Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone 2. Name of Operator 9. API Well No. 30-025-54879 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13. State 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 23. Estimated duration 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above) 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 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



INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

0. SHL: SESW / 227 FSL / 2578 FWL / TWSP: 20S / RANGE: 33E / SECTION: 25 / LAT: 32.537478 / LONG: -103.616978 (TVD: 0 feet, MD: 0 feet) PPP: SESW / 100 FSL / 2100 FWL / TWSP: 20S / RANGE: 33E / SECTION: 25 / LAT: 32.537131 / LONG: -103.61853 (TVD: 10010 feet, MD: 10400 feet) BHL: NENW / 100 FNL / 2100 FWL / TWSP: 20S / RANGE: 33E / SECTION: 24 / LAT: 32.565612 / LONG: -103.618527 (TVD: 10010 feet, MD: 20200 feet)

BLM Point of Contact

Name: JANET D ESTES Title: ADJUDICATOR Phone: (575) 234-6233

Email: JESTES@BLM.GOV

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

Eileen 25 FED COM 142H

APD - Geology COAs (Potash or WIPP)

- For at least one well per pad (deepest well within initial development preferred) the record of the drilling rate (ROP) along with the Gamma Ray (GR) and Neutron (CNL) well logs run from TVD to surface in the vertical section of the hole shall be submitted to the BLM office as well as all other logs run on the full borehole 30 days from completion. Any other logs run on the wellbore, excluding cement remediation, should also be sent. Only digital copies of the logs in .TIF or .LAS formats are necessary; paper logs are no longer required. Logs shall be emailed to blm-cfo-geology@doimspp.onmicrosoft.com. Well completion report should have .pdf copies of any CBLs or Temp Logs run on the wellbore.
- Exceptions: In areas where there is extensive log coverage (in particular the salt zone
 adjacent to a pad), Operators are encouraged to contact BLM Geologists to discuss if
 additional GR and N logs are necessary on a pad. Operator may request a waiver of the GR
 and N log requirement due to good well control or other reasons to be approved by BLM
 Geologist prior to well completion. A waiver approved by BLM must be attached to
 completion well report to satisfy COAs.
- The top of the Rustler, top and bottom of the Salt, and the top of the Capitan Reef (if present) are to be recorded on the Completion Report.
- H2S has been reported within one mile of the proposed project. Measurements up to 300 ppm were recorded from the Delaware Group, Morrow, and Wildcat. <u>Drilling COAs within Known Potash Leasing Area:</u>

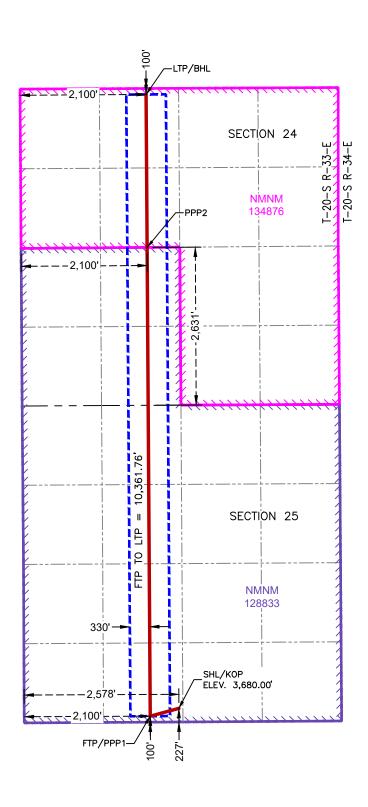
Any oil and gas well operator within the KPLA must notify both potash operators as soon as possible if any of the following conditions are encountered during oil and gas operations: (1) Indication of any well collision event, (2) Suspected well fluid flow (oil, gas, or produced water) outside of casing, (3) Sustained annulus pressure between the 1st intermediate and next innermost casing string in excess of 500 psi above the baseline pressure of the well, or above 1500 psi total, (4) Increasing pressure buildup rates (psi/day) across multiple successive bleed-off cycles on the annulus between the 1st intermediate and next innermost casing during well production, or (5) Sustained losses in excess of 50% through the salt interval during drilling.

	2 Electronically Permitting	у	En		nerals & Nat	ew Mexico ural Resources Dep TION DIVISION	artment		☑ Initial Su	Revised July 9, 2024 Jobmittal
								Submittal Type:	☐ Amende	ed Report
								. 7 - 1	☐ As Drille	ed
,			.		WELL LOCAT	TION INFORMATION				
		25-54879	Pool Code	7895		Pool Name WC-025	G-08 S21	3304D; E	Bone Spri	ng
Propert	ty Code 33	36504	Property N	ame	FILEE	N 25 FED COM			Well Numb	er 142H
OGRID	No. 37216		Operator N			URCES OPERATING			-	vel Elevation , 680.00'
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UL	Section	Township	Range	Lot	Surfa	Ft. from E/W	Latitude	117	ongitude	County
N N	25	20S	33E	LOI	227' FSL	2,578' FWL	32.5374		03.616978°	LEA
		-**				m Hole Location				
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Lo	ongitude	County
С	24	208	33E		100' FNL	2,100' FWL	32.5656	612° -10	03.618527°	LEA
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Dedicat 320	ted Acres	Infill or Defin	ing Well	Defining	j Well API	Overlapping Spacing	g Unit (Y/N)	Consolidat	tion Code	
Order N	Numbers.	•				Well setbacks are เ	under Commo	on Ownersh	nip: ⊠Yes □I	No
					Kick C	Off Point (KOP)				
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Lo	ongitude	County
N	25	208	33E		227' FSL	2,578' FWL	32.5374	478° -1	03.616978°	LEA
			1		First T	ake Point (FTP)	1	<u> </u>		
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude		ongitude	County
N	25	20S	33E		100' FSL	2,100' FWL	32.537	131° -1	03.618530°	LEA
UL	Section	Township	Range	Lot	Last T	ake Point (LTP) Ft. from E/W	Latitude	117	ongitude	County
C	24	208	33E	Lot	100' FNL	2,100' FWL	32.5656		03.618527°	LEA
			002		100 1 112		02.000			
Unitize	d Area or A	rea of Uniform	Interest	Spacing	յ Unit Type ဩ H	orizontal □ Vertical	Groui	nd Floor Ele	evation:	
OPERA	ATOR CER	TIFICATIONS				SURVEYOR CERTIF	ICATIONS			
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ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



SURFACE HOLE LOCATION & KICK-OFF POINT 227' FSL & 2,578' FWL ELEV. = 3,680.00'

NAD 83 X = 762,096.26' NAD 83 Y = 560,007.48' NAD 83 LAT = 32.537478° NAD 83 LONG = -103.616978° NAD 27 X = 720,915.12' NAD 27 Y = 559,945.40' NAD 27 LAT = 32.537355° NAD 27 LONG = -103.616488°

FIRST TAKE POINT & PENETRATION POINT 1 100' FSL & 2,100' FWL

NAD 83 X = 761,618.99' NAD 83 Y = 559,878.04' NAD 83 LAT = 32.537131° NAD 83 LONG = -103.618530° NAD 27 X = 720,437.85' NAD 27 Y = 559,815.97' NAD 27 LAT = 32.537008° NAD 27 LONG = -103.618039°

PENETRATION POINT 2 2,631' FSL & 2,100' FWL

NAD 83 X = 761,567.12' NAD 83 Y = 567,690.33' NAD 83 LAT = 32.558605° NAD 83 LONG = -103.618528° NAD 27 X = 720,386.21' NAD 27 Y = 567,628.03' NAD 27 LAT = 32.558482° NAD 27 LONG = -103.618036°

LAST TAKE POINT & BOTTOM HOLE LOCATION 100' FNL & 2,100' FWL

NAD 83 X = 761,550.27' NAD 83 Y = 570,239.57' NAD 83 LAT = 32.565612° NAD 83 LONG = -103.618527° NAD 27 X = 720,369.43' NAD 27 Y = 570,177.19' NAD 27 LAT = 32.565489° NAD 27 LONG = -103.618035°

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: Permian Resources
WELL NAME & NO.: Eileen 25 Fed Com 142H
LOCATION: Sec. 36-20S-22E-NMP
COUNTY: Lea County, New Mexico

COA

H_2S	•	No	0	Yes
Potash /	None	Secretary	⊙ R-111-Q	☐ Open Annulus
WIPP	4-String Design: Ope	en 2nd Int x Production Ca Zone)	asing (ICP 2 above R	elief
Cave / Karst	• Low	Medium	C High	Critical
Wellhead	Conventional	• Multibowl	O Both	O Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	□ DV Tool
Special Req	Capitan Reef	☐ Water Disposal	▼ COM	Unit
Waste Prev.	C Self-Certification	• Waste Min. Plan	C APD Submitted p	prior to 06/10/2024
Additional	▼ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	Break Testing
Language	Four-String	Offline Cementing	☐ Fluid-Filled	

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

APD is within the R-111-Q defined boundary. Operator must follow all procedures and requirements listed within the updated order.

B. CASING

- 1. The **13-3/8** inch surface casing shall be set at approximately **1600** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. *Set depth adjusted per BLM geologist*.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic-type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 10-3/4 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.
 - ❖ Special Capitan Reef requirements: Ensure FW based mud used across the Capitan interval
- 3. The minimum required fill of cement behind the 8-5/8 inch intermediate casing (set at 5520' per BLM geologist) is:
 - Cement should tie-back 500 feet or 50 feet on top of the Capitan Reef, whichever is closer to surface into the previous casing but not higher than USGS Marker Bed No. 126. Operator must verify top of cement per R-111-Q requirements. Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.
- 4. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back 500 feet or 50 feet on top of the Capitan Reef, whichever is closer to surface into the previous casing but not higher than USGS Marker Bed No. 126. Operator must verify top of cement per R-111-Q requirements. Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.

C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
- 2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000** (**5M**) psi. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 2nd intermediate casing shoe shall be **10,000** (**10M**) psi.

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR 3172.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Offline Cementing

Contact the BLM prior to the commencement of any offline cementing procedure.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Contact Lea County Petroleum Engineering Inspection Staff:

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - i. Notify the BLM when moving in and removing the Spudder Rig.
 - ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2nd Rig is rigged up on well
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. <u>Wait on cement (WOC) for Potash Areas:</u> After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following

- conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - iii. Manufacturer representative shall install the test plug for the initial BOP test.
 - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
 - v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

NAME: STEPHANIE RABADIJE

Operator Certification Data Report 04/29/2025

Signed on: 01/29/2025

Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

TAME: OTEL HAME KAD	ADOL	Oigilea Oii. 01/20/2020
Title: Regulatory Manager		
Street Address: 300 N M	ARIENFELD ST STE 1000	
City: MIDLAND	State: TX	Zip: 79701
Phone: (432)695-1115		
Email address: STEPHAN	NIE.RABADUE@PERMIANRES.CO	M
Field		
Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Application Data

APD ID: 10400103469 Submission Date: 01/29/2025

Operator Name: PERMIAN RESOURCES OPERATING LLC

Well Name: EILEEN 25 FED COM Well Number: 142H

Well Type: OIL WELL Well Work Type: Drill Highlighted data reflects the most recent changes **Show Final Text**

Section 1 - General

APD ID: 10400103469 Tie to previous NOS? Submission Date: 01/29/2025

BLM Office: Carlsbad **User: STEPHANIE RABADUE** Title: Regulatory Manager

Federal/Indian APD: FED Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM128833 Lease Acres:

Surface access agreement in place? Allotted? Reservation:

Agreement in place? NO Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? N

Permitting Agent? NO APD Operator: PERMIAN RESOURCES OPERATING LLC

Operator letter of

Operator Info

Operator Organization Name: PERMIAN RESOURCES OPERATING LLC

Operator Address: 300 N MARIENFELD ST SUITE 1000

Operator PO Box:

Operator City: MIDLAND State: TX

Operator Phone: (432)695-4222

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO Master SUPO name:

Well in Master Drilling Plan? NO Master Drilling Plan name:

Well Name: EILEEN 25 FED COM Well Number: 142H Well API Number:

Field/Pool or Exploratory? Field and Pool Field Name: WC-025 G-08 Pool Name: Bone Spring

S213304D

Zip: 79701

Page 1 of 3

Well Name: EILEEN 25 FED COM Well Number: 142H

Is the proposed well in an area containing other mineral resources? USEABLE WATER, NATURAL GAS, OIL, POTASH

Is the proposed well in a Helium production area? N Use Existing Well Pad? Y New surface disturbance? Y

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: Eileen Number: 1
25 Fed

Well Class: HORIZONTAL Number of Legs: 1

Well Work Type: Drill
Well Type: OIL WELL

Describe Well Type:

Well sub-Type: DELINEATION

Describe sub-type:

Distance to town: Distance to nearest well: 15 FT Distance to lease line: 227 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Eileen_25_Fed_Com_142H_C102_20250129072742.pdf

Well work start Date: 07/01/2025 Duration: 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 Vertical Datum: NAVD88

Survey number: Reference Datum: GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	DVT	Will this well produce from this
SHL Leg #1	227	FSL	257 8	FW L	20S	33E	25	Aliquot SESW	32.53747 8	- 103.6169 78	LEA	NEW MEXI CO		F	NMNM 128833	368 0	0	0	Y
KOP Leg #1	227	FSL	257 8	FW L	20S	33E			32.53747 8	- 103.6169 78	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 128833	168 0	200 0	200 0	Y
PPP Leg #1-1	100	FSL	210 0	FW L	20S	33E		Aliquot SESW	32.53713 1	- 103.6185 3	LEA	1	NEW MEXI CO	F	NMNM 128833	- 633 0	104 00	100 10	Υ

Well Name: EILEEN 25 FED COM Well Number: 142H

Wellbore	NS-Foot	Indicator	EW-Foot	Indicator	a	ЭĜ	tion	Aliquot/Lot/Tract	Latitude	Longitude	nty	Φ	Meridian	- Type	se Number	Elevation			Will this well produce from this
Wel	-SN	SN	EW.	ΕW	Twsp	Range	Section	Aliq	Latii	Lon	County	State	Mer	Lease	Lease	Elev	M	TVD	Will
EXIT Leg #1	100	FNL	210 0	FW L	20S	33E		Aliquot NENW	32.56561 2	- 103.6185 27	LEA	NEW MEXI CO		F	NMNM 134876	- 633 0	202 00	100 10	Y
BHL Leg #1	100	FNL	210 0	FW L	20S	33E		Aliquot NENW	32.56561 2	- 103.6185 27	LEA	NEW MEXI CO	' ' - ' '	F	NMNM 134876	- 633 0	202 00	100 10	Y



APD ID: 10400103469

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

Submission Date: 01/29/2025

Operator Name: PERMIAN RESOURCES OPERATING LLC

Well Name: EILEEN 25 FED COM Well Number: 142H

Well Type: OIL WELL Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
15511733	QUATERNARY	3680	0	0	ALLUVIUM	USEABLE WATER	N
15511734	RUSTLER	2142	1538	1538	ANHYDRITE, SANDSTONE	USEABLE WATER	N
15511735	TOP OF SALT	1840	1840	1840	SALT	POTASH	N
15511736	YATES	328	3352	3352	ANHYDRITE, SHALE	CO2, NATURAL GAS, OIL	N
15511737	CAPITAN REEF	70	3610	3610	SANDSTONE	USEABLE WATER	N
15511738	DELAWARE SAND	-2057	5737	5737	SANDSTONE	NATURAL GAS, OIL	N
15511739	BRUSHY CANYON	-2825	6505	6505	SANDSTONE	NATURAL GAS, OIL	N
15511740	BONE SPRING	-4953	8633	8633	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	N
15511744	BONE SPRING 1ST	-5982	9662	9662	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M Rating Depth: 10010

Equipment: BOPE will meet all requirements for above listed system per 43 CFR 3172. BOPE with working pressure ratings in excess of anticipated maximum surface pressure will be utilized for well control from drill out of surface casing to TMD. The system may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all of the components installed will be functional, tested, and will meet all requirements per 43 CFR 3172. The wellhead will be a multibowl speed head allowing for hangoff of intermediate casing of the surface x intermediate annulus without breaking the connection between the BOP & wellhead. A variance is requested to utilize a flexible choke line (flexhose) from the BOP to choke manifold.

Requesting Variance? YES

Variance request: Multibowl Wellhead, Flexhose, Breaktesting, Offline Cementing Variances. Attachments in Section 8.

Testing Procedure: Operator requests to ONLY test broken pressure seals per API Standard 53 and the attachments in Section 8. The BOP test shall be performed before drilling out of the surface casing shoe and will occur at a minimum: a. when initially installed, b. whenever any seal subject to test pressure is broken, c.

Well Name: EILEEN 25 FED COM Well Number: 142H

following related repairs, d. at 21-day intervals. Testing of the ram type preventer(s) and annual type preventer(s) shall be tested per 43 CFR 3172. The BOPE configuration, choke manifold layout, and accumulator system will be in compliance with 43 CFR 3172. Bleed lines will discharge 100' from wellhead in non-H2S scenarios and 150' from wellhead in H2S scenarios.

Choke Diagram Attachment:

Eileen_25_Fed_Com_5M_CM_20240626042128.pdf

BOP Diagram Attachment:

Eileen_25_Fed_Com_5M_BOP_20240626042151.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1563	0	1563	3680	2117	1563	J-55	54	BUTT	1.46	1.93	DRY	4.91	DRY	4.61
2	INTERMED IATE	12.2 5	10.75	NEW	API	N	0	3377	0	3377	3671	303	3377	J-55	45.5	BUTT	6.61	3.6	DRY	4.19	DRY	4.1
3	INTERMED IATE	9.87 5	8.625	NEW	NON API	N	0	5687	0	5687	3671	-2007	5687	HCL -80	-	OTHER - MO-FXL	4.52	1.36	DRY	1.79	DRY	1.79
4	PRODUCTI ON	7.87 5	5.5	NEW	NON API	N	0	20200	0	10010	3671	-6330	20200	P- 110	-	OTHER - GeoConn	2.13	2.23	DRY	2.14	DRY	2.14

Casing Attachments

Casing ID: 1 String SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

EILEEN_25_FED_COM_142H_Csg_20250129072457.pdf

Well Name: EILEEN 25 FED COM Well Number: 142H

Casing Attachments

Casing ID: 2 String

INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

EILEEN_25_FED_COM_142H_Csg_20250129072541.pdf

Casing ID: 3

String

INTERMEDIATE

Inspection Document:

Spec Document:

Eileen_25_Fed_Com_MOFXL_20240626053414.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

EILEEN_25_FED_COM_142H_Csg_20250129072507.pdf

Casing ID: 4

String

PRODUCTION

Inspection Document:

Spec Document:

 $Eileen_25_Fed_Com_GeoConn_20240626053504.pdf$

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

EILEEN_25_FED_COM_142H_Csg_20250129072515.pdf

Section 4 - Cement

Well Name: EILEEN 25 FED COM Well Number: 142H

String Type	Lead/Tail	Stage Tool Depth	Тор МD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1563	1220	1.34	14.8	1630	50	Class C	Accelerator

INTERMEDIATE	Lead	0	2700	380	1.88	12.9	700	50	Class C	EconoCem-HLC + 5% Salt + 5% Kol-Seal
INTERMEDIATE	Tail	2700	3377	150	1.34	14.8	200	50	Class C	Retarder
INTERMEDIATE	Lead	0	4540	370	1.88	12.9	680	50	Class C	EconoCem-HLC + 5% Salt + 5% Kol-Seal
INTERMEDIATE	Tail	4540	5687	150	1.33	14.8	190	25	Class C	Salt
PRODUCTION	Lead	6187	9575	403	2.41	11.5	971	30	Class H	POZ, Extender, Fluid Loss, Dispersant, Retarder
PRODUCTION	Tail	9575	2020 0	1391	1.73	12.5	2406	30	Class H	POZ, Extender, Fluid Loss, Dispersant, Retarder

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with 43 CFR 3172:

Diagram of the equipment for the circulating system in accordance with 43 CFR 3172:

Describe what will be on location to control well or mitigate other conditions: Sufficient quantities of mud materials will be on the well site at all times for the purpose of assuring well control and maintaining wellbore integrity. Surface interval will employ fresh water mud. The intermediate hole will utilize a saturated brine fluid to inhibit salt washout. The production hole will employ brine based and oil base fluid to inhibit formation reactivity and of the appropriate density to maintain well control.

Describe the mud monitoring system utilized: Centrifuge separation system. Open tank monitoring with EDR will be used for drilling fluids and return volumes. Open tank monitoring will be used for cement and cuttings return volumes. Mud properties will be monitored at least every 24 hours using industry accepted mud check practices.

Circulating Medium Table

Well Name: EILEEN 25 FED COM Well Number: 142H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1563	SPUD MUD	8.6	9.5							
1563	3377	SALT SATURATED	10	10							
3377	5687	OTHER : Fresh Water	8.6	9.5							
5687	2020 0	OTHER : Brine, Oil Based Mud	9	10							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will utilize MWD/LWD from intermediate hole to TD of the well.

List of open and cased hole logs run in the well:

DIRECTIONAL SURVEY,

Coring operation description for the well:

No Coring is Planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5210 Anticipated Surface Pressure: 3007

Anticipated Bottom Hole Temperature(F): 156

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Eileen_25_Fed_Com_H2S_Plan_20240626043659.pdf

Well Name: EILEEN 25 FED COM Well Number: 142H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

EILEEN_25_FED_COM_142H_DD_20250129072637.pdf EILEEN_25_FED_COM_142H_AC_20250129072637.pdf

Other proposed operations facets description:

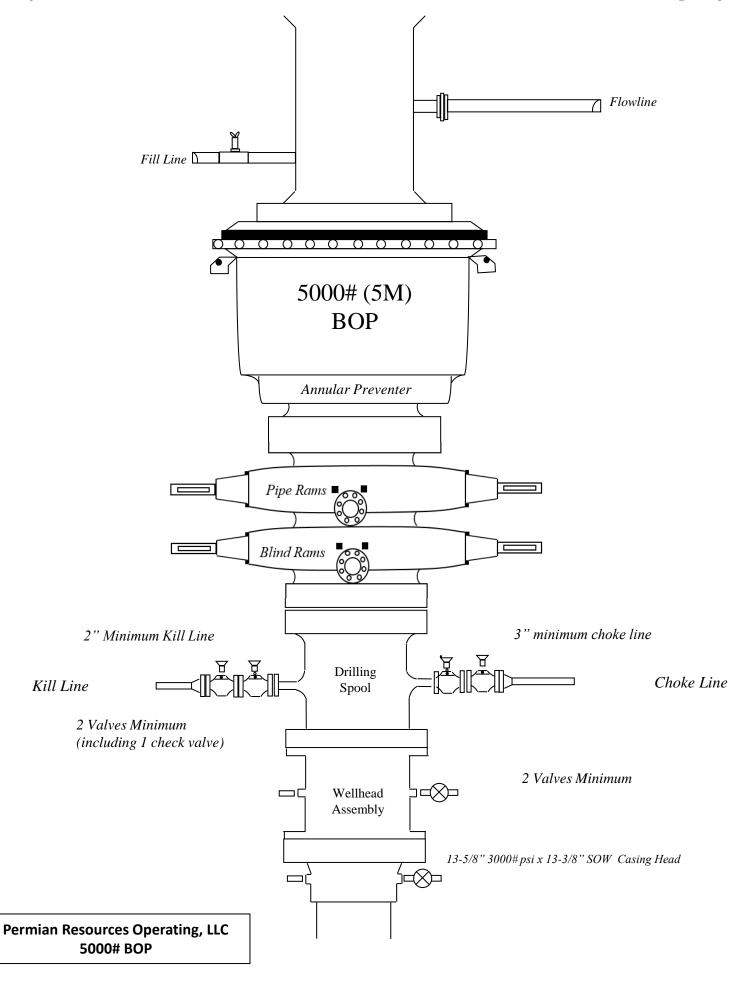
Waste Management Plan, R-111-Q Drilling Design

Other proposed operations facets attachment:

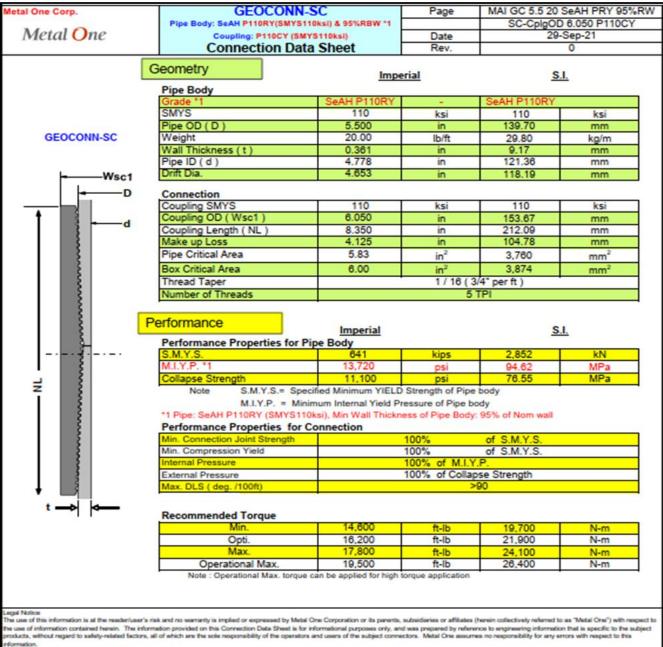
Eileen_25_Fed_Com_NGMP_20250129064123.pdf Eileen_25_Fed_Com_R111Q_20240626053901.pdf

Other Variance attachment:

Eileen_25_Fed_Com_BOP_Break_20240626043747.pdf
Eileen_25_Fed_Com_Batch_20240626043747.pdf
Eileen_25_Fed_Com_FH_20240626043747.pdf
Eileen_25_Fed_Com_MBS_20240626043747.pdf
Eileen_25_Fed_Com_OLCV_20240626043747.pdf



Metal One Corp.	MO-FXL			MO-FXL 8	
			CDS#	P110H	
Metal One	*1 Pipe Body: BMP P110HSC	Y MinYS125ksi	0.0	MinYS1	
	Min95%WT			Min959	
	Connection Data	Sheet	Date	8-Sep)-21
	Geometry	Imperia	a <u>l</u>	<u>S.I.</u>	
8	Pipe Body				
	Grade *1	P110HSCY		P110HSCY	
	MinYS *1	125	ksi	125	ksi
NO EVI	Pipe OD (D)	8 5/8	in	219.08	mm
MO-FXL	Weight	32.00	lb/ft	47.68	kg/m
	Actual weight	31.10	1	46.34	kg/m
	Wall Thickness (t)	0.352	in	8.94	mm
	Pipe ID (d)	7.921	in	201.19	mm
	Pipe body cross section	9.149	in ²	5,902	mm ²
	Drift Dia.	7.796	in	198.02	mm
	-	-	-	-	-
	Connection				
<u> </u>	Box OD (W)	8.625	in	219.08	mm
	PIN ID	7.921	in	201.19	mm
	Make up Loss	3.847	in	97.71	mm
Box	Box Critical Area	5.853	in ²	3686	mm ²
critical	Joint load efficiency	69	%	69	%
	Thread Taper			2" per ft)	,,,
	Number of Threads			TPI	17
Make up loss D	Performance Performance Properties	for Pipe Body			
	S.M.Y.S. *1	1,144	kips	5,087	kN
Pin	M.I.Y.P. *1	9,690	psi	66.83	MPa
critical	Collapse Strength *1	4,300	psi	29.66	MPa
area	Note S.M.Y.S.= Specif				
	M.I.Y.P. = Minim				
	*1: BMP P110HSCY: MinYS			apse Strength 4,	300psi
	Performance Properties				
<u> </u>	Tensile Yield load	789 kips		of S.M.Y.S.)	
	Min. Compression Yield	789 kips		of S.M.Y.S.)	
	Internal Pressure	6,780 psi		of M.I.Y.P.)	
	External Pressure			of Collapse St	rength
	Max. DLS (deg. /100ft)			9	
	Recommended Torque				
	Min.	13,600	ft-lb	18,400	N-m
	Opti.	14,900	ft-lb	20,200	N-m
	Max.	16,200	ft-lb	21,900	N-m
	Operational Max.	28,400	ft-lb	38,500	N-m
ă.	Note : Operational Max. to				
	The Committee of the	14 Tomas 1 To 25 To	1 11/18	W. C. (1984) V. (1985)	



atements regarding the suitability of products for certain types of applications are based on Metal One's knowledge of typical requirements that are often placed on Metal One products in standard well configurations. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product appellication is suitable for use in a particular application.

The products described in this Connection Data Sheet are not recommended for use in deep value offshore applications. For more information, please refer to <a href="http://www.mtin.co.in/html//www.mtin.

String	Hole Size	Casing Size	Тор	Bottom	Тор ТУБ	Bottom TVD	Length	Grade	Weight	Connection	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
Surface	17.5	13.375	0	1563	0	1563	1563	J55	54.5	BTC	1.46	1.93	Dry	4.91	Dry	4.61
Intermediate 1	12.25	10.75	0	3377	0	3377	3377	J55	45.5	BTCSCC	6.61	3.60	Dry	4.19	Dry	4.10
Intermediate 2	9.875	8.625	0	5687	0	5687	5687	HCL-80	32	MO-FXL	4.91	1.41	Dry	1.79	Dry	2.60
Production	7.875	5.5	0	20200	0	10010	20200	P110RY	20	GeoConn	2.13	2.23	Dry	2.14	Dry	2.14
						•		BLM Mi	ty Factor	1.125	1		1.6		1.6	

String	Hole Size	Casing Size	Тор	Bottom	Top TVD	Bottom TVD	Length	Grade	Weight	Connection	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
Surface	17.5	13.375	0	1563	0	1563	1563	J55	54.5	BTC	1.46	1.93	Dry	4.91	Dry	4.61
Intermediate 1	12.25	10.75	0	3377	0	3377	3377	J55	45.5	BTCSCC	6.61	3.60	Dry	4.19	Dry	4.10
Intermediate 2	9.875	8.625	0	5687	0	5687	5687	HCL-80	32	MO-FXL	4.91	1.41	Dry	1.79	Dry	2.60
Production	7.875	5.5	0	20200	0	10010	20200	P110RY	20	GeoConn	2.13	2.23	Dry	2.14	Dry	2.14
								BLM Mi	n Safe	ty Factor	1.125	1		1.6		1.6

String	Hole Size	Casing Size	Тор	Bottom	Тор ТУБ	Bottom TVD	Length	Grade	Weight	Connection	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
Surface	17.5	13.375	0	1563	0	1563	1563	J55	54.5	BTC	1.46	1.93	Dry	4.91	Dry	4.61
Intermediate 1	12.25	10.75	0	3377	0	3377	3377	J55	45.5	BTCSCC	6.61	3.60	Dry	4.19	Dry	4.10
Intermediate 2	9.875	8.625	0	5687	0	5687	5687	HCL-80	32	MO-FXL	4.91	1.41	Dry	1.79	Dry	2.60
Production	7.875	5.5	0	20200	0	10010	20200	P110RY	20	GeoConn	2.13	2.23	Dry	2.14	Dry	2.14
								BLM Mi	n Safe	ty Factor	1.125	1		1.6		1.6

String	Hole Size	Casing Size	Тор	Bottom	Top TVD	Bottom TVD	Length	Grade	Weight	Connection	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
Surface	17.5	13.375	0	1563	0	1563	1563	J55	54.5	BTC	1.46	1.93	Dry	4.91	Dry	4.61
Intermediate 1	12.25	10.75	0	3377	0	3377	3377	J55	45.5	BTCSCC	6.61	3.60	Dry	4.19	Dry	4.10
Intermediate 2	9.875	8.625	0	5687	0	5687	5687	HCL-80	32	MO-FXL	4.91	1.41	Dry	1.79	Dry	2.60
Production	7.875	5.5	0	20200	0	10010	20200	P110RY	20	GeoConn	2.13	2.23	Dry	2.14	Dry	2.14
								BLM Mi	n Safe	ty Factor	1.125	1		1.6		1.6

PERMIAN RESOURCES

H₂S CONTINGENCY PLAN

FOR

Permian Resources Corporation
Eileen 25 Fed Com CTB
Lea County, New Mexico

06-18-2024
This plan is subject to updating

Permian Resources Corporation H₂S Contingency Plan Lea County, New Mexico Eileen 25 Fed Com CTB

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Section 1.0 - Introduction

I. Purpose

The purpose of this contingency plan (Plan) is to provide Permian Resources Corporation. (Permian Resources) with an organized plan of action for alerting and protecting Permian Resources employees, the general public, and any potential first responders prior to any intentional release or immediately following the accidental / unintentional release of a potentially hazardous volume / concentration of Hydrogen Sulfide Gas (H2S).

