263.64	10,662.00	5,343.92	168.25	132.43	-86.281	-5,644.20	5,480.66	740.12	605.18	134.94	5.485		
12,711.61	5,263.41	10,662.00	5,343.92	168.36	132.43	-86.281	-5,644.20	5,480.66	740.03	603.02	137.01	5.401 CC		
12,800.00	5,261.73	10,662.00	5,343.92	169.21	132.43	-86.281	-5,644.20	5,480.66	745.29	589.89	155.40	4.796		
12,900.00	5,259.82	10,662.00	5,343.92	170.19	132.43	-86.281	-5,644.20	5,480.66	763.63	583.00	180.63	4.228 ES		
13,000.00	5,257.91	10,662.00	5,343.92	171.17	132.43	-86.281	-5,644.20	5,480.66	794.24	586.89	207.35	3.830		
13,100.00	5,256.01	10,662.00	5,343.92	172.16	132.43	-86.281	-5,644.20	5,480.66	835.76	604.08	231.67	3.607		
13,200.00	5,254.10	10,662.00	5,343.92	173.16	132.43	-86.281	-5,644.20	5,480.66	886.66	635.24	251.42	3.527 SF		
13,300.00	5,252.19	10,662.00	5,343.92	174.17	132.43	-86.281	-5,644.20	5,480.66	945.43	679.15	266.28	3.550		
13,400.00	5,250.29	10,662.00	5,343.92	175.19	132.43	-86.281	-5,644.20	5,480.66	1,010.70	733.82	276.88	3.650		
13,500.00	5,248.38	10,662.00	5,343.92	176.22	132.43	-86.281	-5,644.20	5,480.66	1,081.30	797.16	284.14	3.806		
13,600.00	5,246.47	10,662.00	5,343.92	177.25	132.43	-86.281	-5,644.20	5,480.66	1,156.24	867.32	288.91	4.002		
13,700.00	5,244.56	10,662.00	5,343.92	178.29	132.43	-86.281	-5,644.20	5,480.66	1,234.73	942.82	291.91	4.230		
13,800.00	5,242.66	10,662.00	5,343.92	179.35	132.43	-86.281	-5,644.20	5,480.66	1,316.14	1,022.49	293.65	4.482		
13,900.00	5,240.75	10,662.00	5,343.92	180.41	132.43	-86.281	-5,644.20	5,480.66	1,399.97	1,105.44	294.53	4.753		
14,000.00	5,238.84	10,662.00	5,343.92	181.48	132.43	-86.281	-5,644.20	5,480.66	1,485.80	1,190.99	294.80	5.040		
14,100.00	5,236.93	10,662.00	5,343.92	182.55	132.43	-86.281	-5,644.20	5,480.66	1,573.30	1,278.63	294.67	5.339		
14,200.00	5,235.03	10,662.00	5,343.92	183.64	132.43	-86.281	-5,644.20	5,480.66	1,662.21	1,367.95	294.26	5.649		
14,300.00	5,233.12	10,662.00	5,343.92	184.73	132.43	-86.281	-5,644.20	5,480.66	1,752.32	1,458.65	293.67	5.967		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: S Chaco Unit 344 Pad (344, 345 & 908) - S Chaco Unit 344 H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 401-MWD, 3297-MWD, 12152-MWD													Offset Well Error:	0.00 ft
Reference	Vertical	Measured	Vertical	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
11,300.00	5,271.81	12,152.00	5,259.83	143.00	162.34	-76.218	-5,500.09	5,569.20	1,785.99	1,729.45	56.54	31.586		
11,400.00	5,271.53	12,152.00	5,259.83	145.31	162.34	-76.218	-5,500.09	5,569.20	1,686.84	1,629.49	57.35	29.414		
11,500.00	5,271.25	12,152.00	5,259.83	147.62	162.34	-76.218	-5,500.09	5,569.20	1,587.78	1,529.53	58.25	27.258		
11,600.00	5,270.97	12,152.00	5,259.83	149.93	162.34	-76.218	-5,500.09	5,569.20	1,488.86	1,429.59	59.27	25.121		
11,700.00	5,270.69	12,152.00	5,259.83	152.24	162.34	-76.218	-5,500.09	5,569.20	1,390.08	1,329.65	60.43	23.003		
11,800.00	5,270.41	12,152.00	5,259.83	154.54	162.34	-76.688	-5,500.09	5,569.20	1,291.50	1,229.73	61.77	20.907		
11,900.00	5,270.13	12,152.00	5,259.83	156.80	162.34	-81.823	-5,500.09	5,569.20	1,194.69	1,130.35	64.34	18.569		
12,000.00	5,269.86	12,152.00	5,259.83	158.91	162.34	-83.891	-5,500.09	5,569.20	1,102.57	1,033.11	69.46	15.873		
12,100.00	5,269.58	12,152.00	5,259.83	160.85	162.34	-84.960	-5,500.09	5,569.20	1,017.98	939.77	78.22	13.015		
12,200.00	5,269.30	12,152.00	5,259.83	162.58	162.34	-85.574	-5,500.09	5,569.20	944.37	852.36	92.01	10.264		
12,300.00	5,269.02	12,152.00	5,259.83	164.08	162.34	-85.933	-5,500.09	5,569.20	885.68	773.39	112.29	7.887		
12,400.00	5,268.74	12,152.00	5,259.83	165.33	162.34	-86.142	-5,500.09	5,569.20	845.99	706.26	139.73	6.054		
12,500.00	5,267.45	12,152.00	5,259.83	166.35	162.34	-86.328	-5,500.09	5,569.20	828.29	655.31	172.98	4.788		
12,565.75	5,266.20	12,152.00	5,259.83	166.97	162.34	-86.328	-5,500.09	5,569.20	825.68	629.55	196.12	4.210 CC		
12,600.00	5,265.54	12,152.00	5,259.83	167.30	162.34	-86.328	-5,500.09	5,569.20	826.39	618.23	208.16	3.970		
12,700.00	5,263.64	12,152.00	5,259.83	168.25	162.34	-86.328	-5,500.09	5,569.20	836.52	594.58	241.94	3.458		
12,800.00	5,261.73	12,152.00	5,259.83	169.21	162.34	-86.328	-5,500.09	5,569.20	858.27	586.51	271.76	3.158 ES		
12,900.00	5,259.82	12,152.00	5,259.83	170.19	162.34	-86.328	-5,500.09	5,569.20	890.77	594.92	295.85	3.011		
13,000.00	5,257.91	12,152.00	5,259.83	171.17	162.34	-86.328	-5,500.09	5,569.20	932.91	619.30	313.61	2.975 SF		
13,100.00	5,256.01	12,152.00	5,259.83	172.16	162.34	-86.328	-5,500.09	5,569.20	983.45	657.97	325.48	3.021		
13,200.00	5,254.10	12,152.00	5,259.83	173.16	162.34	-86.328	-5,500.09	5,569.20	1,041.16	708.62	332.55	3.131		
13,300.00	5,252.19	12,152.00	5,259.83	174.17	162.34	-86.328	-5,500.09	5,569.20	1,104.93	768.92	336.01	3.288		
13,400.00	5,250.29	12,152.00	5,259.83	175.19	162.34	-86.328	-5,500.09	5,569.20	1,173.77	836.81	336.96	3.483		
13,500.00	5,248.38	12,087.49	5,259.87	176.22	161.26	-86.582	-5,546.12	5,614.39	1,245.18	908.39	336.79	3.697		
13,600.00	5,246.47	12,010.96	5,259.78	177.25	159.51	-86.840	-5,600.89	5,667.84	1,316.41	980.28	336.13	3.916		
13,700.00	5,244.56	11,935.20	5,259.37	178.29	157.78	-87.050	-5,655.35	5,720.51	1,387.34	1,051.88	335.46	4.136		
13,800.00	5,242.66	11,857.76	5,258.75	179.35	156.02	-87.229	-5,711.25	5,774.09	1,457.98	1,123.20	334.77	4.355		
13,900.00	5,240.75	11,775.47	5,257.80	180.41	154.15	-87.384	-5,770.99	5,830.68	1,528.20	1,194.18	334.02	4.575		
14,000.00	5,238.84	11,711.48	5,256.70	181.48	152.69	-87.476	-5,817.60	5,874.50	1,598.17	1,264.69	333.48	4.792		
14,100.00	5,236.93	11,658.75	5,255.86	182.55	151.49	-87.550	-5,855.69	5,910.97	1,668.81	1,335.77	333.04	5.011		
14,200.00	5,235.03	11,563.51	5,254.42	183.64	149.33	-87.675	-5,924.52	5,976.77	1,739.37	1,407.19	332.17	5.236		
14,300.00	5,233.12	11,467.00	5,252.77	184.73	147.14	-87.780	-5,995.23	6,042.43	1,808.89	1,477.66	331.24	5.461		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: S Chaco Unit 344 Pad (344, 345 & 908) - S Chaco Unit 345 H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft		
Survey Program: 401-MWD, 3453-MWD, 10375-MWD													Offset Well Error:	0.00 ft		
Reference													Rule Assigned:		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor				
		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)						
14,000.00	5,238.84	10,375.00	5,184.69	181.48	118.99	-84.031	-8,590.32	5,340.43	1,788.52	1,669.87	118.65	15.074				
14,100.00	5,236.93	10,375.00	5,184.69	182.55	118.99	-84.031	-8,590.32	5,340.43	1,696.05	1,583.41	112.65	15.056				
14,200.00	5,235.03	10,375.00	5,184.69	183.64	118.99	-84.031	-8,590.32	5,340.43	1,604.50	1,498.11	106.38	15.082				
14,300.00	5,233.12	10,375.00	5,184.69	184.73	118.99	-84.031	-8,590.32	5,340.43	1,514.01	1,414.01	100.00	15.140				
14,400.00	5,231.21	10,375.00	5,184.69	185.84	118.99	-84.031	-8,590.32	5,340.43	1,424.79	1,331.10	93.69	15.208				
14,500.00	5,229.31	10,375.00	5,184.69	186.95	118.99	-84.031	-8,590.32	5,340.43	1,337.10	1,249.38	87.72	15.243				
14,600.00	5,227.40	10,375.00	5,184.69	188.06	118.99	-84.031	-8,590.32	5,340.43	1,251.26	1,168.85	82.41	15.183				
14,700.00	5,225.49	10,375.00	5,184.69	189.19	118.99	-84.031	-8,590.32	5,340.43	1,167.67	1,089.55	78.12	14.947				
14,800.00	5,223.58	10,375.00	5,184.69	190.32	118.99	-84.031	-8,590.32	5,340.43	1,086.86	1,011.61	75.24	14.445				
14,900.00	5,221.68	10,375.00	5,184.69	191.47	118.99	-84.031	-8,590.32	5,340.43	1,009.49	935.28	74.21	13.604				
15,000.00	5,219.77	10,375.00	5,184.69	192.61	118.99	-84.031	-8,590.32	5,340.43	936.42	860.94	75.48	12.406				
15,100.00	5,217.86	10,375.00	5,184.69	193.77	118.99	-84.031	-8,590.32	5,340.43	868.73	789.16	79.57	10.918				
15,200.00	5,215.96	10,375.00	5,184.69	194.93	118.99	-84.031	-8,590.32	5,340.43	807.77	720.69	87.08	9.276				
15,300.00	5,214.05	10,375.00	5,184.69	196.11	118.99	-84.031	-8,590.32	5,340.43	755.18	656.28	98.91	7.635				
15,400.00	5,212.14	10,375.00	5,184.69	197.28	118.99	-84.031	-8,590.32	5,340.43	712.82	596.55	116.27	6.131				
15,500.00	5,210.23	10,375.00	5,184.69	198.47	118.99	-84.031	-8,590.32	5,340.43	682.58	542.17	140.42	4.861				
15,600.00	5,208.33	10,375.00	5,184.69	199.66	118.99	-84.031	-8,590.32	5,340.43	666.13	494.48	171.66	3.881				
15,660.96	5,207.16	10,375.00	5,184.69	200.39	118.99	-84.031	-8,590.32	5,340.43	663.34	469.84	193.50	3.428 CC				
15,700.00	5,206.42	10,375.00	5,184.69	200.86	118.99	-84.031	-8,590.32	5,340.43	664.48	456.40	208.08	3.193				
15,800.00	5,204.51	10,375.00	5,184.69	202.07	118.99	-84.031	-8,590.32	5,340.43	677.75	432.88	244.87	2.768				
15,900.00	5,202.60	10,375.00	5,184.69	203.28	118.99	-84.031	-8,590.32	5,340.43	705.09	428.83	276.26	2.552 ES				
16,000.00	5,200.70	10,375.00	5,184.69	204.50	118.99	-84.031	-8,590.32	5,340.43	744.96	446.18	298.78	2.493 SF				
16,088.99	5,199.00	10,375.00	5,184.69	205.60	118.99	-84.031	-8,590.32	5,340.43	789.45	478.32	311.13	2.537				

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: S Chaco Unit 344 Pad (344, 345 & 908) - S Chaco Unit 908 H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 401-MWD, 3453-MWD, 12493-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)	
12,400.00	5,268.74	12,493.00	5,217.29	165.33	159.23	-79.363	-6,986.59	5,362.74	1,781.78	1,658.91	122.86	14.502		
12,500.00	5,267.45	12,493.00	5,217.29	166.35	159.23	-84.103	-6,986.59	5,362.74	1,687.81	1,571.99	115.82	14.573		
12,600.00	5,265.54	12,493.00	5,217.29	167.30	159.23	-84.103	-6,986.59	5,362.74	1,596.04	1,488.45	107.60	14.834		
12,700.00	5,263.64	12,493.00	5,217.29	168.25	159.23	-84.103	-6,986.59	5,362.74	1,505.32	1,406.48	98.84	15.229		
12,800.00	5,261.73	12,493.00	5,217.29	169.21	159.23	-84.103	-6,986.59	5,362.74	1,415.85	1,326.12	89.73	15.779		
12,900.00	5,259.82	12,493.00	5,217.29	170.19	159.23	-84.103	-6,986.59	5,362.74	1,327.89	1,247.33	80.56	16.483		
13,000.00	5,257.91	12,493.00	5,217.29	171.17	159.23	-84.103	-6,986.59	5,362.74	1,241.74	1,169.99	71.75	17.305		
13,100.00	5,256.01	12,493.00	5,217.29	172.16	159.23	-84.103	-6,986.59	5,362.74	1,157.83	1,094.00	63.84	18.138		
13,200.00	5,254.10	12,493.00	5,217.29	173.16	159.23	-84.103	-6,986.59	5,362.74	1,076.67	1,019.27	57.40	18.759		
13,300.00	5,252.19	12,493.00	5,217.29	174.17	159.23	-84.103	-6,986.59	5,362.74	998.93	945.82	53.11	18.808		
13,400.00	5,250.29	12,493.00	5,217.29	175.19	159.23	-84.103	-6,986.59	5,362.74	925.48	873.72	51.76	17.880		
13,500.00	5,248.38	12,493.00	5,217.29	176.22	159.23	-84.103	-6,986.59	5,362.74	857.41	803.13	54.28	15.797		
13,600.00	5,246.47	12,493.00	5,217.29	177.25	159.23	-84.103	-6,986.59	5,362.74	796.12	734.30	61.81	12.880		
13,700.00	5,244.56	12,493.00	5,217.29	178.29	159.23	-84.103	-6,986.59	5,362.74	743.27	667.54	75.73	9.815		
13,800.00	5,242.66	12,493.00	5,217.29	179.35	159.23	-84.103	-6,986.59	5,362.74	700.78	603.34	97.43	7.192		
13,900.00	5,240.75	12,493.00	5,217.29	180.41	159.23	-84.103	-6,986.59	5,362.74	670.62	542.67	127.95	5.241		
14,000.00	5,238.84	12,493.00	5,217.29	181.48	159.23	-84.103	-6,986.59	5,362.74	654.51	487.49	167.02	3.919		
14,056.78	5,237.76	12,493.00	5,217.29	182.09	159.23	-84.103	-6,986.59	5,362.74	652.04	460.01	192.03	3.396 CC		
14,100.00	5,236.93	12,493.00	5,217.29	182.55	159.23	-84.103	-6,986.59	5,362.74	653.47	441.76	211.71	3.087		
14,200.00	5,235.03	12,493.00	5,217.29	183.64	159.23	-84.103	-6,986.59	5,362.74	667.58	411.39	256.19	2.606		
14,300.00	5,233.12	12,493.00	5,217.29	184.73	159.23	-84.103	-6,986.59	5,362.74	695.93	401.97	293.96	2.367 ES		
14,400.00	5,231.21	12,493.00	5,217.29	185.84	159.23	-84.103	-6,986.59	5,362.74	736.86	415.95	320.91	2.296 SF		
14,500.00	5,229.31	12,493.00	5,217.29	186.95	159.23	-84.103	-6,986.59	5,362.74	788.42	451.60	336.82	2.341		
14,600.00	5,227.40	12,493.00	5,217.29	188.06	159.23	-84.103	-6,986.59	5,362.74	848.67	504.55	344.13	2.466		
14,700.00	5,225.49	12,493.00	5,217.29	189.19	159.23	-84.103	-6,986.59	5,362.74	915.91	570.09	345.83	2.648		
14,800.00	5,223.58	12,456.27	5,217.76	190.32	158.66	-84.416	-7,012.26	5,389.00	988.02	642.57	345.46	2.860		
14,900.00	5,221.68	12,387.14	5,218.61	191.47	157.40	-84.939	-7,060.60	5,438.42	1,060.72	715.35	345.37	3.071		
15,000.00	5,219.77	12,316.20	5,218.97	192.61	155.78	-85.368	-7,110.30	5,489.04	1,133.33	788.42	344.91	3.286		
15,100.00	5,217.86	12,247.94	5,218.60	193.77	154.21	-85.680	-7,158.20	5,537.68	1,205.90	861.50	344.40	3.501		
15,200.00	5,215.96	12,177.78	5,217.44	194.93	152.61	-85.915	-7,207.44	5,587.63	1,278.48	934.60	343.87	3.718		
15,300.00	5,214.05	12,104.87	5,215.69	196.11	150.94	-86.097	-7,258.73	5,639.42	1,350.92	1,007.57	343.34	3.935		
15,400.00	5,212.14	12,027.24	5,213.37	197.28	149.17	-86.244	-7,313.60	5,694.29	1,423.04	1,080.23	342.81	4.151		
15,500.00	5,210.23	11,938.00	5,211.19	198.47	147.14	-86.417	-7,377.35	5,756.70	1,494.41	1,152.16	342.25	4.366		
15,600.00	5,208.33	11,888.65	5,210.81	199.66	146.02	-86.548	-7,412.59	5,791.24	1,565.82	1,224.12	341.70	4.582		
15,700.00	5,206.42	11,842.34	5,211.36	200.86	144.97	-86.710	-7,445.16	5,824.16	1,638.24	1,297.15	341.09	4.803		
15,800.00	5,204.51	11,763.33	5,212.70	202.07	143.16	-86.986	-7,500.50	5,880.53	1,710.94	1,370.36	340.58	5.024		
15,900.00	5,202.60	11,686.58	5,213.26	203.28	141.41	-87.194	-7,554.58	5,934.99	1,783.27	1,443.23	340.04	5.244		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 27 T23N R07W - Federal B #006 - Orig Hole - Inc only													Offset Site Error:	0.00 ft
Survey Program: 133-INC-ONLY													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	114.871	-474.90	1,024.46	1,129.38					
100.00	100.00	78.50	78.50	0.27	1.67	114.871	-474.90	1,024.46	1,129.18	1,127.23	1.94	581.074		
200.00	200.00	178.50	178.50	0.63	5.72	114.871	-474.90	1,024.46	1,129.18	1,122.83	6.35	177.875		
300.00	300.00	278.50	278.50	0.99	12.06	114.871	-474.90	1,024.46	1,129.18	1,116.13	13.05	86.508		
400.00	400.00	378.50	378.50	1.35	18.41	114.871	-474.90	1,024.46	1,129.18	1,109.42	19.76	57.151		
500.00	500.00	478.50	478.50	1.71	24.75	114.871	-474.90	1,024.46	1,129.18	1,102.72	26.46	42.671		
600.00	600.00	578.50	578.50	2.07	31.10	114.871	-474.90	1,024.46	1,129.18	1,096.01	33.17	34.045		
700.00	700.00	678.50	678.50	2.43	37.45	114.871	-474.90	1,024.46	1,129.18	1,089.31	39.87	28.320		
800.00	800.00	778.50	778.50	2.78	43.79	114.871	-474.90	1,024.46	1,129.18	1,082.60	46.58	24.243		
900.00	900.00	878.50	878.50	3.14	50.14	114.871	-474.90	1,024.46	1,129.18	1,075.90	53.28	21.193		
1,000.00	1,000.00	978.50	978.50	3.50	56.49	114.871	-474.90	1,024.46	1,129.18	1,069.19	59.99	18.824		
1,094.82	1,094.82	1,073.32	1,073.30	3.84	62.50	114.729	-471.82	1,024.46	1,127.89	1,061.54	66.34	17.001		
1,100.00	1,100.00	1,078.49	1,078.46	3.86	62.83	114.729	-471.82	1,024.46	1,127.89	1,061.20	66.69	16.912		
1,200.00	1,200.00	1,178.17	1,178.14	4.22	69.16	114.731	-471.86	1,024.46	1,127.90	1,054.53	73.37	15.372		
1,300.00	1,299.95	1,277.80	1,277.78	4.56	75.48	-130.521	-471.97	1,024.46	1,129.65	1,049.61	80.04	14.113		
1,400.00	1,399.63	1,377.18	1,377.14	4.90	81.79	-130.695	-472.14	1,024.46	1,134.84	1,048.15	86.69	13.091		
1,500.00	1,498.77	1,476.01	1,475.98	5.25	88.06	-130.978	-472.39	1,024.46	1,143.52	1,050.21	93.31	12.256		
1,600.00	1,597.25	1,574.21	1,574.18	5.62	94.29	-131.500	-472.69	1,024.46	1,155.18	1,055.29	99.89	11.564		
1,700.00	1,695.64	1,672.34	1,672.30	6.00	100.52	-132.132	-473.07	1,024.46	1,167.33	1,060.85	106.48	10.963		
1,800.00	1,794.04	1,770.49	1,770.44	6.40	106.75	-132.747	-473.51	1,024.46	1,179.64	1,066.56	113.08	10.432		
1,900.00	1,892.44	1,868.64	1,868.59	6.80	112.98	-133.347	-474.02	1,024.46	1,192.11	1,072.42	119.68	9.960		
2,000.00	1,990.83	1,966.80	1,966.75	7.21	119.21	-133.932	-474.60	1,024.46	1,204.73	1,078.44	126.29	9.539		
2,100.00	2,089.23	2,068.11	2,067.73	7.62	124.08	-134.534	-474.90	1,024.46	1,217.37	1,085.83	131.55	9.254		
2,200.00	2,187.63	2,166.51	2,166.13	8.05	127.48	-135.121	-474.90	1,024.46	1,230.05	1,094.71	135.34	9.088		
2,300.00	2,286.03	2,264.91	2,264.53	8.47	130.89	-135.697	-474.90	1,024.46	1,242.85	1,103.71	139.14	8.932		
2,400.00	2,384.42	2,363.30	2,362.92	8.90	134.30	-136.261	-474.90	1,024.46	1,255.77	1,112.83	142.94	8.785		
2,500.00	2,482.82	2,461.70	2,461.32	9.34	137.71	-136.813	-474.90	1,024.46	1,268.81	1,122.07	146.74	8.647		
2,600.00	2,581.22	2,559.26	2,558.84	9.77	141.09	-137.476	-471.95	1,024.46	1,281.09	1,130.58	150.51	8.512		
2,700.00	2,679.62	2,656.69	2,656.26	10.21	144.47	-137.985	-472.30	1,024.46	1,294.49	1,140.21	154.27	8.391		
2,800.00	2,778.01	2,754.18	2,753.73	10.66	147.84	-138.474	-472.92	1,024.46	1,308.06	1,150.02	158.04	8.277		
2,900.00	2,876.41	2,851.71	2,851.24	11.10	151.22	-138.941	-473.81	1,024.46	1,321.80	1,159.99	161.82	8.169		
3,000.00	2,974.81	2,954.06	2,953.31	11.55	154.77	-139.414	-474.90	1,024.46	1,335.68	1,169.92	165.76	8.058		
3,100.00	3,073.21	3,052.46	3,051.71	11.99	158.21	-139.903	-474.90	1,024.46	1,349.36	1,179.77	169.59	7.957		
3,200.00	3,171.60	3,150.86	3,150.10	12.44	161.64	-140.383	-474.90	1,024.46	1,363.14	1,189.72	173.42	7.860		
3,300.00	3,270.00	3,249.25	3,248.50	12.89	165.07	-140.853	-474.90	1,024.46	1,377.01	1,199.77	177.25	7.769		
3,400.00	3,368.40	3,347.65	3,346.90	13.34	168.51	-141.314	-474.90	1,024.46	1,390.97	1,209.90	181.07	7.682		
3,500.00	3,466.79	3,446.05	3,445.29	13.80	171.94	-141.765	-474.90	1,024.46	1,405.02	1,220.12	184.90	7.599		
3,600.00	3,565.19	3,544.45	3,543.69	14.25	175.38	-142.208	-474.90	1,024.46	1,419.16	1,230.43	188.73	7.520		
3,700.00	3,663.59	3,642.84	3,642.09	14.70	178.81	-142.646	-474.90	1,024.46	1,433.37	1,240.82	192.55	7.444		
3,800.00	3,762.42	3,741.56	3,740.71	15.14	182.26	-143.460	-468.97	1,024.46	1,444.35	1,247.98	196.38	7.355		
3,900.00	3,861.91	3,840.54	3,839.68	15.53	185.71	-143.832	-469.11	1,024.46	1,452.45	1,252.25	200.20	7.255		
4,000.00	3,961.78	3,939.92	3,939.04	15.88	189.18	-143.999	-469.44	1,024.46	1,456.37	1,252.36	204.01	7.139		
4,100.00	4,061.78	4,039.42	4,038.53	16.19	192.66	101.200	-469.96	1,024.46	1,456.83	1,249.02	207.81	7.010		
4,200.00	4,161.78	4,138.94	4,138.03	16.50	196.13	101.228	-470.69	1,024.46	1,456.97	1,245.37	211.61	6.885		
4,300.00	4,261.78	4,238.46	4,237.53	16.81	199.60	101.263	-471.60	1,024.46	1,457.15	1,241.75	215.41	6.765		
4,400.00	4,361.78	4,337.99	4,337.04	17.12	203.08	101.306	-472.71	1,024.46	1,457.37	1,238.16	219.21	6.648		
4,500.00	4,461.78	4,437.52	4,436.54	17.43	206.55	101.356	-474.01	1,024.46	1,457.63	1,234.62	223.01	6.536		
4,600.00	4,561.78	4,541.42	4,540.28	17.75	209.58	101.390	-474.90	1,024.46	1,457.80	1,231.42	226.38	6.440		
4,700.00	4,661.78	4,641.42	4,640.28	18.06	211.71	101.390	-474.90	1,024.46	1,457.80	1,228.97	228.83	6.371		
4,800.00	4,761.72	4,741.37	4,740.22	18.37	213.83	-31.951	-474.90	1,024.46	1,456.15	1,224.87	231.28	6.296		
4,900.00	4,860.16	4,839.81	4,838.66	18.65	215.92	-33.086	-474.90	1,024.46	1,441.86	1,208.18	233.69	6.170		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 27 T23N R07W - Federal B #006 - Orig Hole - Inc only													Offset Site Error:	0.00 ft
Survey Program: 133-INC-ONLY													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Reference Depth (ft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,000.00	4,954.18	4,933.83	4,932.68	18.88	217.92	-35.505	-474.90	1,024.46	1,413.47	1,177.48	235.99	5.990		
5,100.00	5,040.92	5,020.57	5,019.42	19.08	219.76	-39.446	-474.90	1,024.46	1,372.19	1,134.07	238.12	5.762		
5,200.00	5,117.75	5,097.39	5,096.25	19.24	221.39	-45.237	-474.90	1,024.46	1,319.81	1,079.76	240.05	5.498		
5,300.00	5,182.32	5,161.97	5,160.82	19.37	222.76	-53.170	-474.90	1,024.46	1,258.67	1,016.92	241.75	5.207		
5,400.00	5,232.69	5,212.33	5,211.19	19.46	223.83	-63.168	-474.90	1,024.46	1,191.54	948.33	243.21	4.899		
5,500.00	5,267.31	5,246.96	5,245.81	20.02	224.57	-74.354	-474.90	1,024.46	1,121.59	877.11	244.48	4.588		
5,600.00	5,285.14	5,264.79	5,263.64	20.99	224.94	-85.080	-474.90	1,024.46	1,052.19	806.61	245.58	4.284		
5,700.00	5,287.45	5,267.09	5,265.95	22.12	224.99	-90.129	-474.90	1,024.46	986.67	740.08	246.59	4.001		
5,800.00	5,287.17	5,266.81	5,265.67	23.42	224.99	-90.108	-474.90	1,024.46	927.25	679.44	247.81	3.742		
5,900.00	5,286.89	5,266.53	5,265.39	24.87	224.98	-90.087	-474.90	1,024.46	875.27	625.96	249.31	3.511		
6,000.00	5,286.61	5,266.25	5,265.11	26.44	224.98	-90.066	-474.90	1,024.46	832.10	581.06	251.04	3.315		
6,100.00	5,286.33	5,265.98	5,264.83	28.11	224.97	-90.045	-474.90	1,024.46	799.17	546.25	252.93	3.160		
6,200.00	5,286.05	5,265.70	5,264.55	29.87	224.96	-90.025	-474.90	1,024.46	777.80	522.97	254.83	3.052		
6,300.00	5,285.77	5,265.42	5,264.27	31.71	224.96	-90.004	-474.90	1,024.46	768.94	512.35	256.58	2.997		
6,318.50	5,285.72	5,265.37	5,264.22	32.05	224.96	-90.000	-474.90	1,024.46	768.71	511.83	256.88	2.993	CC, ES, SF	
6,400.00	5,285.49	5,265.14	5,263.99	33.60	224.95	-89.983	-474.90	1,024.46	773.02	514.98	258.04	2.996		
6,500.00	5,285.21	5,264.86	5,263.71	35.54	224.95	-89.962	-474.90	1,024.46	789.84	530.73	259.11	3.048		
6,600.00	5,284.94	5,264.58	5,263.44	37.53	224.94	-89.941	-474.90	1,024.46	818.62	558.85	259.77	3.151		
6,700.00	5,284.66	5,264.30	5,263.16	39.56	224.93	-89.921	-474.90	1,024.46	858.15	598.10	260.05	3.300		
6,800.00	5,284.38	5,264.02	5,262.88	41.61	224.93	-89.900	-474.90	1,024.46	907.04	646.99	260.04	3.488		
6,900.00	5,284.10	5,263.74	5,262.60	43.70	224.92	-89.879	-474.90	1,024.46	963.85	704.03	259.82	3.710		
7,000.00	5,283.82	5,263.46	5,262.32	45.80	224.92	-89.858	-474.90	1,024.46	1,027.28	767.81	259.47	3.959		
7,100.00	5,283.54	5,263.18	5,262.04	47.93	224.91	-89.837	-474.90	1,024.46	1,096.17	837.14	259.03	4.232		
7,200.00	5,283.26	5,262.90	5,261.76	50.07	224.90	-89.817	-474.90	1,024.46	1,169.56	911.01	258.56	4.523		
7,300.00	5,282.98	5,262.62	5,261.48	52.23	224.90	-89.796	-474.90	1,024.46	1,246.66	988.59	258.08	4.831		
7,400.00	5,282.70	5,262.35	5,261.20	54.41	224.89	-89.775	-474.90	1,024.46	1,326.82	1,069.22	257.61	5.151		
7,500.00	5,282.42	5,262.07	5,260.92	56.59	224.89	-89.754	-474.90	1,024.46	1,409.52	1,152.37	257.16	5.481		
7,600.00	5,282.14	5,261.79	5,260.64	58.79	224.88	-89.733	-474.90	1,024.46	1,494.34	1,237.61	256.73	5.821		
7,700.00	5,281.86	5,261.51	5,260.36	61.00	224.87	-89.712	-474.90	1,024.46	1,580.93	1,324.60	256.33	6.168		
7,800.00	5,281.58	5,261.23	5,260.08	63.21	224.87	-89.692	-474.90	1,024.46	1,669.02	1,413.06	255.96	6.521		
7,900.00	5,281.30	5,260.95	5,259.80	65.43	224.86	-89.671	-474.90	1,024.46	1,758.38	1,502.77	255.62	6.879		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 28 T23N R07W North Alamito 4 301 311&312 - North Alamito Unit 004H - Original Hole - rev1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
		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	89.741	0.09	20.07	20.07					
100.00	100.00	100.00	100.00	0.27	0.27	89.741	0.09	20.07	20.07	19.52	0.55	36.594		
200.00	200.00	200.00	200.00	0.63	0.63	89.741	0.09	20.07	20.07	18.81	1.27	15.861		
300.00	300.00	300.00	300.00	0.99	0.99	89.741	0.09	20.07	20.07	18.09	1.98	10.125		
400.00	400.00	400.00	400.00	1.35	1.35	89.741	0.09	20.07	20.07	17.37	2.70	7.436		
500.00	500.00	500.00	500.00	1.71	1.71	89.741	0.09	20.07	20.07	16.65	3.42	5.875		
600.00	600.00	600.00	600.00	2.07	2.07	89.741	0.09	20.07	20.07	15.94	4.13	4.856	CC, ES	
700.00	700.00	699.31	699.26	2.43	2.42	84.156	2.21	21.55	21.68	16.83	4.84	4.474	SF	
800.00	800.00	798.08	797.73	2.78	2.78	71.867	8.50	25.95	27.40	21.86	5.55	4.940		
900.00	900.00	895.80	894.62	3.14	3.14	60.432	18.82	33.18	38.52	32.29	6.23	6.180		
1,000.00	1,000.00	991.99	989.24	3.50	3.51	52.583	32.94	43.05	55.26	48.36	6.90	8.013		
1,100.00	1,100.00	1,086.20	1,080.97	3.86	3.91	47.613	50.53	55.36	77.33	69.79	7.54	10.260		
1,200.00	1,200.00	1,178.06	1,169.27	4.22	4.33	44.438	71.22	69.84	104.38	96.22	8.15	12.802		
1,300.00	1,299.95	1,266.48	1,253.03	4.56	4.78	157.155	94.41	86.06	138.37	129.64	8.73	15.849		
1,400.00	1,399.63	1,350.00	1,330.87	4.90	5.25	156.103	119.21	103.41	180.98	171.69	9.29	19.479		
1,500.00	1,498.77	1,427.92	1,402.23	5.25	5.73	155.517	144.84	121.35	231.54	221.73	9.82	23.590		
1,600.00	1,597.25	1,500.00	1,467.06	5.62	6.20	155.540	170.65	139.41	288.75	278.45	10.30	28.028		
1,700.00	1,695.64	1,568.48	1,527.50	6.00	6.70	155.759	197.01	157.85	349.26	338.50	10.75	32.478		
1,800.00	1,794.04	1,633.18	1,583.52	6.40	7.20	155.859	223.54	176.41	412.48	401.30	11.18	36.896		
1,900.00	1,892.44	1,700.00	1,640.18	6.80	7.73	155.888	252.55	196.71	478.24	466.58	11.66	41.008		
2,000.00	1,990.83	1,762.67	1,692.49	7.21	8.27	155.880	280.83	216.49	545.78	533.66	12.11	45.051		
2,100.00	2,089.23	1,836.25	1,753.87	7.62	8.92	155.872	314.08	239.76	613.50	600.77	12.73	48.181		
2,200.00	2,187.63	1,909.82	1,815.24	8.05	9.58	155.865	347.33	263.02	681.22	667.87	13.36	50.997		
2,300.00	2,286.03	1,983.40	1,876.61	8.47	10.25	155.859	380.58	286.29	748.95	734.95	13.99	53.527		
2,400.00	2,384.42	2,056.98	1,937.98	8.90	10.93	155.854	413.83	309.56	816.67	802.04	14.63	55.813		
2,500.00	2,482.82	2,130.55	1,999.36	9.34	11.61	155.850	447.09	332.82	884.39	869.12	15.28	57.889		
2,600.00	2,581.22	2,204.13	2,060.73	9.77	12.30	155.847	480.34	356.09	952.12	936.19	15.93	59.779		
2,700.00	2,679.62	2,277.71	2,122.10	10.21	12.99	155.844	513.59	379.35	1,019.84	1,003.26	16.58	61.501		
2,800.00	2,778.01	2,351.28	2,183.47	10.66	13.69	155.841	546.84	402.62	1,087.56	1,070.32	17.24	63.078		
2,900.00	2,876.41	2,424.86	2,244.85	11.10	14.39	155.839	580.09	425.88	1,155.29	1,137.38	17.90	64.529		
3,000.00	2,974.81	2,498.44	2,306.22	11.55	15.10	155.837	613.35	449.15	1,223.01	1,204.44	18.57	65.867		
3,100.00	3,073.21	2,572.01	2,367.59	11.99	15.80	155.835	646.60	472.41	1,290.73	1,271.50	19.24	67.099		
3,200.00	3,171.60	2,645.59	2,428.96	12.44	16.51	155.834	679.85	495.68	1,358.46	1,338.55	19.91	68.240		
3,300.00	3,270.00	2,719.17	2,490.34	12.89	17.22	155.832	713.10	518.94	1,426.18	1,405.60	20.58	69.300		
3,400.00	3,368.40	2,792.74	2,551.71	13.34	17.93	155.831	746.35	542.21	1,493.90	1,472.65	21.25	70.285		
3,500.00	3,466.79	2,866.32	2,613.08	13.80	18.65	155.830	779.60	565.48	1,561.63	1,539.69	21.93	71.202		
3,600.00	3,565.19	2,939.90	2,674.45	14.25	19.36	155.828	812.86	588.74	1,629.35	1,606.74	22.61	72.058		
3,700.00	3,663.59	3,013.48	2,735.83	14.70	20.08	155.840	846.11	612.01	1,697.07	1,673.78	23.29	72.859		
3,800.00	3,762.42	3,088.67	2,798.55	15.14	20.81	156.847	880.09	635.78	1,762.97	1,738.99	23.98	73.526		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 28 T23N R07W North Alamito 4 301 311&312 - North Alamito Unit 232H - Orig Hole - MWD surveys													Offset Site Error:	0.00 ft
Survey Program: 365-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	-0.067	119.79	-0.14	120.25					
100.00	100.00	89.30	89.30	0.27	0.15	-0.110	119.87	-0.23	119.87	119.44	0.43	279.828	CC	
200.00	200.00	189.08	189.08	0.63	0.33	-0.260	120.12	-0.55	120.12	119.16	0.96	125.258		
300.00	300.00	288.86	288.86	0.99	0.50	-0.517	120.56	-1.09	120.56	119.07	1.49	80.935		
400.00	400.00	388.97	388.97	1.35	0.72	-0.863	121.14	-1.82	121.16	119.09	2.07	58.666		
500.00	500.00	490.08	490.07	1.71	1.07	-0.714	121.10	-1.51	121.12	118.34	2.77	43.646		
600.00	600.00	590.12	590.08	2.07	1.41	0.444	120.64	0.94	120.64	117.17	3.47	34.754		
700.00	700.00	689.97	689.85	2.43	1.75	2.280	120.17	4.79	120.26	116.09	4.18	28.791		
800.00	800.00	789.92	789.70	2.78	2.11	4.400	119.62	9.20	119.98	115.09	4.89	24.538		
871.43	871.43	861.24	860.93	3.04	2.36	6.070	119.22	12.68	119.89	114.49	5.40	22.198		
900.00	900.00	889.36	889.00	3.14	2.46	6.848	119.09	14.30	119.95	114.34	5.60	21.400	ES	
1,000.00	1,000.00	987.83	987.16	3.50	2.82	10.522	119.06	22.11	121.12	114.79	6.32	19.153		
1,100.00	1,100.00	1,086.84	1,085.64	3.86	3.20	15.152	119.35	32.32	123.71	116.66	7.05	17.542		
1,200.00	1,200.00	1,185.64	1,183.63	4.22	3.58	20.660	119.11	44.91	127.43	119.64	7.79	16.363		
1,300.00	1,299.95	1,282.62	1,279.56	4.56	3.97	141.737	119.03	59.11	135.31	126.80	8.50	15.910	SF	
1,400.00	1,399.63	1,379.33	1,374.85	4.90	4.37	149.055	118.60	75.61	150.24	141.03	9.22	16.304		
1,500.00	1,498.77	1,472.98	1,466.90	5.25	4.77	155.888	117.78	92.81	172.57	162.67	9.90	17.423		
1,600.00	1,597.25	1,566.60	1,558.76	5.62	5.19	161.848	117.24	110.91	201.88	191.28	10.59	19.055		
1,700.00	1,695.64	1,659.93	1,650.34	6.00	5.61	166.502	116.33	128.87	232.95	221.68	11.27	20.670		
1,800.00	1,794.04	1,751.67	1,740.15	6.40	6.03	170.216	115.09	147.55	265.81	253.87	11.94	22.268		
1,900.00	1,892.44	1,844.00	1,830.46	6.80	6.46	173.203	113.74	166.69	299.75	287.14	12.61	23.768		
2,000.00	1,990.83	1,939.39	1,923.88	7.21	6.91	175.542	112.83	185.96	334.06	320.75	13.32	25.086		
2,100.00	2,089.23	2,034.46	2,017.17	7.62	7.35	177.297	112.39	204.26	368.16	354.14	14.02	26.260		
2,200.00	2,187.63	2,125.08	2,106.11	8.05	7.77	178.676	112.00	221.59	402.42	387.73	14.69	27.398		
2,300.00	2,286.03	2,216.20	2,195.31	8.47	8.20	-179.984	110.89	240.21	437.69	422.33	15.37	28.485		
2,400.00	2,384.42	2,307.86	2,284.99	8.90	8.65	-178.861	110.09	259.15	473.47	457.42	16.05	29.496		
2,500.00	2,482.82	2,402.59	2,377.70	9.34	9.10	-177.911	109.63	278.53	509.36	492.60	16.77	30.380		
2,600.00	2,581.22	2,495.26	2,468.45	9.77	9.55	-177.119	109.23	297.31	545.19	527.73	17.46	31.216		
2,700.00	2,679.62	2,588.33	2,559.57	10.21	9.99	-176.392	108.60	316.29	581.14	562.97	18.17	31.984		
2,800.00	2,778.01	2,682.05	2,651.28	10.66	10.45	-175.711	107.65	335.57	617.21	598.33	18.88	32.687		
2,900.00	2,876.41	2,777.89	2,745.07	11.10	10.91	-175.057	106.25	355.24	653.17	633.56	19.62	33.299		
3,000.00	2,974.81	2,879.40	2,844.60	11.55	11.40	-174.456	104.63	375.11	688.30	667.90	20.39	33.751		
3,100.00	3,073.21	2,981.80	2,945.27	11.99	11.88	-173.991	103.49	393.78	722.40	701.23	21.17	34.119		
3,200.00	3,171.60	3,094.35	3,056.44	12.44	12.37	-173.785	104.56	411.29	754.74	732.72	22.01	34.284		
3,300.00	3,270.00	3,210.73	3,171.83	12.89	12.85	-173.676	105.80	426.39	784.79	761.92	22.86	34.328		
3,400.00	3,368.40	3,338.04	3,298.60	13.34	13.33	-173.674	107.01	437.90	811.06	787.32	23.75	34.157		
3,500.00	3,466.79	3,461.74	3,422.06	13.80	13.77	-173.712	107.57	445.47	834.68	810.10	24.58	33.959		
3,600.00	3,565.19	3,573.53	3,533.79	14.25	14.14	-173.780	107.52	449.04	855.33	829.98	25.34	33.749		
3,700.00	3,663.59	3,674.01	3,634.24	14.70	14.46	-173.847	107.40	451.63	875.41	849.35	26.06	33.590		
3,800.00	3,762.42	3,786.69	3,746.91	15.14	14.82	-174.019	107.85	452.97	891.74	864.93	26.81	33.256		
3,900.00	3,861.91	3,888.74	3,848.96	15.53	15.13	-174.150	108.46	453.24	902.13	874.62	27.51	32.790		
4,000.00	3,961.78	3,992.22	3,952.44	15.88	15.44	-174.212	108.71	453.22	906.95	878.75	28.20	32.163		
4,100.00	4,061.78	4,093.53	4,053.75	16.19	15.73	70.975	108.72	452.97	907.16	878.31	28.85	31.442		
4,200.00	4,161.78	4,194.93	4,155.15	16.50	16.02	70.980	108.52	452.66	906.80	877.30	29.51	30.733		
4,300.00	4,261.78	4,294.37	4,254.59	16.81	16.30	70.980	108.38	452.27	906.39	876.23	30.16	30.057		
4,400.00	4,361.78	4,393.88	4,354.09	17.12	16.59	70.983	108.24	451.99	906.07	875.26	30.81	29.409		
4,500.00	4,461.78	4,494.61	4,454.82	17.43	16.89	70.979	108.17	451.59	905.68	874.21	31.47	28.781		
4,600.00	4,561.78	4,606.67	4,566.51	17.75	17.21	70.510	114.66	447.71	904.28	872.12	32.16	28.120		
4,700.00	4,661.78	4,718.13	4,675.42	18.06	17.50	69.037	135.66	437.55	902.19	869.36	32.83	27.478		
4,800.00	4,761.72	4,815.01	4,767.06	18.37	17.72	-66.425	163.87	423.96	899.18	865.70	33.47	26.864		
4,900.00	4,860.16	4,930.95	4,871.56	18.65	17.95	-71.415	207.87	400.20	890.29	856.12	34.17	26.058		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 28 T23N R07W North Alamito 4 301 311&312 - North Alamito Unit 232H - Orig Hole - MWD surveys													Offset Site Error:	0.00 ft
Survey Program: 365-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Reference Depth (ft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,000.00	4,954.18	4,991.70	4,923.66	18.88	18.06	-75.406	235.00	384.75	879.95	845.24	34.71	25.354		
5,100.00	5,040.92	5,031.47	4,956.60	19.08	18.13	-78.358	254.45	373.87	873.34	838.24	35.10	24.880		
5,151.54	5,081.91	5,045.11	4,967.63	19.17	18.15	-79.306	261.45	369.96	872.37	837.11	35.25	24.745		
5,200.00	5,117.75	5,053.41	4,974.26	19.24	18.16	-79.749	265.81	367.51	873.28	837.95	35.34	24.712		
5,300.00	5,182.32	5,058.36	4,978.17	19.37	18.17	-79.290	268.45	366.02	881.20	845.75	35.44	24.862		
5,400.00	5,232.69	5,051.38	4,972.64	19.46	18.16	-77.272	264.74	368.12	896.98	861.45	35.53	25.246		
5,500.00	5,267.31	5,037.00	4,961.09	20.02	18.14	-74.141	257.27	372.30	919.43	883.71	35.72	25.739		
5,600.00	5,285.14	5,013.05	4,941.48	20.99	18.10	-70.046	245.27	378.99	946.73	910.71	36.02	26.281		
5,700.00	5,287.45	4,984.40	4,917.51	22.12	18.05	-66.950	231.58	386.68	977.41	940.94	36.47	26.800		
5,800.00	5,287.17	4,956.94	4,894.09	23.42	18.00	-65.515	219.10	393.75	1,014.75	977.77	36.99	27.434		
5,900.00	5,286.89	4,930.81	4,871.44	24.87	17.95	-64.153	207.81	400.23	1,059.02	1,021.51	37.51	28.234		
6,000.00	5,286.61	4,910.00	4,853.15	26.44	17.91	-63.071	199.18	405.14	1,109.47	1,071.42	38.06	29.154		
6,100.00	5,286.33	4,878.00	4,824.64	28.11	17.85	-61.415	186.50	412.24	1,165.39	1,126.99	38.40	30.345		
6,200.00	5,286.05	4,862.10	4,810.30	29.87	17.82	-60.596	180.48	415.51	1,226.15	1,187.26	38.89	31.530		
6,300.00	5,285.77	4,847.00	4,796.55	31.71	17.79	-59.820	174.95	418.43	1,291.23	1,251.92	39.31	32.845		
6,400.00	5,285.49	4,828.86	4,779.89	33.60	17.75	-58.892	168.56	421.67	1,360.08	1,320.45	39.63	34.316		
6,500.00	5,285.21	4,815.00	4,767.05	35.54	17.72	-58.186	163.87	423.96	1,432.24	1,392.29	39.95	35.854		
6,600.00	5,284.94	4,800.32	4,753.37	37.53	17.69	-57.443	159.07	426.25	1,507.25	1,467.06	40.20	37.497		
6,700.00	5,284.66	4,783.00	4,737.12	39.56	17.65	-56.575	153.64	428.83	1,584.74	1,544.37	40.38	39.249		
6,800.00	5,284.38	4,783.00	4,737.12	41.61	17.65	-56.575	153.64	428.83	1,664.42	1,623.74	40.68	40.917		
6,900.00	5,284.10	4,762.91	4,718.16	43.70	17.60	-55.582	147.64	431.68	1,745.88	1,705.11	40.77	42.825		