II. Scope & Applicability

This Plan applies to all planned, unplanned, uncontrolled and/or unauthorized releases of hazardous concentrations of H_2S or any associated hazardous byproducts of combustion, occurring at any Permian Resources owned or operated facilities including but not limited to: wells, flowlines, pipelines, tank batteries, production facilities, SWD facilities, compressor stations, gas processing plants, drilling / completions / workover operations, and any other applicable company owned property.

Section 2.0 - Plan Implementation

I. Activation Requirements

In accordance with the requirements of Bureau of Land Management Onshore Order #6 and NMAC 19.15.11, this Plan shall be activated in advance of any authorized, planned, unplanned, uncontrolled, or unauthorized release of a hazardous volume / concentration of H₂S gas, or SO², which could potentially adversely impact the workers, general public or the environment.

II. Emergency Evacuation

In the event of an unplanned, uncontrolled, or unauthorized release of a hazardous volume / concentration of H_2S gas, the first priority is to ensure the safety of the workers and general public. Upon discovery and subsequent determination of an applicable release, which cannot be quickly mitigated, immediately by using 911, notify local authorities to begin the process of alerting the general public, evacuate any residents within the Radius of Exposure (ROE), and limit any general public or employee access to any areas within the ROE of the affected facility.

III. Emergency Response Activities

The purpose of emergency response actions is to take steps to quickly mitigate / stop the ongoing release of the hazardous source of H_2S . Upon discovery of any hazardous release, immediately notify Permian Resources management to activate the Emergency Response Team (ERT). Once Permian Resources supervision arrives and assesses the situation, a work plan identifying the proper procedures shall be developed to stop the release.

Section 3.0 - Potential Hazardous Conditions & Response Actions

During a planned or unplanned release of H_2S , there are several hazardous conditions that are presented both to employees, the general public, and emergency responders. These specific hazardous conditions are identified in the tables below.

H2S OPERATING CONDITIONS – RESPONSE ACTIONS TO CONSIDER	✓
H ₂ S CONDITION 1: POTENTIAL DANGER TO LIFE AND HEALTH -> WARNING SIGREEN	GN
H ₂ S concentration <10 ppm detected by location monitors	
General Actions During Condition 1	
Notify Site Supervisor / Permian Resources Person-in-Charge (PIC) of any observed increase in ambient H ₂ S concentrations	
All personnel check safety equipment is in adequate working order & store in accessible location	
Sensitize crews with safety meetings.	
Limit visitors and non-essential personnel on location	
Continuously monitor H ₂ S concentrations and check calibration of sensors	
Ensure H ₂ S scavenger is on location.	
H ₂ S CONDITION 2: MODERATE DANGER TO LIFE AND HEALTH → WARNING SIGN YELLOW	
H ₂ S concentration >10 ppm and < 30 ppm in atmosphere detected by location monitors:	
General Actions During Condition 2	
Sound H ₂ S alarm and/or display yellow flag.	
Account for on-site personnel	
Upon sounding of an area or personal H ₂ S monitor alarm when 10 ppm is reached, proceed to a safe briefing area upwind of the location immediately (see MA-4 , Figure 5-1).	
Don proper respiratory protection.	
Alert other affected personnel	
<u>If trained and safe to do so</u> undertake measures to control source H2S discharge and eliminate possible ignition sources. Initiate Emergency Shutdown procedures as deemed necessary to correct or control the specific situation.	
Account for on-site personnel at safe briefing area.	
Stay in safe briefing area if not working to correct the situation.	
Keep Site Supervisor / Permian Resources PIC informed.	
Notify applicable government agencies (Appendix A) If off-site impact; notify any neighbors within Radius of Exposure (ROE), Fig 5.11	
Continuously monitor H ₂ S until readings below 10 ppm.	
Evacuated area shall not be re-entered except by trained and authorized personnel utilizing appropriate respiratory protection; or until "all clear" sounded by Permian Resources PIC / Site Supervisor.	

H₂S CONDITION 3: EXTREME DANGER TO LIFE AND HEALTH → WARNING SIGN RED	
$> 30 \ ppm \ H_2S$ concentration in air detected by location monitors: Extreme danger to life	
General Actions During Condition 3	
Sound H ₂ S alarm and/or display red flag.	
Account for on-site personnel	
Move away from H ₂ S source and get out of the affected area.	
Proceed to designated safe briefing area; alert other affected personnel.	
Account for personnel at safe briefing area.	
If trained and safe to do so undertake measures to control source H2S discharge and eliminate possible ignition sources. Initiate Emergency Shutdown procedures as deemed necessary to correct or control the specific situation.	
Notify vehicles or situation and divert all traffic away from location.	
Permian Resources Peron-in-Charge will make appropriate community notifications.	
Red warning flag must be on display until the situation has been corrected and the Permian Resources Person-in-Charge determines it is safe to resume operations under Condition 1.	
Notify management of the condition and action taken. If H ₂ S concentration is increasing and steps to correct the situation are not successful – or at any time if well control is questionable – alert all responsible parties for possible activation of the H ₂ S Contingency Plan. If well control at the surface is lost, determine if situation warrants igniting the well.	
If uncontrolled flow at the surface occurs, the Permian Resources PIC, with approval, if possible, from those coordinating the emergency (as specified in the site-specific H ₂ S Contingency Plan) are responsible for determining if the situation warrants igniting the flow of the uncontrolled well. This decision should be made only as a last resort and in a situation where it is obvious that human life is in danger and there is no hope of controlling the flow under prevailing conditions.	
If the flow is ignited, burning H ₂ S will be converted to sulfur dioxide (SO ₂), which is also highly toxic. Do not assume that area is safe after the flow is ignited. If the well is ignited, evacuation of the area is mandatory, because SO ₂ will remain in low-lying places under no-wind conditions.	
Keep Site Supervisor / Permian Resources PIC informed. Notify applicable government agencies and local law enforcement (Appendix A) If off-site impact; notify any neighbors within the Radius of Exposure (ROE), see example in Figure 5-11.	
Continuously monitor H ₂ S until readings fall below 10 ppm.	
Evacuated area shall not be re-entered except by trained and authorized personnel utilizing appropriate respiratory protection; or until "all clear" sounded by Permian Resources PIC / Site Supervisor.	
IF ABOVE ACTIONS CANNOT BE ACCOMPLISHED IN TIME TO PREVENT EXPOSURE TO THE PUBLIC	
Alert public (directly or through appropriate government agencies) who may be subject to potentially harmful exposure levels.	
Make recommendations to public officials regarding blocking unauthorized access to the unsafe area and assist as appropriate.	

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Make recommendations to public officials regarding evacuating the public and assist as appropriate.	
Monitor ambient air in the area of exposure (after following abatement measures) to determine when it is safe for re-entry.	

Section 4.0 - Notification of H₂S Release Event

I. Local & State Law Enforcement

Prior to the planned / controlled release of a hazardous concentration of H_2S gas or any associated byproducts of the combustion of H_2S gas, notify local law enforcement agencies regarding the contents of this plan.

In the event of the discovery of an unplanned/uncontrolled release of a hazardous concentration of H_2S gas or any associated byproducts of combustion, immediately notify local and/or state law enforcement agencies of the situation and ask for their assistance.

II. General Public

In the event of a planned or unplanned release of a hazardous concentration of H_2S gas or any associated byproducts of combustion, notify local law enforcement agencies and ask for their assistance in alerting the general public and limiting access to any public roads that may be impacted by such a release.

III. New Mexico Oil Conservation Division

The Permian Resources HSE Department will make any applicable notification to the New Mexico OCD regarding any release of a hazardous concentration of H₂S Gas or any associated byproducts of combustion.

IV. New Mexico Environment Department

The Permian Resources HSE Department will make any applicable notifications to the NMED regarding any release of a hazardous concentration of H_2S gas or any associated byproducts of combustion.

V. Bureau of Land Management

The Permian Resources Regulatory Department will make any applicable notifications to the BLM regarding any release of a hazardous concentration of H_2S gas or any associated byproducts of combustion.

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Section 5.0 - Emergency Contact List

EMERGENCY CONTACT LIST				
PERMIAN RESOURCES CORPORATION.				
POSITION	NAME	OFFICE	CELL	ALT PHONE
	Opera	tions		
Production Superintendent	Rick Lawson		432.530.3188	
TX Production Superintendent	Josh Graham	432.940.3191	432.940.3191	
NM Production Superintendent	Manual Mata	432.664.0278	575.408.0216	
Drilling Manager	Jason Fitzgerald	432.315.0146	318.347.3916	
Drilling Engineer	Parker Simmons	432.400.1038	281.536.9813	
Production Manager	Levi Harris	432.219.8568	720.261.4633	
SVP Development Ops	Clayton Smith	720.499.1416	361.215.2494	
SVP Production Ops	Casey McCain	432.695.4239	432.664.6140	
HSE & Regulatory				
H&S Manager	Adam Hicks	720.499.2377	903.426.4556	
Regulatory Manager	Stephanie Rabadue		432.260.4388	
Environmental Manager	Montgomery Floyd	432-315-0123	432-425-8321	
HSE Consultant	Blake Wisdom		918-323-2343	
l	Local, State, & Federal Agencies			
Lea County Sheriff		575-396-3611		911
New Mexico State Highway Patrol		505-757-2297		911
Eunice Fire / EMS		575-394-3258		911
Lea County Hospital		575-492-5000		
Secorp – Safety Contractor	Ricky Stephens		(325)-262-0707	
New Mexico Oil Conservation Division – District 1 Office – Hobbs, NM.		575-393-6161		
New Mexico Environment Department – District III Office – Hobbs, NM		575-397-6910		
New Mexico Oil Conservation Division – Hobbs, NM	24 Hour Emergency	575-393-6161		
Bureau of Land Management – Carlsbad, NM		575-706-2779		
Lea County PET Inspector		575-689-5981		
U.S. Fish & Wildlife		502-248-6911		

Section 6.0 – Drilling Location Information

I. Site Safety Information

1. Safe Briefing Area

a. There shall be two areas that will be designated as "SAFE BRIEFING AREAs". If H_2S is detected in concentrations equal to or in excess of 10 ppm all personnel not assigned emergency duties are to assemble in the designated Safe Briefing area for instructions. These two areas shall be positioned in accessible locations to facilitate the availability of self-contained breathing air devices. The briefing areas shall be positioned no less than 250' from the wellhead and in such locations that at least one briefing area will be upwind from the well at all times.

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2. Wind Indicators

a. 4 Windsocks will be installed at strategic points on the facility.

3. Danger Signs

a. A warning sign indicating the possible well conditions will be displayed at the location entrance.

DANGER POISONOUS GAS HYDROGEN SULFIDE DO NOT APPROACH IF AMBER LIGHTS ARE FLASHING

4. H₂S Detectors and Alarms

a. Continuous monitoring type H_2S detectors, capable of sensing a minimum of 5ppm H_2S in air will be located centrally located at the tanks, heater treater, and combustor. Continuous monitoring type SO_2 detector will also be located at the combustor. The automatic H_2S alarm/flashing light will be located at the site entrance and in front of tank battery.

5. <u>Safety Trailer</u>

a. A safety trailer equipped with an emergency cascade breathing air system with 2 ea. Work/escape packs, a stretcher, 2 OSHA approved full body harnesses, and a 20# Class ABC fire extinguisher shall be available at the site in close proximity to the safe briefing area. The cascade system shall be able to be deployed to the drill floor when needed to provide safe breathing air to the workers as needed.

6. Well Control Equipment

- a. The location shall have a flare line to a remote automatic ignitor and back up flare gun, placed 150' from the wellhead.
- b. The location shall be equipped with a remotely operated choke system and a mud gas separator.

7. Mud Program

a. Company shall have a mud program that contains sufficient weight and additives to control H_2S .

8. Metallurgy

a. All drill strings, casing, tubing, wellhead, BOP, spools, kill lines, choke manifold and lines, and valves shall be suitable for anticipated H₂S volume and pressure.

9. Communication

a. The location shall be equipped with a means of effective communication such as a cell phones, intercoms, satellite phones or landlines.

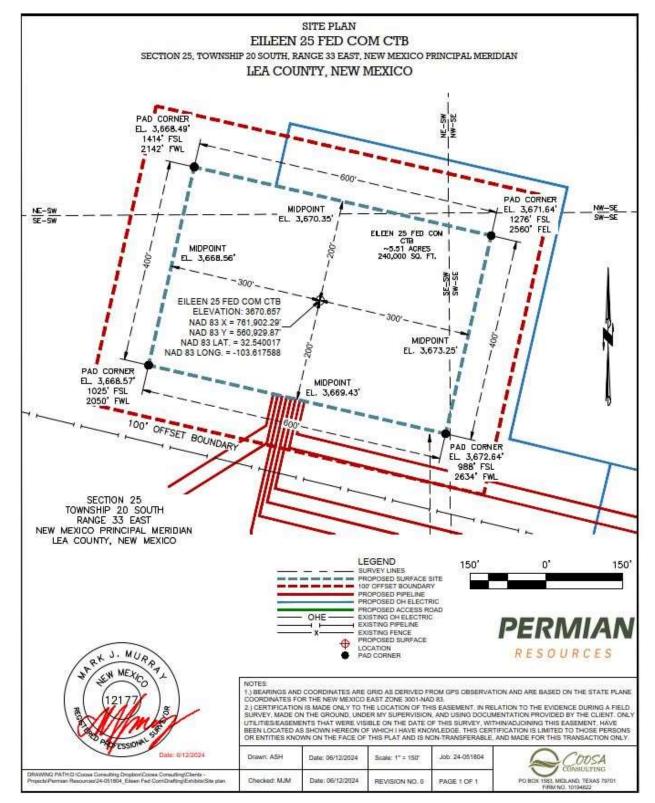
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II. Directions to Location

FROM THE INTERSECTION OF NM-207 AND NM-176 IN EUNICE, NEW MEXICO

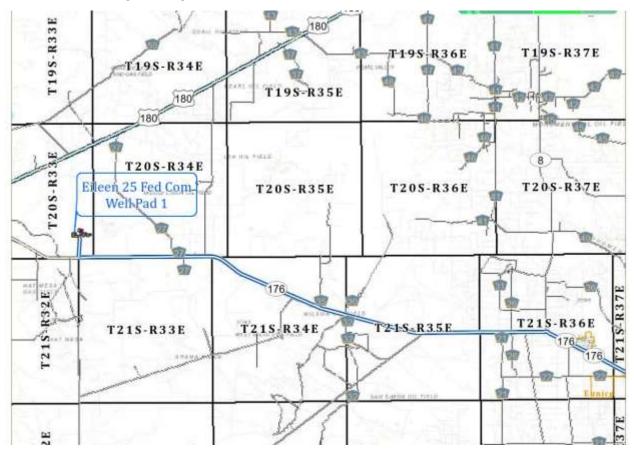
- 1. MOVE WEST ON NM-176 APPROX. 29 MILES.
- 2. TURN RIGHT ONTO LEASE ROAD AND MOVE NORTH APPROX.1 MILE.
- 3. TURN RIGHT AND MOVE EAST APPROX. 1000 FEET.
- 4. TUNR LEFT AND MOVE NORTH APPROX. 1200 FEET.

Plat of Location



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1. Routes of Ingress & Egress (MAP)



2. Residences in proximity to the 3000' Radius of Exposure (ROE) (MAP)

There are no residences or public gathering places with the 3000' ROE, 100 PPM, 300 PPM, or 500 PPM ROE.

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Map of 3000' ROE Perimeter



100 PPM, 300 PPM, & 500 PPM Max ROE under worst case scenario

Enter H₂S in PPM	1500	
Enter Gas flow in mcf/day (maximum worst case conditions)	2500	
500 ppm radius of exposure (public road)	<u>105</u>	feet
300 ppm radius of exposure	<u>146</u>	feet
100 ppm radius of exposure (public area)	<u>230</u>	feet

- Location NAD 83 GPS Coordinates Lat: 32.540017, Long: -103.617588
- 3. Public Roads in proximity of the Radius of Exposure (ROE)

There are no public roads that would be within the 500 PPM ROE. The closest public road is New Mexico Hwy 176, which is 1.2 miles from the location.

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Section 7.0 - Hazard Communication

I. Physical Characteristics of Hydrogen Sulfide Gas

Hydrogen sulfide (H_2S) is a colorless, poisonous gas that is soluble in water. It can be present in crude oils, condensates, natural gas and wastewater streams.

 H_2S is heavier than air with a vapor density of 1.189 (air = 1.0); however, H_2S is most often mixed with other gases. These mixtures of H_2S and other gases can be heavier or lighter than air. If the H_2S -containing mixture is heavier, it can collect in low areas such as ditches, ravines, firewalls, and pits; in storage tanks; and in areas of poor ventilation. Please see physical properties in **Table 7.0.**

With H₂S the sense of smell is rapidly lost allowing lethal concentrations to be accumulated without warning. The toxicity of hydrogen sulfide at varying concentrations is indicated in the **Table 7.1.**

Warning: Do not use the mouth-to-mouth method if a victim ingested or inhaled hydrogen sulfide. Give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Table 7.0. Physical Properties of H₂S

Properties of H2S	Description	
Vapor Density > 1 = 1.189 Air = 1	 H2S gas is slightly heavier than air, which can cause it to settle in low places and build in concentration. Produced as a mixture with other gases associated with oil and gas production. 	
Flammable Range 4.3%-46% 43000 ppm – 460000 ppm	 H2S can be extremely flammable / explosive when these concentrations are reached by volume in air. 	

Although H_2S is primarily a respiratory hazard, it is also flammable and forms an explosive mixture at concentrations of 4.3%-46.0% (40,000ppm -460,000 ppm) by volume in air.

H₂S can be encountered when:

- Venting and draining equipment.
- Opening equipment (separators, pumps, and tanks).
- Opening piping connections ("line breaking").
- Gauging and sampling storage tanks.
- Entering confined spaces.
- Working around wastewater pits, skimmers, and treatment facilities.
- II. Human Health Hazards Toxicological Information

Table 7.1. Hazards & Toxicity

10010 712111020100 011	- CALOTTY
Concentration	Symptoms/Effects
(ppm)	

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0.00011-0.00033 ppm	Typical background concentrations
0.01-1.5 ppm	Odor threshold (when rotten egg smell is first noticeable to some). Odor becomes more offensive at 3-5 ppm. Above 30 ppm, odor described as sweet or sickeningly sweet.
2-5 ppm	Prolonged exposure may cause nausea, tearing of the eyes, headaches or loss of sleep. Airway problems (bronchial constriction) in some asthma patients.
20 ppm	Possible fatigue, loss of appetite, headache, irritability, poor memory, dizziness.
50-100 ppm	Slight conjunctivitis ("gas eye") and respiratory tract irritation after 1 hour. May cause digestive upset and loss of appetite.
100 ppm	Coughing, eye irritation, loss of smell after 2-15 minutes (olfactory fatigue). Altered breathing, drowsiness after 15-30 minutes. Throat irritation after 1 hour. Gradual increase in severity of symptoms over several hours. Death may occur after 48 hours.
100-150 ppm	Loss of smell (olfactory fatigue or paralysis).
200-300 ppm	Marked conjunctivitis and respiratory tract irritation after 1 hour. Pulmonary edema may occur from prolonged exposure.
500-700 ppm	Staggering, collapse in 5 minutes. Serious damage to the eyes in 30 minutes. Death after 30-60 minutes.
700-1000 ppm	Rapid unconsciousness, "knockdown" or immediate collapse within 1 to 2 breaths, breathing stops, death within minutes.
1000-2000 ppm	Nearly instant death

III. Environmental Hazards

 H_2S and its associated byproducts from combustion presents a serious environmental hazard. Sulphur Dioxide SO_2 is produced as a constituent of flaring H_2S Gas and can present hazards associated, which are similar to H_2S . Although SO_2 is heavier than air, it will be picked up by a breeze and carried downwind at elevated temperatures. Since Sulfur Dioxide is extremely irritating to the eyes and mucous membranes of the upper respiratory tract, it has exceptionally good warning powers in this respect. The following table indicates the toxic nature of the gas. Please see the attached SDS in Appendix B for reference.

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SULFUR DIOXIDE TOXICITY			
Concentration		Effects	
%SO ₂	PPM		
0.0005	3 to 5	Pungent odor-normally a person can detect SO₂ in this range.	
0.0012	12	Throat irritation, coughing, and constriction of the chest tearing and smarting of eyes.	
0.15	150	So irritating that it can only be endured for a few minutes.	
0.05	500	Causes a sense of suffocation, even with first breath.	

Section 8.0 - Regulatory Information

I. OSHA & NIOSH Information

II. Table 8.0. OSHA & NIOSH H₂S Information

Table old control to the control to		
PEL, IDLH, TLV	Description	
NIOSH PEL 10 PPM	PEL is the Permissible Exposure Limit that an employee may be exposed up to 8 hr / day.	
OSHA General Industry Ceiling PEL – 20 PPM	The maximum exposure limit, which cannot be exceeded for any length of time.	
IDLH 100 PPM	■ Immediately Dangerous to Life and Health	
Permian Resources PEL 10 PPM	 Permian Resources Policy Regarding H2S for employee safety 	

III. New Mexico OCD & BLM – H₂S Concentration Threshold Requirements

New Mexico NMAC 19.15.11 and Onshore Order #6 identify two Radii of Exposure (ROE) that identify potential danger to the public and require additional compliance measures. Permian Resources is required to install safety devices, establish safety procedures and develop a written H_2S contingency plan for sites where the H_2S concentrations are as follows.

Table 8.1. Calculating H₂S Radius of Exposure

H₂S Radius of Exposure	Description	Control and Equipment Requirements	
100 ppm	Distance from a release to where the H ₂ S concentration in the air will dilute below 100ppm	ROE > 50-ft and includes any part of a "public area" (residence, school, business, etc., or any area that can be expected to be populated). ROE > 3,000-ft	
500 ppm	Distance from a release to where the H ₂ S concentration in the air will dilute below 500ppm	ROE > 50-ft and includes any part of a public road (public roads are tax supported roads or any road used for public access or use)	

Calculating H₂S Radius of Exposure

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The ROE of an H_2S release is calculated to determine if a potentially hazardous volume of H_2S gas at 100 or 500 parts per million (ppm) is within a regulated distance requiring further action. If information about the concentration of H_2S and the potential gas release volume is known, the location of the Muster Areas will be set, and safety measures will be implemented based on the calculated radius of exposure (ROE). NMAC 19.15.11 – Hydrogen Sulfide Safety defines the ROE as the radius constructed with the gas's point of escape as its center and its length calculated by the following Pasquill-Gifford equations:

To determine the extent of the **100 ppm ROE**:

 $x = [(1.589) \text{ (mole fraction } H_2S)(Q)]^{(.6258)}.$

To determine the extent of the **500 ppm ROE**:

 $x = [(0.4546) \text{ (mole fraction } H_2S)(Q)]^{(.6258)}.$

Table 8.2. Calculating H2S Radius of Exposure

ROE Variable	Description		
X =	ROE in feet		
Q =	Max volume of gas released determined to be released in cubic feet per day (ft³/d) normalized to standard temperature and pressure, 60°F and 14.65 psia		
Mole fraction H₂S =	Mole fraction of H ₂ S in the gaseous mixture released.		

The volume used as the escape rate in determining the ROE is specified in the rule as follows:

- The maximum daily volume rate of gas containing H₂S handled by that system element for which the ROE is calculated.
- For existing gas wells, the current adjusted open-flow rate, or the operator's estimate of the well's capacity to flow against zero back-pressure at the wellhead.

New Mexico Oil Conservation Division & BLM Site Requirements under NMAC 19.15.11 & Onshore Order #6

- Two cleared areas will be designated as Safe Briefing Areas. During an emergency, personnel will assemble in one of these areas for instructions from the Permian Resources Person-in-Charge. Prevailing wind direction should be considered in locating the briefing areas 200' or more on either side of the well head. One area should offset the other at an angle of 45° to 90° with respect to prevailing wind direction to allow for wind shifts during the work period.
- In the event of either an intentional or accidental releases of hydrogen sulfide, safeguards to protect the general public from the harmful effects of hydrogen sulfide must be in place for operations. A summary of the provisions in each of three H₂S ROE cases is included in **Table 8.3**.
 - o **CASE 1 -100** ppm ROE < 50'
 - o CASE 2 100 ppm ROE is 50' or greater, but < 3000' and does not penetrate public area.
 - CASE 3 -100 ppm ROE is 50' or greater and penetrates a public area or 500 ppm ROE includes a public road. Also if 100 ppm ROE > 3000' regardless of public area.

Table 8.3. NMAC 19.15.11 Compliance Requirements Drilling & Production

NMAC 19.15.11 & BLM COMPLIANCE REQUIREMENTS - DRILLING & PRODUCTION

Permian Resources Corporation	H₂S Contingency Plan	Lea County, New Mexico	
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PROVISION	CASE 1	CASE 2	CASE 3
H ₂ S Concentration Test	X	X	X
H-9	X	X	X
Training	X	X	X
District Office Notification	X	X	X
Drill Stem Tests Restricted	X*	X*	X
BOP Test	X*	X*	X
Materials		X	X
Warning and Marker		X	X
Security		X	X
Contingency Plan			X
Control and Equipment Safety			X
Monitors		X**	X**
Mud (ph Control or Scavenger)			X*
Wind Indicators		X**	X
Protective Breathing Equipment		X**	X
Choke Manifold, Secondary Remote Control, and Mud-Gas Separator			X
Flare Stacks			X*

Section 9.0 - Training Requirements

Training

The following elements are considered a minimum level of training for personnel assigned to operations who may encounter H_2S as part of routine or maintenance work.

- The hazards, characteristics, and properties of hydrogen sulfide (H₂S) and (SO₂).
- Sources of H₂S and SO₂.
- Proper use of H₂S and SO₂ detection methods used at the workplace.
- Recognition of, and proper response to, the warning signals initiated by H₂S and SO₂ detection systems in use at the workplace.
- Symptoms of H₂S exposure; symptoms of SO₂ exposure
- Rescue techniques and first aid to victims of H₂S and SO₂ exposure.
- Proper use and maintenance of breathing equipment for working in H₂S and SO₂ atmospheres, as appropriate theory and hands-on practice, with demonstrated proficiency (29 CFR Part 1910.134).
- Workplace practices and relevant maintenance procedures that have been established to protect personnel from the hazards of H₂S and SO₂.
- Wind direction awareness and routes of egress.
- Confined space and enclosed facility entry procedures (if applicable).
- Emergency response procedures that have been developed for the facility or operations.
- Locations and use of safety equipment.
- Locations of safe briefing areas.

Refresher training will be conducted annually.

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Section 10.0 - Personal Protective Equipment

I. Personal H₂S Monitors

All personnel engaged in planned or unplanned work activity to mitigate the release of a hazardous concentration of H₂S shall have on their person a personal H2S monitor.

I. <u>Fixed H₂S Detection and Alarms</u>

- 4 channel H₂S monitor
- 4 wireless H₂S monitors
- H₂S alarm system (Audible/Red strobe)
- Personal gas monitor for each person on location
- Gas sample tubes

III. Flame Resistant Clothing

All personnel engaged in planned or unplanned work activity associated with this Plan shall have on the appropriate level of FRC clothing.

IV. Respiratory Protection

The following respiratory protection equipment shall be available at each drilling location.

- Working cascade system available on rig floor and pit system & 750' of air line hose
- Four (4) breathing air manifolds
- Four (4) 30-minute rescue packs
- Five (5) work/Escape units
- Five (5) escape units
- One (1) filler hose for the work/escape/rescue units

Supplied air (airline or SCBA) respiratory protection against hydrogen sulfide exposure is required in the following situations:

- When routine or maintenance work tasks involve exposure to H₂S concentrations of 10 ppm or greater.
- When a fixed location area monitor alarms, and re-entry to the work area is required to complete a job.
- When confined spaces are to be entered without knowledge of H₂S levels present, or if initial measurements are to be taken of H₂S levels.
- During rescue of employees suspected of H₂S overexposure.
- For specific tasks identified with significant exposure potential and outlined in local program guidelines.
- All respiratory equipment for hydrogen sulfide must be of the supplied-air type, equipped with pressure-demand regulators and operated in the pressure-demand mode only. This is the only type of respiratory protection recommended for hydrogen sulfide application. Equipment should be approved by NIOSH/MSHA or other recognized national authority as required. If airline units are used, a five-minute egress bottle should also be carried.
- Gas masks or other air-purifying respirators MUST NEVER BE USED FOR HYDROGEN SULFIDE due to the poor warning properties of the gas.
- Use of respiratory protection should be accompanied by a written respiratory protection program.

Permian Resources Corporation	H₂S Contingency Plan	Lea County, New Mexico
	Eileen 25 Fed Com CTB	

Appendix A H₂S SDS



Hydrogen sulfide

Safety Data Sheet E-4611

rdous Products Regulation (February 11, 2015)

Date of Issue: 10-15-1979 Revision date: 08-10-2016 Supersedes: 10-15-2013

SECTION 1: Identification

Product identifier 1.1

Product form Substance Name Hydrogen sulfide CAS No 7783-06-4 Formula HZS Other means of identification Hydrogen sulfide Product group Core Products

1.2. Recommended use and restrictions on use

Industrial use Use as directed Recommended uses and restrictions

1.3. Supplier

Praxair Canada inc. 1200 – 1 City Centre Drive Mississauga - Canada L5B 1M2 T 1-905-803-1600 - F 1-905-803-1682

1.4. Emergency telephone number

Emergency number

: 1-800-363-0042

Call emergency numb involving this product. imber 24 hours a day only for spills, leaks, fire, exposure, or accidents For routine information, contact your supplier or Praxair sales representative.

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

GHS-CA classification

Flam. Gas 1 Liquefied gas Acute Tox. 2 (Inhalation: gas) STOT SE 3 H220 H280 H330 H335

GHS Label elements, including precautionary statements

GHS-CA labelling

Hazard pictograms









Signal word : DANGER

Hazard statements

: EXTREMELY FLAMMABLE GAS
CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED
FATAL IF INHALED
MAY CAUSE RESPIRATORY IRRITATION

MAY FORM EXPLOSIVE MIXTURES WITH AIR SYMPTOMS MAY BE DELAYED EXTENDED EXPOSURE TO GAS REDUCES THE ABILITY TO SMELL SULFIDES

Do not handle until all safety precautions have been read and understood Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking Precautionary statements

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Do not breathe gas

Use and store only outdoors or in a well-ventilated area

Avoid release to the environment

Wear protective gloves, protective clothing, eye protection, respiratory protection, and/or face

rotection

Leaking gas fire: Do not extinguish, unless leak can be stopped safely

In case of leakage, eliminate all ignition sources

Store locked up

Dispose of contents/container in accordance with container Supplier/owner instructions

Protect from sunlight when ambient temperature exceeds 52°C (125°F)

Close valve after each use and when empty

Do not open valve until connected to equipment prepared for use When returning cylinder, install leak tight valve outlet cap or plug

Do not depend on odour to detect the presence of gas

2.3. Other hazards

Other hazards not contributing to the classification : Contact with liquid may cause cold burns/frostbite.

2.4. Unknown acute toxicity (GHS-CA)

No data available

SECTION 3: Composition/information on ingredients

Substances

Name	CAS No.	% (Vol.)	Common Name (synonyms)
Hydrogen sulfide (Main constituent)	(CAS No) 7783-06-4	100	Hydrogen sulfide (H2S) / Hydrogen sulphide / Sulfur hydride / Sulfureted hydrogen / Dihydrogen sulphide / Hydrogensulfide

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation

: Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, trained personnel should give oxygen. Call a physician.

First-aid measures after skin contact

The liquid may cause frostbite. For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105°F (41°C). Water temperature should be tolerable to normal skin. Maintain skin warming for at least 15 minutes or until normal coloring and sensation have returned to the affected area. In case of massive exposure, remove clothing while showering with warm water. Seek medical evaluation and treatment as soon as possible.

First-aid measures after eye contact

: Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyebalis to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately.

First-aid measures after ingestion

: Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3, Immediate medical attention and special treatment, if necessary

Other medical advice or treatment

: Obtain medical assistance. Treat with corticosteroid spray as soon as possible after inhalation.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media

: Carbon dioxide, Dry chemical, Water spray or fog. Use extinguishing media appropriate for surrounding fire.