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 28 T23N R07W North Alamito 4 301 311&312 - North Alamito Unit 233H - Orig Hole - MWD surveys													Offset Site Error:	0.00 ft
Survey Program: 365-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	0.028	89.93	0.04	90.55					
100.00	100.00	89.31	89.31	0.27	0.15	0.082	90.03	0.13	90.03	89.60	0.43	210.179	CC	
200.00	200.00	189.09	189.09	0.63	0.33	0.267	90.37	0.42	90.37	89.41	0.96	94.235	ES	
300.00	300.00	288.86	288.86	0.99	0.50	0.582	90.94	0.92	90.95	89.46	1.49	61.058		
400.00	400.00	388.68	388.67	1.35	0.71	0.979	91.75	1.57	91.77	89.71	2.06	44.487		
500.00	500.00	488.78	488.76	1.71	1.06	0.272	92.64	0.44	92.64	89.87	2.77	33.447		
600.00	600.00	588.23	588.12	2.07	1.41	-2.039	93.68	-3.34	93.75	90.27	3.48	26.972		
700.00	700.00	687.74	687.53	2.43	1.76	-4.571	95.24	-7.61	95.56	91.37	4.19	22.817		
800.00	800.00	787.13	786.81	2.78	2.12	-6.956	97.09	-11.85	97.85	92.94	4.90	19.954		
900.00	900.00	883.96	883.51	3.14	2.48	-8.773	100.61	-15.53	101.97	96.37	5.61	18.182		
1,000.00	1,000.00	979.69	978.93	3.50	2.83	-9.355	107.82	-17.76	109.78	103.48	6.30	17.424		
1,100.00	1,100.00	1,075.50	1,074.17	3.86	3.18	-9.192	118.20	-19.13	120.72	113.73	6.99	17.278		
1,200.00	1,200.00	1,168.41	1,166.00	4.22	3.54	-8.396	132.20	-19.51	135.68	128.04	7.64	17.753		
1,300.00	1,299.95	1,259.79	1,255.58	4.56	3.91	107.603	150.21	-19.73	156.02	147.75	8.27	18.864		
1,400.00	1,399.63	1,354.05	1,347.38	4.90	4.31	109.991	171.61	-19.87	181.19	172.25	8.94	20.275		
1,500.00	1,498.77	1,445.23	1,435.89	5.25	4.73	112.715	193.51	-20.22	210.01	200.42	9.59	21.900		
1,600.00	1,597.25	1,536.85	1,524.48	5.62	5.16	115.955	216.87	-20.79	242.72	232.44	10.28	23.612		
1,700.00	1,695.64	1,631.65	1,616.13	6.00	5.62	118.902	241.10	-21.48	276.39	265.37	11.01	25.096		
1,800.00	1,794.04	1,723.69	1,705.20	6.40	6.07	121.297	264.28	-21.42	310.32	298.59	11.73	26.461		
1,900.00	1,892.44	1,813.55	1,791.95	6.80	6.52	123.224	287.69	-21.00	345.53	333.10	12.43	27.802		
2,000.00	1,990.83	1,909.79	1,884.85	7.21	7.01	124.880	312.83	-20.72	381.09	367.89	13.20	28.867		
2,100.00	2,089.23	2,008.38	1,980.26	7.62	7.51	126.181	337.64	-21.34	415.77	401.77	14.00	29.695		
2,200.00	2,187.63	2,100.10	2,069.23	8.05	7.97	127.231	359.98	-21.90	449.84	435.10	14.74	30.520		
2,300.00	2,286.03	2,187.66	2,153.90	8.47	8.42	128.181	382.27	-21.48	485.31	469.87	15.44	31.430		
2,400.00	2,384.42	2,286.71	2,249.70	8.90	8.94	129.092	407.44	-21.19	520.82	504.56	16.26	32.039		
2,500.00	2,482.82	2,381.83	2,341.90	9.34	9.42	129.833	430.81	-21.33	555.52	538.48	17.03	32.611		
2,600.00	2,581.22	2,474.39	2,431.64	9.77	9.90	130.530	453.46	-20.88	590.38	572.59	17.79	33.183		
2,700.00	2,679.62	2,561.20	2,515.72	10.21	10.35	131.133	475.08	-20.12	625.81	607.31	18.50	33.831		
2,800.00	2,778.01	2,659.05	2,610.40	10.66	10.86	131.687	499.74	-19.78	661.42	642.11	19.31	34.254		
2,900.00	2,876.41	2,753.14	2,701.45	11.10	11.35	132.114	523.49	-20.04	696.92	676.83	20.09	34.691		
3,000.00	2,974.81	2,860.16	2,805.34	11.55	11.90	132.530	549.16	-21.08	731.05	710.07	20.98	34.842		
3,100.00	3,073.21	2,955.37	2,897.89	11.99	12.38	132.932	571.50	-21.29	765.02	743.25	21.77	35.142		
3,200.00	3,171.60	3,052.12	2,992.16	12.44	12.87	133.314	593.25	-21.73	798.03	775.46	22.57	35.360		
3,300.00	3,270.00	3,132.98	3,070.79	12.89	13.28	133.615	612.08	-21.76	831.96	808.73	23.24	35.806		
3,400.00	3,368.40	3,216.46	3,151.69	13.34	13.71	133.934	632.67	-20.90	867.48	843.55	23.92	36.260		
3,500.00	3,466.79	3,318.39	3,250.51	13.80	14.24	134.282	657.62	-20.11	902.78	878.01	24.78	36.438		
3,600.00	3,565.19	3,405.12	3,334.56	14.25	14.70	134.530	679.00	-19.80	938.13	912.64	25.50	36.795		
3,700.00	3,663.59	3,501.02	3,427.48	14.70	15.20	134.778	702.73	-19.68	973.49	947.19	26.30	37.016		
3,800.00	3,762.42	3,585.55	3,509.32	15.14	15.64	135.684	723.91	-18.65	1,007.74	980.75	26.98	37.346		
3,900.00	3,861.91	3,698.22	3,618.51	15.53	16.23	136.285	751.60	-17.11	1,038.09	1,010.20	27.88	37.231		
4,000.00	3,961.78	3,787.61	3,705.29	15.88	16.69	136.596	773.03	-16.42	1,064.05	1,035.50	28.55	37.266		
4,100.00	4,061.78	3,894.92	3,809.32	16.19	17.25	215.519	799.35	-15.71	1,087.51	1,058.16	29.35	37.051		
4,200.00	4,161.78	3,985.41	3,897.17	16.50	17.72	211.115	821.04	-15.36	1,110.07	1,080.06	30.01	36.993		
4,300.00	4,261.78	4,094.81	4,003.31	16.81	18.29	206.600	847.57	-15.76	1,132.72	1,101.89	30.82	36.749		
4,400.00	4,361.78	4,165.59	4,071.85	17.12	18.67	202.258	865.23	-16.27	1,155.89	1,124.57	31.32	36.908		
4,500.00	4,461.78	4,255.83	4,158.92	17.43	19.15	198.865	888.92	-15.89	1,180.76	1,148.78	31.98	36.924		
4,600.00	4,561.78	4,394.22	4,293.22	17.75	19.87	193.352	922.28	-15.03	1,203.70	1,170.67	33.03	36.439		
4,700.00	4,661.78	4,486.18	4,382.87	18.06	20.33	190.972	942.69	-14.07	1,225.06	1,191.36	33.70	36.355		
4,800.00	4,761.72	4,823.74	4,710.42	18.37	21.44	-111.484	967.68	52.60	1,243.30	1,207.88	35.42	35.101		
4,900.00	4,860.16	5,024.96	4,891.93	18.65	21.65	-108.393	932.29	130.37	1,247.13	1,211.12	36.00	34.640		
5,000.00	4,954.18	5,150.26	4,991.71	18.88	21.68	-105.952	896.21	196.79	1,253.78	1,217.27	36.51	34.342		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 28 T23N R07W North Alamito 4 301 311&312 - North Alamito Unit 233H - Orig Hole - MWD surveys													Offset Site Error:	0.00 ft
Survey Program: 365-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	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)	(ft)			
5,100.00	5,040.92	5,468.41	5,174.88	19.08	21.44	-99.493	747.92	405.93	1,253.97	1,216.23	37.74	33.229		
5,182.81	5,105.35	5,559.33	5,204.45	19.22	21.31	-97.375	692.98	472.03	1,251.95	1,213.23	38.72	32.333		
5,200.00	5,117.75	5,577.49	5,210.14	19.24	21.29	-96.980	682.00	485.32	1,252.00	1,213.06	38.94	32.155		
5,300.00	5,182.32	5,662.40	5,236.49	19.37	21.70	-95.269	630.89	547.79	1,254.54	1,214.36	40.19	31.218		
5,400.00	5,232.69	5,858.38	5,258.83	19.46	24.05	-91.519	503.55	694.00	1,256.06	1,213.23	42.84	29.323		
5,500.00	5,267.31	5,955.37	5,258.79	20.02	25.36	-90.052	437.11	764.66	1,255.49	1,210.62	44.87	27.978		
5,600.00	5,285.14	6,055.52	5,258.25	20.99	26.83	-89.235	368.13	837.26	1,255.05	1,207.80	47.25	26.564		
5,620.30	5,286.82	6,072.29	5,258.14	21.20	27.09	-89.168	356.61	849.45	1,255.02	1,207.30	47.72	26.301		
5,700.00	5,287.45	6,141.97	5,258.17	22.12	28.19	-89.142	309.07	900.40	1,255.29	1,205.59	49.70	25.256		
5,800.00	5,287.17	6,226.82	5,258.83	23.42	29.59	-89.184	251.78	962.98	1,256.57	1,204.17	52.40	23.982		
5,900.00	5,286.89	6,315.90	5,259.60	24.87	31.14	-89.231	192.39	1,029.35	1,258.98	1,203.59	55.38	22.733		
6,000.00	5,286.61	6,413.14	5,259.95	26.44	32.90	-89.261	127.89	1,102.12	1,261.87	1,203.18	58.69	21.500		
6,100.00	5,286.33	6,499.37	5,259.62	28.11	34.51	-89.259	70.95	1,166.89	1,265.20	1,203.22	61.99	20.411		
6,200.00	5,286.05	6,611.56	5,259.27	29.87	36.67	-89.260	-2.53	1,251.65	1,269.25	1,203.38	65.87	19.268		
6,300.00	5,285.77	6,751.15	5,258.78	31.71	39.41	-89.257	-95.97	1,355.34	1,271.55	1,201.20	70.35	18.075		
6,357.48	5,285.61	6,808.35	5,258.38	32.79	40.54	-89.246	-135.22	1,396.95	1,271.44	1,198.86	72.57	17.519		
6,400.00	5,285.49	6,843.18	5,258.19	33.60	41.24	-89.242	-158.99	1,422.41	1,271.57	1,197.46	74.10	17.160		
6,500.00	5,285.21	6,925.75	5,257.68	35.54	42.91	-89.230	-214.77	1,483.28	1,272.82	1,195.05	77.77	16.366		
6,600.00	5,284.94	7,017.55	5,258.52	37.53	44.81	-89.281	-275.79	1,551.86	1,275.49	1,193.81	81.68	15.615		
6,700.00	5,284.66	7,161.36	5,258.79	39.56	47.79	-89.311	-373.57	1,657.29	1,276.01	1,189.44	86.57	14.739		
6,800.00	5,284.38	7,258.34	5,260.41	41.61	49.81	-89.396	-440.74	1,727.23	1,274.90	1,184.23	90.68	14.060		
6,847.66	5,284.24	7,298.64	5,261.25	42.60	50.66	-89.438	-468.38	1,756.54	1,274.80	1,182.25	92.55	13.774		
6,900.00	5,284.10	7,338.00	5,261.99	43.70	51.49	-89.477	-495.29	1,785.27	1,274.92	1,180.39	94.53	13.488		
7,000.00	5,283.82	7,421.56	5,263.14	45.80	53.28	-89.540	-551.57	1,847.01	1,276.44	1,177.97	98.47	12.962		
7,100.00	5,283.54	7,516.90	5,263.31	47.93	55.34	-89.560	-615.07	1,918.13	1,278.97	1,176.29	102.68	12.456		
7,200.00	5,283.26	7,599.17	5,263.16	50.07	57.14	-89.564	-669.39	1,979.92	1,282.28	1,175.63	106.65	12.023		
7,300.00	5,282.98	7,705.18	5,263.09	52.23	59.47	-89.576	-738.53	2,060.28	1,286.69	1,175.55	111.14	11.577		
7,400.00	5,282.70	7,812.75	5,264.29	54.41	61.84	-89.644	-809.90	2,140.75	1,289.51	1,173.84	115.68	11.147		
7,500.00	5,282.42	7,952.05	5,265.04	56.59	64.90	-89.694	-903.96	2,243.48	1,290.73	1,169.91	120.82	10.683		
7,600.00	5,282.14	8,055.32	5,266.26	58.79	67.17	-89.761	-975.18	2,318.25	1,290.01	1,164.74	125.28	10.297		
7,618.71	5,282.09	8,070.00	5,266.48	59.20	67.49	-89.773	-985.25	2,328.93	1,289.98	1,163.95	126.03	10.235		
7,700.00	5,281.86	8,131.00	5,268.06	61.00	68.84	-89.851	-1,026.60	2,373.74	1,290.68	1,161.43	129.26	9.985		
7,800.00	5,281.58	8,215.65	5,270.36	63.21	70.73	-89.964	-1,083.17	2,436.68	1,292.88	1,159.48	133.40	9.691		
7,900.00	5,281.30	8,299.33	5,270.91	65.43	72.61	-89.998	-1,138.33	2,499.60	1,296.32	1,158.79	137.53	9.426		
8,000.00	5,281.03	8,467.00	5,269.95	67.66	76.37	-89.977	-1,250.15	2,624.47	1,299.36	1,156.06	143.30	9.067		
8,073.24	5,280.82	8,524.76	5,269.83	69.30	77.65	-89.978	-1,290.16	2,666.14	1,298.65	1,152.32	146.32	8.875		
8,100.00	5,280.75	8,540.45	5,269.82	69.90	78.00	-89.980	-1,300.85	2,677.61	1,298.76	1,151.44	147.32	8.816		
8,200.00	5,280.47	8,617.00	5,269.44	72.14	79.73	-89.973	-1,352.14	2,734.44	1,300.71	1,149.35	151.36	8.593		
8,300.00	5,280.19	8,712.28	5,268.31	74.39	81.89	-89.934	-1,415.29	2,805.78	1,303.66	1,147.88	155.78	8.369		
8,400.00	5,279.91	8,830.63	5,267.26	76.64	84.57	-89.903	-1,494.12	2,894.05	1,306.23	1,145.55	160.68	8.130		
8,500.00	5,279.63	8,970.88	5,264.52	78.90	87.71	-89.800	-1,590.68	2,995.71	1,305.44	1,139.56	165.88	7.870		
8,580.41	5,279.40	9,033.18	5,264.17	80.72	89.11	-89.792	-1,633.72	3,040.74	1,304.77	1,135.55	169.22	7.710		
8,600.00	5,279.35	9,049.54	5,264.16	81.16	89.48	-89.794	-1,644.92	3,052.68	1,304.78	1,134.73	170.05	7.673		
8,700.00	5,279.07	9,141.47	5,263.98	83.42	91.56	-89.797	-1,707.56	3,119.96	1,305.24	1,130.80	174.44	7.482		
8,800.00	5,278.79	9,233.09	5,263.44	85.69	93.63	-89.785	-1,769.52	3,187.44	1,306.38	1,127.56	178.83	7.305		
8,900.00	5,278.51	9,338.27	5,262.52	87.96	96.02	-89.758	-1,840.60	3,264.96	1,307.59	1,124.12	183.47	7.127		
9,000.00	5,278.23	9,429.50	5,263.33	90.23	98.10	-89.805	-1,902.14	3,332.30	1,308.97	1,121.11	187.86	6.968		
9,100.00	5,277.95	9,522.81	5,263.79	92.51	100.23	-89.836	-1,964.75	3,401.50	1,310.85	1,118.56	192.29	6.817		
9,200.00	5,277.67	9,628.94	5,263.72	94.79	102.66	-89.846	-2,035.79	3,480.34	1,312.94	1,115.96	196.98	6.665		
9,300.00	5,277.40	9,735.68	5,263.92	97.07	105.10	-89.868	-2,107.65	3,559.28	1,314.52	1,112.83	201.68	6.518		
9,400.00	5,277.12	9,865.18	5,264.10	99.35	108.04	-89.892	-2,196.52	3,653.46	1,314.20	1,107.46	206.74	6.357		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 28 T23N R07W North Alamito 4 301 311&312 - North Alamito Unit 233H - Orig Hole - MWD surveys													Offset Site Error:	0.00 ft
Survey Program: 365-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
9,500.00	5,276.84	9,957.00	5,265.38	101.64	110.13	-89.959	-2,259.80	3,719.97	1,313.58	1,102.40	211.18	6.220		
9,600.00	5,276.56	10,056.23	5,266.06	103.93	112.38	-90.001	-2,327.97	3,792.07	1,313.25	1,097.51	215.74	6.087		
9,661.07	5,276.39	10,112.87	5,266.82	105.32	113.67	-90.041	-2,366.85	3,833.25	1,313.11	1,094.65	218.46	6.011		
9,700.00	5,276.28	10,147.57	5,267.44	106.21	114.47	-90.072	-2,390.56	3,858.58	1,313.17	1,093.01	220.16	5.965		
9,800.00	5,276.00	10,242.77	5,268.36	108.50	116.64	-90.124	-2,455.30	3,928.37	1,313.81	1,089.15	224.66	5.848		
9,900.00	5,275.72	10,333.99	5,267.97	110.80	118.73	-90.118	-2,517.09	3,995.47	1,314.81	1,085.73	229.08	5.739		
10,000.00	5,275.44	10,430.84	5,267.97	113.09	120.96	-90.129	-2,582.50	4,066.89	1,316.09	1,082.48	233.61	5.634		
10,100.00	5,275.16	10,511.41	5,268.32	115.38	122.81	-90.154	-2,636.31	4,126.86	1,318.39	1,080.59	237.80	5.544		
10,200.00	5,274.88	10,596.67	5,268.32	117.68	124.79	-90.164	-2,692.38	4,191.09	1,322.04	1,079.99	242.05	5.462		
10,300.00	5,274.60	10,710.76	5,267.78	119.98	127.44	-90.154	-2,767.15	4,277.26	1,326.04	1,079.03	247.02	5.368		
10,400.00	5,274.32	10,812.00	5,267.45	122.28	129.78	-90.152	-2,834.36	4,352.97	1,328.86	1,077.20	251.66	5.280		
10,500.00	5,274.04	10,929.79	5,267.77	124.58	132.50	-90.179	-2,913.26	4,440.44	1,330.83	1,074.19	256.64	5.185		
10,600.00	5,273.77	11,094.00	5,269.30	126.88	136.25	-90.265	-3,026.10	4,559.69	1,330.73	1,068.59	262.14	5.076		
10,700.00	5,273.49	11,172.39	5,270.65	129.18	138.03	-90.333	-3,081.58	4,615.06	1,327.72	1,061.22	266.49	4.982		
10,738.83	5,273.38	11,191.00	5,271.09	130.07	138.45	-90.355	-3,094.45	4,628.49	1,327.38	1,059.39	267.99	4.953		
10,800.00	5,273.21	11,228.85	5,272.19	131.48	139.32	-90.406	-3,120.17	4,656.23	1,327.84	1,057.45	270.39	4.911		
10,900.00	5,272.93	11,310.45	5,274.48	133.78	141.21	-90.514	-3,174.26	4,717.28	1,330.69	1,056.10	274.59	4.846		
11,000.00	5,272.65	11,412.05	5,274.68	136.09	143.57	-90.534	-3,241.65	4,793.32	1,333.61	1,054.35	279.25	4.776		
11,100.00	5,272.37	11,498.31	5,273.66	138.39	145.57	-90.499	-3,298.47	4,858.22	1,337.11	1,053.57	283.54	4.716		
11,200.00	5,272.09	11,615.76	5,270.88	140.70	148.31	-90.393	-3,375.73	4,946.62	1,340.72	1,052.11	288.61	4.645		
11,300.00	5,271.81	11,731.67	5,270.01	143.00	150.99	-90.369	-3,453.38	5,032.68	1,342.71	1,049.14	293.57	4.574		
11,400.00	5,271.53	11,843.95	5,269.72	145.31	153.58	-90.369	-3,529.41	5,115.29	1,343.73	1,045.31	298.41	4.503		
11,500.00	5,271.25	11,938.51	5,269.03	147.62	155.76	-90.351	-3,593.57	5,184.75	1,344.57	1,041.63	302.94	4.438		
11,600.00	5,270.97	12,018.53	5,267.47	149.93	157.61	-90.294	-3,647.29	5,244.03	1,346.36	1,039.20	307.16	4.383		
11,700.00	5,270.69	12,068.00	5,266.34	152.24	158.76	-90.251	-3,680.23	5,280.92	1,349.83	1,039.45	310.38	4.349 SF		
11,800.00	5,270.41	12,068.00	5,266.34	154.54	158.76	-90.251	-3,680.23	5,280.92	1,359.78	1,049.19	310.59	4.378		
11,900.00	5,270.13	12,068.00	5,266.34	156.80	158.76	-90.238	-3,680.23	5,280.92	1,383.45	1,074.70	308.75	4.481		
12,000.00	5,269.86	12,068.00	5,266.34	158.91	158.76	-90.232	-3,680.23	5,280.92	1,425.03	1,119.73	305.31	4.668		
12,100.00	5,269.58	12,068.00	5,266.34	160.85	158.76	-90.232	-3,680.23	5,280.92	1,482.43	1,181.42	301.02	4.925		
12,200.00	5,269.30	12,068.00	5,266.34	162.58	158.76	-90.242	-3,680.23	5,280.92	1,553.10	1,256.48	296.62	5.236		
12,300.00	5,269.02	12,068.00	5,266.34	164.08	158.76	-90.266	-3,680.23	5,280.92	1,634.34	1,341.66	292.68	5.584		
12,400.00	5,268.74	12,068.00	5,266.34	165.33	158.76	-90.183	-3,680.23	5,280.92	1,723.54	1,433.98	289.56	5.952		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 28 T23N R07W North Alamito 4 301 311&312 - North Alamito Unit 301H - Original Hole - rev1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
		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	89.741	0.18	40.14	40.14					
100.00	100.00	100.00	100.00	0.27	0.27	89.741	0.18	40.14	40.14	39.59	0.55	73.189		
200.00	200.00	200.00	200.00	0.63	0.63	89.741	0.18	40.14	40.14	38.88	1.27	31.722		
300.00	300.00	300.00	300.00	0.99	0.99	89.741	0.18	40.14	40.14	38.16	1.98	20.249		
400.00	400.00	400.00	400.00	1.35	1.35	89.741	0.18	40.14	40.14	37.44	2.70	14.871		
500.00	500.00	500.00	500.00	1.71	1.71	89.741	0.18	40.14	40.14	36.73	3.42	11.750		
600.00	600.00	600.00	600.00	2.07	2.07	89.741	0.18	40.14	40.14	36.01	4.13	9.712		
700.00	700.00	700.00	700.00	2.43	2.43	89.741	0.18	40.14	40.14	35.29	4.85	8.276		
800.00	800.00	800.00	800.00	2.78	2.78	89.741	0.18	40.14	40.14	34.57	5.57	7.211 CC, ES		
900.00	900.00	899.26	899.21	3.14	3.14	86.319	2.63	40.94	41.03	34.75	6.28	6.534		
1,000.00	1,000.00	997.98	997.62	3.50	3.50	77.086	9.93	43.31	44.50	37.51	6.99	6.370 SF		
1,100.00	1,100.00	1,095.65	1,094.47	3.86	3.85	65.113	21.90	47.21	52.33	44.66	7.68	6.818		
1,200.00	1,200.00	1,191.79	1,189.05	4.22	4.22	53.930	38.26	52.53	65.90	57.57	8.33	7.908		
1,300.00	1,299.95	1,285.49	1,280.27	4.56	4.60	160.428	58.54	59.13	87.90	78.95	8.95	9.818		
1,400.00	1,399.63	1,375.44	1,366.78	4.90	5.00	155.408	82.00	66.76	119.82	110.28	9.54	12.558		
1,500.00	1,498.77	1,460.78	1,447.67	5.25	5.41	152.474	107.80	75.15	160.52	150.42	10.10	15.891		
1,600.00	1,597.25	1,541.15	1,522.69	5.62	5.83	151.003	135.23	84.07	208.48	197.84	10.64	19.598		
1,700.00	1,695.64	1,617.75	1,592.99	6.00	6.27	150.074	164.14	93.48	260.22	249.09	11.13	23.379		
1,800.00	1,794.04	1,690.76	1,658.81	6.40	6.72	149.264	194.16	103.24	315.15	303.55	11.60	27.167		
1,900.00	1,892.44	1,760.22	1,720.27	6.80	7.18	148.551	224.93	113.25	373.07	361.02	12.05	30.957		
2,000.00	1,990.83	1,826.21	1,777.54	7.21	7.65	147.920	256.11	123.40	433.77	421.29	12.48	34.760		
2,100.00	2,089.23	1,888.85	1,830.82	7.62	8.12	147.358	287.44	133.59	497.05	484.16	12.89	38.574		
2,200.00	2,187.63	1,952.74	1,884.07	8.05	8.63	146.823	320.99	144.50	562.63	549.29	13.34	42.175		
2,300.00	2,286.03	2,027.56	1,946.12	8.47	9.25	146.299	360.76	157.44	628.84	614.86	13.98	44.983		
2,400.00	2,384.42	2,102.39	2,008.17	8.90	9.88	145.874	400.52	170.37	695.08	680.45	14.63	47.518		
2,500.00	2,482.82	2,177.21	2,070.23	9.34	10.52	145.524	440.28	183.31	761.34	746.05	15.29	49.806		
2,600.00	2,581.22	2,252.04	2,132.28	9.77	11.18	145.229	480.05	196.24	827.61	811.66	15.95	51.882		
2,700.00	2,679.62	2,326.86	2,194.33	10.21	11.84	144.978	519.81	209.18	893.89	877.27	16.62	53.775		
2,800.00	2,778.01	2,401.69	2,256.38	10.66	12.51	144.762	559.57	222.11	960.18	942.88	17.30	55.504		
2,900.00	2,876.41	2,476.51	2,318.43	11.10	13.18	144.573	599.34	235.05	1,026.48	1,008.49	17.98	57.082		
3,000.00	2,974.81	2,551.34	2,380.48	11.55	13.86	144.407	639.10	247.98	1,092.78	1,074.11	18.67	58.532		
3,100.00	3,073.21	2,626.17	2,442.53	11.99	14.55	144.261	678.87	260.92	1,159.08	1,139.72	19.36	59.867		
3,200.00	3,171.60	2,700.99	2,504.58	12.44	15.24	144.130	718.63	273.86	1,225.39	1,205.34	20.06	61.099		
3,300.00	3,270.00	2,775.82	2,566.63	12.89	15.93	144.013	758.39	286.79	1,291.71	1,270.95	20.76	62.236		
3,400.00	3,368.40	2,850.64	2,628.68	13.34	16.62	143.907	798.16	299.73	1,358.02	1,336.57	21.46	63.291		
3,500.00	3,466.79	2,925.47	2,690.74	13.80	17.32	143.810	837.92	312.66	1,424.34	1,402.18	22.16	64.271		
3,600.00	3,565.19	3,000.29	2,752.79	14.25	18.02	143.723	877.68	325.60	1,490.66	1,467.79	22.87	65.184		
3,700.00	3,663.59	3,075.12	2,814.84	14.70	18.72	143.661	917.45	338.53	1,556.99	1,533.41	23.58	66.036		
3,800.00	3,762.42	3,151.30	2,878.02	15.14	19.43	144.998	957.94	351.70	1,621.67	1,597.38	24.29	66.773		
3,900.00	3,861.91	3,230.01	2,943.29	15.53	20.17	146.051	999.76	365.31	1,683.03	1,658.04	24.99	67.339		
4,000.00	3,961.78	3,311.02	3,010.47	15.88	20.94	146.863	1,042.81	379.31	1,740.95	1,715.25	25.70	67.736		
4,100.00	4,061.78	3,393.78	3,079.10	16.19	21.72	32.074	1,086.79	393.62	1,795.94	1,769.53	26.41	68.007		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 28 T23N R07W North Alamito 4 301 311&312 - North Alamito Unit 311H - Original Hole - rev1													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 (ft)	Offset (ft)	Semi Major Axis (ft)	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	0.00	-90.275	-0.09	-19.78	19.78				
100.00	100.00	100.00	100.00	0.27	0.27	-90.275	-90.275	-0.09	-19.78	19.78	19.23	0.55	36.057	
200.00	200.00	200.00	200.00	0.63	0.63	-90.275	-90.275	-0.09	-19.78	19.78	18.51	1.27	15.628	
300.00	300.00	300.00	300.00	0.99	0.99	-90.275	-90.275	-0.09	-19.78	19.78	17.79	1.98	9.976	
400.00	400.00	400.00	400.00	1.35	1.35	-90.275	-90.275	-0.09	-19.78	19.78	17.08	2.70	7.326	
500.00	500.00	500.00	500.00	1.71	1.71	-90.275	-90.275	-0.09	-19.78	19.78	16.36	3.42	5.789	
600.00	600.00	600.00	600.00	2.07	2.07	-90.275	-90.275	-0.09	-19.78	19.78	15.64	4.13	4.785	
700.00	700.00	700.00	700.00	2.43	2.43	-90.275	-90.275	-0.09	-19.78	19.78	14.93	4.85	4.077	
800.00	800.00	800.00	800.00	2.78	2.78	-90.275	-90.275	-0.09	-19.78	19.78	14.21	5.57	3.552	
900.00	900.00	900.00	900.00	3.14	3.14	-90.275	-90.275	-0.09	-19.78	19.78	13.49	6.28	3.147	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-90.275	-90.275	-0.09	-19.78	19.78	12.77	7.00	2.825 CC, ES	
1,100.00	1,100.00	1,099.69	1,099.65	3.86	3.84	-97.412	-97.412	-2.64	-20.31	20.48	12.78	7.70	2.660 SF	
1,200.00	1,200.00	1,198.85	1,198.49	4.22	4.17	-115.035	-115.035	-10.22	-21.88	24.20	15.83	8.37	2.892	
1,300.00	1,299.95	1,297.13	1,295.93	4.56	4.50	-19.411	-19.411	-22.68	-24.47	31.15	22.16	8.99	3.465	
1,400.00	1,399.63	1,394.37	1,391.58	4.90	4.85	-36.992	-36.992	-39.82	-28.04	40.79	31.23	9.56	4.268	
1,500.00	1,498.77	1,492.81	1,487.86	5.25	5.23	-51.767	-51.767	-59.90	-32.22	52.35	42.13	10.22	5.122	
1,600.00	1,597.25	1,591.28	1,584.16	5.62	5.63	-64.267	-64.267	-79.99	-36.40	64.19	53.25	10.94	5.867	
1,700.00	1,695.64	1,689.73	1,680.45	6.00	6.04	-73.053	-73.053	-100.08	-40.58	78.01	66.30	11.71	6.664	
1,800.00	1,794.04	1,788.18	1,776.74	6.40	6.46	-79.123	-79.123	-120.17	-44.76	93.09	80.60	12.49	7.451	
1,900.00	1,892.44	1,886.63	1,873.03	6.80	6.89	-83.477	-83.477	-140.27	-48.94	108.91	95.61	13.30	8.191	
2,000.00	1,990.83	1,985.08	1,969.31	7.21	7.33	-86.718	-86.718	-160.36	-53.12	125.19	111.07	14.11	8.871	
2,100.00	2,089.23	2,083.53	2,065.60	7.62	7.77	-89.210	-89.210	-180.45	-57.30	141.77	126.83	14.94	9.490	
2,200.00	2,187.63	2,181.98	2,161.89	8.05	8.22	-91.179	-91.179	-200.54	-61.48	158.55	142.78	15.77	10.051	
2,300.00	2,286.03	2,280.43	2,258.17	8.47	8.67	-92.770	-92.770	-220.63	-65.66	175.49	158.87	16.62	10.560	
2,400.00	2,384.42	2,378.88	2,354.46	8.90	9.13	-94.081	-94.081	-240.72	-69.84	192.53	175.06	17.47	11.022	
2,500.00	2,482.82	2,477.33	2,450.75	9.34	9.59	-95.178	-95.178	-260.81	-74.02	209.65	191.33	18.32	11.442	
2,600.00	2,581.22	2,575.78	2,547.04	9.77	10.06	-96.110	-96.110	-280.90	-78.20	226.84	207.66	19.18	11.825	
2,700.00	2,679.62	2,674.23	2,643.32	10.21	10.52	-96.910	-96.910	-301.00	-82.38	244.08	224.03	20.05	12.174	
2,800.00	2,778.01	2,772.68	2,739.61	10.66	10.99	-97.605	-97.605	-321.09	-86.56	261.35	240.44	20.92	12.495	
2,900.00	2,876.41	2,871.13	2,835.90	11.10	11.46	-98.214	-98.214	-341.18	-90.74	278.66	256.88	21.79	12.789	
3,000.00	2,974.81	2,969.58	2,932.19	11.55	11.93	-98.751	-98.751	-361.27	-94.92	296.00	273.34	22.66	13.060	
3,100.00	3,073.21	3,068.03	3,028.47	11.99	12.41	-99.229	-99.229	-381.36	-99.11	313.36	289.82	23.54	13.310	
3,200.00	3,171.60	3,166.48	3,124.76	12.44	12.88	-99.657	-99.657	-401.45	-103.29	330.74	306.32	24.42	13.542	
3,300.00	3,270.00	3,264.93	3,221.05	12.89	13.36	-100.042	-100.042	-421.54	-107.47	348.14	322.83	25.31	13.757	
3,400.00	3,368.40	3,363.38	3,317.33	13.34	13.84	-100.390	-100.390	-441.64	-111.65	365.55	339.36	26.19	13.957	
3,500.00	3,466.79	3,461.83	3,413.62	13.80	14.31	-100.707	-100.707	-461.73	-115.83	382.97	355.89	27.08	14.144	
3,600.00	3,565.19	3,560.28	3,509.91	14.25	14.79	-100.996	-100.996	-481.82	-120.01	400.40	372.43	27.96	14.318	
3,700.00	3,663.59	3,658.73	3,606.20	14.70	15.27	-101.267	-101.267	-501.91	-124.19	417.84	388.98	28.85	14.481	
3,800.00	3,762.42	3,757.27	3,702.57	15.14	15.75	-101.665	-101.665	-522.02	-128.37	434.76	405.05	29.71	14.632	
3,900.00	3,861.91	3,855.82	3,798.95	15.53	16.23	-101.381	-101.381	-542.13	-132.56	450.68	420.16	30.51	14.770	
4,000.00	3,961.78	3,954.09	3,895.07	15.88	16.71	-100.492	-100.492	-562.19	-136.73	465.74	434.49	31.25	14.904	
4,100.00	4,061.78	4,051.95	3,990.77	16.19	17.19	146.279	146.279	-582.16	-140.88	480.37	448.44	31.92	15.049	
4,200.00	4,161.78	4,149.75	4,086.43	16.50	17.67	147.980	147.980	-602.12	-145.04	495.37	462.78	32.58	15.203	
4,300.00	4,261.78	4,251.57	4,186.03	16.81	18.17	149.638	149.638	-622.79	-149.34	510.71	477.43	33.28	15.345	
4,400.00	4,361.78	4,375.54	4,308.26	17.12	18.73	151.159	151.159	-642.97	-153.54	523.28	489.13	34.15	15.323	
4,500.00	4,461.78	4,501.74	4,433.78	17.43	19.22	152.059	152.059	-655.49	-156.14	531.05	496.11	34.94	15.198	
4,600.00	4,561.78	4,629.08	4,561.03	17.75	19.63	152.365	152.365	-659.87	-157.05	533.76	498.13	35.63	14.981	
4,700.00	4,661.78	4,729.83	4,661.78	18.06	19.91	152.366	152.366	-659.87	-157.06	533.76	497.52	36.24	14.727	
4,800.00	4,761.72	5,131.04	5,041.60	18.37	20.62	24.019	24.019	-583.62	-226.56	515.56	484.25	31.30	16.469	
4,900.00	4,860.16	5,408.76	5,223.27	18.65	20.61	62.454	62.454	-431.17	-365.53	431.27	409.54	21.73	19.847	
5,000.00	4,954.18	5,437.95	5,236.03	18.88	20.60	94.424	94.424	-411.77	-383.21	339.68	317.93	21.75	15.620	