5.2. Unsuitable extinguishing media

No additional information available

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5.3. Specific hazards arising from the hazardous product

Fire hazard

EXTREMELY FLAMMABLE GAS. If venting or leaking gas catches fire, do not extinguish flames. Flammable vapors may spread from leak, creating an explosive reignition hazard. Vapors can be ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharge, or other ignition sources at locations distant from product handling point. Explosive atmospheres may linger. Before entering an area, especially a confined area, check the atmosphere with an appropriate device.

Explosion hazard: EXTREMELY FLAMMABLE GAS. Forms explosive mixtures with air and oxidizing agents.

Reactivity : No reactivity hazard other than the effects described in sub-sections below.

Reactivity in case of fire : No reactivity hazard other than the effects described in sub-sections below.

5.4. Special protective equipment and precautions for fire-lighters

Firefighting instructions

: DANGER! Toxic, flammable liquefied gas

Evacuate all personnel from the danger area. Use self-contained breathing apparatus (SCBA) and protective clothing. Immediately cool containers with water from maximum distance. Stop flow of gas if safe to do so, while continuing cooling water spray. Remove ignition sources if safe to do so. Remove containers from area of fire if safe to do so. On-site fire brigades must comply with their provincial and local fire code regulations.

Special protective equipment for fire fighters

Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire

fighters.

Other information

: Containers are equipped with a pressure relief device. (Exceptions may exist where authorized by TC.).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

DANGER! Toxic, flammable liquefied gas. Forms explosive mixtures with air and oxidizing agents. Immediately evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Remove all sources of ignition if safe to do so. Reduce vapors with fog or fine water spray, taking care not to spread liquid with water. Shut off flow if safe to do so. Ventilate area or move container to a well-ventilated area. Flammable vapors may spread from leak and could explode if reignited by sparks or flames. Explosive atmospheres may linger. Before entering area, especially confined areas, check atmosphere with an appropriate device.

6.2. Methods and materials for containment and cleaning up

Methods for cleaning up

: Try to stop release. Reduce vapour with fog or fine water spray. Prevent waste from contaminating the surrounding environment. Prevent soil and water pollution. Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.

6.3. Reference to other sections

For further information refer to section 8: Exposure controls/personal protection

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Leak-check system with scapy water; never use a flame

All piped systems and associated equipment must be grounded

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools. Use only explosion-proof equipment

Wear leather safety gloves and safety shoes when handling cylinders. Protect cylinders from physical damage; do not drag, roll, slide or drop. While moving cylinder, always keep in place removable valve cover. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Never insert an object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Slowly open the valve. If the valve is hard to open, discontinue use and contact your supplier. Close the container valve after each use; keep closed even when empty. Never apply flame or localized heat directly to any part of the container. High temperatures may damage the container and could cause the pressure relief device to fail prematurely, venting the container contents. For other precautions in using this product, see section 16.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Store only where temperature will not exceed 125°F (52°C). Post "No Smoking/No Open Flames" signs in storage and use areas. There must be no sources of ignition. Separate packages and protect against potential fire and/or explosion damage following appropriate codes and requirements (e.g. NFPA 30, NFPA 50, NFPA 70, and/or NFPA 221 in the U.S.) or according to requirements determined by the Authority Having Jurisdiction (AHJ). Always secure containers upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand when the container is not in use. Store full and empty containers separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods. For other precautions in using this product, see section 16

OTHER PRECAUTIONS FOR HANDLING, STORAGE, AND USE: When handling product under pressure, use piping and equipment adequately designed to withstand the pressures to be encountered. Never work on a pressurized system. Use a back flow preventive device in the piping. Gases can cause rapid suffocation because of oxygen deficiency; store and use with adequate ventilation. If a leak occurs, close the container valve and blow down the system in a safe and environmentally correct manner in compliance with all international, federal/national, state/provincial, and local laws; then repair the leak. Never place a container where it may become part of an electrical circuit.

Hydrogen sulfide (7783-06-4)		
USA - ACGIH	ACGIH TLV-TWA (ppm)	1 ppm	
USA - ACGIH	ACGIH TLV-STEL (ppm)	5 ppm	
USA - OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm	
Canada (Quebec)	VECD (mg/m³)	21 mg/m³	
Canada (Quebec)	VECD (ppm)	15 ppm	
Canada (Quebec)	VEMP (mg/m²)	14 mg/m³	
Canada (Quebec)	VEMP (ppm)	10 ppm	
Alberta	OEL Ceiling (mg/m³)	21 mg/m³	
Alberta	OEL Ceiling (ppm)	15 ppm	
Alberta	OEL TWA (mg/m²)	14 mg/m³	
Alberta British Columbia	OEL TWA (ppm) OEL Ceiling (ppm)	10 ppm 10 ppm	
Manitoba			
Costillations:	OEL STEL (ppm)	5 ppm	
Manitoba	OEL TWA (ppm)	1 ppm	
New Brunswick	OEL STEL (mg/m²)	21 mg/m³	
New Brunswick	OEL STEL (ppm)	15 ppm	
New Brunswick	OEL TWA (mg/m²)	14 mg/m³	
New Brunswick	OEL TWA (ppm)	10 ppm	
New Foundland & Labrador	OEL STEL (ppm)	5 ppm	
New Foundland & Labrador	OEL TWA (ppm)	1 ppm	
Nova Scotia	OEL STEL (ppm)	5 ppm	
Nova Scotia	OEL TWA (ppm)	1 ppm	
Nunavut	OEL Ceiling (mg/m²)	28 mg/m²	
Nunavut	OEL Ceiling (ppm)	20 ppm	
Nunavut	OEL STEL (mg/m²)	21 mg/m³	
Nunavut	OEL STEL (ppm)	15 ppm	
Nunavut	OEL TWA (mg/m²)	14 mg/m³	
Nunavut	OEL TWA (ppm)	10 ppm	
Northwest Territories	OEL STEL (ppm)	15 ppm	

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Hydrogen sulfide

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according to the Hazardous Products Regulation (February 11, 2015)

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Hydrogen sulfide (7783-0	16-4)		
Northwest Territories	OEL TWA (ppm)	10 ppm	
Ontario	OEL STEL (ppm)	15 ppm	
Ontario	OEL TWA (ppm)	10 ppm	
Prince Edward Island	OEL STEL (ppm)	5 ppm	
Prince Edward Island	OEL TWA (ppm)	1 ppm	
Québec	VECD (mg/m³)	21 mg/m³	
Québec	VECD (ppm)	15 ppm	
Québec	VEMP (mg/m²)	14 mg/m³	
Québec	VEMP (ppm)	10 ppm	
Saskatchewan	OEL STEL (ppm)	15 ppm	
Saskatchewan	OEL TWA (ppm)	10 ppm	
Yukon	OEL STEL (mg/m²)	27 mg/m³	
Yukon	OEL STEL (ppm)	15 ppm	
Yukon	OEL TWA (mg/m²)	15 mg/m³	
Yukan	OEL TWA (ppm)	10 ppm	

8.2. Appropriate engineering controls

Appropriate engineering controls

: Use corrosion-resistant equipment. Use an explosion-proof local exhaust system. Local exhaust and general ventilation must be adequate to meet exposure standards. MECHANICAL (GENERAL): Inadequate - Use only in a closed system. Use explosion proof equipment and lighting.

B.3. Individual protection measures/Personal protective equipment

Personal protective equipment

: Safety glasses. Face shield. Gloves.







Hand protection

: Wear work gloves when handling containers. Wear heavy rubber gloves where contact with product may occur.

Eye protection

: Wear goggles and a face shield when transfilling or breaking transfer connections. Select in accordance with the current CSA standard Z94.3, "Industrial Eye and Face Protection", and any provincial regulations, local bylaws or guidelines.

Respiratory protection

: Respiratory protection: Use respirable fume respirator or air supplied respirator when working in confined space or where local exhaust or ventilation does not keep exposure below TLV. Select in accordance with provincial regulations, local bylaws or guidelines. Selection should be based on the current CSA standard Z94.4, "Selection, Care, and Use of Respirators." Respirators should also be approved by NIOSH and MSHA. For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA).

Thermal hazard protection

 Wear cold insulating gloves when transfilling or breaking transfer connections. Standard EN 511 - Cold insulating gloves.

Other information

Other protection: Safety shoes for general handling at customer sites. Metatarsal shoes and cuffless trousers for cylinder handling at packaging and filling plants. Select in accordance with the current CSA standard Z195, "Protective Foot Wear", and any provincial regulations, local bylaws or guidelines. For working with flammable and oxidizing materials, consider the use of flame resistant anti-static safety clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

Gas

Appearance

Colorless gas, Colorless liquid at low temperature or under high pressure.
 34 g/mol

Molecular mass Colour

: Colourless.

Odour

: Odour can persist. Poor warning properties at low concentrations. Rotten eggs.

Odour threshold

: Odour threshold is subjective and inadequate to warn of overexposure.

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pH : Not applicable. pH solution : No data available Relative evaporation rate (butylacetate=1) : No data available Relative evaporation rate (ether=1) : Not applicable. Melting point : -86 °C : -82.9 °C Freezing point Boiling point : -60.3 °C Flash point : Not applicable. Critical temperature : 100.4 °C : 260 °C Auto-ignition temperature Decomposition temperature : No data available : 1880 kPa Vapour pressure Vapour pressure at 50 °C : No data available : 8940 kPa Critical pressure Relative vapour density at 20 °C 2.00

Relative density : No data available Relative density of saturated gas/air mixture : No data available

Density : No data available Relative gas density : 1.2 Solubility : Water: 3980 mg/l Log Pow : Not applicable. : Not applicable. Log Kow Viscosity, kinematic : Not applicable. : Not applicable. Viscosity, dynamic Viscosity, kinematic (calculated value) (40 °C) : No data available Explosive properties Not applicable.

Oxidizing properties : None. Flammability (solid, gas)

4.3 - 46 vol %

9.2. Other information

Gas group : Liquefied gas

Additional information : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below

ground level

SECTION 10: Stability and reactivity

Reactivity

Reactivity : No reactivity hazard other than the effects described in sub-sections below.

Chemical stability : Stable under normal conditions Possibility of hazardous reactions : May react violently with oxidants. Can form explosive mixture with air.

: Avoid moisture in installation systems. Keep away from heat/sparks/open flames/hot surfaces. Conditions to avoid

: Ammonia, Bases, Bromine pentafluoride, Chlorine trifluoride, chromium trioxide, (and heat). Incompatible materials Copper, (powdered), Fluorine, Lead, Lead oxide, Mercury, Nitric acid, Nitrogen trifluoride, nitrogen sulfide, Organic compounds, Oxidizing agents, Oxygen difluoride, Rubber, Sodium,

(and moisture). Water.

Hazardous decomposition products : Thermal decomposition may produce : Sulfur. Hydrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified Acute toxicity (dermal) : Not classified

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Hydrogen sulfide

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according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979 Revision date: 08-10-2016 Supersedes: 10-15-2013

Acute toxicity (inhalation) : Inhalation:gas: FATAL IF INHALED.

LC50 inhalation rat (mg/l)	0.99 mg/l (Exposure time: 1 h)	
LC50 inhalation rat (ppm)	356 ppm/4h	
ATE CA (gases)	356.00000000 ppmv/4h	
ATE CA (vapours)	0.99000000 mg/V4h	
ATE CA (dust,mist)	0.99000000 mg/l/4h	

Skin corrosion/irritation ; Not classified pH: Not applicable.

Serious eye damage/irritation ; Not classified

pH: Not applicable.

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : MAY CAUSE RESPIRATORY IRRITATION.

Specific target organ toxicity (repeated : Not classified

exposure)

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1	t,	- 1	QXI	CII	Ŋ.

Ecology - general : VERY TOXIC TO AQUATIC LIFE.

Hydrogen sulfide (7783-06-4	
LC50 fish 1	0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC50 fish 2	0.016 mg/l (Exposure time: 96 h - Species: Pirnephales prometas [flow-through])

12.2. Persistence and degradability

Hydrogen sulfide (7783-06-4)	
Persistence and degradability	Not applicable for inorganic gases.

12.3. Bioaccumulative potential

Hydrogen sulfide (7783-06-4)	
BCF fish 1	(no bioaccumulation expected)
Log Pow	Not applicable.
Log Kow	Not applicable.
Bioaccumulative potential	No data available.

12.4. Mobility in soil

Hydrogen sulfide (7783-06-4)	
Mobility in soil	No data available.
Log Pow	Not applicable.
Log Kow	Not applicable.
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

12.5. Other adverse effects

Other adverse effects : May cause pH changes in aqueous ecological systems.

Effect on the ozone layer : None

Effect on global warming : No known effects from this product

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SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations : Do not attempt to dispose of residual or unused quantities. Return container to supplier.

SECTION 14: Transport information

14.1. Basic shipping description

In accordance with TDG

TDG

UN-No. (TDG) : UN1053

TDG Primary Hazard Classes : 2.3 - Class 2.3 - Toxic Gas.

TDG Subsidiary Classes : 2,1

Proper shipping name : HYDROGEN SULPHIDE

ERAP Index : 500
Explosive Limit and Limited Quantity Index : 0
Passenger Carrying Ship Index : Forbidden
Passenger Carrying Road Vehicle or Passenger : Forbidden

Carrying Railway Vehicle Index

14.3. Air and sea transport

MDG

UN-No. (IMDG) : 1053

Proper Shipping Name (IMDG) : HYDROGEN SULPHIDE

Class (IMDG) : 2 - Gases MFAG-No : 117

IATA

UN-No. (IATA) : 1053

Proper Shipping Name (IATA) : Hydrogen sulphide

Class (IATA) : 2

SECTION 15: Regulatory information

15.1, National regulations

Hydrogen sulfide (7783-06-4)

Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

Hydrogen sulfide (7783-06-4)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on INSQ (Mexican national Inventory of Chemical Substances)

SECTION 16: Other information

 Date of issue
 : 15/10/1979

 Revision date
 : 10/08/2016

 Supersedes
 : 15/10/2013

Indication of changes:

Training advice : Users of breathing apparatus must be trained. Ensure operators understand the toxicity hazard.

Ensure operators understand the flammability hazard.

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Other information

: When you mix two or more chemicals, you can create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture Consult an industrial hygienist or other trained person when you evaluate the end product. Before using any plastics, confirm their compatibility with this product

Praxair asks users of this product to study this SDS and become aware of the product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this SDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information

The opinions expressed herein are those of qualified experts within Praxair Canada Inc. We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and the conditions of use are not within the control of Praxair Canada Inc, it is the user's obligation to determine the conditions of safe use of the product. Praxair Canada Inc, SDSs are furnished on sale or delivery by Praxair Canada Inc, or the independent distributors and suppliers who package and sell our products. To obtain current SDSs for these products, contact your Praxair sales representative, local distributor, or supplier, or download from www.praxair.ca. If you have questions regarding Praxair SDSs, would like the document number and date of the latest SDS, or would like the names of the Praxair suppliers in your area, phone or write Praxair Canada Inc. (Phone: 1-888-257-5149; Address: Praxair Canada Inc, 1 City Centre Drive, Suite 1200, Mississauga, Ontario, L5B 1M2).

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NFPA health hazard

NEPA fire hazard

: 4 - Very short exposure could cause death or serious residual injury even though prompt medical attention was

: 4 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

NFPA reactivity

Health

Flammability

: 2 Moderate Hazard - Temporary or minor injury may occur

: 4 Severe Hazard - Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA)

Physical

: 2 Moderate Hazard - Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.

SDS Canada (GHS) - Praxair

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and emironmental requirements only. If should not therefore be constitued as guaranteeing any specific property of the product.

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Permian Resources Corporation	H₂S Contingency Plan	Lea County, New Mexico
	Eileen 25 Fed Com CTB	

SO₂SDS



Safety Data Sheet

Material Name: SULFUR DIOXIDE SDS ID: MAT22290

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

SULFUR DIOXIDE

Synonyms

MTG MSDS 80; SULFUROUS ACID ANHYDRIDE; SULFUROUS OXIDE; SULPHUR DIOXIDE; SULFUROUS ANHYDRIDE; FERMENTICIDE LIQUID; SULFUR DIOXIDE(SO2); SULFUR OXIDE; SULFUR OXIDE(SO2)

Chemical Family

inorganie, gas

Product Description

Classification determined in accordance with Compressed Gas Association standards.

Product Use

Industrial and Specialty Gas Applications.

Restrictions on Use

None known.

Details of the supplier of the safety data sheet

MATHESON TRI-GAS, INC.

3 Mountainview Road

3 Mountainview Ro

Warren, NJ 07059

General Information: 1-800-416-2505

Emergency #: 1-800-424-9300 (CHEMTREC) Outside the US: 703-527-3887 (Call collect)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Gases Under Pressure - Liquefied gas

Acute Toxicity - Inhalation - Gas - Category 3

Skin Corrosion/Irritation - Category 1B

Serious Eye Damage/Eye Irritation - Category 1

Simple Asphyxiant

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Contains gas under pressure; may explode if heated.

Toxic if inhaled.

Causes severe skin burns and eye damage.

May displace oxygen and cause rapid suffocation.

Precautionary Statement(s)

Prevention

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

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Permian Resources Corporation	H ₂ S Contingency Plan	Lea County, New Mexico
	Eileen 25 Fed Com CTB	



Safety Data Sheet

Material Name: SULFUR DIOXIDE

SDS ID: MAT22290

Wash thoroughly after handling.

Do not breathe dusts or mists.

Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor.

Specific treatment (see label).

Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Protect from sunlight.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards

Contact with liquified gas may cause frostbite.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS		
CAS	Component Name	Percent
7446-09-5	Sulfur dioxide	100.0

Section 4 - FIRST AID MEASURES

Inhalation

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical attention.

Skin

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115°F; 41-46°C). If warm water is not available, gently wrap affected parts in blankets. DO NOT induce vomiting. Get immediate medical attention.

Eves

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.

Ingestion

IF SWALLOWED: Rinse mouth, Do NOT induce vomiting. Get immediate medical attention.

Most Important Symptoms/Effects

Acute

Toxic if inhaled, frostbite, suffocation, respiratory tract burns, skin burns, eye burns

Delayed

No information on significant adverse effects.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Note to Physicians

For inhalation, consider oxygen.

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Permian Resources Corporation	H₂S Contingency Plan	Lea County, New Mexico
	Eileen 25 Fed Com CTB	



Safety Data Sheet

Material Name: SULFUR DIOXIDE SDS ID: MAT22290

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

carbon dioxide, regular dry chemical, Large fires: Use regular foam or flood with fine water spray.

Unsuitable Extinguishing Media

None known.

Special Hazards Arising from the Chemical

Negligible fire hazard.

Hazardous Combustion Products

sulfur oxides

Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Keep unnecessary people away, isolate hazard area and deny entry.

Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas. Ventilate closed spaces before entering. Evacuation radius: 150 feet. Stop leak if possible without personal risk. Reduce vapors with water spray. Do not get water directly on material.

Environmental Precautions

Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Do not get in eyes, on skin, or on clothing. Do not breathe gas, fumes, vapor, or spray. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Keep only in original container. Avoid release to the environment.

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Protect from sunlight.

Store and handle in accordance with all current regulations and standards. Protect from physical damage. Store outside or in a detached building. Keep separated from incompatible substances.

Incompatible Materials

bases, combustible materials, halogens, metal carbide, metal oxides, metals, oxidizing materials, peroxides, reducing agents

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits		
Sulfur dioxide 7446-09-5		
ACGIH:	0.25 ppm STEL	

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SDS ID: MAT22290

Permian Resources Corporation	H ₂ S Contingency Plan	Lea County, New Mexico
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Safety Data Sheet

Material Name: SULFUR DIOXIDE

NIOSH:	2 ppm TWA; 5 mg/m3 TWA	
	5 ppm STEL; 13 mg/m3 STEL	
	100 ppm IDLH	
OSHA (US):	5 ppm TWA; 13 mg/m3 TWA	
Mexico:	0.25 ppm STEL [PPT-CT]	

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

Engineering Controls

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear splash resistant safety goggles with a faceshield. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate chemical resistant clothing. Wear chemical resistant clothing to prevent skin contact.

Respiratory Protection

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Sect	ion 9 - PHYSICAL A	AND CHEMICAL PROPERT	ΓIES
Appearance	colorless gas	Physical State	gas
Odor	irritating odor	Color	colorless
Odor Threshold	3 - 5 ppm	pH	(Acidic in solution)
Melting Point	-73 °C (-99 °F)	Boiling Point	-10 °C (14 °F)
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	>1 (Butyl acetate = 1)	Flammability (solid, gas)	Not available
Autoignition Temperature	Not available	Flash Point	(Not flammable)
Lower Explosive Limit	Not available	Decomposition temperature	Not available
Upper Explosive Limit	Not available	Vapor Pressure	2432 mmHg @ 20 °C
Vapor Density (air=1)	2.26	Specific Gravity (water=1)	1.462 at -10 °C

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Safety Data Sheet

Material Name: SULFUR DIOXIDE SDS ID: MAT22290

Water Solubility	22.8 % (@ 0 ℃)	Partition coefficient: n- octanol/water	Not available
Viscosity	Not available	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	Not available
Physical Form	liquified gas	Molecular Formula	S-O2
Molecular Weight	64.06		

Solvent Solubility

Soluble

alcohol, acetic acid, sulfuric acid, ether, chloroform, Benzene, sulfuryl chloride, nitrobenzenes, Toluene, acetone

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Will not polymerize.

Conditions to Avoid

Minimize contact with material. Containers may rupture or explode if exposed to heat.

Incompatible Materials

bases, combustible materials, halogens, metal carbide, metal oxides, metals, oxidizing materials, peroxides, reducing agents

Hazardous decomposition products

oxides of sulfur

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

Toxic if inhaled. Causes damage to respiratory system, burns, difficulty breathing

Skin Contact

skin burns

Eye Contact

eye burns

Ingestion

burns, nausea, vomiting, diarrhea, stomach pain

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Sulfur dioxide (7446-09-5)

Inhalation LC50 Rat 965 - 1168 ppm 4 h Product Toxicity Data

Acute Toxicity Estimate

No data available.

Immediate Effects

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SDS ID: MAT22290

Permian Resources Corporation	H ₂ S Contingency Plan	Lea County, New Mexico
	Eileen 25 Fed Com CTB	



Safety Data Sheet

Material Name: SULFUR DIOXIDE

Toxic if inhaled, frostbite, suffocation, respiratory tract burns, skin burns, eye burns

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

respiratory tract burns, skin burns, eye burns

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

Sulfur dioxide	7446-09-5				
ACGIH:	A4 - Not Classifiable as a Human Carcinogen				
IARC:	Monograph 54 [1992] (Group 3 (not classifiable))				

Germ Cell Mutagenicity

No data available.

Tumorigenic Data

No data available

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

Not applicable.

Medical Conditions Aggravated by Exposure

respiratory disorders

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility

No data available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: SULFUR DIOXIDE

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SDS ID: MAT22290

Permian Resources Corporation	H ₂ S Contingency Plan	Lea County, New Mexico
	Eileen 25 Fed Com CTB	



Safety Data Sheet

Material Name: SULFUR DIOXIDE

Hazard Class: 2.3 UN/NA #: UN1079 Required Label(s): 2.3

IMDG Information:

Shipping Name: SULPHUR DIOXIDE

Hazard Class: 2.3 UN#: UN1079 Required Label(s): 2.3

TDG Information:

Shipping Name: SULFUR DIOXIDE

Hazard Class: 2.3 UN#: UN1079 Required Label(s): 2.3

International Bulk Chemical Code

This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Sulfur dioxide	7446-09-5
SARA 302:	500 lb TPQ
OSHA (safety):	1000 lb TQ (Liquid)
SARA 304:	500 lb EPCRA RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Gas Under Pressure; Acute toxicity; Skin Corrosion/Irritation; Serious Eye Damage/Eye Irritation; Simple Asphyxiant

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Sulfur dioxide	7446-09-5	Yes	Yes	Yes	Yes	Yes

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)



WARNING

This product can expose you to chemicals including Sulfur dioxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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Permian Resources Corporation	H ₂ S Contingency Plan	Lea County, New Mexico
	Eileen 25 Fed Com CTB	



Safety Data Sheet

Material Name: SULFUR DIOXIDE

SDS ID: MAT22290

Sulfur dioxide	7446-09-5			
Repro/Dev. Tox	developmental toxicity, 7/29/2011			

Component Analysis - Inventory Sulfur dioxide (7446-09-5)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW, CN	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 3 Fire: 0 Instability: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes SDS update: 02/10/2016

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU -Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA -California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA -Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG -Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN -European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA -Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH -Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECl Annex 2 - Korea Existing Chemicals Inventory (KECl) / Korea Existing Chemicals List (KECL), KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; KR REACH CCA Korea Registration and Evaluation of Chemical Substances Chemical Control Act; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP -National Toxicology Program, NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL-Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH-Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA -Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit;

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NEW MEXICO

(SP) LEA EILEEN 25 FED COM EILEEN 25 FED COM 142H

OWB

Plan: PWP0

Standard Planning Report - Geographic

28 January, 2025



Planning Report - Geographic

Database: Compass 17 Company: **NEW MEXICO** Project: (SP) LEA Site: **EILEEN 25 FED COM**

Well: EILEEN 25 FED COM 142H Wellbore: **OWB** PWP0 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

Project (SP) LEA

US State Plane 1983 Map System: North American Datum 1983 Geo Datum:

Map Zone: New Mexico Eastern Zone System Datum: Mean Sea Level

EILEEN 25 FED COM Site

Northing: 560,019.85 usft Site Position: Latitude: 32° 32' 15.169 N 103° 37' 23.293 W 760,198.17 usft Мар Easting: From: Longitude:

Position Uncertainty: Slot Radius: 13-3/16 " 0.0 usft

Well EILEEN 25 FED COM 142H

Well Position +N/-S 0.0 usft Northing: 560,007.48 usft Latitude: 32° 32' 14.921 N +E/-W 0.0 usft Easting: 762,096.26 usft Longitude: 103° 37' 1.122 W Wellhead Elevation: usft 3,680.0 usft

Position Uncertainty 0.0 usft Ground Level:

Grid Convergence: 0.39 °

OWB Wellbore Magnetics Declination **Model Name** Sample Date **Dip Angle** Field Strength (°) (°) (nT) 48.975.64958629 IGRF200510 12/31/2009 7.79 60.52

PWP0 Design **Audit Notes:** Version: Phase: **PROTOTYPE** Tie On Depth: 0.0 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.0 0.0 0.0 356.95

Plan Survey Tool Program 1/28/2025 **Depth From** Depth To (usft) Survey (Wellbore) **Tool Name** (usft) Remarks 1 0.0 20,200.1 PWP0 (OWB) MWD OWSG Rev2 MWD - Standa

1/28/2025 11:35:04AM Page 2 COMPASS 5000.17 Build 03



Planning Report - Geographic

RESOURCES

Database: Compass_17
Company: NEW MEXICO
Project: (SP) LEA

Site: EILEEN 25 FED COM
Well: EILEEN 25 FED COM 142H

Wellbore: OWB
Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,400.0	8.00	254.83	2,398.7	-7.3	-26.9	2.00	2.00	0.00	254.83	
5,552.6	8.00	254.83	5,520.6	-122.1	-450.4	0.00	0.00	0.00	0.00	
5,952.6	0.00	0.00	5,919.3	-129.4	-477.3	2.00	-2.00	0.00	180.00	
9,565.8	0.00	0.00	9,532.5	-129.4	-477.3	0.00	0.00	0.00	0.00	
10,315.8	90.00	359.62	10,010.0	348.0	-480.4	12.00	12.00	-0.05	359.62	
17,650.8	90.00	359.62	10,010.0	7,682.8	-529.1	0.00	0.00	0.00	0.00	PP2 E25FC 142H
20,200.1	90.00	359.62	10,010.0	10,232.1	-546.0	0.00	0.00	0.00	0.00	LTP E25FC 142H



RESOURCES

Database: Compass_17
Company: NEW MEXICO
Project: (SP) LEA

Site: EILEEN 25 FED COM
Well: EILEEN 25 FED COM 142H

Wellbore: OWB
Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
100.0	0.00	0.00	100.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
200.0	0.00	0.00	200.0	0.0	0.0	560,007.48	762,096.26	32° 32′ 14.921 N	103° 37' 1.122 W
300.0	0.00	0.00	300.0	0.0	0.0	560,007.48	762,096.26	32° 32′ 14.921 N	103° 37' 1.122 W
400.0	0.00	0.00	400.0	0.0	0.0	560,007.48	762,096.26	32° 32′ 14.921 N	103° 37' 1.122 W
500.0	0.00	0.00	500.0	0.0	0.0	560,007.48	762,096.26	32° 32′ 14.921 N	103° 37' 1.122 W
600.0	0.00	0.00	600.0	0.0	0.0	560,007.48	762,096.26	32° 32′ 14.921 N	103° 37' 1.122 W
700.0	0.00	0.00	700.0	0.0	0.0	560,007.48	762,096.26	32° 32′ 14.921 N	103° 37' 1.122 W
800.0	0.00	0.00	0.008	0.0	0.0	560,007.48	762,096.26	32° 32′ 14.921 N	103° 37' 1.122 W
900.0	0.00	0.00	900.0	0.0	0.0	560,007.48	762,096.26	32° 32′ 14.921 N	103° 37' 1.122 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	560,007.48	762,096.26	32° 32′ 14.921 N	103° 37' 1.122 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
1,900.0	0.00	0.00	1,900.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
2,000.0	0.00	0.00	2,000.0	0.0	0.0	560,007.48	762,096.26	32° 32' 14.921 N	103° 37' 1.122 W
Start Bui									
2,100.0	2.00	254.83	2,100.0	-0.5	-1.7	560,007.03	762,094.57	32° 32' 14.917 N	103° 37' 1.142 W
2,200.0	4.00	254.83	2,199.8	-1.8	-6.7	560,005.66	762,089.52	32° 32′ 14.903 N	103° 37' 1.201 W
2,300.0	6.00	254.83	2,299.5	-4.1	-15.1	560,003.37	762,081.11	32° 32' 14.881 N	103° 37' 1.300 W
2,400.0	8.00	254.83	2,398.7	-7.3	-26.9	560,000.18	762,069.35	32° 32' 14.851 N	103° 37' 1.437 W
	2.6 hold at 24		0.407.7	40.0	40.0	550,000,54	700 055 00	000 001 44 045 11	4000 071 4 50 4 14
2,500.0	8.00	254.83	2,497.7	-10.9	-40.3	559,996.54	762,055.92	32° 32' 14.815 N	103° 37' 1.594 W
2,600.0	8.00	254.83	2,596.8	-14.6	-53.8	559,992.90	762,042.48	32° 32′ 14.780 N	103° 37' 1.752 W
2,700.0 2,800.0	8.00	254.83 254.83	2,695.8 2,794.8	-18.2 -21.9	-67.2 -80.6	559,989.26	762,029.05	32° 32' 14.745 N	103° 37' 1.909 W
2,900.0	8.00	254.83	2,794.6	-21.9 -25.5		559,985.61	762,015.62	32° 32′ 14.710 N	103° 37' 2.066 W
3,000.0	8.00 8.00	254.83	2,093.0	-25.5 -29.2	-94.1 -107.5	559,981.97 559,978.33	762,002.19 761,988.76	32° 32' 14.675 N 32° 32' 14.640 N	103° 37' 2.223 W 103° 37' 2.380 W
3,100.0	8.00	254.83	3,091.9	-32.8	-107.3	559,974.68	761,986.76	32° 32' 14.604 N	103° 37′ 2.538 W
3,200.0	8.00	254.83	3,190.9	-36.4	-120.9	559,971.04	761,961.89	32° 32' 14.569 N	103° 37′ 2.695 W
3,300.0	8.00	254.83	3,190.9	-40.1	-147.8	559,967.40	761,948.46	32° 32' 14.534 N	103° 37′ 2.852 W
3,400.0	8.00	254.83	3,389.0	-43.7	-161.2	559,963.76	761,935.03	32° 32' 14.499 N	103° 37′ 2.032 W
3,500.0	8.00	254.83	3,488.0	-47.4	-174.7	559,960.11	761,921.60	32° 32' 14.464 N	103° 37' 3.166 W
3,600.0	8.00	254.83	3,587.0	-51.0	-188.1	559,956.47	761,908.16	32° 32' 14.429 N	103° 37' 3.324 W
3,700.0	8.00	254.83	3,686.0	-54.7	-201.5	559,952.83	761,894.73	32° 32' 14.394 N	103° 37' 3.481 W
3,800.0	8.00	254.83	3,785.1	-58.3	-215.0	559,949.18	761,881.30	32° 32' 14.358 N	103° 37' 3.638 W
3,900.0	8.00	254.83	3,884.1	-61.9	-228.4	559,945.54	761,867.87	32° 32' 14.323 N	103° 37' 3.795 W
4,000.0	8.00	254.83	3,983.1	-65.6	-241.8	559,941.90	761,854.44	32° 32' 14.288 N	103° 37' 3.952 W
4,100.0	8.00	254.83	4,082.2	-69.2	-255.3	559,938.26	761,841.00	32° 32' 14.253 N	103° 37' 4.109 W
4,200.0	8.00	254.83	4,181.2	-72.9	-268.7	559,934.61	761,827.57	32° 32' 14.218 N	103° 37' 4.267 W
4,300.0	8.00	254.83	4,280.2	-76.5	-282.1	559,930.97	761,814.14	32° 32' 14.183 N	103° 37' 4.424 W
4,400.0	8.00	254.83	4,379.2	-80.2	-295.5	559,927.33	761,800.71	32° 32' 14.147 N	103° 37' 4.581 W
4,500.0	8.00	254.83	4,478.3	-83.8	-309.0	559,923.68	761,787.28	32° 32' 14.112 N	103° 37' 4.738 W
4,600.0	8.00	254.83	4,577.3	-87.4	-322.4	559,920.04	761,773.84	32° 32' 14.077 N	103° 37' 4.895 W
4,700.0	8.00	254.83	4,676.3	-91.1	-335.8	559,916.40	761,760.41	32° 32' 14.042 N	103° 37' 5.053 W
4,800.0	8.00	254.83	4,775.3	-94.7	-349.3	559,912.76	761,746.98	32° 32' 14.007 N	103° 37' 5.210 W
4,900.0	8.00	254.83	4,874.4	-98.4	-362.7	559,909.11	761,733.55	32° 32' 13.972 N	103° 37' 5.367 W
5,000.0	8.00	254.83	4,973.4	-102.0	-376.1	559,905.47	761,720.12	32° 32′ 13.937 N	103° 37' 5.524 W
5,100.0	8.00	254.83	5,072.4	-105.7	-389.6	559,901.83	761,706.68	32° 32' 13.901 N	103° 37' 5.681 W