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 28 T23N R07W North Alamito 4 301 311&312 - North Alamito Unit 311H - Original Hole - rev1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Reference Depth (ft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
		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	5,040.92	5,423.72	5,229.98	19.08	20.61	105.490	-421.29	-374.53	254.45	230.12	24.32	10.461		
5,200.00	5,117.75	5,394.20	5,216.41	19.24	20.62	104.407	-440.66	-356.88	186.31	156.45	29.86	6.239		
5,300.00	5,182.32	5,357.61	5,197.76	19.37	20.63	95.112	-463.92	-335.68	155.39	118.32	37.06	4.193		
5,308.21	5,187.02	5,354.41	5,196.03	19.37	20.63	94.038	-465.91	-333.86	155.20	117.75	37.45	4.144		
5,400.00	5,232.69	5,317.19	5,174.85	19.46	20.64	79.643	-488.53	-313.24	176.34	138.52	37.82	4.663		
5,500.00	5,267.31	5,274.45	5,148.15	20.02	20.65	62.133	-513.18	-290.77	230.40	194.56	35.84	6.429		
5,600.00	5,285.14	5,230.21	5,117.98	20.99	20.65	47.301	-537.07	-268.99	295.40	260.19	35.21	8.389		
5,700.00	5,287.45	5,185.82	5,085.29	22.12	20.64	39.052	-559.25	-248.78	362.32	326.73	35.59	10.180		
5,800.00	5,287.17	5,150.00	5,057.27	23.42	20.63	35.773	-575.74	-233.74	434.75	398.45	36.31	11.975		
5,900.00	5,286.89	5,114.66	5,028.32	24.87	20.61	32.878	-590.71	-220.10	512.33	475.52	36.81	13.918		
6,000.00	5,286.61	5,086.83	5,004.68	26.44	20.59	30.818	-601.55	-210.22	593.84	556.49	37.35	15.898		
6,100.00	5,286.33	5,050.00	4,972.34	28.11	20.56	28.361	-614.58	-198.35	678.64	641.10	37.54	18.078		
6,200.00	5,286.05	5,050.00	4,972.34	29.87	20.56	28.361	-614.58	-198.35	765.36	727.00	38.35	19.955		
6,300.00	5,285.77	5,024.22	4,949.06	31.71	20.53	26.808	-622.77	-190.88	854.04	815.49	38.54	22.157		
6,400.00	5,285.49	5,000.00	4,926.76	33.60	20.50	25.463	-629.75	-184.52	944.41	905.70	38.71	24.396		
6,500.00	5,285.21	5,000.00	4,926.76	35.54	20.50	25.463	-629.75	-184.52	1,035.87	996.74	39.12	26.477		
6,600.00	5,284.94	4,981.97	4,909.91	37.53	20.47	24.526	-634.49	-180.20	1,128.35	1,089.09	39.26	28.742		
6,700.00	5,284.66	4,970.86	4,899.43	39.56	20.45	23.975	-637.21	-177.71	1,221.72	1,182.30	39.43	30.986		
6,800.00	5,284.38	4,950.00	4,879.57	41.61	20.42	22.992	-641.92	-173.42	1,315.96	1,276.47	39.49	33.327		
6,900.00	5,284.10	4,950.00	4,879.57	43.70	20.42	22.992	-641.92	-173.42	1,410.51	1,370.82	39.69	35.538		
7,000.00	5,283.82	4,950.00	4,879.57	45.80	20.42	22.992	-641.92	-173.42	1,505.77	1,465.91	39.86	37.777		
7,100.00	5,283.54	4,950.00	4,879.57	47.93	20.42	22.992	-641.92	-173.42	1,601.60	1,561.60	40.00	40.039		
7,200.00	5,283.26	4,929.40	4,859.74	50.07	20.39	22.081	-646.04	-169.66	1,697.43	1,657.42	40.01	42.429		
7,300.00	5,282.98	4,923.14	4,853.68	52.23	20.37	21.816	-647.19	-168.62	1,793.82	1,753.73	40.09	44.749		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 34 T23N R07W - Federal B #003 - Orig Hole - Inc only surveys											Offset Site Error:	0.00 ft	
Survey Program: 1246-INC-ONLY											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)			
9,500.00	5,276.84	5,273.29	5,272.34	101.64	212.65	90.346	-4,845.70	3,474.17	1,759.58	1,505.01	254.56	6.912	
9,600.00	5,276.56	5,273.01	5,272.06	103.93	212.65	90.324	-4,845.70	3,474.17	1,669.36	1,412.04	257.32	6.487	
9,700.00	5,276.28	5,272.73	5,271.78	106.21	212.65	90.302	-4,845.70	3,474.17	1,580.32	1,319.89	260.43	6.068	
9,800.00	5,276.00	5,272.45	5,271.50	108.50	212.64	90.281	-4,845.70	3,474.17	1,492.68	1,228.74	263.94	5.655	
9,900.00	5,275.72	5,272.17	5,271.22	110.80	212.64	90.259	-4,845.70	3,474.17	1,406.68	1,138.79	267.89	5.251	
10,000.00	5,275.44	5,271.89	5,270.94	113.09	212.63	90.237	-4,845.70	3,474.17	1,322.65	1,050.28	272.37	4.856	
10,100.00	5,275.16	5,271.61	5,270.66	115.38	212.63	90.216	-4,845.70	3,474.17	1,240.99	963.56	277.43	4.473	
10,200.00	5,274.88	5,271.34	5,270.38	117.68	212.62	90.194	-4,845.70	3,474.17	1,162.21	879.05	283.15	4.105	
10,300.00	5,274.60	5,271.06	5,270.10	119.98	212.62	90.172	-4,845.70	3,474.17	1,086.92	797.31	289.61	3.753	
10,400.00	5,274.32	5,270.78	5,269.82	122.28	212.61	90.151	-4,845.70	3,474.17	1,015.90	719.06	296.83	3.422	
10,500.00	5,274.04	5,270.50	5,269.54	124.58	212.61	90.129	-4,845.70	3,474.17	950.11	645.27	304.84	3.117	
10,600.00	5,273.77	5,270.22	5,269.27	126.88	212.61	90.107	-4,845.70	3,474.17	890.71	577.19	313.52	2.841	
10,700.00	5,273.49	5,269.94	5,268.99	129.18	212.60	90.086	-4,845.70	3,474.17	839.06	516.43	322.63	2.601	
10,800.00	5,273.21	5,269.66	5,268.71	131.48	212.60	90.064	-4,845.70	3,474.17	796.67	464.95	331.72	2.402	
10,900.00	5,272.93	5,269.38	5,268.43	133.78	212.59	90.043	-4,845.70	3,474.17	765.08	425.02	340.05	2.250	
11,000.00	5,272.65	5,269.10	5,268.15	136.09	212.59	90.021	-4,845.70	3,474.17	745.65	398.91	346.74	2.150	
11,096.71	5,272.38	5,268.83	5,267.88	138.32	212.58	90.000	-4,845.70	3,474.17	739.36	388.51	350.85	2.107	CC
11,100.00	5,272.37	5,268.82	5,267.87	138.39	212.58	89.999	-4,845.70	3,474.17	739.36	388.42	350.94	2.107	ES, SF
11,200.00	5,272.09	5,268.54	5,267.59	140.70	212.58	89.978	-4,845.70	3,474.17	746.54	394.37	352.17	2.120	
11,300.00	5,271.81	5,268.26	5,267.31	143.00	212.57	89.956	-4,845.70	3,474.17	766.79	416.29	350.50	2.188	
11,400.00	5,271.53	5,267.98	5,267.03	145.31	212.57	89.934	-4,845.70	3,474.17	799.14	452.61	346.53	2.306	
11,500.00	5,271.25	5,267.70	5,266.75	147.62	212.57	89.913	-4,845.70	3,474.17	842.19	501.14	341.05	2.469	
11,600.00	5,270.97	5,267.43	5,266.47	149.93	212.56	89.891	-4,845.70	3,474.17	894.40	559.59	334.81	2.671	
11,700.00	5,270.69	5,267.15	5,266.19	152.24	212.56	89.869	-4,845.70	3,474.17	954.26	625.87	328.39	2.906	
11,800.00	5,270.41	5,266.87	5,265.91	154.54	212.55	89.850	-4,845.70	3,474.17	1,020.41	698.28	322.13	3.168	
11,900.00	5,270.13	5,266.59	5,265.63	156.80	212.55	89.864	-4,845.70	3,474.17	1,086.98	771.20	315.78	3.442	
12,000.00	5,269.86	5,266.31	5,265.36	158.91	212.54	89.878	-4,845.70	3,474.17	1,149.59	840.57	309.01	3.720	
12,100.00	5,269.58	5,266.03	5,265.08	160.85	212.54	89.891	-4,845.70	3,474.17	1,207.98	906.12	301.86	4.002	
12,200.00	5,269.30	5,265.75	5,264.80	162.58	212.54	89.903	-4,845.70	3,474.17	1,261.93	967.58	294.35	4.287	
12,300.00	5,269.02	5,265.47	5,264.52	164.08	212.53	89.915	-4,845.70	3,474.17	1,311.24	1,024.68	286.55	4.576	
12,400.00	5,268.74	5,265.19	5,264.24	165.33	212.53	89.900	-4,845.70	3,474.17	1,355.70	1,077.16	278.53	4.867	
12,500.00	5,267.45	5,263.90	5,262.95	166.35	212.51	89.536	-4,845.70	3,474.17	1,395.42	1,125.00	270.42	5.160	
12,600.00	5,265.54	5,262.00	5,261.04	167.30	212.48	89.451	-4,845.70	3,474.17	1,437.47	1,174.71	262.76	5.471	
12,700.00	5,263.64	5,260.09	5,259.14	168.25	212.45	89.365	-4,845.70	3,474.17	1,485.08	1,229.13	255.95	5.802	
12,800.00	5,261.73	5,258.18	5,257.23	169.21	212.42	89.280	-4,845.70	3,474.17	1,537.72	1,287.59	250.13	6.148	
12,900.00	5,259.82	5,256.27	5,255.32	170.19	212.39	89.195	-4,845.70	3,474.17	1,594.90	1,349.48	245.42	6.499	
13,000.00	5,257.91	5,254.37	5,253.41	171.17	212.36	89.110	-4,845.70	3,474.17	1,656.14	1,414.30	241.85	6.848	
13,100.00	5,256.01	5,252.46	5,251.51	172.16	212.33	89.025	-4,845.70	3,474.17	1,721.02	1,481.62	239.40	7.189	
13,200.00	5,254.10	5,250.55	5,249.60	173.16	212.30	88.940	-4,845.70	3,474.17	1,789.13	1,551.16	237.98	7.518	

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 34 T23N R07W - Federal B #005 - Orig Hole - Inc only													Offset Site Error:	0.00 ft
Survey Program: 2001-INC-ONLY													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)				
5,600.00	5,285.14	5,226.72	5,226.64	20.99	362.59	74.819	-2,118.17	813.24	1,784.40	1,402.34	382.06	4.670		
5,700.00	5,287.45	5,229.03	5,228.95	22.12	362.69	90.443	-2,118.17	813.24	1,690.08	1,307.89	382.19	4.422		
5,800.00	5,287.17	5,228.75	5,228.67	23.42	362.68	90.416	-2,118.17	813.24	1,596.38	1,214.12	382.25	4.176		
5,900.00	5,286.89	5,228.47	5,228.39	24.87	362.66	90.388	-2,118.17	813.24	1,503.49	1,121.09	382.40	3.932		
6,000.00	5,286.61	5,228.19	5,228.11	26.44	362.65	90.360	-2,118.17	813.24	1,411.56	1,028.92	382.65	3.689		
6,100.00	5,286.33	5,227.91	5,227.83	28.11	362.64	90.332	-2,118.17	813.24	1,320.82	937.78	383.03	3.448		
6,200.00	5,286.05	5,227.63	5,227.55	29.87	362.63	90.304	-2,118.17	813.24	1,231.50	847.89	383.61	3.210		
6,300.00	5,285.77	5,227.35	5,227.27	31.71	362.61	90.276	-2,118.17	813.24	1,143.96	759.54	384.42	2.976		
6,400.00	5,285.49	5,227.07	5,226.99	33.60	362.60	90.248	-2,118.17	813.24	1,058.62	673.09	385.53	2.746		
6,500.00	5,285.21	5,226.79	5,226.71	35.54	362.59	90.220	-2,118.17	813.24	976.07	589.05	387.03	2.522		
6,600.00	5,284.94	5,226.51	5,226.44	37.53	362.58	90.192	-2,118.17	813.24	897.09	508.09	388.99	2.306		
6,700.00	5,284.66	5,226.24	5,226.16	39.56	362.56	90.165	-2,118.17	813.24	822.68	431.17	391.51	2.101		
6,800.00	5,284.38	5,225.96	5,225.88	41.61	362.55	90.137	-2,118.17	813.24	754.22	359.56	394.66	1.911	Level 3<2.00	
6,900.00	5,284.10	5,225.68	5,225.60	43.70	362.54	90.109	-2,118.17	813.24	693.46	295.02	398.44	1.740	Level 3<2.00	
7,000.00	5,283.82	5,225.40	5,225.32	45.80	362.53	90.081	-2,118.17	813.24	642.59	239.85	402.74	1.596	Level 3<2.00	
7,100.00	5,283.54	5,225.12	5,225.04	47.93	362.51	90.053	-2,118.17	813.24	604.12	196.87	407.25	1.483	Level 3<2.00	
7,200.00	5,283.26	5,224.84	5,224.76	50.07	362.50	90.025	-2,118.17	813.24	580.52	169.08	411.44	1.411	Level 3<2.00	
7,289.80	5,283.01	5,224.59	5,224.51	52.01	362.49	90.000	-2,118.17	813.24	573.54	159.14	414.40	1.384	Level 3<2.00, CC	
7,300.00	5,282.98	5,224.56	5,224.48	52.23	362.49	89.997	-2,118.17	813.24	573.63	158.96	414.67	1.383	Level 3<2.00, ES, SF	
7,400.00	5,282.70	5,224.28	5,224.20	54.41	362.48	89.969	-2,118.17	813.24	584.03	167.57	416.46	1.402	Level 3<2.00	
7,500.00	5,282.42	5,224.00	5,223.92	56.59	362.47	89.941	-2,118.17	813.24	610.84	194.07	416.77	1.466	Level 3<2.00	
7,600.00	5,282.14	5,223.72	5,223.64	58.79	362.45	89.913	-2,118.17	813.24	652.05	236.13	415.92	1.568	Level 3<2.00	
7,700.00	5,281.86	5,223.44	5,223.36	61.00	362.44	89.886	-2,118.17	813.24	705.13	290.76	414.37	1.702	Level 3<2.00	
7,800.00	5,281.58	5,223.16	5,223.08	63.21	362.43	89.858	-2,118.17	813.24	767.62	355.13	412.49	1.861	Level 3<2.00	
7,900.00	5,281.30	5,222.88	5,222.80	65.43	362.42	89.830	-2,118.17	813.24	837.43	426.87	410.56	2.040		
8,000.00	5,281.03	5,222.61	5,222.53	67.66	362.40	89.802	-2,118.17	813.24	912.87	504.16	408.71	2.234		
8,100.00	5,280.75	5,222.33	5,222.25	69.90	362.39	89.774	-2,118.17	813.24	992.66	585.65	407.00	2.439		
8,200.00	5,280.47	5,222.05	5,221.97	72.14	362.38	89.746	-2,118.17	813.24	1,075.83	670.36	405.46	2.653		
8,300.00	5,280.19	5,221.77	5,221.69	74.39	362.37	89.718	-2,118.17	813.24	1,161.66	757.56	404.09	2.875		
8,400.00	5,279.91	5,221.49	5,221.41	76.64	362.35	89.690	-2,118.17	813.24	1,249.59	846.72	402.87	3.102		
8,500.00	5,279.63	5,221.21	5,221.13	78.90	362.34	89.662	-2,118.17	813.24	1,339.22	937.43	401.79	3.333		
8,600.00	5,279.35	5,220.93	5,220.85	81.16	362.33	89.634	-2,118.17	813.24	1,430.23	1,029.40	400.83	3.568		
8,700.00	5,279.07	5,220.65	5,220.57	83.42	362.32	89.607	-2,118.17	813.24	1,522.37	1,122.39	399.97	3.806		
8,800.00	5,278.79	5,220.37	5,220.29	85.69	362.30	89.579	-2,118.17	813.24	1,615.44	1,216.23	399.21	4.047		
8,900.00	5,278.51	5,220.09	5,220.01	87.96	362.29	89.551	-2,118.17	813.24	1,709.29	1,310.76	398.53	4.289		
9,000.00	5,278.23	5,219.81	5,219.73	90.23	362.28	89.523	-2,118.17	813.24	1,803.80	1,405.90	397.91	4.533		