RESOURCES

Database: Compass_17
Company: NEW MEXICO
Project: (SP) LEA

Site: EILEEN 25 FED COM
Well: EILEEN 25 FED COM 142H

Wellbore: OWB
Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

Planned Su	ırvey									
Measur Depth (usft)	n Inclinat	tion	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5.2	00.0	8.00	254.83	5,171.5	-109.3	-403.0	559,898.18	761,693.25	32° 32' 13.866 N	103° 37' 5.839 W
		8.00	254.83	5,270.5	-112.9	-416.4	559,894.54	761,679.82	32° 32' 13.831 N	103° 37' 5.996 W
		8.00	254.83	5,369.5	-116.6	-429.9	559,890.90	761,666.39	32° 32' 13.796 N	103° 37' 6.153 W
		8.00	254.83	5,468.5	-120.2	-443.3	559,887.25	761,652.95	32° 32' 13.761 N	103° 37' 6.310 W
		8.00	254.83	5,520.6	-122.1	-450.4	559,885.34	761,645.89	32° 32' 13.742 N	103° 37' 6.393 W
	t Drop -2.00	0.00	204.00	0,020.0	-122.1	-400.4	000,000.04	701,040.00	02 02 10.74211	100 07 0.000 **
	-	7.05	254.83	5,567.6	-123.8	-456.4	559,883.71	761,639.90	32° 32' 13.727 N	103° 37' 6.463 W
		5.05	254.83	5,667.0	-123.6	-456.5	559,880.95	761,629.72	32° 32' 13.700 N	103° 37′ 6.582 W
			254.83		-120.5	-400.5 -473.4		761,622.91		103° 37′ 6.662 W
		3.05	254.83	5,766.8	-126.4 -129.3	-473.4 -476.8	559,879.11		32° 32′ 13.682 N	I
		1.05 0.00	0.00	5,866.7 5,010.2	-129.3 -129.4		559,878.17	761,619.45	32° 32′ 13.673 N	103° 37' 6.702 W
1				5,919.3	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
	t 3613.2 hold			F 066 7	-129.4	477.0	550 070 04	764 649 00	20° 20' 42 670 N	1020 271 6 700 144
		0.00	0.00	5,966.7 6,066.7		-477.3	559,878.04 550,878.04	761,618.99 761,618.90	32° 32′ 13.672 N	103° 37' 6.708 W
		0.00	0.00		-129.4	-477.3	559,878.04	761,618.99	32° 32′ 13.672 N	103° 37' 6.708 W
		0.00	0.00	6,166.7	-129.4	-477.3	559,878.04	761,618.99	32° 32′ 13.672 N	103° 37' 6.708 W
		0.00	0.00	6,266.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	6,366.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	6,466.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	6,566.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	6,666.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	6,766.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	6,866.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	6,966.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	7,066.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	7,166.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	7,266.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	7,366.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	7,466.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	7,566.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	7,666.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	7,766.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	7,866.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	7,966.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	8,066.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	8,166.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	8,266.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
1		0.00	0.00	8,366.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
1		0.00	0.00	8,466.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	8,566.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	8,666.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	8,766.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	8,866.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	8,966.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
1		0.00	0.00	9,066.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	9,166.7	-129.4	-477.3	559,878.04	761,618.99	32° 32′ 13.672 N	103° 37' 6.708 W
		0.00	0.00	9,266.7	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
		0.00	0.00	9,366.7	-129.4	-477.3	559,878.04	761,618.99	32° 32′ 13.672 N	103° 37' 6.708 W
1		0.00	0.00	9,466.7	-129.4	-477.3	559,878.04	761,618.99	32° 32′ 13.672 N	103° 37' 6.708 W
		0.00	0.00	9,532.5	-129.4	-477.3	559,878.04	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W
	t DLS 12.00 T			0.544.7	100.4	477.0	EEO 070 40	764 640 00	200 201 40 070 1	4020 271 0 700 144
1		1.11	359.62	9,541.7	-129.4	-477.3	559,878.13	761,618.99	32° 32′ 13.673 N	103° 37' 6.708 W
-		4.11	359.62	9,566.7	-128.2	-477.3	559,879.27	761,618.98	32° 32′ 13.684 N	103° 37' 6.708 W
		7.11	359.62	9,591.6	-125.8 122.0	-477.3	559,881.71	761,618.96	32° 32′ 13.708 N	103° 37' 6.708 W
9,6	50.0 1	0.11	359.62	9,616.3	-122.0	-477.3	559,885.45	761,618.94	32° 32' 13.745 N	103° 37' 6.708 W



RESOURCES

Database: Compass_17
Company: NEW MEXICO
Project: (SP) LEA

Site: EILEEN 25 FED COM
Well: EILEEN 25 FED COM 142H

Wellbore: OWB
Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

Planned Survey	,								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,675.0	13.11	359.62	9,640.8	-117.0	-477.4	559,890.48	761,618.90	32° 32' 13.795 N	103° 37' 6.708 W
9,700.0	16.11	359.62	9,665.0	-110.7	-477.4	559,896.78	761,618.86	32° 32' 13.857 N	103° 37' 6.708 W
9,725.0	19.11	359.62	9,688.8	-103.1	-477.4	559,904.35	761,618.81	32° 32' 13.932 N	103° 37' 6.708 W
9,750.0	22.11	359.62	9,712.2	-94.3	-477.5	559,913.14	761,618.75	32° 32' 14.019 N	103° 37' 6.708 W
9,775.0	25.11	359.62	9,735.1	-84.3	-477.6	559,923.15	761,618.69	32° 32' 14.118 N	103° 37' 6.708 W
9,800.0	28.11	359.62	9,757.4	-73.1	-477.6	559,934.35	761,618.61	32° 32' 14.229 N	103° 37' 6.708 W
9,825.0	31.11	359.62	9,779.2	-60.8	-477.7	559,946.70	761,618.53	32° 32' 14.351 N	103° 37' 6.708 W
9,850.0	34.11	359.62	9,800.2	-47.3	-477.8	559,960.17	761,618.44	32° 32′ 14.485 N	103° 37' 6.708 W
9,875.0	37.11	359.62	9,820.6	-32.8	-477.9	559,974.72	761,618.35	32° 32' 14.629 N	103° 37' 6.708 W
9,900.0	40.11	359.62	9,840.1	-17.2	-478.0	559,990.32	761,618.24	32° 32' 14.783 N	103° 37' 6.707 W
9,925.0	43.11	359.62	9,858.8	-0.6	-478.1	560,006.92	761,618.13	32° 32' 14.947 N	103° 37' 6.707 W
9,942.2	45.17	359.62	9,871.1	11.4	-478.2	560,018.87	761,618.05	32° 32' 15.065 N	103° 37' 6.707 W
FTP E25	FC 142H								
9,950.0	46.11	359.62	9,876.6	17.0	-478.2	560,024.47	761,618.01	32° 32' 15.121 N	103° 37' 6.707 W
9,975.0	49.11	359.62	9,893.4	35.4	-478.4	560,042.93	761,617.89	32° 32′ 15.303 N	103° 37' 6.707 W
10,000.0	52.11	359.62	9,909.3	54.8	-478.5	560,062.25	761,617.76	32° 32′ 15.495 N	103° 37' 6.707 W
10,025.0	55.11	359.62	9,924.1	74.9	-478.6	560,082.37	761,617.63	32° 32′ 15.694 N	103° 37' 6.707 W
10,050.0	58.11	359.62	9,937.9	95.8	-478.8	560,103.24	761,617.49	32° 32′ 15.900 N	103° 37' 6.707 W
10,075.0	61.11	359.62	9,950.5	117.3	-478.9	560,124.80	761,617.35	32° 32′ 16.114 N	103° 37' 6.707 W
10,100.0	64.11	359.62	9,962.0	139.5	-479.1	560,146.99	761,617.20	32° 32′ 16.333 N	103° 37' 6.707 W
10,125.0	67.11	359.62	9,972.4	162.3	-479.2	560,169.76	761,617.05	32° 32' 16.558 N	103° 37' 6.707 W
10,150.0	70.11	359.62	9,981.5	185.6	-479.4	560,193.03	761,616.90	32° 32′ 16.789 N	103° 37' 6.707 W
10,175.0	73.11	359.62	9,989.4	209.3	-479.5	560,216.75	761,616.74	32° 32' 17.024 N	103° 37' 6.707 W
10,200.0	76.11	359.62	9,996.0	233.4	-479.7	560,240.85	761,616.58	32° 32' 17.262 N	103° 37' 6.707 W
10,225.0	79.11	359.62	10,001.4	257.8	-479.8	560,265.27	761,616.42	32° 32' 17.504 N	103° 37' 6.707 W
10,250.0	82.11	359.62	10,005.4	282.4	-480.0	560,289.93	761,616.25	32° 32' 17.748 N	103° 37' 6.707 W
10,275.0	85.11	359.62	10,008.2	307.3	-480.2	560,314.77	761,616.09	32° 32' 17.993 N	103° 37' 6.707 W
10,300.0	88.11	359.62	10,009.7	332.2	-480.3	560,339.72	761,615.92	32° 32' 18.240 N	103° 37' 6.707 W
10,315.8	90.00	359.62	10,010.0	348.0	-480.4	560,355.49	761,615.82	32° 32′ 18.396 N	103° 37' 6.707 W
	35.0 hold at 10		40.040.0	400.0	404.0	500 400 70	704 045 00	000 001 40 000 N	4000 071 0 707 144
10,400.0	90.00	359.62	10,010.0	432.2	-481.0	560,439.72	761,615.26	32° 32' 19.230 N	103° 37' 6.707 W
10,500.0	90.00	359.62	10,010.0	532.2	-481.7	560,539.72	761,614.59	32° 32' 20.219 N	103° 37' 6.707 W
10,600.0	90.00	359.62	10,010.0	632.2	-482.3	560,639.71	761,613.93	32° 32' 21.209 N	103° 37' 6.707 W
10,700.0	90.00	359.62 359.62	10,010.0	732.2 832.2	-483.0 -483.7	560,739.71 560,830,71	761,613.27 761,613.60	32° 32' 22.198 N	103° 37' 6.707 W
10,800.0 10,900.0	90.00 90.00	359.62 359.62	10,010.0 10,010.0	932.2 932.2	-483.7 -484.3	560,839.71 560,939.71	761,612.60 761,611.94	32° 32' 23.188 N 32° 32' 24.177 N	103° 37' 6.707 W 103° 37' 6.707 W
11,000.0	90.00	359.62 359.62	10,010.0	1,032.2	-484.3 -485.0	561,039.70	761,611.94 761,611.27	32° 32′ 25.167 N	103° 37′ 6.707 W
11,100.0	90.00	359.62	10,010.0	1,032.2	-465.0 -485.6	561,139.70	761,610.61	32° 32' 26.156 N	103° 37′ 6.707 W
11,100.0	90.00	359.62	10,010.0	1,132.2	-465.6 -486.3	561,139.70	761,609.95	32° 32' 27.146 N	103° 37′ 6.707 W
11,300.0	90.00	359.62	10,010.0	1,332.2	-487.0	561,339.70	761,609.93	32° 32' 28.135 N	103° 37′ 6.706 W
11,400.0	90.00	359.62	10,010.0	1,432.2	-487.6	561,439.70	761,608.62	32° 32' 29.125 N	103° 37' 6.706 W
11,500.0	90.00	359.62	10,010.0	1,432.2	-488.3	561,539.69	761,607.95	32° 32' 30.114 N	103° 37′ 6.706 W
11,600.0	90.00	359.62	10,010.0	1,632.2	-489.0	561,639.69	761,607.29	32° 32' 31.104 N	103° 37' 6.706 W
11,700.0	90.00	359.62	10,010.0	1,732.2	-489.6	561,739.69	761,606.63	32° 32' 32.093 N	103° 37' 6.706 W
11,800.0	90.00	359.62	10,010.0	1,832.2	-490.3	561,839.69	761,605.96	32° 32' 33.083 N	103° 37' 6.706 W
11,900.0	90.00	359.62	10,010.0	1,932.2	-491.0	561,939.68	761,605.30	32° 32' 34.072 N	103° 37' 6.706 W
12,000.0	90.00	359.62	10,010.0	2,032.2	-491.6	562,039.68	761,604.63	32° 32' 35.062 N	103° 37' 6.706 W
12,100.0	90.00	359.62	10,010.0	2,132.2	-492.3	562,139.68	761,603.97	32° 32' 36.051 N	103° 37' 6.706 W
12,200.0	90.00	359.62	10,010.0	2,232.2	-493.0	562,239.68	761,603.31	32° 32' 37.041 N	103° 37' 6.706 W
12,300.0	90.00	359.62	10,010.0	2,332.2	-493.6	562,339.68	761,602.64	32° 32' 38.030 N	103° 37' 6.706 W
12,400.0	90.00	359.62	10,010.0	2,432.2	-494.3	562,439.67	761,601.98	32° 32' 39.020 N	103° 37' 6.705 W
12,500.0	90.00	359.62	10,010.0	2,532.2	-494.9	562,539.67	761,601.32	32° 32' 40.009 N	103° 37' 6.705 W
12,600.0	90.00	359.62	10,010.0	2,632.2	-495.6	562,639.67	761,600.65	32° 32' 40.999 N	103° 37' 6.705 W
12,700.0	90.00	359.62	10,010.0	2,732.2	-496.3	562,739.67	761,599.99	32° 32' 41.988 N	103° 37' 6.705 W
.2,700.0	00.00	550.02	. 5,5 10.5	_,. 0	.00.0	552,100.01	,000.00	32 32 11.00014	



RESOURCES

Database: Compass_17
Company: NEW MEXICO

Site: EILEEN 25 FED COM
Well: EILEEN 25 FED COM 142H

(SP) LEA

Wellbore: OWB
Design: PWP0

Project:

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

rence: KB @ 3/10.0usπ

KB @ 3710.0usft KB @ 3710.0usft

Grid Minimum Curvature

Well EILEEN 25 FED COM 142H

Design:	PWP0								
Planned Survey	,								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
12,800.0	90.00	359.62	10,010.0	2,832.2	-496.9	562,839.66	761,599.32	32° 32' 42.978 N	103° 37' 6.705 W
12,900.0	90.00	359.62	10,010.0	2,932.2	-497.6	562,939.66	761,598.66	32° 32' 43.967 N	103° 37' 6.705 W
13,000.0	90.00	359.62	10,010.0	3,032.2	-498.3	563,039.66	761,598.00	32° 32' 44.957 N	103° 37' 6.705 W
13,100.0	90.00	359.62	10,010.0	3,132.2	-498.9	563,139.66	761,597.33	32° 32' 45.946 N	103° 37' 6.705 W
13,200.0	90.00	359.62	10,010.0	3,232.2	-499.6	563,239.66	761,596.67	32° 32′ 46.936 N	103° 37' 6.705 W
13,300.0	90.00	359.62	10,010.0	3,332.2	-500.3	563,339.65	761,596.00	32° 32′ 47.925 N	103° 37' 6.705 W
13,400.0	90.00	359.62	10,010.0	3,432.2	-500.9	563,439.65	761,595.34	32° 32' 48.915 N	103° 37' 6.705 W
13,500.0	90.00	359.62	10,010.0	3,532.2	-501.6	563,539.65	761,594.68	32° 32′ 49.904 N	103° 37' 6.705 W
13,600.0	90.00	359.62	10,010.0	3,632.2	-502.2	563,639.65	761,594.01	32° 32′ 50.894 N	103° 37' 6.704 W
13,700.0	90.00	359.62	10,010.0	3,732.2	-502.9	563,739.64	761,593.35	32° 32′ 51.883 N	103° 37' 6.704 W
13,800.0	90.00	359.62	10,010.0	3,832.2	-503.6	563,839.64	761,592.68	32° 32' 52.873 N	103° 37' 6.704 W
13,900.0	90.00	359.62	10,010.0	3,932.2 4,032.2	-504.2 -504.9	563,939.64 564,039.64	761,592.02	32° 32' 53.862 N 32° 32' 54.852 N	103° 37' 6.704 W
14,000.0 14,100.0	90.00 90.00	359.62 359.62	10,010.0 10,010.0	4,032.2 4,132.2	-504.9 -505.6	564,139.64	761,591.36 761,590.69	32° 32' 55.841 N	103° 37' 6.704 W 103° 37' 6.704 W
14,100.0	90.00	359.62	10,010.0	4,132.2	-506.2	564,239.63	761,590.09	32° 32' 56.831 N	103° 37' 6.704 W
14,300.0	90.00	359.62	10,010.0	4,332.1	-506.9	564,339.63	761,589.36	32° 32' 57.820 N	103° 37' 6.704 W
14,400.0	90.00	359.62	10,010.0	4,432.1	-507.6	564,439.63	761,588.70	32° 32' 58.810 N	103° 37' 6.704 W
14,500.0	90.00	359.62	10,010.0	4,532.1	-508.2	564,539.63	761,588.04	32° 32' 59.799 N	103° 37' 6.704 W
14,600.0	90.00	359.62	10,010.0	4,632.1	-508.9	564,639.63	761,587.37	32° 33' 0.789 N	103° 37' 6.704 W
14,700.0	90.00	359.62	10,010.0	4,732.1	-509.5	564,739.62	761,586.71	32° 33′ 1.778 N	103° 37' 6.703 W
14,800.0	90.00	359.62	10,010.0	4,832.1	-510.2	564,839.62	761,586.04	32° 33' 2.768 N	103° 37' 6.703 W
14,900.0	90.00	359.62	10,010.0	4,932.1	-510.9	564,939.62	761,585.38	32° 33' 3.757 N	103° 37' 6.703 W
15,000.0	90.00	359.62	10,010.0	5,032.1	-511.5	565,039.62	761,584.72	32° 33′ 4.747 N	103° 37' 6.703 W
15,100.0	90.00	359.62	10,010.0	5,132.1	-512.2	565,139.61	761,584.05	32° 33′ 5.736 N	103° 37' 6.703 W
15,200.0	90.00	359.62	10,010.0	5,232.1	-512.9	565,239.61	761,583.39	32° 33′ 6.726 N	103° 37' 6.703 W
15,300.0	90.00	359.62	10,010.0	5,332.1	-513.5	565,339.61	761,582.72	32° 33' 7.715 N	103° 37' 6.703 W
15,400.0	90.00	359.62	10,010.0	5,432.1	-514.2	565,439.61	761,582.06	32° 33' 8.705 N	103° 37' 6.703 W
15,500.0	90.00	359.62	10,010.0	5,532.1	-514.9	565,539.61	761,581.40	32° 33' 9.694 N	103° 37' 6.703 W
15,600.0 15,700.0	90.00 90.00	359.62 359.62	10,010.0 10,010.0	5,632.1 5,732.1	-515.5 -516.2	565,639.60 565,739.60	761,580.73 761,580.07	32° 33' 10.684 N 32° 33' 11.673 N	103° 37' 6.703 W 103° 37' 6.703 W
15,800.0	90.00	359.62	10,010.0	5,732.1	-516.2 -516.9	565,839.60	761,580.07 761,579.41	32° 33' 12.663 N	103° 37' 6.703 W
15,900.0	90.00	359.62	10,010.0	5,932.1	-517.5	565,939.60	761,578.74	32° 33' 13.652 N	103° 37′ 6.703 W
16,000.0	90.00	359.62	10,010.0	6,032.1	-518.2	566,039.59	761,578.08	32° 33' 14.642 N	103° 37' 6.702 W
16,100.0	90.00	359.62	10,010.0	6,132.1	-518.8	566,139.59	761,577.41	32° 33' 15.631 N	103° 37' 6.702 W
16,200.0	90.00	359.62	10,010.0	6,232.1	-519.5	566,239.59	761,576.75	32° 33' 16.621 N	103° 37' 6.702 W
16,300.0	90.00	359.62	10,010.0	6,332.1	-520.2	566,339.59	761,576.09	32° 33' 17.610 N	103° 37' 6.702 W
16,400.0	90.00	359.62	10,010.0	6,432.1	-520.8	566,439.59	761,575.42	32° 33′ 18.600 N	103° 37' 6.702 W
16,500.0	90.00	359.62	10,010.0	6,532.1	-521.5	566,539.58	761,574.76	32° 33′ 19.589 N	103° 37' 6.702 W
16,600.0		359.62	10,010.0	6,632.1	-522.2	566,639.58	761,574.09	32° 33' 20.579 N	103° 37' 6.702 W
16,700.0		359.62	10,010.0	6,732.1	-522.8	566,739.58	761,573.43	32° 33' 21.568 N	103° 37' 6.702 W
16,800.0		359.62	10,010.0	6,832.1	-523.5	566,839.58	761,572.77	32° 33' 22.558 N	103° 37' 6.702 W
16,900.0		359.62	10,010.0	6,932.1	-524.2	566,939.57	761,572.10	32° 33' 23.547 N	103° 37' 6.702 W
17,000.0		359.62	10,010.0	7,032.1	-524.8	567,039.57	761,571.44	32° 33' 24.537 N	103° 37' 6.702 W
17,100.0		359.62 359.62	10,010.0	7,132.1 7,232.1	-525.5 526.1	567,139.57 567,230,57	761,570.77	32° 33' 25.526 N	103° 37' 6.701 W
17,200.0 17,300.0		359.62 359.62	10,010.0 10,010.0	7,232.1 7,332.1	-526.1 -526.8	567,239.57 567,339,57	761,570.11 761,569.45	32° 33' 26.516 N 32° 33' 27.505 N	103° 37' 6.701 W 103° 37' 6.701 W
17,400.0		359.62	10,010.0	7,332.1 7,432.1	-526.6 -527.5	567,339.57 567,439.56	761,569.45 761,568.78	32° 33' 28.495 N	103° 37' 6.701 W
17,500.0		359.62	10,010.0	7,432.1	-527.5 -528.1	567,539.56	761,568.12	32° 33' 29.484 N	103° 37' 6.701 W
17,600.0		359.62	10,010.0	7,632.1	-528.8	567,639.56	761,567.45	32° 33' 30.474 N	103° 37' 6.701 W
17,650.8		359.62	10,010.0	7,682.8	-529.1	567,690.33	761,567.12	32° 33' 30.976 N	103° 37' 6.701 W
			P2 E25FC 142H		-	,	, , , ,		
17,700.0		359.62	10,010.0	7,732.1	-529.5	567,739.56	761,566.79	32° 33' 31.463 N	103° 37' 6.701 W
17,800.0		359.62	10,010.0	7,832.1	-530.1	567,839.55	761,566.13	32° 33′ 32.453 N	103° 37' 6.701 W
17,900.0		359.62	10,010.0	7,932.1	-530.8	567,939.55	761,565.46	32° 33' 33.442 N	103° 37' 6.701 W



Database: Compass_17
Company: NEW MEXICO
Project: (SP) LEA

RESOURCES

Site: EILEEN 25 FED COM
Well: EILEEN 25 FED COM 142H

Wellbore: OWB
Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
18,000.0	90.00	359.62	10,010.0	8,032.1	-531.5	568,039.55	761,564.80	32° 33' 34.432 N	103° 37' 6.701 W
18,100.0	90.00	359.62	10,010.0	8,132.1	-532.1	568,139.55	761,564.13	32° 33' 35.421 N	103° 37' 6.701 V
18,200.0	90.00	359.62	10,010.0	8,232.1	-532.8	568,239.55	761,563.47	32° 33' 36.411 N	103° 37' 6.700 V
18,300.0	90.00	359.62	10,010.0	8,332.1	-533.5	568,339.54	761,562.81	32° 33' 37.400 N	103° 37' 6.700 V
18,400.0	90.00	359.62	10,010.0	8,432.1	-534.1	568,439.54	761,562.14	32° 33' 38.390 N	103° 37' 6.700 V
18,500.0	90.00	359.62	10,010.0	8,532.1	-534.8	568,539.54	761,561.48	32° 33' 39.379 N	103° 37' 6.700 V
18,600.0	90.00	359.62	10,010.0	8,632.1	-535.4	568,639.54	761,560.81	32° 33' 40.369 N	103° 37' 6.700 V
18,700.0	90.00	359.62	10,010.0	8,732.1	-536.1	568,739.53	761,560.15	32° 33' 41.358 N	103° 37' 6.700 V
18,800.0	90.00	359.62	10,010.0	8,832.0	-536.8	568,839.53	761,559.49	32° 33' 42.348 N	103° 37' 6.700 V
18,900.0	90.00	359.62	10,010.0	8,932.0	-537.4	568,939.53	761,558.82	32° 33' 43.337 N	103° 37' 6.700 V
19,000.0	90.00	359.62	10,010.0	9,032.0	-538.1	569,039.53	761,558.16	32° 33' 44.327 N	103° 37' 6.700 V
19,100.0	90.00	359.62	10,010.0	9,132.0	-538.8	569,139.53	761,557.50	32° 33' 45.316 N	103° 37' 6.700 V
19,200.0	90.00	359.62	10,010.0	9,232.0	-539.4	569,239.52	761,556.83	32° 33' 46.306 N	103° 37' 6.700 V
19,300.0	90.00	359.62	10,010.0	9,332.0	-540.1	569,339.52	761,556.17	32° 33' 47.295 N	103° 37' 6.699 V
19,400.0	90.00	359.62	10,010.0	9,432.0	-540.8	569,439.52	761,555.50	32° 33' 48.285 N	103° 37' 6.699 V
19,500.0	90.00	359.62	10,010.0	9,532.0	-541.4	569,539.52	761,554.84	32° 33' 49.274 N	103° 37' 6.699 V
19,600.0	90.00	359.62	10,010.0	9,632.0	-542.1	569,639.52	761,554.18	32° 33' 50.264 N	103° 37' 6.699 V
19,700.0	90.00	359.62	10,010.0	9,732.0	-542.7	569,739.51	761,553.51	32° 33' 51.253 N	103° 37' 6.699 V
19,800.0	90.00	359.62	10,010.0	9,832.0	-543.4	569,839.51	761,552.85	32° 33' 52.243 N	103° 37' 6.699 V
19,900.0	90.00	359.62	10,010.0	9,932.0	-544.1	569,939.51	761,552.18	32° 33' 53.232 N	103° 37' 6.699 V
20,000.0	90.00	359.62	10,010.0	10,032.0	-544.7	570,039.51	761,551.52	32° 33' 54.222 N	103° 37' 6.699 V
20,100.0	90.00	359.62	10,010.0	10,132.0	-545.4	570,139.50	761,550.86	32° 33' 55.211 N	103° 37' 6.699 V
20,200.1	90.00	359.62	10,010.0	10,232.1	-546.0	570,239.57	761,550.27	32° 33' 56.201 N	103° 37' 6.698 V
TD at 202	200.1 - LTP E2	25FC 142H							

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP E25FC 142H - plan hits target cent - Point	0.00 er	0.00	10,010.0	10,232.1	-546.0	570,239.57	761,550.27	32° 33′ 56.201 N	103° 37' 6.698 W
PP2 E25FC 142H - plan hits target cent - Point	0.00 er	0.00	10,010.0	7,682.8	-529.1	567,690.33	761,567.12	32° 33′ 30.976 N	103° 37' 6.701 W
FTP E25FC 142H - plan misses target c - Point	0.00 enter by 197	0.00 .8usft at 994	10,010.0 2.2usft MD (-129.4 9871.1 TVD, 1	-477.3 11.4 N, -478.2	559,878.04 E)	761,618.99	32° 32' 13.672 N	103° 37' 6.708 W

Plan Annotations					
Measure Depth			cal Coordinates +E/-W		
(usft)	(usfi		(usft)		Comment
2,00	0.0 2,0	0.00	0.0	0.0	Start Build 2.00
2,40	0.0 2,3	98.7	-7.3	-26.9	Start 3152.6 hold at 2400.0 MD
5,55	2.6 5,5	520.6 -12	2.1 -4	150.4	Start Drop -2.00
5,95	2.6 5,9	19.3 -12	9.4 -4	177.3	Start 3613.2 hold at 5952.6 MD
9,56	5.8 9,5	32.5 -12	9.4 -4	177.3	Start DLS 12.00 TFO 359.62
10,31	5.8 10,0	110.0 34	8.0 -4	180.4	Start 7335.0 hold at 10315.8 MD
17,65	0.8 10,0	7,68	2.8 -5	529.1	Start 2549.3 hold at 17650.8 MD
20,20	0.1 10,0	10.0 10,23	2.1 -5	546.0	TD at 20200.1



NEW MEXICO

(SP) LEA EILEEN 25 FED COM EILEEN 25 FED COM 142H

OWB PWP0

Anticollision Report

28 January, 2025

PERMIAN RESOURCES

Anticollision Report

Company: **NEW MEXICO** Project: (SP) LEA

EILEEN 25 FED COM Reference Site:

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft Reference Wellbore **OWB** Reference Design: PWP0

Local Co-ordinate Reference:

Well EILEEN 25 FED COM 142H TVD Reference: KB @ 3710.0usft MD Reference: KB @ 3710.0usft

North Reference: Grid

Minimum Curvature **Survey Calculation Method:**

Output errors are at 2.00 sigma Database: Compass_17 Offset TVD Reference: Offset Datum

Reference PWP0

Filter type: NO GLOBAL FILTER: Using user defined selection & filtering criteria

Interpolation Method: Stations Error Model: **ISCWSA**

Depth Range: Unlimited Scan Method: Closest Approach 3D Results Limited by: Maximum centre distance of 1,000.0usft Error Surface: Pedal Curve Warning Levels Evaluated at: 2.00 Sigma **Casing Method:** Not applied

Date 1/28/2025 Survey Tool Program

> From То

(usft)