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 North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 34 T23N R07W - Federal B L #002 - Orig Hole - Inc only surveys													Offset Site Error:	0.00 ft
Survey Program: 1007-INC-ONLY													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S	+E/-W	Between Centres (ft)	Between Ellipses (ft)				
8,200.00	5,280.47	5,247.20	5,246.97	72.14	163.24	-90.631	-3,173.86	3,404.34	1,754.87	1,564.04	190.83	9.196		
8,300.00	5,280.19	5,246.92	5,246.69	74.39	163.24	-90.594	-3,173.86	3,404.34	1,658.12	1,466.24	191.88	8.641		
8,400.00	5,279.91	5,246.64	5,246.41	76.64	163.23	-90.557	-3,173.86	3,404.34	1,561.78	1,368.69	193.09	8.088		
8,500.00	5,279.63	5,246.36	5,246.13	78.90	163.23	-90.520	-3,173.86	3,404.34	1,465.93	1,271.44	194.49	7.537		
8,600.00	5,279.35	5,246.08	5,245.85	81.16	163.23	-90.483	-3,173.86	3,404.34	1,370.67	1,174.54	196.13	6.989		
8,700.00	5,279.07	5,245.80	5,245.57	83.42	163.22	-90.446	-3,173.86	3,404.34	1,276.14	1,078.09	198.05	6.443		
8,800.00	5,278.79	5,245.52	5,245.29	85.69	163.22	-90.408	-3,173.86	3,404.34	1,182.51	982.18	200.32	5.903		
8,900.00	5,278.51	5,245.24	5,245.01	87.96	163.21	-90.371	-3,173.86	3,404.34	1,090.00	886.98	203.03	5.369		
9,000.00	5,278.23	5,244.96	5,244.73	90.23	163.21	-90.334	-3,173.86	3,404.34	998.95	792.67	206.28	4.843		
9,100.00	5,277.95	5,244.68	5,244.45	92.51	163.21	-90.297	-3,173.86	3,404.34	909.77	699.55	210.22	4.328		
9,200.00	5,277.67	5,244.40	5,244.17	94.79	163.20	-90.260	-3,173.86	3,404.34	823.09	608.05	215.04	3.828		
9,300.00	5,277.40	5,244.13	5,243.90	97.07	163.20	-90.223	-3,173.86	3,404.34	739.77	518.80	220.97	3.348		
9,400.00	5,277.12	5,243.85	5,243.62	99.35	163.20	-90.186	-3,173.86	3,404.34	661.10	432.83	228.27	2.896		
9,500.00	5,276.84	5,243.57	5,243.34	101.64	163.19	-90.149	-3,173.86	3,404.34	588.93	351.74	237.19	2.483		
9,600.00	5,276.56	5,243.29	5,243.06	103.93	163.19	-90.112	-3,173.86	3,404.34	525.96	278.26	247.70	2.123		
9,700.00	5,276.28	5,243.01	5,242.78	106.21	163.18	-90.075	-3,173.86	3,404.34	475.83	216.79	259.05	1.837	Level 3<2.00	
9,800.00	5,276.00	5,242.73	5,242.50	108.50	163.18	-90.037	-3,173.86	3,404.34	442.95	173.97	268.98	1.647	Level 3<2.00	
9,900.00	5,275.72	5,242.45	5,242.22	110.80	163.18	-90.000	-3,173.86	3,404.34	431.27	157.35	273.92	1.574	Level 3<2.00, CC	
9,904.45	5,275.71	5,242.44	5,242.21	110.90	163.18	-89.999	-3,173.86	3,404.34	431.28	157.31	273.97	1.574	Level 3<2.00, ES, SF	
10,000.00	5,275.44	5,242.17	5,241.94	113.09	163.17	-89.963	-3,173.86	3,404.34	442.47	170.88	271.59	1.629	Level 3<2.00	
10,100.00	5,275.16	5,241.89	5,241.66	115.38	163.17	-89.926	-3,173.86	3,404.34	474.94	211.30	263.64	1.801	Level 3<2.00	
10,200.00	5,274.88	5,241.61	5,241.38	117.68	163.17	-89.889	-3,173.86	3,404.34	524.74	271.17	253.57	2.069		
10,300.00	5,274.60	5,241.33	5,241.10	119.98	163.16	-89.852	-3,173.86	3,404.34	587.49	343.65	243.84	2.409		
10,400.00	5,274.32	5,241.05	5,240.82	122.28	163.16	-89.815	-3,173.86	3,404.34	659.49	424.10	235.39	2.802		
10,500.00	5,274.04	5,240.77	5,240.54	124.58	163.16	-89.778	-3,173.86	3,404.34	738.05	509.67	228.38	3.232		
10,600.00	5,273.77	5,240.49	5,240.27	126.88	163.15	-89.741	-3,173.86	3,404.34	821.28	598.64	222.64	3.689		
10,700.00	5,273.49	5,240.22	5,239.99	129.18	163.15	-89.704	-3,173.86	3,404.34	907.90	689.96	217.94	4.166		
10,800.00	5,273.21	5,239.94	5,239.71	131.48	163.14	-89.666	-3,173.86	3,404.34	997.03	782.96	214.08	4.657		
10,900.00	5,272.93	5,239.66	5,239.43	133.78	163.14	-89.629	-3,173.86	3,404.34	1,088.05	877.18	210.88	5.160		
11,000.00	5,272.65	5,239.38	5,239.15	136.09	163.14	-89.592	-3,173.86	3,404.34	1,180.53	972.33	208.20	5.670		
11,100.00	5,272.37	5,239.10	5,238.87	138.39	163.13	-89.555	-3,173.86	3,404.34	1,274.14	1,068.19	205.95	6.187		
11,200.00	5,272.09	5,238.82	5,238.59	140.70	163.13	-89.518	-3,173.86	3,404.34	1,368.66	1,164.62	204.03	6.708		
11,300.00	5,271.81	5,238.54	5,238.31	143.00	163.13	-89.481	-3,173.86	3,404.34	1,463.90	1,261.51	202.39	7.233		
11,400.00	5,271.53	5,238.26	5,238.03	145.31	163.12	-89.444	-3,173.86	3,404.34	1,559.74	1,358.76	200.98	7.761		
11,500.00	5,271.25	5,237.98	5,237.75	147.62	163.12	-89.407	-3,173.86	3,404.34	1,656.07	1,456.31	199.76	8.290		
11,600.00	5,270.97	5,237.70	5,237.47	149.93	163.11	-89.370	-3,173.86	3,404.34	1,752.81	1,554.12	198.69	8.822		