(usft) Survey (Wellbore) **Tool Name** Description

20,200.1 PWP0 (OWB) MWD 0.0 OWSG_Rev2_ MWD - Standard

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Dista Between Centres (usft)	nce Between Ellipses (usft)	Separation Factor	Warning
EILEEN 25 FED COM						
EILEEN 25 FED COM 111H - OWB - PWP0 EILEEN 25 FED COM 112H - OWB - PWP0 EILEEN 25 FED COM 113H - OWB - PWP0 EILEEN 25 FED COM 113H - OWB - PWP0 EILEEN 25 FED COM 141H - OWB - PWP0 EILEEN 25 FED COM 143H - OWB - PWP0 EILEEN 25 FED COM 143H - OWB - PWP0 EILEEN 25 FED COM 143H - OWB - PWP0 EILEEN 25 FED COM 143H - OWB - PWP0 EILEEN 25 FED COM 171H - OWB - PWP0 EILEEN 25 FED COM 204H - OWB - PWP0	1,900.0 2,385.5 20,200.1 1,165.6 1,200.0 3,000.0	1,900.0 2,481.0 19,816.2 1,168.6 1,200.0 2,900.7	15.0 694.4 944.7 714.9 714.9 986.5 729.9 979.8	1.6 677.4 616.0 706.8 706.6 965.7 715.8 956.6	40.962 2.874 87.695 85.233 47.583 51.640	ES, SF Out of range CC ES SF Out of range CC, ES
EILEEN 25 FED COM 204H - OWB - PWP0 EILEEN 25 FED COM 231H - OWB - PWP0	3,400.0	3,264.5	979.8	950.0	42.315	Out of range
EILEEN 25 FED COM 232H - OWB - PWP0 EILEEN 25 FED COM 232H - OWB - PWP0 EILEEN 25 FED COM 232H - OWB - PWP0 EILEEN 25 FED COM 233H - OWB - PWP0 EILEEN 25 FED COM 233H - OWB - PWP0 EILEEN 25 FED COM 233H - OWB - PWP0 EILEEN 25 FED COM 234H - OWB - PWP0 EILEEN 25 FED COM 234H - OWB - PWP0 EILEEN 25 FED COM 234H - OWB - PWP0 EILEEN 25 FED COM 234H - OWB - PWP0	9,565.8 9,650.0 9,775.0 2,358.8 2,400.0 9,850.0 1,765.6 1,800.0 3,000.0	9,576.6 9,660.4 9,779.2 2,451.3 2,492.5 9,829.7 1,768.6 1,800.0 2,872.2	447.9 448.1 451.1 715.2 715.4 887.3 759.8 759.8 992.9	380.1 379.8 381.9 698.4 698.4 818.0 747.4 747.1 972.5	6.611 6.558 6.518 42.776 42.064 12.802 61.009 59.877 48.670	CC ES SF CC ES SF CC ES SF CC ES

Offset Des	sign: Ell	LEEN 25 FE	ED COM -	EILEEN 25		Offset Site Error:	0.0 usft							
Survey Progr Refer Measured		MWD Off Measured	set Vertical	Semi M	Major Axis Offset	Highside	Offset Wellbo	ore Centre	Dis Between	Rule Assi tance Between	gned: Minimum	Separation	Offset Well Error: Warning	0.0 usft
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor	vuilling	
0.0	0.0	0.0	0.0	0.0	0.0	-90.38	-0.1	-15.0	15.0	, ,	, ,			
100.0	100.0	100.0	100.0	0.3	0.3	-90.38	-0.1	-15.0	15.0	14.5	0.50	29.850		
200.0	200.0	200.0	200.0	0.6	0.6	-90.38	-0.1	-15.0	15.0	13.8	1.22	12.291		
300.0	300.0	300.0	300.0	1.0	1.0	-90.38	-0.1	-15.0	15.0	13.0	1.94	7.739		
400.0	400.0	400.0	400.0	1.3	1.3	-90.38	-0.1	-15.0	15.0	12.3	2.65	5.647		
500.0	500.0	500.0	500.0	1.7	1.7	-90.38	-0.1	-15.0	15.0	11.6	3.37	4.446		



Company: NEW MEXICO
Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference: KB @ 3710.0usft KB @ 3710.0usft

Grid

Well EILEEN 25 FED COM 142H

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma
Database: Compass_17

Offset TVD Reference: Offset Datum

Offset De	sign: E	EILEEN 25 F	ED COM -	EILEEN 25	FED CC	M 112H - O	WB - PWP0						Offset Site Error:	0.0 usft
Survey Progr		0-MWD								Rule Assi	gned:		Offset Well Error:	0.0 usft
Refe Measured	rence Vertical	Off Measured	fset Vertical	Semi M Reference	Major Axis Offset	Highside	Offset Wellbo	ore Centre	Dist Between	ance Between	Minimum	Separation	Warning	
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor		
(usft) 600.0	(usft) 600.	(usft) .0 600.0	(usft) 600.0	(usft) 2.0	(usft) 2.0	(°) -90.38	(usft) -0.1	(usft) -15.0	(usft) 15.0	(usft) 10.9	(usft) 4.09	3.666		
700.0	700.		700.0	2.4	2.4	-90.38	-0.1 -0.1	-15.0	15.0	10.9	4.80	3.119		
800.0	800.		800.0	2.8	2.8	-90.38	-0.1	-15.0	15.0	9.5	5.52	2.714		
900.0	900.		900.0	3.1	3.1	-90.38	-0.1	-15.0	15.0	8.7	6.24	2.402		
1,000.0	1,000.	0 1,000.0	1,000.0	3.5	3.5	-90.38	-0.1	-15.0	15.0	8.0	6.95	2.154		
1,100.0	1,100.	0 1,100.0	1,100.0	3.8	3.8	-90.38	-0.1	-15.0	15.0	7.3	7.67	1.953		
1,200.0	1,200.	.0 1,200.0	1,200.0	4.2	4.2	-90.38	-0.1	-15.0	15.0	6.6	8.39	1.786		
1,300.0	1,300.	0 1,300.0	1,300.0	4.6	4.6	-90.38	-0.1	-15.0	15.0	5.9	9.11	1.645		
1,400.0	1,400.	0 1,400.0	1,400.0	4.9	4.9	-90.38	-0.1	-15.0	15.0	5.2	9.82	1.525		
1,500.0	1,500.	0 1,500.0	1,500.0	5.3	5.3	-90.38	-0.1	-15.0	15.0	4.4	10.54	1.421 Leve	el 3	
1,600.0	1,600.	0 1,600.0	1,600.0	5.6	5.6	-90.38	-0.1	-15.0	15.0	3.7	11.26	1.331 Leve	el 3	
1,700.0	1,700.	0 1,700.0	1,700.0	6.0	6.0	-90.38	-0.1	-15.0	15.0	3.0	11.97	1.251 Leve	el 3	
1,800.0	1,800.		1,800.0	6.3	6.3	-90.38	-0.1	-15.0	15.0	2.3	12.69	1.180 Leve		
1,900.0	1,900.	0 1,900.0	1,900.0	6.7	6.7	-90.38	-0.1	-15.0	15.0	1.6	13.41	1.117 Leve	el 3, CC, ES, SF	
2,000.0	2,000.	0 1,999.4	1,999.4	7.1	7.1	-90.78	-0.2	-16.7	16.7	2.6	14.11	1.185 Leve	el 3	
2,100.0	2,100.	0 2,098.7	2,098.6	7.4	7.4	14.72	-0.6	-21.9	20.2	5.4	14.77	1.369 Leve	el 3	
2,200.0	2,199.	8 2,197.9	2,197.4	7.7	7.7	16.52	-1.2	-30.4	23.8	8.4	15.41	1.546		
2,300.0	2,299.		2,295.7	8.1	8.1	19.19	-2.1	-42.4	27.5	11.5	16.03	1.719		
2,400.0	2,398.		2,393.4	8.4	8.4	22.36	-3.2	-57.7	31.5	14.8	16.65	1.891		
2,500.0	2,497.		2,491.7	8.8	8.8	25.32	-4.5	-75.0	35.7	18.4	17.34	2.060		
2,600.0	2,596.	8 2,595.6	2,590.1	9.2	9.2	27.65	-5.8	-92.3	40.0	22.0	18.05	2.219		
2,700.0	2,695.	8 2,695.5	2,688.5	9.5	9.6	29.52	-7.1	-109.6	44.4	25.6	18.76	2.367		
2,800.0	2,794.		2,786.9	9.9	10.0	31.06	-8.3	-126.9	48.8	29.3	19.48	2.506		
2,900.0	2,893.		2,885.2	10.3	10.4	32.34	-9.6	-144.2	53.3	33.1	20.20	2.636		
3,000.0	2,992.		2,983.6	10.7	10.8	33.42	-10.9	-161.5	57.7	36.8	20.94	2.757		
3,100.0	3,091.	9 3,095.1	3,082.0	11.0	11.2	34.35	-12.2	-178.8	62.2	40.5	21.67	2.870		
3,200.0	3,190.	9 3,195.0	3,180.4	11.4	11.6	35.15	-13.4	-196.1	66.7	44.3	22.41	2.975		
3,300.0	3,289.		3,278.7	11.8	12.0	35.85	-14.7	-213.4	71.2	48.0	23.16	3.074		
3,400.0	3,389.		3,377.1	12.2	12.4	36.47	-16.0	-230.7	75.7	51.8	23.91	3.166		
3,500.0	3,488.		3,475.5	12.6	12.8	37.02	-17.3	-248.0	80.2	55.6	24.66	3.253		
3,600.0	3,587.	0 3,594.6	3,573.9	13.0	13.2	37.51	-18.5	-265.3	84.8	59.3	25.42	3.334		
3,700.0	3,686.	0 3,694.5	3,672.3	13.4	13.7	37.95	-19.8	-282.6	89.3	63.1	26.18	3.410		
3,800.0	3,785.		3,770.6	13.8	14.1	38.35	-21.1	-299.9	93.8	66.9	26.94	3.482		
3,900.0	3,884.		3,869.0	14.2	14.5	38.71	-22.3	-317.2	98.4	70.7	27.71	3.550		
4,000.0	3,983.		3,967.4	14.6	14.9	39.04	-23.6	-334.5	102.9	74.4	28.48	3.614		
4,100.0	4,082.		4,065.8	15.0	15.4	39.34	-24.9	-351.8	107.5	78.2	29.25	3.674		
4,200.0	4,181.	2 4,193.9	4,164.1	15.4	15.8	39.61	-26.2	-369.1	112.0	82.0	30.02	3.731		
4,300.0	4,181.		4,262.5	15.4	16.2	39.87	-20.2	-386.4	116.6	85.8	30.79	3.785		
4,400.0	4,379.		4,360.9	16.2	16.7	40.11	-28.7	-403.7	121.1	89.5	31.57	3.837		
4,500.0	4,478.		4,459.3	16.6	17.1	40.32	-30.0	-421.0	125.7	93.3	32.35	3.885		
4,600.0	4,577.		4,557.6	17.0	17.5	40.53	-31.3	-438.3	130.2	97.1	33.12	3.932		
4,700.0	4,676.	3 46034	4,656.0	17.4	10.0	40.72	22.5	_AEE &	134.8	100.9	22.00	3.976		
4,700.0	4,676. 4,775.		4,056.0	17.4	18.0 18.4	40.72	-32.5 -33.8	-455.6 -472.9	134.8	100.9	33.90 34.69	4.018		
4,900.0	4,773.		4,852.8	18.2	18.9	41.06	-35.1	-472.9	143.9	104.7	35.47	4.018		
5,000.0	4,973.		4,951.2	18.6	19.3	41.22	-36.4	-507.5	148.5	112.2	36.25	4.096		
5,100.0	5,072.		5,049.5	19.0	19.7	41.36	-37.6	-524.8	153.1	116.0	37.04	4.132		
	E 474			40.5	00.0			E40.4		440.0	07.00	4.407		
5,200.0 5,300.0	5,171. 5,270.		5,147.9 5,246.3	19.5 19.9	20.2 20.6	41.50 41.63	-38.9 -40.2	-542.1 -559.4	157.6 162.2	119.8 123.6	37.82 38.61	4.167 4.201		
5,400.0	5,369.		5,344.7	20.3	21.1	41.75	-40.2 -41.5	-576.7	166.8	127.4	39.40	4.233		
5,500.0	5,468.		5,443.0	20.7	21.5	41.87	-42.7	-594.0	171.3	131.1	40.19	4.263		
5,552.6	5,520.		5,494.7	20.9	21.7	41.93	-43.4	-603.0	173.7	133.1	40.60	4.279		
E 600 0	F 507	6 F F00 4	E F 4 4 A	04.4	24.0	44.00	44.0	644.0	476.0	105.0	40.07	4 200		
5,600.0	5,567.	6 5,592.4	5,541.4	21.1	21.9	41.93	-44.0	-611.3	176.2	135.2	40.97	4.300		

PERMIAN RESOURCES

Anticollision Report

Company: NEW MEXICO Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference: Survey Calculation Method:

Output errors are at Database:

Offset TVD Reference:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

Survey Program: 0-MWD Rule Assigned: Reference Offset Semi Major Axis Offset Wellbore Centre Distance Measured Vertical Measured Vertical Reference Offset Highside Between Between Minimum		Offset Site Error: Offset Well Error:	0.0 usft
Reference Offset Semi Major Axis Offset Wellbore Centre Distance			0.0 usft
I MEASUREU VEUUGI MEASUREO VETUCAI RETERENCE UTISET FIONSIOE - BETWEEN KETWEEN KETWEEN MINIMUM	Separation	Warning	
Depth Depth Depth Depth Toolface +N/-S +E/-W Centres Ellipses Separation	Factor		
(usft) (usft)<	4.395		
5,800.0 5,766.8 5,791.6 5,737.5 21.9 22.8 40.31 -46.5 -645.7 193.1 150.7 42.40	4.554		
5,900.0 5,866.7 5,890.6 5,835.1 22.2 23.3 38.73 -47.8 -662.9 205.6 162.6 43.04	4.777		
5,952.6 5,919.3 5,942.5 5,886.1 22.4 23.5 -67.41 -48.5 -671.9 213.4 170.0 43.36	4.920		
6,000.0 5,966.7 5,989.2 5,932.1 22.6 23.7 -68.37 -49.1 -680.0 220.8 177.1 43.65	5.058		
6,100.0 6,066.7 6,087.7 6,029.1 22.9 24.2 -70.20 -50.3 -697.0 236.6 192.3 44.27	5.344		
6,200.0 6,166.7 6,186.1 6,126.1 23.2 24.6 -71.80 -51.6 -714.1 252.6 207.7 44.90	5.625		
6,300.0 6,266.7 6,284.6 6,223.1 23.5 25.0 -73.21 -52.8 -731.1 268.7 223.2 45.54	5.901		
6,400.0 6,366.7 6,383.1 6,320.1 23.9 25.5 -74.46 -54.1 -748.2 285.0 238.8 46.19	6.171		
6,500.0 6,466.7 6,481.6 6,417.0 24.2 25.9 -75.57 -55.3 -765.2 301.5 254.6 46.85 6,600.0 6,566.7 6,580.1 6,514.0 24.5 26.4 -76.57 -56.6 -782.3 318.0 270.5 47.52	6.435		
6,600.0 6,566.7 6,580.1 6,514.0 24.5 26.4 -76.57 -56.6 -782.3 318.0 270.5 47.52	6.692		
6,700.0 6,666.7 6,678.5 6,611.0 24.9 26.8 -77.47 -57.8 -799.3 334.6 286.4 48.19	6.944		
6,800.0 6,766.7 6,777.0 6,708.0 25.2 27.2 -78.28 -59.1 -816.4 351.3 302.4 48.86	7.189		
6,900.0 6,866.7 6,875.5 6,805.0 25.5 27.7 -79.02 -60.4 -833.5 368.0 318.5 49.55	7.428		
7,000.0 6,966.7 6,974.0 6,902.0 25.9 28.1 -79.70 -61.6 -850.5 384.8 334.6 50.23 7,100.0 7,066.7 7,072.5 6,999.0 26.2 28.6 -80.32 -62.9 -867.6 401.7 350.8 50.92	7.661 7.889		
7,100.0 7,066.7 7,072.5 6,999.0 26.2 28.6 -80.32 -62.9 -867.6 401.7 350.8 50.92	1.889		
7,200.0 7,166.7 7,173.9 7,098.8 26.5 29.0 -80.90 -64.2 -885.0 418.5 366.9 51.64	8.104		
7,300.0 7,266.7 7,289.5 7,213.2 26.9 29.5 -81.43 -65.4 -902.0 432.8 380.3 52.48	8.247		
7,400.0 7,366.7 7,406.4 7,329.4 27.2 30.0 -81.78 -66.3 -914.4 443.2 390.0 53.26	8.322		
7,500.0 7,466.7 7,524.1 7,446.9 27.5 30.4 -81.99 -66.9 -922.1 449.6 395.7 53.97	8.331		
7,600.0 7,566.7 7,642.3 7,565.0 27.9 30.8 -82.07 -67.1 -925.0 452.0 397.4 54.60	8.278		
7,700.0 7,666.7 7,744.0 7,666.7 28.2 31.1 -82.07 -67.1 -925.0 452.0 396.8 55.27	8.178		
7,800.0 7,766.7 7,844.0 7,766.7 28.5 31.4 -82.07 -67.1 -925.0 452.0 396.1 55.95	8.079		
7,900.0 7,866.7 7,944.0 7,866.7 28.9 31.7 -82.07 -67.1 -925.0 452.0 395.4 56.63	7.982		
8,000.0 7,966.7 8,044.0 7,966.7 29.2 32.0 -82.07 -67.1 -925.0 452.0 394.7 57.32	7.887		
8,100.0 8,066.7 8,144.0 8,066.7 29.6 32.3 -82.07 -67.1 -925.0 452.0 394.0 58.00	7.794		
8,200.0 8,166.7 8,244.0 8,166.7 29.9 32.6 -82.07 -67.1 -925.0 452.0 393.4 58.68	7.703		
8,300.0 8,266.7 8,344.0 8,266.7 30.2 32.9 -82.07 -67.1 -925.0 452.0 392.7 59.37	7.614		
8,400.0 8,366.7 8,444.0 8,366.7 30.6 33.3 -82.07 -67.1 -925.0 452.0 392.0 60.05	7.528		
8,500.0 8,466.7 8,544.0 8,466.7 30.9 33.6 -82.07 -67.1 -925.0 452.0 391.3 60.74	7.443		
8,600.0 8,566.7 8,644.0 8,566.7 31.3 33.9 -82.07 -67.1 -925.0 452.0 390.6 61.42	7.359		
8,700.0 8,666.7 8,744.0 8,666.7 31.6 34.2 -82.07 -67.1 -925.0 452.0 389.9 62.11	7.278		
8,800.0 8,766.7 8,844.0 8,766.7 32.0 34.5 -82.07 -67.1 -925.0 452.0 389.2 62.80	7.198		
8,900.0 8,866.7 8,944.0 8,866.7 32.3 34.8 -82.07 -67.1 -925.0 452.0 388.6 63.49	7.120		
9,000.0 8,966.7 9,044.0 8,966.7 32.6 35.2 -82.07 -67.1 -925.0 452.0 387.9 64.17	7.044		
9,100.0 9,066.7 9,144.0 9,066.7 33.0 35.5 -82.07 -67.1 -925.0 452.0 387.2 64.86	6.969		
9,200.0 9,166.7 9,244.0 9,166.7 33.3 35.8 -82.07 -67.1 -925.0 452.0 386.5 65.55	6.896		
9,210.0 9,176.7 9,254.0 9,176.7 33.4 35.8 -82.07 -67.1 -925.0 452.0 386.4 65.62	6.888		
9,300.0 9,266.7 9,338.6 9,261.3 33.7 36.1 -81.88 -65.5 -925.0 452.3 386.0 66.27	6.825		
9,400.0 9,366.7 9,425.0 9,346.3 34.0 36.4 -80.04 -50.8 -925.1 455.1 388.1 67.04 0,500.0 0,466.7 0,600.0 0,446.0 24.4 26.6 76.07 25.7 0,25.2 462.5 204.8 67.72	6.789		
9,500.0 9,466.7 9,500.0 9,416.9 34.4 36.6 -76.97 -25.7 -925.3 462.5 394.8 67.72	6.830		
9,565.8 9,532.5 9,550.0 9,461.4 34.6 36.7 -74.25 -3.0 -925.4 471.0 403.0 68.06	6.921		
9,575.0 9,541.7 9,553.6 9,464.5 34.6 36.7 -73.49 -1.2 -925.5 472.5 404.4 68.06	6.942		
9,600.0 9,566.7 9,570.0 9,478.6 34.7 36.8 -72.10 7.4 -925.5 476.5 408.4 68.10	6.997		
9,625.0 9,591.6 9,586.3 9,492.2 34.8 36.8 -70.74 16.3 -925.6 480.7 412.5 68.11	7.057		
9,650.0 9,616.3 9,600.0 9,503.3 34.9 36.8 -69.56 24.2 -925.6 484.9 416.9 68.04	7.126		
9,675.0 9,640.8 9,618.6 9,518.1 35.0 36.9 -68.17 35.4 -925.7 489.2 421.1 68.03	7.190		
9,700.0 9,665.0 9,634.5 9,530.5 35.0 36.9 -66.96 45.5 -925.8 493.5 425.6 67.94	7.264		
9,725.0 9,688.8 9,650.0 9,542.1 35.1 36.9 -65.82 55.7 -925.8 497.8 430.0 67.81	7.341		
9,750.0 9,712.2 9,666.1 9,553.9 35.2 37.0 -64.70 66.7 -925.9 502.0 434.4 67.66	7.420		
9,775.0 9,735.1 9,681.8 9,565.0 35.3 37.0 -63.65 77.7 -926.0 506.2 438.7 67.49	7.501		
9,800.0 9,757.4 9,700.0 9,577.5 35.3 37.0 -62.57 91.0 -926.1 510.3 443.0 67.35	7.577		

PERMIAN RESOURCES

Anticollision Report

NEW MEXICO Company: Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft Reference Wellbore OWB Reference Design: PWP0

Local Co-ordinate Reference:

Well EILEEN 25 FED COM 142H TVD Reference: KB @ 3710.0usft KB @ 3710.0usft MD Reference:

Grid North Reference:

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma Compass_17 Database: Offset TVD Reference: Offset Datum

Offset Des	sign: E	ILEEN 25 FI	ED COM -	EILEEN 25	FED CC)M 112H - O	WB - PWP0						Offset Site Error:	0.0 usft
Survey Progr		0-MWD								Rule Assi	gned:		Offset Well Error:	0.0 usft
Refer Measured	rence Vertical	Off Measured	fset Vertical	Semi N Reference	Major Axis Offset	Highside	Offset Wellbo	re Centre	Dis Between	tance Between	Minimum	Separation	Warning	
Depth	Depth	Depth	Depth	11010101100	0001	Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
9,825.0	9,779.2	9,712.9	9,585.9	35.4	37.0	-61.72	100.7	-926.2	514.3	447.2	67.07	7.668		
9,850.0	9,800.2	9,725.0	9,593.7	35.4	37.1	-60.94	110.0	-926.2	518.2	451.4	66.75	7.763		
9,875.0	9,820.6	9,743.7	9,605.2	35.5	37.1	-60.03	124.8	-926.3	521.8	455.2	66.59	7.837		
9,900.0	9,840.1		9,614.1	35.5	37.1	-59.27	137.3	-926.4	525.3	459.0	66.33	7.919		
9,925.0	9,858.8		9,623.1	35.6	37.1	-58.56	150.5	-926.5	528.6	462.5	66.09	7.998		
9,950.0	9,876.6	9,789.6	9,630.8	35.6	37.2	-57.93	162.8	-926.6	531.7	465.9	65.82	8.078		
9,975.0	9,893.4	9,804.8	9,638.5	35.7	37.2	-57.35	176.0	-926.7	534.5	469.0	65.57	8.153		
10,000.0	9,909.3		9,645.7	35.7	37.2	-56.83	189.3	-926.8	537.2	471.8	65.33	8.223		
10,025.0	9,924.1		9,652.5	35.7	37.2	-56.36	202.8	-926.9	539.5	474.4	65.10	8.288		
10,050.0	9,937.9		9,658.8	35.8	37.3	-55.96	216.4	-927.0	541.6	476.7	64.88	8.348		
10,075.0	9,950.5		9,664.8	35.8	37.3	-55.60	230.4	-927.1	543.4	478.7	64.69	8.400		
,	-,	-,	-,											
10,100.0	9,962.0	9,880.4	9,670.2	35.8	37.3	-55.31	244.5	-927.2	545.0	480.4	64.53	8.445		
10,125.0	9,972.4	9,900.0	9,676.7	35.9	37.3	-55.05	263.0	-927.3	546.2	481.8	64.47	8.473		
10,150.0	9,981.5	9,910.5	9,679.8	35.9	37.3	-54.90	273.0	-927.4	547.2	482.9	64.28	8.512		
10,175.0	9,989.4	9,925.0	9,683.8	35.9	37.4	-54.78	287.0	-927.5	547.8	483.6	64.20	8.533		
10,200.0	9,996.0	9,940.6	9,687.5	36.0	37.4	-54.71	302.1	-927.6	548.2	484.0	64.17	8.543		
40.005.0	10.001		0.000.7		07.4	54.70	040.0	007.7	540.0	404.0	04.47	0.540		
10,225.0	10,001.4		9,690.7	36.0	37.4	-54.70	316.8	-927.7	548.2	484.0	64.17	8.543		
10,250.0	10,005.4		9,694.1	36.0	37.4	-54.76	335.9	-927.8	548.0	483.7	64.25	8.529		
10,275.0	10,008.2		9,695.7	36.1	37.5	-54.85	346.4	-927.9	547.4	483.1	64.29	8.515		
10,300.0	10,009.7		9,697.4	36.2	37.5	-55.01	360.7	-928.0	546.6	482.2	64.41	8.485		
10,315.8	10,010.0	0 10,010.2	9,698.3	36.2	37.5	-55.14	370.8	-928.1	545.9	481.4	64.52	8.461		
10,381.1	10,010.0	0 10,049.8	9,700.0	36.4	37.6	-55.29	410.4	-928.3	544.4	479.4	64.97	8.379		
10,400.0	10,010.0		9,700.0	36.4	37.6	-55.29	429.1	-928.5	544.4	479.3	65.09	8.363		
10,500.0	10,010.0		9,700.0	36.8	37.9	-55.29	529.1	-929.2	544.4	478.6	65.83	8.270		
10,600.0	10,010.0		9,700.0	37.2	38.2	-55.29	629.1	-929.9	544.4	477.7	66.68	8.165		
10,700.0	10,010.0		9,700.0	37.7	38.7	-55.29	729.1	-930.6	544.4	476.8	67.64	8.049		
10,800.0	10,010.0	10,468.5	9,700.0	38.3	39.2	-55.29	829.1	-931.3	544.5	475.8	68.71	7.925		
10,900.0	10,010.0	10,568.5	9,700.0	38.9	39.8	-55.30	929.1	-932.0	544.5	474.6	69.87	7.793		
11,000.0	10,010.0	10,668.5	9,700.0	39.6	40.4	-55.30	1,029.1	-932.7	544.5	473.4	71.14	7.655		
11,100.0	10,010.0		9,700.0	40.4	41.1	-55.30	1,129.1	-933.4	544.6	472.1	72.49	7.512		
11,200.0	10,010.0	10,868.5	9,700.0	41.2	41.9	-55.30	1,229.1	-934.0	544.6	470.7	73.93	7.366		
44 200 0	40.040.0	10,000 5	0.700.0	40.0	40.7	55.04	4 200 4	004.7	544.0	400.0	75.45	7.040		
11,300.0	10,010.0		9,700.0	42.0	42.7	-55.31	1,329.1	-934.7	544.6	469.2	75.45	7.218		
11,400.0	10,010.0		9,700.0	42.9	43.6	-55.31 55.31	1,429.1	-935.4	544.6	467.6	77.05	7.069		
11,500.0 11,600.0	10,010.0 10,010.0		9,700.0	43.8 44.8	44.5 45.4	-55.31 -55.31	1,529.1 1,629.1	-936.1 -936.8	544.7 544.7	466.0 464.3	78.72 80.45	6.919 6.770		
11,700.0	10,010.0		9,700.0 9,700.0	44.8 45.8	45.4 46.4	-55.31 -55.31	1,629.1	-936.8 -937.5	544.7 544.7	462.5	80.45 82.25	6.623		
11,700.0	10,010.0	. 11,300.3	3,100.0	40.0	40.4	-55.51	1,129.1	-001.0	344.1	+02.3	02.20	0.023		
11,800.0	10,010.0	11,468.5	9,700.0	46.9	47.5	-55.32	1,829.1	-938.2	544.8	460.7	84.11	6.477		
11,900.0	10,010.0		9,700.0	48.0	48.5	-55.32	1,929.1	-938.9	544.8	458.8	86.03	6.333		
12,000.0	10,010.0		9,700.0	49.1	49.6	-55.32	2,029.1	-939.6	544.8	456.8	87.99	6.192		
12,100.0	10,010.0	11,768.5	9,700.0	50.3	50.8	-55.32	2,129.1	-940.3	544.8	454.8	90.00	6.054		
12,200.0	10,010.0	11,868.5	9,700.0	51.4	51.9	-55.32	2,229.1	-941.0	544.9	452.8	92.06	5.919		
12,300.0	10,010.0		9,700.0	52.6	53.1	-55.33	2,329.1	-941.7	544.9	450.7	94.16	5.787		
12,400.0	10,010.0		9,700.0	53.9	54.3	-55.33	2,429.1	-942.4	544.9	448.6	96.30	5.659		
12,500.0	10,010.0		9,700.0	55.1	55.6	-55.33	2,529.1	-943.1	545.0	446.5	98.48	5.534		
12,600.0	10,010.0		9,700.0	56.4	56.8	-55.33	2,629.1	-943.8	545.0	444.3	100.69	5.413		
12,700.0	10,010.0	12,368.5	9,700.0	57.7	58.1	-55.33	2,729.1	-944.5	545.0	442.1	102.93	5.295		
12,800.0	10,010.0	12,468.5	9,700.0	59.0	59.4	-55.34	2,829.1	-945.2	545.1	439.8	105.21	5.181		
12,800.0	10,010.0		9,700.0	60.3	60.7	-55.34 -55.34	2,829.1	-945.2 -945.9	545.1	439.6	105.21	5.161		
13,000.0	10,010.0		9,700.0	61.6	62.0	-55.34	3,029.0	-945.9 -946.6	545.1	437.0	107.31	4.963		
13,100.0	10,010.0		9,700.0	63.0	63.4	-55.34	3,129.0	-947.3	545.1	433.3	112.19	4.859		
13,100.0	10,010.0		9,700.0	64.4	64.7	-55.34	3,229.0	-947.3 -948.0	545.1	432.9	114.57	4.059		
.5,200.0	. 5,5 15.0		5,700.0	0-1.4	54.1	50.04	5,225.0	340.0	340.2	100.0	.17.07			
13,300.0	10,010.0	12,968.5	9,700.0	65.7	66.1	-55.35	3,329.0	-948.7	545.2	428.2	116.97	4.661		
			CC Min											



Company: NEW MEXICO Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

KB @ 3710.0usft KB @ 3710.0usft

Well EILEEN 25 FED COM 142H

Grid

Survey Calculation Method: Minimum Curvature

Output errors are at Database:

Offset TVD Reference:

ırvey Prog	ram: 0	-MWD								Rule Assi	aned.		Offset Well Error:	0.0 us
Refe	erence	Offs			lajor Axis		Offset Wellbo	ore Centre		ance	_			0.0 us
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
13,400.0	10,010.0	13,068.5	9,700.0	67.1	67.5	-55.35	3,429.0	-949.4	545.2	425.8	119.39	4.567		
13,500.0	10,010.0	13,168.5	9,700.0	68.5	68.9	-55.35	3,529.0	-950.1	545.3	423.4	121.83	4.476		
13,600.0	10,010.0	13,268.5	9,700.0	70.0	70.3	-55.35	3,629.0	-950.8	545.3	421.0	124.28	4.387		
13,700.0	10,010.0	13,368.5	9,700.0	71.4	71.7	-55.36	3,729.0	-951.5	545.3	418.6	126.76	4.302		
13,800.0	10,010.0	13,468.5	9,700.0	72.8	73.1	-55.36	3,829.0	-952.2	545.3	416.1	129.25	4.219		
13,900.0	10,010.0	13,568.5	9,700.0	74.3	74.5	-55.36	3,929.0	-952.9	545.4	413.6	131.75	4.139		
14,000.0	10,010.0	13,668.5	9,700.0	75.7	76.0	-55.36	4,029.0	-953.6	545.4	411.1	134.27	4.062		
14,100.0	10,010.0	13,768.5	9,700.0	77.2	77.4	-55.36	4,129.0	-954.3	545.4	408.6	136.81	3.987		
14,200.0	10,010.0	13,868.5	9,700.0	78.6	78.9	-55.37	4,229.0	-955.0	545.5	406.1	139.35	3.914		
14,300.0	10,010.0	13,968.5	9,700.0	80.1	80.4	-55.37	4,329.0	-955.7	545.5	403.6	141.91	3.844		
14,400.0	10,010.0	14,068.5	9,700.0	81.6	81.9	-55.37	4,429.0	-956.4	545.5	401.0	144.48	3.776		
14,500.0	10,010.0	14,168.5	9,700.0	83.1	83.3	-55.37	4,529.0	-957.1	545.5	398.5	147.06	3.710		
14,600.0	10,010.0	14,268.5	9,700.0	84.6	84.8	-55.37	4,629.0	-957.8	545.6	395.9	149.65	3.646		
14,700.0	10,010.0	14,368.5	9,700.0	86.1	86.3	-55.38	4,729.0	-958.5	545.6	393.3	152.26	3.583		
14,800.0	10,010.0	14,468.5	9,700.0	87.6	87.8	-55.38	4,829.0	-959.2	545.6	390.8	154.87	3.523		
14,900.0	10,010.0	14,568.5	9,700.0	89.1	89.3	-55.38	4,929.0	-959.9	545.7	388.2	157.49	3.465		
15,000.0	10,010.0	14,668.5	9,700.0	90.6	90.8	-55.38	5,029.0	-960.6	545.7	385.6	160.11	3.408		
15,100.0	10,010.0	14,768.5	9,700.0	92.1	92.3	-55.38	5,129.0	-961.3	545.7	383.0	162.75	3.353		
15,200.0	10,010.0	14,868.5	9,700.0	93.7	93.9	-55.39	5,229.0	-962.0	545.7	380.3	165.40	3.300		
15,300.0	10,010.0	14,968.5	9,700.0	95.2	95.4	-55.39	5,329.0	-962.7	545.8	377.7	168.05	3.248		
15,400.0	10,010.0	15,068.5	9,700.0	96.7	96.9	-55.39	5,429.0	-963.4	545.8	375.1	170.71	3.197		
15,500.0	10,010.0	15,168.5	9,700.0	98.3	98.5	-55.39	5,529.0	-964.1	545.8	372.5	173.37	3.148		
15,600.0	10,010.0	15,268.5	9,700.0	99.8	100.0	-55.39	5,629.0	-964.8	545.9	369.8	176.04	3.101		
15,700.0	10,010.0	15,368.5	9,700.0	101.4	101.5	-55.40	5,729.0	-965.5	545.9	367.2	178.72	3.054		
15,800.0	10,010.0	15,468.5	9,700.0	102.9	103.1	-55.40	5,829.0	-966.2	545.9	364.5	181.40	3.009		
15,900.0	10,010.0	15,568.5	9,700.0	104.5	104.6	-55.40	5,929.0	-966.9	545.9	361.8	184.09	2.966		
16,000.0	10,010.0	15,668.5	9,700.0	106.0	106.2	-55.40	6,029.0	-967.6	546.0	359.2	186.79	2.923		
16,100.0	10,010.0	15,768.5	9,700.0	107.6	107.7	-55.41	6,129.0	-968.3	546.0	356.5	189.49	2.881		
16,200.0	10,010.0	15,868.5	9,700.0	109.1	109.3	-55.41	6,229.0	-969.0	546.0	353.8	192.19	2.841		
16,300.0	10,010.0	15,968.5	9,700.0	110.7	110.8	-55.41	6,329.0	-969.7	546.1	351.2	194.90	2.802		
16,400.0	10,010.0	16,068.5	9,700.0	112.3	112.4	-55.41	6,429.0	-970.4	546.1	348.5	197.62	2.763		
16,500.0	10,010.0	16,168.5	9,700.0	113.8	114.0	-55.41	6,529.0	-971.1	546.1	345.8	200.34	2.726		
16,600.0	10,010.0	16,268.5	9,700.0	115.4	115.5	-55.42	6,629.0	-971.8	546.1	343.1	203.06	2.690		
16,700.0	10,010.0	16,368.5	9,700.0	117.0	117.1	-55.42	6,729.0	-971.5	546.2	340.4	205.78	2.654		
16,800.0	10,010.0	16,468.5	9,700.0	118.6	118.7	-55.42	6,829.0	-973.2	546.2	337.7	208.51	2.619		
16,900.0	10,010.0	16,568.5	9,700.0	120.1	120.3	-55.42	6,929.0	-973.9	546.2	335.0	211.25	2.586		
17,000.0	10,010.0	16,668.5	9,700.0	121.7	121.8	-55.42	7,028.9	-974.6	546.3	332.3	213.99	2.553		
17,100.0	10,010.0	16,768.5	9,700.0	123.3	123.4	-55.43	7,128.9	-975.3	546.3	329.6	216.73	2.521		
17,200.0	10,010.0	16,868.5	9,700.0	124.9	125.0	-55.43	7,228.9	-976.0	546.3	326.8	219.47	2.489		
17,300.0	10,010.0	16,968.5	9,700.0	126.5	126.6	-55.43	7,328.9	-976.7	546.3	324.1	222.22	2.459		
17,400.0	10,010.0	17,068.5	9,700.0	128.1	128.2	-55.43	7,428.9	-977.4	546.4	321.4	224.97	2.429		
17,500.0	10,010.0	17,168.5	9,700.0	129.6	129.7	-55.43	7,528.9	-978.1	546.4	318.7	227.72	2.399		
17,600.0	10,010.0	17,268.5	9,700.0	131.2	131.3	-55.44	7,628.9	-978.8	546.4	315.9	230.48	2.371		
17,650.8	10,010.0	17,319.4	9,700.0	132.0	132.1	-55.44	7,679.8	-979.1	546.4	314.6	231.88	2.357		
17,700.0	10,010.0	17,369.7	9,700.0	132.8	132.9	-55.43	7,730.1	-979.4	546.4	313.2	233.21	2.343		
17,800.0	10,010.0	17,469.7	9,700.0	134.4	134.5	-55.42	7,830.1	-979.8	546.2	310.2	235.94	2.315		
17,900.0	10,010.0	17,569.7	9,700.0	136.0	136.1	-55.41	7,930.1	-980.3	546.0	307.3	238.67	2.288		
18,000.0	10,010.0	17,669.7	9,700.0	137.6	137.7	-55.39	8,030.1	-980.7	545.8	304.4	241.41	2.261		
18,100.0	10,010.0	17,769.7	9,700.0	139.2	139.3	-55.38	8,130.1	-981.2	545.7	301.5	244.15	2.235		
18,200.0	10,010.0	17,869.7	9,700.0	140.8	140.9	-55.37	8,230.1	-981.6	545.5	298.6	246.89	2.209		
18,300.0	10,010.0	17,969.7	9,700.0	142.4	142.5	-55.35	8,330.1	-982.0	545.3	295.7	249.63	2.184		
18,400.0	10,010.0	18,069.7	9,700.0	144.0	144.1	-55.34	8,430.1	-982.5	545.1	292.7	252.38	2.160		



Offset TVD Reference:

Company: NEW MEXICO
Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference: Well EILEEN 25 FED COM 142H

TVD Reference: KB @ 3710.0usft MD Reference: KB @ 3710.0usft

North Reference: Grid

Survey Calculation Method: Minimum Curvature

Offset Datum

Output errors are at 2.00 sigma

Database: Compass_17

urvey Progr		0-MWD								Rule Assi	gned:		Offset Well Error:	0.0 usft
Measured	rence Vertical	Off Measured	Vertical	Semi M Reference	lajor Axis Offset	Highside	Offset Wellbe	re Centre +E/-W	Between	Between	Minimum	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	(usft)	(usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
18,500.0	10,010.	18,169.7	9,700.0	145.6	145.7	-55.33	8,530.1	-982.9	544.9	289.8	255.12	2.136		
18,600.0	10,010.	18,269.7	9,700.0	147.2	147.3	-55.31	8,630.1	-983.4	544.8	286.9	257.87	2.113		
18,700.0	10,010.	18,369.7	9,700.0	148.8	148.9	-55.30	8,730.1	-983.8	544.6	284.0	260.62	2.090		
18,800.0	10,010.	18,469.7	9,700.0	150.4	150.5	-55.29	8,830.0	-984.3	544.4	281.0	263.36	2.067		
18,900.0	10,010.	18,569.7	9,700.0	152.0	152.1	-55.28	8,930.0	-984.7	544.2	278.1	266.11	2.045		
19,000.0	10,010.	18,669.7	9,700.0	153.6	153.7	-55.26	9,030.0	-985.2	544.0	275.2	268.86	2.023		
19,100.0	10,010.	18,769.7	9,700.0	155.2	155.3	-55.25	9,130.0	-985.6	543.9	272.3	271.62	2.002		
19,200.0	10,010.	18,869.7	9,700.0	156.9	156.9	-55.24	9,230.0	-986.1	543.7	269.3	274.37	1.982		
19,300.0	10,010.	18,969.7	9,700.0	158.5	158.5	-55.22	9,330.0	-986.5	543.5	266.4	277.12	1.961		
19,400.0	10,010.	19,069.7	9,700.0	160.1	160.1	-55.21	9,430.0	-987.0	543.3	263.5	279.88	1.941		
19,500.0	10,010.	19,169.7	9,700.0	161.7	161.7	-55.20	9,530.0	-987.4	543.2	260.5	282.63	1.922		
19,600.0	10,010.	19,269.7	9,700.0	163.3	163.4	-55.18	9,630.0	-987.9	543.0	257.6	285.39	1.903		
19,700.0	10,010.	19,369.7	9,700.0	164.9	165.0	-55.17	9,730.0	-988.3	542.8	254.7	288.15	1.884		
19,800.0	10,010.	19,469.7	9,700.0	166.5	166.6	-55.16	9,830.0	-988.8	542.6	251.7	290.91	1.865		
19,900.0	10,010.	19,569.7	9,700.0	168.1	168.2	-55.14	9,930.0	-989.2	542.4	248.8	293.66	1.847		
20,000.0	10,010.	19,669.7	9,700.0	169.8	169.8	-55.13	10,030.0	-989.6	542.3	245.8	296.42	1.829		
20,100.0	10,010.	19,769.7	9,700.0	171.4	171.4	-55.12	10,130.0	-990.1	542.1	242.9	299.18	1.812		
20,200.1	10,010.	19,869.5	9,700.0	173.0	173.0	-55.11	10,229.9	-990.5	542.0	240.0	301.96	1.795		

PERMIAN RESOURCES

Anticollision Report

NEW MEXICO Company: Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft Reference Wellbore OWB Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method: Output errors are at

Database:

Offset TVD Reference:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

urvey Progra	am: 0-1	MWD								Rule Assi	aned:		Offset Site Error: Offset Well Error:	0.0 us 0.0 us
urvey Progra Refer Measured		Offs Measured	set Vertical	Semi M Reference	Major Axis Offset	Highside	Offset Wellbe	ore Centre	Dist Between	ance Between	gnea: Minimum	Separation	Oπset well Error: Warning	0.0 us
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor	Ĭ	
0.0	0.0	3.0	3.0	0.0	0.0	84.83	63.1	697.1	700.0					
100.0	100.0	103.0	103.0	0.3	0.3	84.83	63.1	697.1	700.0	699.5	0.51	1,365.512		
200.0	200.0	203.0	203.0	0.6	0.6	84.83	63.1	697.1	700.0	698.8	1.23	569.295		
300.0	300.0	303.0	303.0	1.0	1.0	84.83	63.1	697.1	700.0	698.0	1.95	359.610		
400.0	400.0	403.0	403.0	1.3	1.3	84.83	63.1	697.1	700.0	697.3	2.66	262.811		
500.0	500.0	503.0	503.0	1.7	1.7	84.83	63.1	697.1	700.0	696.6	3.38	207.071		
600.0	600.0	603.0	603.0	2.0	2.1	84.83	63.1	697.1	700.0	695.9	4.10	170.838		
700.0	700.0	703.0	703.0	2.4	2.4	84.83	63.1	697.1	700.0	695.2	4.81	145.397		
800.0	800.0	803.0	803.0	2.8	2.8	84.83	63.1	697.1	700.0	694.5	5.53	126.551		
900.0	900.0	903.0	903.0	3.1	3.1	84.83	63.1	697.1	700.0	693.7	6.25	112.030		
1,000.0	1,000.0	1,003.0	1,003.0	3.5	3.5	84.83	63.1	697.1	700.0	693.0	6.97	100.498		
1,100.0	1,100.0	1,103.0	1,103.0	3.8	3.8	84.83	63.1	697.1	700.0	692.3	7.68	91.119		
1,200.0	1,200.0	1,203.0	1,203.0	4.2	4.2	84.83	63.1	697.1	700.0	691.6	8.40	83.341		
1,300.0	1,300.0	1,303.0	1,303.0	4.6	4.6	84.83	63.1	697.1	700.0	690.9	9.12	76.787		
1,400.0	1,400.0	1,403.0	1,403.0	4.9	4.9	84.83	63.1	697.1	700.0	690.1	9.83	71.188		
1,500.0	1,500.0	1,503.0	1,503.0	5.3	5.3	84.83	63.1	697.1	700.0	689.4	10.55	66.350		
1,600.0	1,600.0	1,603.0	1,603.0	5.6	5.6	84.83	63.1	697.1	700.0	688.7	11.27	62.128		
1,700.0	1,700.0	1,703.0	1,703.0	6.0	6.0	84.83	63.1	697.1	700.0	688.0	11.98	58.411		
1,800.0	1,800.0	1,803.0	1,803.0	6.3	6.4	84.83	63.1	697.1	700.0	687.3	12.70	55.114		
1,900.0	1,900.0	1,903.0	1,903.0	6.7	6.7	84.83	63.1	697.1	700.0	686.6	13.42	52.169		
2,000.0	2,000.0	2,003.9	2,003.9	7.1	7.1	84.83	63.1	697.1	700.0	685.8	14.14	49.513		
2,100.0	2,100.0	2,134.1	2,134.1	7.4	7.5	-169.95	61.9	694.2	699.4	684.5	14.92	46.882		
2,200.0	2,199.8	2,264.3	2,263.9	7.7	8.0	-169.82	58.3	685.9	698.0	682.3	15.65	44.584		
2,300.0	2,299.5	2,394.2	2,393.0	8.1	8.4	-169.61	52.4	672.3	695.6	679.3	16.37	42.497		
2,385.5	2,384.3	2,481.0	2,478.9	8.4	8.7	-169.45	47.6	661.2	694.4	677.4	16.95	40.962 CC		
2,400.0	2,398.7	2,495.5	2,493.3	8.4	8.8	-169.43	46.8	659.3	694.4	677.4	17.05	40.726		
2,500.0	2,497.7	2,595.5	2,592.3	8.8	9.1	-169.27	41.3	646.5	694.9	677.2	17.74	39.179		
2,600.0	2,596.8	2,695.5	2,691.3	9.2	9.5	-169.11	35.8	633.8	695.4	677.0	18.43	37.736		
2,700.0	2,695.8	2,795.4	2,790.3	9.5	9.9	-168.96	30.3	621.0	695.9	676.8	19.13	36.389		
2,800.0	2,794.8	2,895.4	2,889.3	9.9	10.2	-168.80	24.8	608.2	696.5	676.6	19.83	35.129		
2,900.0	2,893.8	2,995.4	2,988.3	10.3	10.6	-168.64	19.3	595.4	697.0	676.5	20.53	33.949		
3,000.0	2,992.9	3,095.4	3,087.3	10.7	11.0	-168.49	13.8	582.7	697.5	676.3	21.24	32.842		
3,100.0	3,091.9	3,195.4	3,186.3	11.0	11.4	-168.33	8.3	569.9	698.0	676.1	21.95	31.802		
3,200.0	3,190.9	3,295.4	3,285.3	11.4	11.8	-168.17	2.8	557.1	698.6	675.9	22.66	30.823		
3,300.0	3,289.9	3,395.3	3,384.3	11.8	12.2	-168.02	-2.7	544.3	699.1	675.7	23.38	29.901		
3,400.0	3,389.0	3,495.3	3,483.4	12.2	12.5	-167.86	-8.3	531.5	699.7	675.6	24.10	29.030		
3,500.0	3,488.0	3,595.3	3,582.4	12.6	12.9	-167.71	-13.8	518.8	700.2	675.4	24.82	28.208		
3,600.0	3,587.0	3,695.3	3,681.4	13.0	13.3	-167.55	-19.3	506.0	700.8	675.2	25.55	27.430		
3,700.0	3,686.0	3,795.3	3,780.4	13.4	13.7	-167.40	-24.8	493.2	701.3	675.1	26.27	26.693		
3,800.0	3,785.1	3,895.2	3,879.4	13.8	14.1	-167.24	-30.3	480.4	701.9	674.9	27.00	25.995		
3,900.0	3,884.1	3,995.2	3,978.4	14.2	14.5	-167.09	-35.8	467.6	702.5	674.8	27.73	25.331		
4,000.0	3,983.1	4,095.2	4,077.4	14.6	14.9	-166.94	-41.3	454.9	703.1	674.6	28.46	24.700		
4,100.0	4,082.2	4,195.2	4,176.4	15.0	15.3	-166.78	-46.8	442.1	703.6	674.4	29.20	24.100		
4,200.0	4,181.2	4,295.2	4,275.4	15.4	15.7	-166.63	-52.3	429.3	704.2	674.3	29.93	23.528		
4,300.0	4,280.2	4,379.3	4,358.9	15.8	16.1	-166.52	-56.6	419.3	705.8	675.1	30.64	23.036		
4,400.0	4,379.2	4,460.6	4,439.7	16.2	16.4	-166.49	-59.9	411.8	709.9	678.6	31.32	22.668		
4,500.0	4,478.3	4,541.6	4,520.5	16.6	16.7	-166.53	-62.2	406.3	716.7	684.7	31.98	22.415		
4,600.0	4,577.3	4,622.2	4,601.1	17.0	17.0	-166.63	-63.6	403.0	726.1	693.5	32.61	22.269		
4,700.0	4,676.3	4,702.4	4,681.2	17.4	17.3	-166.80	-64.2	401.8	738.1	704.9	33.21	22.225		
4,800.0	4,775.3	4,799.5	4,778.3	17.8	17.6	-167.03	-64.2	401.8	751.7	717.8	33.90	22.173		
4,900.0	4,874.4	4,898.6	4,877.4	18.2	17.9	-167.27	-64.2	401.8	765.3	730.7	34.60	22.116		
5,000.0	4,973.4	4,997.6	4,976.4	18.6										



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Site Error: 0.0 usft

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Well Error: 0.0 usft
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Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference:

Survey Calculation Method: Output errors are at

Database: Offset TVD Reference: Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

Oliset Des	ign: Ell	LEEN 25 FI	ED COM -	EILEEN 2	5 FED CC	OM 113H - O'	WB - PWP0						Offset Site Error:	0.0 usft
Survey Progra		MWD	set	Comi I	Major Axis		Offset Wellbo	ro Contro	Die	Rule Assi tance	gned:		Offset Well Error:	0.0 usft
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
5,100.0	5,072.4	5,096.6	5,075.4	19.0	18.6	-167.71	-64.2	401.8	792.4	756.4	36.01	22.007		
5,200.0	5,171.5	5,195.6	5,174.5	19.5	18.9	-167.92	-64.2	401.8	806.0	769.3	36.71	21.955		
5,300.0	5,270.5	5,294.7	5,273.5	19.9	19.2	-168.12	-64.2	401.8	819.7	782.3	37.42	21.906		
5,400.0	5,369.5	5,393.7	5,372.5	20.3	19.6	-168.32	-64.2	401.8	833.3	795.2	38.12	21.858		
5,500.0	5,468.5	5,492.7	5,471.5	20.7	19.9	-168.51	-64.2	401.8	846.9	808.1	38.83	21.811		
5,552.6	5,520.6	5,544.8	5,523.6	20.9	20.1	-168.61	-64.2	401.8	854.1	814.9	39.20	21.787		
5,600.0	5,567.6	5,591.8	5,570.6	21.1	20.3	-168.71	-64.2	401.8	860.2	820.7	39.54	21.756		
5,700.0	5,667.0	5,691.2	5,670.0	21.5	20.6	-168.89	-64.2	401.8	870.5	830.3	40.24	21.632		
5,800.0	5,766.8	5,791.0	5,769.8	21.9	20.9	-169.01	-64.2	401.8	877.5	836.5	40.95	21.429		
5,900.0	5,866.7	5,890.9	5,869.7	22.2	21.3	-169.06	-64.2	401.8	881.0	839.3	41.65	21.152		
5,952.6	5,919.3	5,943.5	5,922.3	22.4	21.5	85.75	-64.2	401.8	881.5	839.5	42.02	20.979		
6,000.0	5,966.7	5,990.9	5,969.7	22.6	21.6	85.75	-64.2	401.8	881.5	839.1	42.34	20.817		
6,100.0	6,066.7	6,090.9	6,069.7	22.9	22.0	85.75	-64.2	401.8	881.5	838.4	43.03	20.483		
6,200.0	6,166.7	6,190.9	6,169.7	23.2	22.3	85.75	-64.2	401.8	881.5	837.7	43.73	20.159		
6,300.0	6,266.7	6,290.9	6,269.7	23.5	22.6	85.75	-64.2	401.8	881.5	837.0	44.42	19.844		
6,400.0	6,366.7	6,390.9	6,369.7	23.9	23.0	85.75	-64.2	401.8	881.5	836.4	45.11	19.539		
6,500.0	6,466.7	6,490.9	6,469.7	24.2	23.3	85.75	-64.2	401.8	881.5	835.7	45.81	19.243		
6,600.0	6,566.7	6,590.9	6,569.7	24.5	23.7	85.75	-64.2	401.8	881.5	835.0	46.50	18.956		
6,700.0	6,666.7	6,690.9	6,669.7	24.9	24.0	85.75	-64.2	401.8	881.5	834.3	47.20	18.676		
6,800.0	6,766.7	6,790.9	6,769.7	25.2	24.4	85.75	-64.2	401.8	881.5	833.6	47.89	18.405		
6,900.0	6,866.7	6,890.9	6,869.7	25.5	24.7	85.75	-64.2	401.8	881.5	832.9	48.59	18.141		
7,000.0	6,966.7	6,990.9	6,969.7	25.9	25.1	85.75	-64.2	401.8	881.5	832.2	49.29	17.884		
7,100.0	7,066.7	7,090.9	7,069.7	26.2	25.4	85.75	-64.2	401.8	881.5	831.5	49.98	17.635		
7,200.0	7,166.7	7,190.9	7,169.7	26.5	25.8	85.75	-64.2	401.8	881.5	830.8	50.68	17.392		
7,300.0	7,266.7	7,290.9	7,269.7	26.9	26.1	85.75	-64.2	401.8	881.5	830.1	51.38	17.155		
7,400.0	7,366.7	7,390.9	7,369.7	27.2	26.5	85.75	-64.2	401.8	881.5	829.4	52.08	16.925		
7,500.0	7,466.7	7,490.9	7,469.7	27.5	26.8	85.75	-64.2	401.8	881.5	828.7	52.78	16.700		
7,600.0	7,566.7	7,590.9	7,569.7	27.9	27.2	85.75	-64.2	401.8	881.5	828.0	53.48	16.482		
7,700.0	7,666.7	7,690.9	7,669.7	28.2	27.5	85.75	-64.2	401.8	881.5	827.3	54.18	16.269		
7,800.0	7,766.7	7,790.9	7,769.7	28.5	27.9	85.75	-64.2	401.8	881.5	826.6	54.88	16.061		
7,900.0	7,866.7	7,890.9	7,869.7	28.9	28.2	85.75	-64.2	401.8	881.5	825.9	55.59	15.858		
8,000.0	7,966.7	7,990.9	7,969.7	29.2	28.6	85.75	-64.2	401.8	881.5	825.2	56.29	15.660		
8,100.0	8,066.7	8,090.9	8,069.7	29.6	28.9	85.75	-64.2	401.8	881.5	824.5	56.99	15.467		
8,200.0	8,166.7	8,190.9	8,169.7	29.9	29.3	85.75	-64.2	401.8	881.5	823.8	57.69	15.279		
8,300.0	8,266.7	8,290.9	8,269.7	30.2	29.6	85.75	-64.2	401.8	881.5	823.1	58.40	15.095		
8,400.0	8,366.7	8,390.9	8,369.7	30.6	30.0	85.75	-64.2	401.8	881.5	822.4	59.10	14.915		
8,500.0	8,466.7	8,490.9	8,469.7	30.9	30.3	85.75	-64.2	401.8	881.5	821.7	59.80	14.740		
8,600.0	8,566.7	8,590.9	8,569.7	31.3	30.7	85.75	-64.2	401.8	881.5	821.0	60.51	14.568		
8,700.0	8,666.7	8,690.9	8,669.7	31.6	31.0	85.75	-64.2	401.8	881.5	820.3	61.21	14.401		
8,800.0	8,766.7	8,790.9	8,769.7	32.0	31.4	85.75	-64.2	401.8	881.5	819.6	61.92	14.237		
8,900.0	8,866.7	8,890.9	8,869.7	32.3	31.7	85.75	-64.2	401.8	881.5	818.8	62.62	14.076		
9,000.0	8,966.7	8,990.9	8,969.7	32.6	32.1	85.75	-64.2	401.8	881.5	818.1	63.33	13.920		
9,100.0	9,066.7	9,090.9	9,069.7	33.0	32.4	85.75	-64.2	401.8	881.5	817.4	64.03	13.766		
9,200.0	9,166.7	9,190.9	9,169.7	33.3	32.8	85.75	-64.2	401.8	881.5	816.7	64.74	13.616		
9,210.0	9,176.7	9,200.9	9,179.7	33.4	32.8	85.75	-64.2	401.8	881.5	816.7	64.81	13.601		
9,300.0	9,266.7	9,285.6	9,264.4	33.7	33.1	85.63	-62.3	401.8	881.6	816.2	65.41	13.479		
9,400.0	9,366.7	9,371.5	9,348.8	34.0	33.4	84.65	-47.2	401.7	883.0	817.0	65.98	13.382		
9,500.0	9,466.7	9,450.0	9,422.5	34.4	33.6	82.92	-20.3	401.5	886.8	820.3	66.44	13.346		
9,565.8	9,532.5	9,495.8	9,463.1	34.6	33.7	81.56	0.9	401.3	891.2	824.5	66.65	13.371		
9,575.0	9,541.7	9,500.0	9,466.7	34.6	33.7	81.72	3.0	401.3	891.9	825.3	66.65	13.381		
9,600.0	9,566.7	9,518.4	9,482.3	34.7	33.8	80.89	12.7	401.2	894.0	827.3	66.72	13.400		
9,625.0	9,591.6	9,534.7	9,495.8	34.8	33.8	80.14	21.8	401.2	896.2	829.5	66.76	13.425		

PERMIAN RESOURCES

Anticollision Report

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Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

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Well Error: 0.0 usft
Reference Wellbore OWB
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Local Co-ordinate Reference:

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North Reference: Survey Calculation Method:

Output errors are at Database:

Offset TVD Reference:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

Offset De	sign:	EILEEN 25 F	ED COM -	EILEEN 2	5 FED CC	M 113H - O	WB - PWP0						Offset Site Error:	0.0 usft
Survey Prog		0-MWD								Rule Assi	gned:		Offset Well Error:	0.0 usft
Refe Measured	rence Vertica		fset Vertical	Semi I Reference	Major Axis Offset	Highside	Offset Wellbo		Dist Between	ance Between	Minimum	Separation	Warning	
Depth (usft)	Depth (usft)		Depth	(usft)	(usft)	Toolface	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation	Factor	•	
9,650.0	9,616		(usft) 9,508.2	34.9	33.9	(°) 79.43	30.7	401.1	898.5	831.7	(usft) 66.78	13.455		
9,675.0	9,640		9,521.6	35.0	33.9	78.68	41.1	401.0	900.8	834.0	66.81	13.484		
9,700.0	9,665		9,533.9	35.0	33.9	77.98	51.3	401.0	903.2	836.4	66.81	13.518		
9,725.0	9,688	3.8 9,600.0	9,546.6	35.1	34.0	77.27	62.7	400.9	905.6	838.7	66.82	13.552		
9,750.0	9,712		9,557.1	35.2	34.0	76.64	72.7	400.8	907.9	841.1	66.80	13.593		
9,775.0	9,735	5.1 9,630.1	9,568.1	35.3	34.0	76.01	83.8	400.7	910.3	843.5	66.77	13.632		
9,800.0	9,757	7.4 9,645.7	9,578.7	35.3	34.1	75.40	95.3	400.7	912.6	845.9	66.74	13.673		
9,825.0	9,779		9,588.8	35.4	34.1	74.82	107.0	400.6	914.9	848.2	66.71	13.715		
9,850.0	9,800		9,597.5	35.4	34.1	74.30	117.7	400.5	917.1	850.4	66.65	13.761		
9,875.0 9,900.0	9,820		9,607.8	35.5	34.1	73.75	131.3	400.4 400.3	919.2 921.2	852.6 854.7	66.62	13.798		
9,900.0	9,840	0.1 9,707.3	9,616.6	35.5	34.1	73.26	143.8	400.3	921.2	004.7	66.57	13.839		
9,925.0	9,858	3.8 9,725.0	9,626.3	35.6	34.2	72.77	158.6	400.2	923.2	856.6	66.54	13.873		
9,950.0	9,876		9,633.0	35.6	34.2	72.38	169.5	400.2	925.0	858.5	66.46	13.917		
9,975.0	9,893		9,639.1	35.7	34.2	72.02	180.0	400.1	926.7	860.3	66.38	13.961		
10,000.0	9,909		9,647.7	35.7	34.2	71.63	196.1	400.0	928.3	861.9	66.37	13.987		
10,025.0	9,924	1.1 9,783.3	9,654.4	35.7	34.2	71.31	209.6	399.9	929.7	863.4	66.32	14.018		
10,050.0	9,937	7.9 9,800.0	9,661.2	35.8	34.3	71.01	224.9	399.8	931.0	864.7	66.30	14.041		
10,075.0	9,950	0.5 9,813.5	9,666.4	35.8	34.3	70.78	237.3	399.7	932.1	865.8	66.26	14.068		
10,100.0	9,962		9,670.5	35.8	34.3	70.59	248.1	399.6	933.1	866.9	66.20	14.094		
10,125.0	9,972		9,676.5	35.9	34.3	70.40	265.6	399.5	933.8	867.6	66.23	14.101		
10,150.0	9,98	1.5 9,858.6	9,681.0	35.9	34.4	70.26	279.9	399.4	934.5	868.2	66.23	14.110		
10,175.0	9,989	9.4 9,875.0	9,685.3	35.9	34.4	70.16	295.8	399.3	934.9	868.7	66.25	14.112		
10,200.0	9,996	9,888.6	9,688.4	36.0	34.5	70.11	309.0	399.2	935.2	868.9	66.27	14.113		
10,225.0	10,00		9,690.8	36.0	34.5	70.08	320.2	399.1	935.3	869.0	66.28	14.111		
10,250.0	10,00		9,694.1	36.0	34.5	70.10	338.5	399.0	935.2	868.8	66.36	14.092		
10,275.0	10,008	3.2 9,933.6	9,696.2	36.1	34.6	70.16	353.3	398.9	934.9	868.5	66.43	14.073		
10,300.0	10,009		9,698.0	36.2	34.6	70.26	369.6	398.8	934.5	868.0	66.53	14.047		
10,315.8	10,010		9,698.6	36.2	34.6	70.33	377.7	398.7	934.1	867.5	66.58	14.030		
10,400.0	10,010		9,700.0	36.4	34.8	70.41	438.4	398.3	933.3	866.4	66.96	13.939		
10,500.0	10,010		9,700.0	36.8	35.2	70.41	538.4	397.6	933.3	865.7	67.59	13.808		
10,600.0	10,010	0.0 10,218.8	9,700.0	37.2	35.6	70.40	638.4	396.9	933.3	864.9	68.37	13.651		
10,700.0	10,010		9,700.0	37.7	36.1	70.40	738.4	396.2	933.3	864.0	69.28	13.471		
10,800.0	10,010		9,700.0	38.3	36.6	70.40	838.4	395.5	933.2	862.9	70.32	13.271		
10,900.0	10,010		9,700.0	38.9	37.2	70.40	938.3	394.8	933.2	861.7	71.48	13.055		
11,000.0	10,010		9,700.0	39.6	37.9 38.7	70.40	1,038.3	394.1	933.2	860.4 859.0	72.77 74.16	12.824		
11,100.0	10,010	0.0 10,718.8	9,700.0	40.4	38.7	70.40	1,138.3	393.4	933.1	U.8G0	74.16	12.582		
11,200.0	10,010		9,700.0	41.2	39.4	70.40	1,238.3	392.7	933.1	857.4	75.67	12.332		
11,300.0	10,010		9,700.0	42.0	40.3	70.40	1,338.3	392.0	933.1	855.8	77.27	12.075		
11,400.0	10,010		9,700.0	42.9	41.2	70.40	1,438.3	391.3	933.0	854.1	78.97	11.815		
11,500.0	10,010		9,700.0	43.8	42.1	70.40	1,538.3	390.6	933.0	852.3	80.75	11.554		
11,600.0	10,010	0.0 11,218.8	9,700.0	44.8	43.1	70.40	1,638.3	389.9	933.0	850.4	82.62	11.292		
11,700.0	10,010		9,700.0	45.8	44.1	70.40	1,738.3	389.2	932.9	848.4	84.57	11.032		
11,800.0	10,010		9,700.0	46.9	45.2	70.40	1,838.3	388.5	932.9	846.3	86.58	10.775		
11,900.0	10,010		9,700.0	48.0	46.3	70.40	1,938.3	387.8	932.9	844.2	88.67	10.521		
12,000.0	10,010		9,700.0	49.1	47.4	70.40	2,038.3	387.1	932.9	842.0	90.81	10.273		
12,100.0	10,010	0.0 11,718.8	9,700.0	50.3	48.6	70.39	2,138.3	386.4	932.8	839.8	93.01	10.029		
12,200.0	10,010		9,700.0	51.4	49.7	70.39	2,238.3	385.7	932.8	837.5	95.27	9.791		
12,300.0	10,010		9,700.0	52.6	50.9	70.39	2,338.3	385.0	932.8	835.2	97.58	9.559		
12,400.0	10,010		9,700.0	53.9	52.2	70.39	2,438.3	384.4	932.7	832.8	99.93	9.334		
12,500.0 12,600.0	10,010 10,010		9,700.0 9,700.0	55.1 56.4	53.4 54.7	70.39 70.39	2,538.3 2,638.3	383.7 383.0	932.7 932.7	830.4 827.9	102.33 104.77	9.115 8.902		
12,700.0	10,010	0.0 12,318.8	9,700.0	57.7	56.0	70.39	2,738.3	382.3	932.6	825.4	107.24	8.696		