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

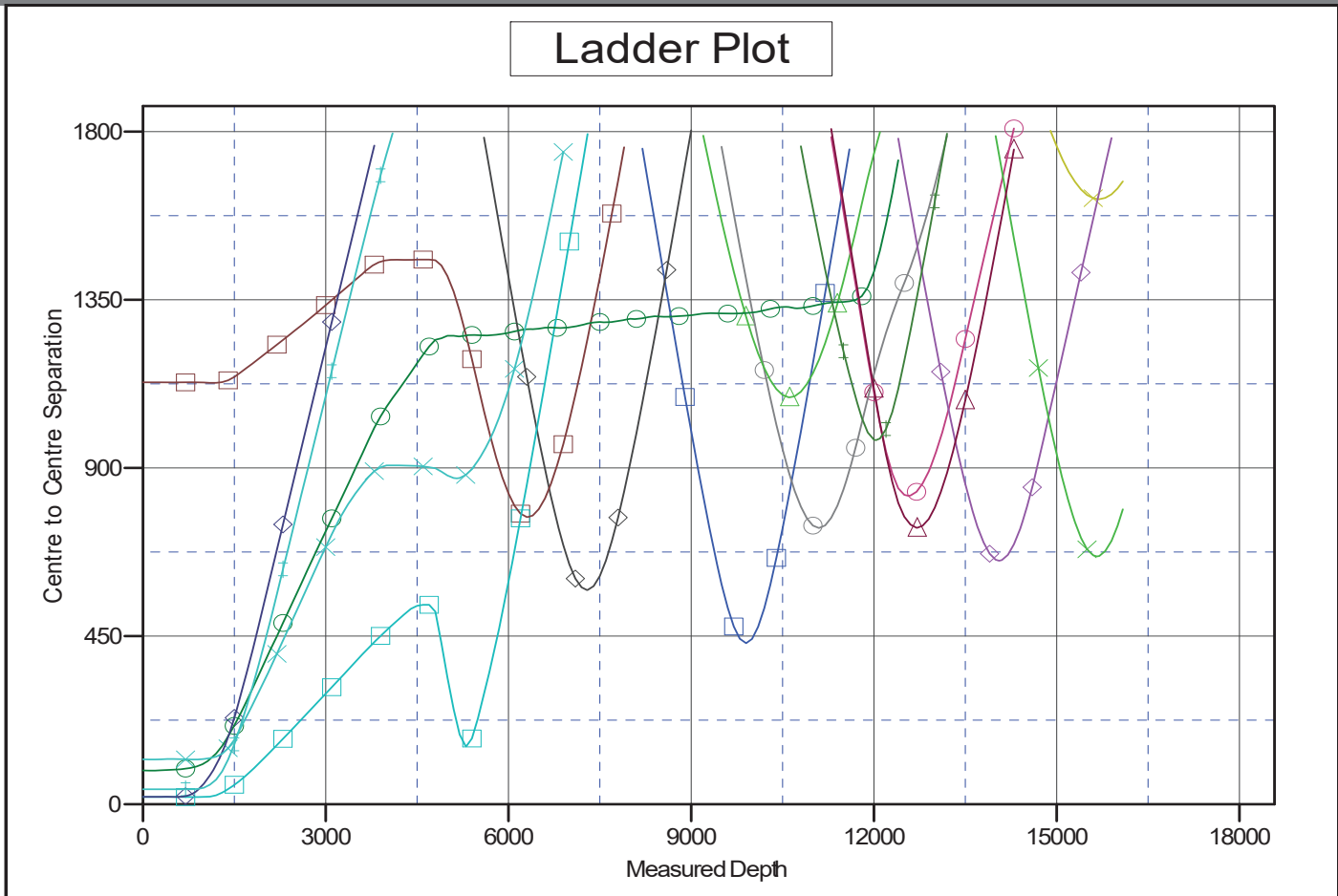


Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6946+23.5 @ 6969.50ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -106.25000000

Coordinates are relative to: North Alamito Unit 312H
 Coordinate System is US State Plane 1983, New Mexico Central Zone
 Grid Convergence at Surface is: -0.780°



LEGEND

FederalBL#002.Orig.Hbl.hconj.survey.v0	SChazUnit908.H.Original.Hbl.Surveys.Original.Hbl.V0	North Alamito Unit2324.Orig.Hbl.MWD.survey.v0
FederalB#005.Orig.Hbl.hconj.v0	SChazUnit345.H.Original.Hbl.Surveys.Original.Hbl.V0	North Alamito Unit301.H.Original.Hbl.rev1.V0
FederalB#003.Orig.Hbl.hconj.survey.v0	FederalB#006.Orig.Hbl.hconj.v0	SChazUnit340.H.Original.Hbl.Surveys.Original.Hbl.V0
North Alamito Unit563.H.Original.Hbl.rev0.V0	North Alamito Unit311.H.Original.Hbl.rev1.V0	SChazUnit339.H.Original.Hbl.Surveys.Original.Hbl.V0
North Alamito Unit5624.Original.Hbl.rev0.V0	North Alamito Unit2334.Orig.Hbl.MWD.survey.v0	
SChazUnit344.H.Original.Hbl.Surveys.Original.Hbl.V0	North Alamito Unit004.H.Original.Hbl.rev1.V0	

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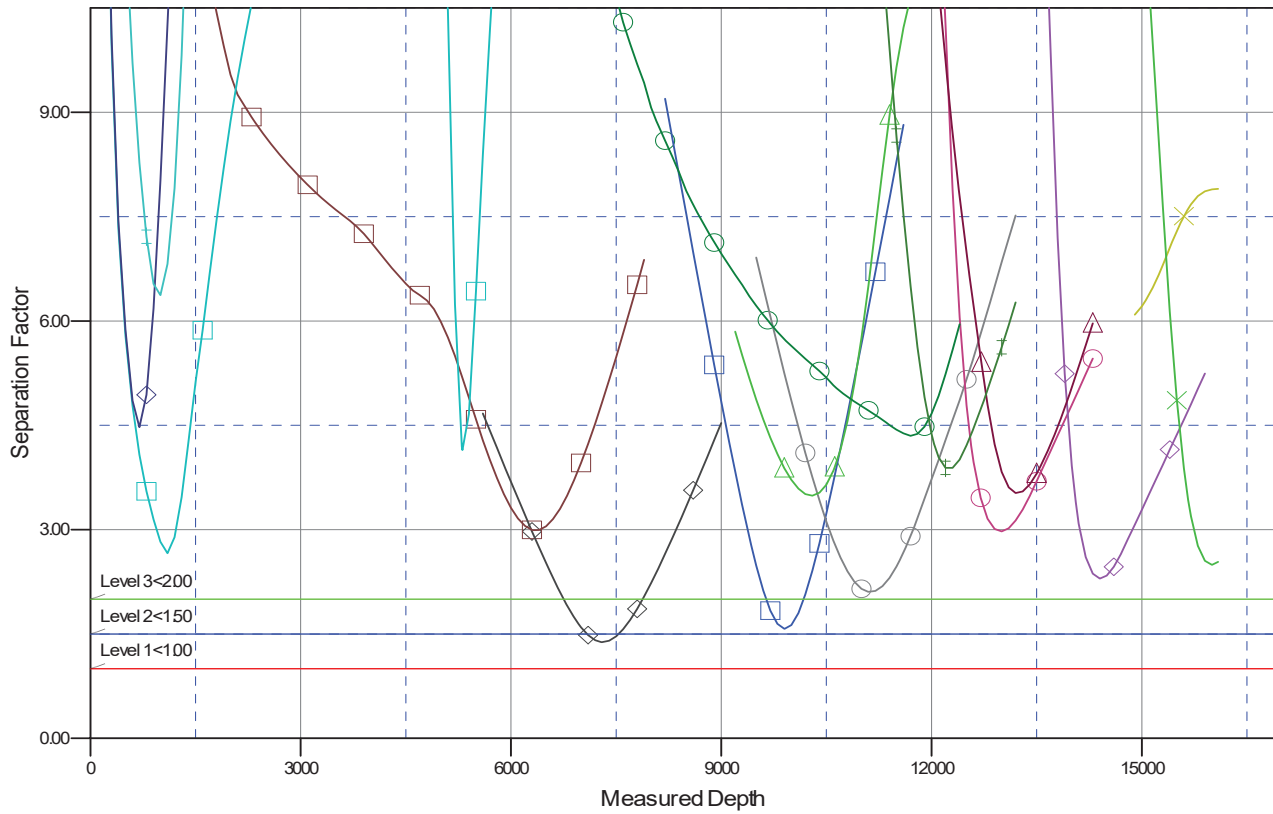
Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well North Alamito Unit 312H
Project:	Sandoval County, New Mexico NAD83 NM C	TVD Reference:	RKB=6946+23.5 @ 6969.50ft
Reference Site:	Sec 28 T23N R07W North Alamito 4 301 311&312	MD Reference:	RKB=6946+23.5 @ 6969.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	North Alamito Unit 312H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT-Oct0825v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6946+23.5 @ 6969.50ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -106.25000000

Coordinates are relative to: North Alamito Unit 312H
 Coordinate System is US State Plane 1983, New Mexico Central Zone
 Grid Convergence at Surface is: -0.780°

Separation Factor Plot



LEGEND

- FederaBL#002.Orig.Hole.hconj.survey.v0
- SChaozUnit908 H.Original.Hole.Surveys.Original.Hole.V0
- North Alamito Unit232H.Orig.Hole.MWD.survey.v0
- FederaBL#005.Orig.Hole.hconj.v0
- SChaozUnit345 H.Original.Hole.Surveys.Original.Hole.V0
- North Alamito Unit301H.Original.Hole.rev1.V0
- FederaBL#003.Orig.Hole.hconj.survey.v0
- FederaBL#006.Orig.Hole.hconj.v0
- SChaozUnit340 H.Original.Hole.Surveys.Original.Hole.V0
- North Alamito Unit563H.Original.Hole.rev0.V0
- North Alamito Unit2334.Orig.Hole.MWD.survey.v0
- North Alamito Unit311 H.Original.Hole.rev1.V0
- SChaozUnit339 H.Original.Hole.Surveys.Original.Hole.V0
- North Alamito Unit562H.Original.Hole.rev0.V0
- North Alamito Unit2004H.Original.Hole.rev1.V0
- SChaozUnit344 H.Original.Hole.Surveys.Original.Hole.V0

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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
#312H N ALAMITO UNIT
Lease: NMNM 058878 Unit: NMNM 135229A
SH: SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 28, T. 23 N., R. 7 W.
Sandoval County, New Mexico
BH: SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 3, T.22 N., R. 7 W.
San Juan County, New Mexico
***Above Data Required on Well Sign**

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

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

- A. Note all surface/drilling conditions of approval attached.
- B. The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated
- C. Test all casing strings below the conductor casing to .22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield (burst) for a minimum of 30 minutes. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.
- D. Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the Bureau of Land Management, New Mexico State Office, Reservoir Management Group, 301 Dinosaur Trail, Santa Fe, New Mexico 87508.
The effective date of the agreement must be **prior** to any sales.
- E. The use of co-flex hose is authorized contingent upon the following:
1. From the BOP to the choke manifold: the co-flex hose must be hobbled on both ends and saddle to prevent whip.
 2. From the choke manifold to the discharge tank: the co-flex hoses must be as straight as practical, hobbled on both ends and anchored to prevent whip.
 3. The co-flex hose pressure rating must be at least commensurate with approved BOPE.

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

I. GENERAL

- A. Full compliance with all applicable laws and regulations, with the approved Permit to drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors. Failure to comply with these requirements and the filing of required reports will result in strict enforcement pursuant to 43 CFR 3163.1 or 3163.2.
- B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).
- C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.
- D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-Field Office, weekly from the spud date until the well is completed and the Well Completion Report is filed. The report should be on 8-1/2 x 11 inch paper, and each page should identify the well by; operator's name, well number, location and lease number.
- E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).
- F. BOP equipment (except the annular preventer) shall be tested utilizing a test plug to full working pressure for 10 minutes. No bleed-off of pressure is acceptable. (See 43 CFR 3172.6(b)(9)(ii)).
- G. The operator shall have sufficient weighting materials and lost circulation materials on location in the event of a pressure kick or in the event of lost circulation. (See 43 CFR 3172.8(a)).
- H. The flare line(s) discharge shall be located not less than 100 feet from the well head, having straight lines unless turns are targeted with running tees, and shall be positioned downwind of the prevailing wind direction and shall be anchored. The flare system shall have an effective method for ignition. Where noncombustible gas is likely or expected to be vented, the system shall be provided supplemental fuel for ignition and to maintain a continuous flare. (See 43 CFR 3172.8(b)(7)).
- I. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a Notice of Intent sundry within three business days. **Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours at 505-564-7600. Emergency program changes after hours should be directed to Virgil Lucero at 505-793-1836.**
- J. **The Inspection and Enforcement Section (I&E), phone number (505-564-7750) is to be notified at least 24 hours in advance of BOP test, spudding, cementing, or plugging operations so that a BLM representative may witness the operations.**

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

II. REPORTING REQUIREMENTS

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

III. DRILLER'S LOG

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

IV. GAS FLARING

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

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

V. SAFETY

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

VI. CHANGE OF PLANS OR ABANDONMENT

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

VII. PHONE NUMBERS

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

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

General Information
Phone: (505) 629-6116

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

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

ACKNOWLEDGMENTS

Action 545082

ACKNOWLEDGMENTS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 545082
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
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Energy, Minerals and Natural Resources
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CONDITIONS

Action 545082

CONDITIONS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 545082
	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.	1/21/2026
scrues76	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	1/21/2026
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	3/30/2026
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	3/30/2026
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.	3/30/2026
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.	3/30/2026
ward.rikala	If the method of isolation was not by circulation, a CBL must be performed; if strata isolation is not achieved, then remediation will be required before further operations.	3/30/2026