PERMIAN RESOURCES

Anticollision Report

Company: NEW MEXICO Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

Offset TVD Reference:

TVD Reference: KB @ 3710.0usft KB @ 3710.0usft

North Reference: Grid

Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Compass_17

Well EILEEN 25 FED COM 142H

Offset Datum

rvey Progr		MWD								Rule Assi	gned:		Offset Well Error:	0.0 usf
Refer Measured Depth	rence Vertical Depth	Offs Measured Depth	set Vertical Depth	Semi M Reference	lajor Axis Offset	Highside Toolface	Offset Wellbe	re Centre +E/-W	Dist Between Centres	ance Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
12,800.0	10,010.0	12,418.8	9,700.0	59.0	57.3	70.39	2,838.3	381.6	932.6	822.9	109.75	8.497		
12,900.0	10,010.0	12,518.8	9,700.0	60.3	58.7	70.39	2,938.3	380.9	932.6	820.3	112.30	8.305		
13,000.0	10,010.0	12,618.8	9,700.0	61.6	60.0	70.39	3,038.3	380.2	932.6	817.7	114.87	8.118		
13,100.0	10,010.0	12,718.8	9,700.0	63.0	61.4	70.39	3,138.3	379.5	932.5	815.0	117.48	7.938		
13,200.0	10,010.0	12,818.8	9,700.0	64.4	62.8	70.39	3,238.3	378.8	932.5	812.4	120.10	7.764		
13,300.0	10,010.0	12,918.8	9,700.0	65.7	64.1	70.39	3,338.3	378.1	932.5	809.7	122.76	7.596		
13,400.0	10,010.0	13,018.8	9,700.0	67.1	65.5	70.39	3,438.3	377.4	932.4	807.0	125.44	7.433		
13,500.0	10,010.0	13,118.8	9,700.0	68.5	67.0	70.39	3,538.3	376.7	932.4	804.3	128.14	7.277		
13,600.0	10,010.0	13,218.8	9,700.0	70.0	68.4	70.39	3,638.3	376.0	932.4	801.5	130.86	7.125		
13,700.0	10,010.0	13,318.8	9,700.0	71.4	69.8	70.38	3,738.3	375.3	932.3	798.7	133.60	6.979		
13,800.0	10,010.0	13,418.8	9,700.0	72.8	71.3	70.38	3,838.3	374.6	932.3	796.0	136.36	6.837		
13,900.0	10,010.0	13,518.8	9,700.0	74.3	72.7	70.38	3,938.3	373.9	932.3	793.1	139.13	6.701		
14,000.0	10,010.0	13,618.8	9,700.0	75.7	74.2	70.38	4,038.3	373.2	932.2	790.3	141.92	6.569		
14,100.0	10,010.0	13,718.8	9,700.0	77.2	75.6	70.38	4,138.3	372.5	932.2	787.5	144.73	6.441		
14,200.0	10,010.0	13,818.8	9,700.0	78.6	77.1	70.38	4,238.3	371.8	932.2	784.6	147.55	6.318		
14,300.0	10,010.0	13,918.8	9,700.0	80.1	78.6	70.38	4,338.3	371.1	932.2	781.8	150.38	6.199		
14,400.0	10,010.0	14,018.8	9,700.0	81.6	80.1	70.38	4,438.3	370.4	932.1	778.9	153.23	6.083		
14,500.0	10,010.0	14,118.8	9,700.0	83.1	81.6	70.38	4,538.3	369.7	932.1	776.0	156.09	5.972		
14,600.0	10,010.0	14,218.8	9,700.0	84.6	83.1	70.38	4,638.3	369.0	932.1	773.1	158.96	5.864		
14,700.0	10,010.0	14,318.8	9,700.0	86.1	84.6	70.38	4,738.3	368.3	932.0	770.2	161.84	5.759		
14,800.0	10,010.0	14,418.8	9,700.0	87.6	86.1	70.38	4,838.3	367.6	932.0	767.3	164.73	5.658		
14,900.0	10,010.0	14,518.8	9,700.0	89.1	87.6	70.38	4,938.3	366.9	932.0	764.3	167.63	5.560		
15,000.0	10,010.0	14,618.8	9,700.0	90.6	89.2	70.38	5,038.2	366.2	931.9	761.4	170.54	5.465		
15,019.6	10,010.0	14,638.0	9,700.0	90.9	89.5	70.38	5,057.5	366.1	931.9	760.8	171.10	5.447		
15,100.0	10,010.0	14,716.2	9,700.0	92.1	90.7	70.38	5,135.7	365.8	932.1	758.7	173.40	5.375		
15,200.0	10,010.0	14,816.2	9,700.0	93.7	92.2	70.39	5,235.7	365.4	932.4	756.0	176.34	5.287		
15,300.0	10,010.0	14,916.2	9,700.0	95.2	93.7	70.39	5,335.7	365.0	932.6	753.3	179.27	5.202		
15,400.0	10,010.0	15,016.2	9,700.0	96.7	95.3	70.40	5,435.7	364.6	932.9	750.6	182.22	5.119		
15,500.0	10,010.0	15,116.2	9,700.0	98.3	96.8	70.40	5,535.7	364.2	933.1	747.9	185.18	5.039		
15,600.0	10,010.0	15,216.2	9,700.0	99.8	98.4	70.41	5,635.7	363.8	933.4	745.2	188.14	4.961		
15,700.0	10,010.0	15,316.2	9,700.0	101.4	99.9	70.41	5,735.7	363.4	933.6	742.5	191.11	4.885		
15,800.0	10,010.0	15,416.2	9,700.0	102.9	101.5	70.42	5,835.7	363.0	933.8	739.8	194.08	4.812		
15,900.0	10,010.0	15,516.2	9,700.0	104.5	103.0	70.42	5,935.7	362.6	934.1	737.0	197.06	4.740		
16,000.0	10,010.0	15,616.2	9,700.0	106.0	104.6	70.43	6,035.6	362.2	934.3	734.3	200.05	4.671		
16,100.0	10,010.0	15,716.2	9,700.0	107.6	106.1	70.43	6,135.6	361.8	934.6	731.6	203.04	4.603		
16,200.0	10,010.0	15,816.2	9,700.0	109.1	107.7	70.44	6,235.6	361.4	934.8	728.8	206.04	4.537		
16,300.0	10,010.0	15,916.2	9,700.0	110.7	109.3	70.44	6,335.6	361.0	935.1	726.0	209.04	4.473		
16,400.0	10,010.0	16,016.2	9,700.0	112.3	110.8	70.45	6,435.6	360.6	935.3	723.3	212.05	4.411		
16,500.0	10,010.0	16,116.2	9,700.0	113.8	112.4	70.45	6,535.6	360.2	935.6	720.5	215.06	4.350		
16,600.0	10,010.0	16,216.2	9,700.0	115.4	114.0	70.46	6,635.6	359.8	935.8	717.8	218.07	4.291		
16,700.0	10,010.0	16,316.2	9,700.0	117.0	115.6	70.47	6,735.6	359.4	936.1	715.0	221.10	4.234		
16,800.0	10,010.0	16,416.2	9,700.0	118.6	117.1	70.47	6,835.6	359.0	936.3	712.2	224.12	4.178		
16,900.0	10,010.0	16,516.2	9,700.0	120.1	118.7	70.48	6,935.6	358.6	936.6	709.4	227.15	4.123		
17,000.0	10,010.0	16,616.2	9,700.0	121.7	120.3	70.48	7,035.6	358.2	936.8	706.6	230.18	4.070		
17,100.0	10,010.0	16,716.2	9,700.0	123.3	121.9	70.49	7,135.6	357.8	937.1	703.8	233.22	4.018		
17,200.0	10,010.0	16,816.2	9,700.0	124.9	123.5	70.49	7,235.6	357.4	937.3	701.1	236.26	3.967		
17,300.0	10,010.0	16,916.2	9,700.0	126.5	125.1	70.50	7,335.6	356.9	937.6	698.3	239.30	3.918		
17,400.0	10,010.0	17,016.2	9,700.0	128.1	126.7	70.50	7,435.6	356.5	937.8	695.5	242.35	3.870		
17,500.0	10,010.0	17,116.2	9,700.0	129.6	128.3	70.51	7,535.6	356.1	938.1	692.7	245.40	3.823		
17,600.0	10,010.0	17,216.2	9,700.0	131.2	129.8	70.51	7,635.6	355.7	938.3	689.8	248.45	3.777		
17,650.8	10,010.0	17,267.0	9,700.0	132.0	130.7	70.52	7,686.4	355.5	938.4	688.4	250.00	3.754		
17,700.0	10,010.0	17,316.2												



Company: NEW MEXICO Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: KB @ 3710.0usft MD Reference: KB @ 3710.0usft

Well EILEEN 25 FED COM 142H

North Reference: Grid

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma
Database: Compass_17
Offset TVD Reference: Offset Datum

		MWD								Bul. A			Offset Site Error:	0.0 usft
Survey Progr Refei	ram: U-l' rence	VIVVD Off	set	Semi I	Major Axis		Offset Wellb	ore Centre	Dis	Rule Assi tance	gned:		Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
17,800.0	10.010.0	17,416.2	9,700.0	134.4	133.0	70.52	7,835.6	354.9	938.8	684.2	254.57	3.688		
17,900.0	10.010.0	17,516.2	9,700.0	136.0	134.6	70.53	7,935.6	354.5	939.0	681.4	257.63	3.645		
18,000.0	10,010.0	17,616.2	9,700.0	137.6	136.2	70.53	8,035.6	354.1	939.3	678.6	260.69	3.603		
18,100.0	10,010.0	17,716.2	9,700.0	139.2	137.8	70.54	8,135.6	353.7	939.5	675.8	263.76	3.562		
18,200.0	10,010.0	17,816.2	9,700.0	140.8	139.4	70.55	8,235.6	353.3	939.8	673.0	266.83	3.522		
18,300.0	10,010.0	17,916.2	9,700.0	142.4	141.0	70.55	8,335.6	352.9	940.0	670.1	269.90	3.483		
18,400.0	10,010.0	18,016.2	9,700.0	144.0	142.6	70.56	8,435.6	352.5	940.3	667.3	272.98	3.445		
18,500.0	10,010.0	18,116.2	9,700.0	145.6	144.2	70.56	8,535.6	352.1	940.5	664.5	276.05	3.407		
18,600.0	10,010.0	18,216.2	9,700.0	147.2	145.9	70.57	8,635.6	351.7	940.8	661.6	279.13	3.370		
18,700.0	10,010.0	18,316.2	9,700.0	148.8	147.5	70.57	8,735.6	351.3	941.0	658.8	282.21	3.334		
18,800.0	10,010.0	18,416.2	9,700.0	150.4	149.1	70.58	8,835.6	350.9	941.3	656.0	285.30	3.299		
18,900.0	10,010.0	18,516.2	9,700.0	152.0	150.7	70.58	8,935.6	350.5	941.5	653.1	288.38	3.265		
19,000.0	10,010.0	18,616.2	9,700.0	153.6	152.3	70.59	9,035.6	350.1	941.8	650.3	291.47	3.231		
19,100.0	10,010.0	18,716.2	9,700.0	155.2	153.9	70.59	9,135.6	349.7	942.0	647.5	294.56	3.198		
19,200.0	10,010.0	18,816.2	9,700.0	156.9	155.5	70.60	9,235.6	349.3	942.3	644.6	297.65	3.166		
19,300.0	10,010.0	18,916.2	9,700.0	158.5	157.1	70.60	9,335.6	348.9	942.5	641.8	300.74	3.134		
19,400.0	10,010.0	19,016.2	9,700.0	160.1	158.7	70.61	9,435.6	348.5	942.7	638.9	303.83	3.103		
19,500.0	10,010.0	19,116.2	9,700.0	161.7	160.3	70.61	9,535.6	348.1	943.0	636.1	306.93	3.072		
19,600.0	10,010.0	19,216.2	9,700.0	163.3	162.0	70.62	9,635.6	347.7	943.2	633.2	310.03	3.042		
19,700.0	10,010.0	19,316.2	9,700.0	164.9	163.6	70.62	9,735.6	347.3	943.5	630.4	313.13	3.013		
19,800.0	10,010.0	19,416.2	9,700.0	166.5	165.2	70.63	9,835.6	346.9	943.7	627.5	316.23	2.984		
19,900.0	10,010.0	19,516.2	9,700.0	168.1	166.8	70.63	9,935.6	346.5	944.0	624.7	319.33	2.956		
20,000.0	10,010.0	19,616.2	9,700.0	169.8	168.4	70.64	10,035.6	346.1	944.2	621.8	322.43	2.928		
20,100.0	10,010.0	19,716.2	9,700.0	171.4	170.0	70.65	10,135.6	345.7	944.5	618.9	325.54	2.901		
20,200.1	10,010.0	19,816.2	9,700.0	173.0	171.7	70.65	10,235.7	345.3	944.7	616.0	328.65	2.874 ES, S	SF.	



NEW MEXICO Company: Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft OWB Reference Wellbore Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method: Output errors are at

Database:

Offset TVD Reference:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

													Offset Site Error:	0.0 usft
urvey Progr Refe	ram: 0-l rence	MWD Offs	set	Semi N	lajor Axis		Offset Wellb	ore Centre	Dist	Rule Assi	gned:		Offset Well Error:	0.0 usft
Measured Depth	Vertical Depth (usft)	Measured Depth	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
(usft) 0.0	0.0	(usft) 3.0	3.0	0.0	0.0	(°) 84.93	63.2	712.1	714.9	(usit)	(usit)			
100.0	100.0	103.0	103.0	0.3	0.3	84.93	63.2	712.1	714.9	714.4	0.51	1,394.693		
200.0	200.0	203.0	203.0	0.6	0.6	84.93	63.2	712.1	714.9	713.7	1.23	581.461		
300.0	300.0	303.0	303.0	1.0	1.0	84.93	63.2	712.1	714.9	713.0	1.95	367.295		
400.0	400.0	403.0	403.0	1.3	1.3	84.93	63.2	712.1	714.9	712.3	2.66	268.427		
500.0	500.0	503.0	503.0	1.7	1.7	84.93	63.2	712.1	714.9	711.6	3.38	211.497		
600.0	600.0	603.0	603.0	2.0	2.1	84.93	63.2	712.1	714.9	710.8	4.10	174.489		
700.0	700.0	703.0	703.0	2.4	2.4	84.93	63.2	712.1	714.9	710.1	4.81	148.504		
800.0	800.0	803.0	803.0	2.8	2.8	84.93	63.2	712.1	714.9	709.4	5.53	129.256		
900.0	900.0	903.0	903.0	3.1	3.1	84.93	63.2	712.1	714.9	708.7	6.25	114.424		
1,000.0	1,000.0	1,003.0	1,003.0	3.5	3.5	84.93	63.2	712.1	714.9	708.0	6.97	102.646		
1,100.0	1,100.0	1,103.0	1,103.0	3.8	3.8	84.93	63.2	712.1	714.9	707.3	7.68	93.066		
1,165.6	1,165.6	1,168.6	1,168.6	4.1	4.1	84.93	63.2	712.1	714.9	706.8	8.15	87.695 CC		
1,200.0	1,200.0	1,200.0	1,200.0	4.2	4.2	84.93	63.2	712.1	714.9	706.6	8.39	85.233 ES		
1,300.0	1,300.0	1,287.6	1,287.5	4.6	4.5	85.00	62.4	713.2	716.1	707.0	9.05	79.156		
1,400.0	1,400.0	1,372.4	1,372.3	4.9	4.8	85.22	59.9	716.1	719.3	709.6	9.68	74.280		
1,500.0	1,500.0	1,457.0	1,456.6	5.3	5.1	85.57	55.8	721.0	724.6	714.3	10.32	70.239		
1,600.0	1,600.0	1,541.1	1,540.3	5.6	5.4	86.06	50.2	727.7	732.1	721.1	10.95	66.877		
1,700.0	1,700.0	1,629.2	1,627.6	6.0	5.7	86.69	42.7	736.6	741.7	730.1	11.60	63.958		
1,800.0	1,800.0	1,728.2	1,725.7	6.3	6.0	87.41	33.8	747.1	751.9	739.6	12.30	61.136		
1,900.0	1,900.0	1,827.3	1,823.8	6.7	6.4	88.12	24.9	757.7	762.2	749.2	13.01	58.601		
2,000.0	2,000.0	1,926.3	1,921.8	7.1	6.8	88.80	16.0	768.2	772.7	759.0	13.72	56.321		
2,100.0	2,100.0	2,025.2	2,019.7	7.4	7.1	-165.32	7.2	778.8	784.9	770.5	14.42	54.419		
2,200.0	2,199.8	2,123.6	2,117.2	7.7	7.5	-164.69	-1.6	789.2	800.6	785.5	15.12	52.950		
2,300.0	2,299.5	2,221.6	2,214.2	8.1	7.9	-164.12	-10.4	799.7	819.6	803.8	15.82	51.821		
2,400.0	2,398.7	2,318.9	2,310.6	8.4	8.3	-163.62	-19.1	810.0	842.0	825.5	16.51	50.989		
2,500.0	2,497.7	2,415.9	2,406.6	8.8	8.7	-163.30	-27.8	820.4	866.0	848.8	17.21	50.323		
2,600.0	2,596.8	2,512.8	2,502.6	9.2	9.1	-162.99	-36.5	830.7	890.1	872.2	17.91	49.705		
2,700.0	2,695.8	2,609.8	2,598.7	9.5	9.4	-162.71	-45.2	841.0	914.1	895.5	18.61	49.125		
2,800.0	2,794.8	2,706.7	2,694.7	9.9	9.8	-162.43	-53.9	851.4	938.2	918.9	19.31	48.579		
2,900.0	2,893.8	2,803.7	2,790.7	10.3	10.2	-162.17	-62.6	861.7	962.3	942.3	20.02	48.066		
3.000.0	2,992.9	2,900.7	2,886.7	10.7	10.6	-161.93	-71.2	872.0	986.5	965.7	20.73	47.583 SF		



NEW MEXICO Company: Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft OWB Reference Wellbore Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method: Output errors are at

Database:

Offset TVD Reference:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

		ИWD								Dula Acci			Offeet Well Fore	0.0 us
urvey Prog Refe	ram: U-l' rence	//VD Off	set	Semi M	Major Axis		Offset Wellb	ore Centre	Dist	Rule Assig	gned:		Offset Well Error:	0.0 us
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
0.0	0.0	3.0	3.0	0.0	0.0	85.02	63.3	727.1	729.9					
100.0	100.0	103.0	103.0	0.3	0.3	85.02	63.3	727.1	729.9	729.4	0.51	1,423.881		
200.0	200.0	203.0	203.0	0.6	0.6	85.02	63.3	727.1	729.9	728.7	1.23	593.630		
300.0	300.0	303.0	303.0	1.0	1.0	85.02	63.3	727.1	729.9	728.0	1.95	374.982		
400.0	400.0	403.0	403.0	1.3	1.3	85.02	63.3	727.1	729.9	727.2	2.66	274.045		
500.0	500.0	503.0	503.0	1.7	1.7	85.02	63.3	727.1	729.9	726.5	3.38	215.923		
600.0	600.0	603.0	603.0	2.0	2.1	85.02	63.3	727.1	729.9	725.8	4.10	178.141		
700.0	700.0	703.0	703.0	2.4	2.4	85.02	63.3	727.1	729.9	725.1	4.81	151.612		
800.0	800.0	803.0	803.0	2.8	2.8	85.02	63.3	727.1	729.9	724.4	5.53	131.961		
900.0	900.0	903.0	903.0	3.1	3.1	85.02	63.3	727.1	729.9	723.7	6.25	116.819		
1,000.0	1,000.0	1,003.0	1,003.0	3.5	3.5	85.02	63.3	727.1	729.9	722.9	6.97	104.794		
1,100.0	1,100.0	1,103.0	1,103.0	3.8	3.8	85.02	63.3	727.1	729.9	722.2	7.68	95.014		
1,200.0	1,200.0	1,203.0	1,203.0	4.2	4.2	85.02	63.3	727.1	729.9	721.5	8.40	86.904		
1,300.0	1,300.0	1,303.0	1,303.0	4.6	4.6	85.02	63.3	727.1	729.9	720.8	9.12	80.069		
1,400.0	1,400.0	1,403.0	1,403.0	4.9	4.9	85.02	63.3	727.1	729.9	720.1	9.83	74.231		
1,500.0	1,500.0	1,503.0	1,503.0	5.3	5.3	85.02	63.3	727.1	729.9	719.4	10.55	69.186		
1,600.0	1,600.0	1,603.0	1,603.0	5.6	5.6	85.02	63.3	727.1	729.9	718.6	11.27	64.784		
1,700.0	1,700.0	1,703.0	1,703.0	6.0	6.0	85.02	63.3	727.1	729.9	717.9	11.98	60.908		
1,800.0	1,800.0	1,803.0	1,803.0	6.3	6.4	85.02	63.3	727.1	729.9	717.2	12.70	57.470		
1,900.0	1,900.0	1,903.0	1,903.0	6.7	6.7	85.02	63.3	727.1	729.9	716.5	13.42	54.399		
2,000.0	2,000.0	2,003.0	2,003.0	7.1	7.1	85.02	63.3	727.1	729.9	715.8	14.13	51.640 CC, ES	3	
2,100.0	2,100.0	2,103.0	2,103.0	7.4	7.4	-169.82	63.3	727.1	731.6	716.8	14.84	49.301		
2,200.0	2,199.8	2,202.8	2,202.8	7.7	7.8	-169.88	63.3	727.1	736.8	721.2	15.54	47.426		
2,300.0	2,299.5	2,302.5	2,302.5	8.1	8.1	-169.96	63.3	727.1	745.4	729.1	16.23	45.921		
2,400.0	2,398.7	2,401.7	2,401.7	8.4	8.5	-170.08	63.3	727.1	757.4	740.4	16.93	44.743		
2,500.0	2,497.7	2,500.0	2,500.0	8.8	8.9	-170.26	63.3	727.1	771.1	753.5	17.62	43.762		
2,600.0	2,596.8	2,578.8	2,578.8	9.2	9.1	-170.38	63.2	728.2	786.1	767.9	18.23	43.129		
2,700.0	2,695.8	2,656.4	2,656.3	9.5	9.4	-170.45	62.7	731.4	803.8	785.0	18.81	42.722		
2,800.0	2,794.8	2,733.2	2,732.9	9.9	9.7	-170.49	61.9	736.5	824.0	804.6	19.39	42.507		
2,900.0	2,893.8	2,800.0	2,799.5	10.3	9.9	-170.49	61.0	742.7	846.8	826.9	19.89	42.579		
3,000.0	2,992.9	2,884.1	2,882.9	10.7	10.2	-170.45	59.5	752.6	872.0	851.5	20.48	42.574		
3,100.0	3,091.9	2,975.7	2,973.6	11.0	10.5	-170.38	57.6	765.1	898.9	877.8	21.12	42.556		
3,200.0	3,190.9	3,071.9	3,069.0	11.4	10.8	-170.31	55.6	778.4	925.9	904.1	21.80	42.476		
3,300.0	3,289.9	3,168.2	3,164.3	11.8	11.2	-170.25	53.7	791.6	952.8	930.3	22.47	42.396		
3,400.0	3,389.0	3,264.5	3,259.7	12.2	11.6	-170.19	51.7	804.9	979.8	956.6	23.15	42.315 SF		

PERMIAN RESOURCES

Anticollision Report

Company: NEW MEXICO
Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

North Reference: Survey Calculation Method:

Output errors are at Database:

Offset TVD Reference:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

	,.g		ED COM -	EILEEN 2	5 FED CC)M 232H - O	WB - PWP0						Offset Site Error:	0.0 usft
Survey Progra		MWD		Ca: B	Saina Auin		Offe et Wellh	Cambra	Die	Rule Assi	gned:		Offset Well Error:	0.0 usft
Refere Measured Depth	ence Vertical Depth	Measured Depth	fset Vertical Depth	Reference	Major Axis Offset	Highside Toolface	Offset Wellbo	+E/-W	Between Centres	tance Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
4,900.0	4,874.4	5,025.4	5,002.4	18.2	18.5	18.22	-55.1	-1,342.6	990.2	955.4	34.78	28.468		
5,000.0	4,973.4	5,121.7	5,097.8	18.6	18.8	18.35	-57.8	-1,329.4	963.5	928.0	35.49	27.145		
5,100.0	5,072.4	5,218.1	5,193.2	19.0	19.2	18.48	-60.5	-1,316.3	936.7	900.5	36.21	25.873		
5,200.0	5,171.5	5,314.4	5,288.6	19.5	19.6	18.62	-63.3	-1,303.2	910.0	873.1	36.92	24.650		
5,300.0	5,270.5	5,410.7	5,384.0	19.9	20.0	18.78	-66.0	-1,290.1	883.3	845.6	37.63	23.472		
5,400.0	5,369.5	5,507.1	5,479.4	20.3	20.4	18.94	-68.7	-1,276.9	856.6	818.2	38.34	22.338		
5,500.0	5,468.5	5,603.4	5,574.8	20.7	20.8	19.11	-71.5	-1,263.8	829.9	790.8	39.06	21.246		
5,552.6	5,520.6	5,654.0	5,625.0	20.9	21.0	19.21	-72.9	-1,256.9	815.8	776.4	39.44	20.687		
5,600.0	5,567.6	5,699.8	5,670.3	21.1	21.2	19.20	-74.2	-1,250.7	803.5	763.7	39.78	20.201		
5,700.0	5,667.0	5,797.0	5,766.5	21.5	21.6	19.15	-77.0	-1,237.4	779.9	739.4	40.49	19.262		
5,800.0	5,766.8	5,894.9	5,863.5	21.9	22.0	19.04	-79.7	-1,224.1	759.6	718.4	41.20	18.435		
5,900.0	5,866.7	5,993.4	5,961.0	22.2	22.4	18.87	-82.5	-1,210.7	742.4	700.5	41.91	17.714		
5,952.6	5,919.3	6,045.4	6,012.5	22.4	22.6	-86.42	-84.0	-1,203.6	734.7	692.5	42.28	17.377		
6,000.0	5,966.7	6,092.4	6,059.0	22.6	22.8	-86.49	-85.3	-1,197.2	728.2	685.6	42.61	17.089		
6,100.0	6,066.7	6,191.4	6,157.1	22.9	23.2	-86.65	-88.2	-1,183.7	714.4	671.1	43.31	16.494		
6,200.0	6,166.7	6,290.4	6,255.2	23.2	23.6	-86.82	-91.0	-1,170.2	700.7	656.6	44.02	15.918		
6,300.0	6,266.7	6,389.5	6,353.2	23.5	24.0	-86.99	-93.8	-1,156.7	686.9	642.2	44.72	15.361		
6,400.0	6,366.7	6,488.5	6,451.3	23.9	24.4	-87.18	-96.6	-1,143.2	673.1	627.7	45.42	14.820		
6,500.0	6,466.7	6,587.5	6,549.4	24.2	24.8	-87.36	-99.4	-1,129.7	659.4	613.3	46.13	14.295		
6,600.0	6,566.7	6,686.5	6,647.4	24.5	25.2	-87.56	-102.2	-1,116.2	645.7	598.8	46.83	13.787		
6,700.0	6,666.7	6,785.6	6,745.5	24.9	25.7	-87.76	-105.0	-1,102.7	631.9	584.4	47.54	13.293		
6,800.0	6,766.7	6,884.6	6,843.5	25.2	26.1	-87.98	-107.8	-1,089.2	618.2	570.0	48.25	12.814		
6,900.0	6,866.7	6,983.6	6,941.6	25.5	26.5	-88.20	-110.6	-1,075.7	604.5	555.5	48.95	12.348		
7,000.0	6,966.7	7,082.6	7,039.7	25.9	26.9	-88.43	-113.4	-1,062.3	590.8	541.1	49.66	11.896		
7,100.0	7,066.7	7,181.7	7,137.7	26.2	27.3	-88.68	-116.3	-1,048.8	577.1	526.7	50.37	11.456		
7,200.0	7,166.7	7,280.7	7,235.8	26.5	27.7	-88.93	-119.1	-1,035.3	563.4	512.3	51.08	11.029		
7,300.0	7,266.7	7,379.7	7,333.9	26.9	28.1	-89.20	-121.9	-1,021.8	549.7	497.9	51.80	10.613		
7,400.0	7,366.7	7,478.8	7,431.9	27.2	28.5	-89.49	-124.7	-1,008.3	536.1	483.6	52.51	10.209		
7,500.0	7,466.7	7,577.8	7,530.0	27.5	28.9	-89.78	-127.5	-994.8	522.4	469.2	53.22	9.816		
7,600.0	7,566.7	7,676.8	7,628.0	27.9	29.3	-90.10	-130.3	-981.3	508.8	454.8	53.94	9.433		
7,700.0	7,666.7	7,775.8	7,726.1	28.2	29.8	-90.43	-133.1	-967.8	495.2	440.5	54.65	9.060		
7,800.0	7,766.7	7,874.9	7,824.2	28.5	30.2	-90.78	-135.9	-954.3	481.6	426.2	55.37	8.697		
7,900.0	7,866.7	7,962.3	7,910.9	28.9	30.5	-91.08	-138.2	-943.3	469.0	412.9	56.16	8.351		
8,000.0	7,966.7	8,048.3	7,916.3	29.2	30.9	-91.32	-140.0	-935.0	459.4	402.4	56.93	8.069		
8,100.0	8,066.7	8,134.6	8,082.6	29.2	31.2	-91.49	-141.2	-935.0 -929.1	452.6	395.0	57.66	7.850		
8,200.0	8,166.7	8,221.3	8,169.2	29.9	31.5	-91.59	-141.9	-925.8	448.8	390.5	58.35	7.692		
8,300.0	8,266.7	8,310.9	8,258.7	30.2	31.8	-91.61	-142.0	-925.0	447.9	388.9	59.00	7.591		
8,400.0	8,366.7	8,410.9	8,358.7	30.6	32.1	-91.61	-142.0	-925.0	447.9	388.2	59.69	7.504		
8,500.0	8,466.7	8,510.9	8,458.7	30.9	32.4	-91.61	-142.0	-925.0	447.9	387.5	60.38	7.418		
8,600.0	8,566.7	8,610.9	8,558.7	31.3	32.7	-91.61	-142.0	-925.0	447.9	386.8	61.07	7.335		
8,700.0	8,666.7	8,710.9	8,658.7	31.6	33.1	-91.61	-142.0	-925.0	447.9	386.1	61.75	7.253		
8,800.0	8,766.7	8,810.9	8,758.7	32.0	33.4	-91.61	-142.0	-925.0	447.9	385.5	62.44	7.173		
8,900.0	8,866.7	8,910.9	8,858.7	32.3	33.7	-91.61	-142.0	-925.0	447.9	384.8	63.14	7.094		
9,000.0	8,966.7	9,010.9	8,958.7	32.6	34.0	-91.61	-142.0	-925.0	447.9	384.1	63.83	7.017		
9,100.0	9,066.7	9,110.9	9,058.7	33.0	34.4	-91.61	-142.0	-925.0	447.9	383.4	64.52	6.942		
9,200.0	9,166.7	9,210.9	9,158.7	33.3	34.7	-91.61	-142.0	-925.0	447.9	382.7	65.21	6.868		
9,300.0	9,266.7	9,310.9	9,258.7	33.7	35.0	-91.61	-142.0	-925.0	447.9	382.0	65.90	6.796		
9,400.0	9,366.7	9,410.9	9,358.7	34.0	35.3	-91.61	-142.0	-925.0	447.9	381.3	66.60	6.725		
9,500.0	9,466.7	9,510.9	9,458.7	34.4	35.7	-91.61	-142.0	-925.0	447.9	380.6	67.29	6.656		
9,565.8	9,532.5	9,576.6	9,524.5	34.6	35.9	-91.61	-142.0	-925.0	447.9	380.1	67.75	6.611 CC		
9,575.0	9,541.7	9,585.9	9,533.7	34.6	35.9	-91.24	-142.0	-925.0	447.9	380.1	67.81	6.605		
9,600.0	9,566.7	9,610.8	9,558.7	34.7	36.0	-91.38	-142.0	-925.0	447.9	379.9	67.99	6.588		



Company: NEW MEXICO
Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: K
MD Reference: K

North Reference: Gr

Survey Calculation Method: Output errors are at Database:

Offset TVD Reference:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature 2.00 sigma

Compass_17
Offset Datum

urvey Progi Refe	ram: 0-1 rence	MWD Offs	set	Semi N	lajor Axis		Offset Wellb	ore Centre	Dis	Rule Assi	gned:		Offset Well Error:	0.0 us
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,625.0	9,591.6	9,635.7	9,583.6	34.8	36.1	-91.69	-142.0	-925.0	448.0	379.8	68.16	6.573		
9,650.0	9,616.3	9,660.4	9,608.3	34.9	36.2	-92.14	-142.0	-925.0	448.1	379.8	68.33	6.558 ES		
9,675.0	9,640.8	9,684.9	9,632.8	35.0	36.2	-92.75	-142.0	-925.0	448.3	379.8	68.51	6.544		
9,700.0	9,665.0	9,709.1	9,657.0	35.0	36.3	-93.48	-142.0	-925.0	448.7	380.0	68.68	6.533		
9,725.0	9,688.8	9,732.9	9,680.8	35.1	36.4	-94.33	-142.0	-925.0	449.2	380.4	68.86	6.524		
9,750.0	9,712.2	9,756.3	9,704.2	35.2	36.5	-95.29	-142.0	-925.0	450.0	381.0	69.04	6.519		
9,775.0	9,735.1	9,779.2	9,727.1	35.3	36.6	-96.32	-142.0	-925.0	451.1	381.9	69.21	6.518 SF		
9,800.0	9,757.4	9,801.6	9,749.4	35.3	36.6	-97.40	-142.0	-925.0	452.6	383.2	69.40	6.522		
9,825.0	9,779.2	9,823.3	9,771.2	35.4	36.7	-98.51	-142.0	-925.0	454.6	385.0	69.58	6.533		
9,850.0	9,800.2	9,844.4	9,792.2	35.4	36.8	-99.63	-142.0	-925.0	457.1	387.3	69.77	6.551		
9,875.0	9,820.6	9,864.7	9,812.6	35.5	36.8	-100.72	-142.0	-925.0	460.2	390.3	69.97	6.578		
9,900.0	9,840.1	9,884.2	9,832.1	35.5	36.9	-101.76	-142.0	-925.0	464.1	393.9	70.17	6.614		
9,925.0	9,858.8	9,902.9	9,850.8	35.6	37.0	-102.72	-142.0	-925.0	468.7	398.4	70.37	6.661		
9,950.0	9,876.6	9,920.7	9,868.6	35.6	37.0	-103.58	-142.0	-925.0	474.2	403.6	70.58	6.719		
9,975.0	9,893.4	9,937.6	9,885.4	35.7	37.1	-104.31	-142.0	-925.0	480.6	409.8	70.79	6.789		
10,000.0	9,909.3	9,953.4	9,901.3	35.7	37.1	-104.89	-142.0	-925.0	487.9	416.9	71.00	6.872		
10,025.0	9,924.1	9,968.3	9,916.1	35.7	37.2	-105.29	-142.0	-925.0	496.3	425.1	71.22	6.968		
10,050.0	9,937.9	9,982.0	9,929.9	35.8	37.2	-105.49	-142.0	-925.0	505.6	434.2	71.43	7.078		
10,075.0	9,950.5	9,994.7	9,942.5	35.8	37.3	-105.46	-142.0	-925.0	516.0	444.3	71.64	7.202		
10,100.0	9,962.0	10,006.2	9,954.0	35.8	37.3	-105.20	-142.0	-925.0	527.4	455.5	71.85	7.340		
10,125.0	9,972.4	10,016.5	9,964.4	35.9	37.3	-104.67	-142.0	-925.0	539.7	467.7	72.05	7.491		
10,150.0	9,981.5	10,025.6	9,973.5	35.9	37.4	-103.86	-142.0	-925.0	553.1	480.8	72.24	7.656		
10,175.0	9,989.4	10,033.5	9,981.4	35.9	37.4	-102.74	-142.0	-925.0	567.3	494.9	72.42	7.833		
10,200.0	9,996.0	10,040.1	9,988.0	36.0	37.4	-101.29	-142.0	-925.0	582.4	509.8	72.59	8.023		
10,225.0	10,001.4	10,045.5	9,993.4	36.0	37.4	-99.51	-142.0	-925.0	598.3	525.6	72.75	8.224		
10,250.0	10,005.4	10,049.6	9,997.4	36.0	37.5	-97.37	-142.0	-925.0	615.0	542.1	72.90	8.436		
10,275.0	10,008.2	10,052.4	10,000.2	36.1	37.5	-94.86	-142.0	-925.0	632.3	559.2	73.03	8.657		
10,300.0	10,009.7	10,053.8	10,001.7	36.2	37.5	-91.99	-142.0	-925.0	650.1	577.0	73.16	8.887		
10,315.8	10,010.0	10,054.1	10,002.0	36.2	37.5	-90.00	-142.0	-925.0	661.6	588.4	73.23	9.036		
10,400.0	10,010.0	10,054.1	10,002.0	36.4	37.5	-90.00	-142.0	-925.0	725.9	652.3	73.55	9.869		
10,500.0	10,010.0	10,054.1	10,002.0	36.8	37.5	-90.00	-142.0	-925.0	807.0	733.1	73.86	10.925		
10,600.0	10,010.0	10,054.1	10,002.0	37.2	37.5	-90.00	-142.0	-925.0	891.9	817.8	74.11	12.035		
10,700.0	10,010.0	10,054.1	10,002.0	37.7	37.5	-90.00	-142.0	-925.0	979.6	905.3	74.30	13.185		

PERMIAN RESOURCES

Anticollision Report

Company: NEW MEXICO
Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference: Survey Calculation Method:

Output errors are at Database:

Offset TVD Reference:

Well EILEEN 25 FED COM 142H

KB @ 3710.0usft KB @ 3710.0usft

Grid

Minimum Curvature

urvey Progra	am: 0-l	MWD								Rule Assi	aned:		Offset Site Error: Offset Well Error:	0.0 usf
Refere Measured		Offs Measured	set Vertical	Semi N Reference	lajor Axis Offset	Highside	Offset Wellbe	ore Centre	Dist Between	ance Between	Minimum	Separation	Warning	0.0 40.
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
0.0	0.0	3.0	3.0	0.0	0.0	85.11	63.4	742.2	744.9					
100.0	100.0	103.0	103.0	0.3	0.3	85.11	63.4	742.2	744.9	744.4	0.51	1,453.070		
200.0	200.0	203.0	203.0	0.6	0.6	85.11	63.4	742.2	744.9	743.6	1.23	605.799		
300.0	300.0	303.0	303.0	1.0	1.0	85.11	63.4	742.2	744.9	742.9	1.95	382.669		
400.0	400.0	403.0	403.0	1.3	1.3	85.11	63.4	742.2	744.9	742.2	2.66	279.663		
500.0	500.0	503.0	503.0	1.7	1.7	85.11	63.4	742.2	744.9	741.5	3.38	220.349		
600.0	600.0	603.0	603.0	2.0	2.1	85.11	63.4	742.2	744.9	740.8	4.10	181.793		
700.0	700.0	703.0	703.0	2.4	2.4	85.11	63.4	742.2	744.9	740.1	4.81	154.720		
800.0	0.008	803.0	803.0	2.8	2.8	85.11	63.4	742.2	744.9	739.3	5.53	134.666		
900.0	900.0	903.0	903.0	3.1	3.1	85.11	63.4	742.2	744.9	738.6	6.25	119.214		
1,000.0	1,000.0	1,003.4	1,003.4	3.5	3.5	85.12	63.4	742.2	744.9	737.9	6.97	106.931		
1,100.0	1,100.0	1,115.6	1,115.6	3.8	3.9	85.28	61.2	741.4	744.0	736.3	7.70	96.571		
1,200.0	1,200.0	1,224.5	1,224.3	4.2	4.2	85.72	55.3	739.2	741.6	733.1	8.42	88.070		
1,300.0	1,300.0	1,324.3	1,323.8	4.6	4.6	86.22	48.7	736.8	738.7	729.6	9.11	81.052		
1,400.0	1,400.0	1,424.0	1,423.3	4.9	4.9	86.71	42.2	734.4	735.9	726.1	9.81	74.990		
1,500.0	1,500.0	1,521.7	1,520.7	5.3	5.2	87.20	35.9	732.1	733.2	722.7	10.51	69.763		
1,600.0	1,600.0	1,612.6	1,611.5	5.6	5.6	87.50	31.9	730.7	731.4	720.2	11.19	65.386		
1,700.0	1,700.0	1,704.1	1,703.0	6.0	5.9	87.60	30.6	730.2	730.9	719.0	11.86	61.600		
1,800.0	1,800.0	1,804.1	1,803.0	6.3	6.2	87.60	30.6	730.2	730.9	718.3	12.58	58.119		
1,900.0	1,900.0	1,905.2	1,904.2	6.7	6.6	87.60	30.6	730.2	730.9	717.6	13.29	54.990		
2,000.0	2,000.0	2,034.1	2,033.0	7.1	7.0	87.71	29.0	727.5	728.7	714.6	14.09	51.709		
2,100.0	2,100.0	2,162.6	2,161.2	7.4	7.5	-166.84	24.5	719.9	724.3	709.5	14.86	48.734		
2,200.0	2,199.8	2,290.7	2,288.4	7.7	8.0	-166.42	17.1	707.3	719.4	703.8	15.61	46.099		
2,300.0	2,299.5	2,392.6	2,389.3	8.1	8.3	-166.06	9.9	695.2	715.7	699.4	16.31	43.894		
2,358.8	2,357.8	2,451.3	2,447.5	8.3	8.6	-165.87	5.7	688.1	715.2	698.4	16.72	42.776 CC		
2,400.0	2,398.7	2,492.5	2,488.3	8.4	8.7	-165.74	2.8	683.2	715.4	698.4	17.01	42.064 ES		
2,500.0	2,497.7	2,592.4	2,587.2	8.8	9.1	-165.47	-4.3	671.2	716.9	699.1	17.72	40.465		
2,600.0	2,596.8	2,692.3	2,686.2	9.2	9.5	-165.19	-11.4	659.3	718.3	699.9	18.43	38.979		
2,700.0	2,695.8	2,792.3	2,785.1	9.5	9.9	-164.91	-18.5	647.3	719.7	700.6	19.14	37.596		
2,800.0	2,794.8	2,892.2	2,884.1	9.9	10.3	-164.64	-25.6	635.4	721.2	701.3	19.86	36.306		
2,900.0	2,893.8	2,992.1	2,983.0	10.3	10.7	-164.36	-32.7	623.4	722.7	702.1	20.59	35.101		
3,000.0	2,992.9	3,092.1	3,082.0	10.7	11.1	-164.09	-39.8	611.4	724.2	702.8	21.32	33.973		
3,100.0	3,091.9	3,192.0	3,181.0	11.0	11.5	-163.82	-46.9	599.5	725.7	703.6	22.05	32.916		
3,200.0	3,190.9	3,291.9	3,279.9	11.4	11.9	-163.55	-54.0	587.5	727.2	704.4	22.78	31.923		
3,300.0	3,289.9	3,391.9	3,378.9	11.8	12.3	-163.28	-61.1	575.6	728.7	705.2	23.52	30.990		
3,400.0	3,389.0	3,491.8	3,477.8	12.2	12.7	-163.01	-68.2	563.6	730.3	706.0	24.25	30.110		
3,500.0	3,488.0	3,591.7	3,576.8	12.6	13.1	-162.75	-75.3	551.6	731.9	706.9	25.00	29.280		
3,600.0	3,587.0	3,691.6	3,675.7	13.0	13.5	-162.48	-82.4	539.7	733.5	707.7	25.74	28.496		
3,700.0	3,686.0	3,791.6	3,774.7	13.4	13.9	-162.22	-89.5	527.7	735.1	708.6	26.48	27.755		
3,800.0	3,785.1	3,891.5	3,873.7	13.8	14.3	-161.95	-96.6	515.7	736.7	709.5	27.23	27.052		
3,900.0	3,884.1	3,991.4	3,972.6	14.2	14.7	-161.69	-103.7	503.8	738.3	710.3	27.98	26.386		
4,000.0	3,983.1	4,091.4	4,071.6	14.6	15.1	-161.43	-110.8	491.8	740.0	711.3	28.73	25.754		
4,100.0	4,082.2	4,191.3	4,170.5	15.0	15.5	-161.17	-117.9	479.9	741.7	712.2	29.49	25.153		
4,200.0	4,181.2	4,291.2	4,269.5	15.4	15.9	-160.91	-125.0	467.9	743.3	713.1	30.24	24.581		
4,300.0	4,280.2	4,391.1	4,368.4	15.8	16.3	-160.65	-132.0	455.9	745.0	714.0	31.00	24.035		
4,400.0	4,379.2	4,491.1	4,467.4	16.2	16.7	-160.40	-139.1	444.0	746.7	715.0	31.76	23.516		
4,500.0	4,478.3	4,591.0	4,566.4	16.6	17.1	-160.14	-146.2	432.0	748.5	716.0	32.51	23.020		
4,600.0	4,577.3	4,682.6	4,657.1	17.0	17.5	-159.92	-152.6	421.3	750.5	717.2	33.25	22.568		
4,700.0	4,676.3	4,764.9	4,738.9	17.4	17.8	-159.81	-157.3	413.4	754.5	720.6	33.95	22.223		
4,800.0	4,775.3	4,847.0	4,820.7	17.8	18.2	-159.81	-160.7	407.6	760.9	726.3	34.62	21.976		
4,900.0	4,874.4	4,928.8	4,902.4	18.2	18.5	-159.91	-163.0	403.7	769.6	734.3	35.27	21.821		
5,000.0	4,973.4	5,010.2	4,983.8	18.6	18.7	-160.11	-164.1	401.9	780.6	744.7	35.88	21.753		



Company: NEW MEXICO
Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference: Well EILEEN 25 FED COM 142H KB @ 3710.0usft KB @ 3710.0usft

KB @ 3710. Grid

Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma

Output errors are at Database:

Database: Compass_17
Offset TVD Reference: Offset Datum

Offset Des	sign: Ell	LEEN 25 F	ED COM -	EILEEN 2	5 FED CC	OM 233H - O	WB - PWP0						Offset Site Error:	0.0 usft
Survey Progr		-MWD	f4		Maian Arris		0#	0	ь.	Rule Assi	gned:		Offset Well Error:	0.0 usft
Measured	vertical	Measured	fset Vertical	Semi I Reference	Major Axis Offset	Highside	Offset Wellbo		Between	Between	Minimum	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
5,100.0	5,072.4	5,101.9	5,075.4	19.0	19.0	-160.42	-164.2	401.8	793.5	757.0	36.53	21.723		
5,200.0	5,171.5	5,200.9	5,174.5	19.5	19.4	-160.75	-164.2	401.8	806.7	769.4	37.21	21.676		
5,300.0	5,270.5	5,299.9	5,273.5	19.9	19.7	-161.07	-164.2	401.8	819.8	781.9	37.90	21.630		
5,400.0	5,369.5	5,399.0	5,372.5	20.3	20.0	-161.38	-164.2	401.8	833.0	794.4	38.59	21.586		
5,500.0	5,468.5	5,498.0	5,471.5	20.7	20.3	-161.68	-164.2	401.8	846.2	806.9	39.28	21.543		
5,552.6	5,520.6	5,550.0	5,523.6	20.9	20.5	-161.84	-164.2	401.8	853.2	813.5	39.64	21.522		
E 600 0	E E67.6	E E07.1	E E70 6	24.4	20.6	162.00	164.2	401.8	859.1	910.1	39.97	24 402		
5,600.0 5,700.0	5,567.6 5,667.0	5,597.1 5,696.5	5,570.6 5,670.0	21.1 21.5	20.6 21.0	-162.00 -162.28	-164.2 -164.2	401.8	869.1	819.1 828.5	40.66	21.493 21.375		
5,800.0	5,766.8	5,796.3	5,769.8	21.9	21.3	-162.46	-164.2	401.8	875.9	834.5	41.35	21.373		
5,900.0	5,866.7	5,896.2	5,869.7	22.2	21.6	-162.55	-164.2	401.8	879.3	837.2	42.04	20.915		
5,952.6	5,919.3	5,948.7	5,922.3	22.4	21.8	92.26	-164.2	401.8	879.7	837.3	42.40	20.749		
-,	-,	-,	0,0==.0											
6,000.0	5,966.7	5,996.2	5,969.7	22.6	22.0	92.26	-164.2	401.8	879.7	837.0	42.72	20.593		
6,100.0	6,066.7	6,096.2	6,069.7	22.9	22.3	92.26	-164.2	401.8	879.7	836.3	43.40	20.272		
6,200.0	6,166.7	6,196.2	6,169.7	23.2	22.6	92.26	-164.2	401.8	879.7	835.7	44.08	19.959		
6,300.0	6,266.7	6,296.2	6,269.7	23.5	23.0	92.26	-164.2	401.8	879.7	835.0	44.76	19.656		
6,400.0	6,366.7	6,396.2	6,369.7	23.9	23.3	92.26	-164.2	401.8	879.7	834.3	45.44	19.361		
6,500.0	6,466.7	6,496.2	6,469.7	24.2	23.6	92.26	-164.2	401.8	879.7	833.6	46.12	19.074		
6,600.0	6,566.7	6,596.2	6,569.7	24.2	24.0	92.26	-164.2	401.8	879.7	832.9	46.81	18.795		
6,700.0	6,666.7	6,696.2	6,669.7	24.9	24.0	92.26	-164.2	401.8	879.7	832.2	47.49	18.524		
6,800.0	6,766.7	6,796.2	6,769.7	25.2	24.5	92.26	-164.2	401.8	879.7	831.6	48.18	18.261		
6,900.0	6,866.7	6,896.2	6,869.7	25.5	25.0	92.26	-164.2	401.8	879.7	830.9	48.86	18.004		
-,	.,===:	.,	-,						=-=-		.=.==			
7,000.0	6,966.7	6,996.2	6,969.7	25.9	25.3	92.26	-164.2	401.8	879.7	830.2	49.55	17.754		
7,100.0	7,066.7	7,096.2	7,069.7	26.2	25.6	92.26	-164.2	401.8	879.7	829.5	50.24	17.511		
7,200.0	7,166.7	7,196.2	7,169.7	26.5	26.0	92.26	-164.2	401.8	879.7	828.8	50.93	17.274		
7,300.0	7,266.7	7,296.2	7,269.7	26.9	26.3	92.26	-164.2	401.8	879.7	828.1	51.62	17.043		
7,400.0	7,366.7	7,396.2	7,369.7	27.2	26.7	92.26	-164.2	401.8	879.7	827.4	52.31	16.818		
7,500.0	7,466.7	7,496.2	7,469.7	27.5	27.0	92.26	-164.2	401.8	879.7	826.7	53.00	16.599		
7,600.0	7,566.7	7,596.2	7,569.7	27.9	27.3	92.26	-164.2	401.8	879.7	826.0	53.69	16.385		
7,700.0	7,666.7	7,696.2	7,669.7	28.2	27.7	92.26	-164.2	401.8	879.7	825.4	54.38	16.176		
7,800.0	7,766.7	7,796.2	7,769.7	28.5	28.0	92.26	-164.2	401.8	879.7	824.7	55.08	15.973		
7,900.0	7,866.7	7,896.2	7,869.7	28.9	28.4	92.26	-164.2	401.8	879.7	824.0	55.77	15.774		
*****	,	,	,											
8,000.0	7,966.7	7,996.2	7,969.7	29.2	28.7	92.26	-164.2	401.8	879.7	823.3	56.47	15.580		
8,100.0	8,066.7	8,096.2	8,069.7	29.6	29.0	92.26	-164.2	401.8	879.7	822.6	57.16	15.391		
8,200.0	8,166.7	8,196.2	8,169.7	29.9	29.4	92.26	-164.2	401.8	879.7	821.9	57.86	15.206		
8,300.0	8,266.7	8,296.2	8,269.7	30.2	29.7	92.26	-164.2	401.8	879.7	821.2	58.55	15.025		
8,400.0	8,366.7	8,396.2	8,369.7	30.6	30.1	92.26	-164.2	401.8	879.7	820.5	59.25	14.848		
8,500.0	8,466.7	8,496.2	8,469.7	30.9	30.4	92.26	-164.2	401.8	879.7	819.8	59.95	14.676		
8,600.0	8,566.7	8,596.2	8,569.7	31.3	30.4	92.26	-164.2	401.8	879.7	819.1	60.64	14.507		
8,700.0	8,666.7	8,696.2	8,669.7	31.6	31.1	92.26	-164.2	401.8	879.7	818.4	61.34	14.342		
8,800.0	8,766.7	8,796.2	8,769.7	32.0	31.5	92.26	-164.2	401.8	879.7	817.7	62.04	14.180		
8,900.0	8,866.7	8,896.2	8,869.7	32.3	31.8	92.26	-164.2	401.8	879.7	817.0	62.74	14.022		
9,000.0	8,966.7	8,996.2	8,969.7	32.6	32.1	92.26	-164.2	401.8	879.7	816.3	63.44	13.868		
9,100.0	9,066.7	9,096.2	9,069.7	33.0	32.5	92.26	-164.2	401.8	879.7	815.6	64.14	13.717		
9,200.0	9,166.7	9,196.2	9,169.7	33.3	32.8	92.26	-164.2	401.8	879.7	814.9	64.84	13.569		
9,300.0	9,266.7	9,296.2	9,269.7	33.7	33.2	92.26	-164.2	401.8	879.7	814.2	65.54	13.424		
9,400.0	9,366.7	9,396.2	9,369.7	34.0	33.5	92.26	-164.2	401.8	879.7	813.5	66.24	13.282		
9,500.0	9,466.7	9,496.2	9,469.7	34.4	33.9	92.26	-164.2	401.8	879.7	812.8	66.94	13.142		
9,565.8	9,532.5	9,496.2	9,535.5	34.4	34.1	92.26	-164.2	401.8	879.7	812.3	67.40	13.142		
9,575.0	9,532.5	9,571.2	9,544.7	34.6	34.1	92.65	-164.2	401.8	879.7	812.3	67.46	13.040		
9,600.0	9,566.7	9,596.2	9,569.7	34.7	34.1	92.72	-164.2	401.8	879.8	812.2	67.64	13.040		
9,625.0	9,591.6	9,621.0	9,594.6	34.8	34.3	92.86	-164.2	401.8	879.9	812.1	67.81	12.975		
2,320.0	_,550	-,021.0	-,50	00	00	-2.00		.01.0	5.5.5	3.2.1	31.01			
9,650.0	9,616.3	9,645.7	9,619.3	34.9	34.4	93.08	-164.2	401.8	880.1	812.1	67.99	12.945		
			CC Min						_	_				



Company: NEW MEXICO Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

Offset TVD Reference:

TVD Reference: KB @ 3710.0usft MD Reference: KB @ 3710.0usft

Well EILEEN 25 FED COM 142H

Offset Datum

North Reference: Grid

Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Compass_17

Offset Des	sign:					20011 - 0	WB - PWP0						Offset Site Error:	0.0 usft
Survey Progr	ram: 0-N	/IWD Off:	4	C: B	Major Axis		Offset Wellbo	Ct	Rule Assigned: Distance				Offset Well Error:	0.0 usft
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside			Between	Between	Minimum	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
9,675.0	9,640.8	9,670.2	9,643.8	35.0	34.5	93.36	-164.2	401.8	880.4	812.2	68.16	12.916		
9,700.0	9,665.0	9,694.4	9,668.0	35.0	34.6	93.71	-164.2	401.8	880.8	812.5	68.33	12.890		
9,725.0	9,688.8	9,718.2	9,691.8	35.1	34.7	94.11	-164.2	401.8	881.3	812.8	68.50	12.866		
9,750.0	9,712.2	9,741.6	9,715.2	35.2	34.7	94.56	-164.2	401.8	882.1	813.4	68.67	12.845		
9,775.0	9,735.1	9,764.5	9,738.1	35.3	34.8	95.05	-164.2	401.8	883.0	814.1	68.84	12.827		
9,800.0	9,757.4	9,786.9	9,760.4	35.3	34.9	95.55	-164.2	401.8	884.1	815.1	69.00	12.814		
9,825.0	9,779.2	9,808.6	9,782.2	35.4	35.0	96.07	-164.2	401.8	885.6	816.4	69.16	12.805		
9,850.0	9,800.2	9,829.7	9,803.2	35.4	35.0	96.59	-164.2	401.8	887.3	818.0	69.31	12.802 SF		
9,875.0	9,820.6	9,850.0	9,823.6	35.5	35.1	97.10	-164.2	401.8	889.5	820.0	69.46	12.804		
9,900.0	9,840.1	9,869.5	9,843.1	35.5	35.2	97.58	-164.2	401.8	892.0	822.4	69.61	12.814		
9,925.0	9,858.8	9,888.2	9,861.8	35.6	35.2	98.01	-164.2	401.8	895.0	825.2	69.76	12.830		
9,950.0	9,876.6	9,906.0	9,879.6	35.6	35.3	98.39	-164.2	401.8	898.5	828.6	69.89	12.855		
9,975.0	9,893.4	9,922.9	9,896.4	35.7	35.4	98.70	-164.2	401.8	902.5	832.5	70.03	12.888		
10,000.0	9,909.3	9,938.8	9,912.3	35.7	35.4	98.93	-164.2	401.8	907.1	836.9	70.16	12.930		
10,025.0	9,924.1	9,953.6	9,927.1	35.7	35.5	99.06	-164.2	401.8	912.3	842.0	70.28	12.981		
10,050.0	9,937.9	9,967.3	9,940.9	35.8	35.5	99.08	-164.2	401.8	918.1	847.7	70.39	13.042		
10,075.0	9,950.5	9,980.0	9,953.5	35.8	35.6	98.98	-164.2	401.8	924.6	854.1	70.50	13.114		
10,100.0	9,962.0	9,991.5	9,965.0	35.8	35.6	98.74	-164.2	401.8	931.7	861.1	70.61	13.196		
10,125.0	9,972.4	10,001.8	9,975.4	35.9	35.6	98.37	-164.2	401.8	939.5	868.8	70.70	13.289		
10,150.0	9,981.5	10,010.9	9,984.5	35.9	35.7	97.84	-164.2	401.8	948.0	877.2	70.79	13.392		
10,175.0	9,989.4	10,018.8	9,992.4	35.9	35.7	97.15	-164.2	401.8	957.2	886.3	70.87	13.506		
10,200.0	9,996.0	10,025.5	9,999.0	36.0	35.7	96.29	-164.2	401.8	967.0	896.0	70.94	13.631		
10,225.0	10,001.4	10,030.8	10,004.4	36.0	35.7	95.26	-164.2	401.8	977.4	906.4	71.00	13.766		
10,250.0	10,005.4	10,034.9	10,008.4	36.0	35.8	94.04	-164.2	401.8	988.4	917.4	71.05	13.911		



NEW MEXICO Company: Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft OWB Reference Wellbore Reference Design: PWP0

Local Co-ordinate Reference:

Offset TVD Reference:

TVD Reference: KB @ 3710.0usft MD Reference: KB @ 3710.0usft Grid

North Reference:

Survey Calculation Method: Minimum Curvature Output errors are at 2.00 sigma Compass_17 Database:

Well EILEEN 25 FED COM 142H

Offset Datum

rvey Progr	.am. 0-1	MWD							Rule Assigned:			Offset Well Error:	0.0 us	
Refe	rence	Off	set		Major Axis		Offset Wellb	ore Centre	Dist	tance	_			0.0 us
Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S (usft)	+E/-W (usft)	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)			(usft)	(usft)	(usft)			
0.0	0.0	3.0	3.0	0.0	0.0	85.20	63.5	757.2	759.8	750.0	0.54	4 400 044		
100.0	100.0	103.0	103.0	0.3	0.3	85.20	63.5	757.2	759.8	759.3	0.51	1,482.244		
200.0	200.0	203.0	203.0	0.6	0.6	85.20	63.5	757.2	759.8	758.6	1.23	617.962		
300.0	300.0	303.0	303.0	1.0	1.0	85.20	63.5	757.2	759.8	757.9	1.95	390.352		
400.0	400.0	403.0	403.0	1.3	1.3	85.20	63.5	757.2	759.8	757.2	2.66	285.277		
500.0	500.0	503.0	503.0	1.7	1.7	85.20	63.5	757.2	759.8	756.4	3.38	224.773		
600.0	600.0	603.0	603.0	2.0	2.1	85.20	63.5	757.2	759.8	755.7	4.10	185.443		
700.0	700.0	703.0	703.0	2.4	2.4	85.20	63.5	757.2	759.8	755.0	4.81	157.827		
800.0	800.0	803.0	803.0	2.8	2.8	85.20	63.5	757.2	759.8	754.3	5.53	137.370		
900.0	900.0	903.0	903.0	3.1	3.1	85.20	63.5	757.2	759.8	753.6	6.25	121.607		
1,000.0	1,000.0	1,003.0	1,003.0	3.5	3.5	85.20	63.5	757.2	759.8	752.9	6.97	109.090		
1,100.0	1,100.0	1,103.0	1,103.0	3.8	3.8	85.20	63.5	757.2	759.8	752.1	7.68	98.909		
1,200.0	1,200.0	1,203.0	1,203.0	4.2	4.2	85.20	63.5	757.2	759.8	751.4	8.40	90.466		
1,300.0	1,300.0	1,303.0	1,303.0	4.6	4.6	85.20	63.5	757.2	759.8	750.7	9.12	83.351		
1,400.0	1,400.0	1,403.0	1,403.0	4.9	4.9	85.20	63.5	757.2	759.8	750.0	9.83	77.273		
1,500.0	1,500.0	1,503.0	1,503.0	5.3	5.3	85.20	63.5	757.2	759.8	749.3	10.55	72.022		
1,600.0	1,600.0	1,603.0	1,603.0	5.6	5.6	85.20	63.5	757.2	759.8	748.6	11.27	67.439		
1,700.0	1,700.0	1,703.0	1,703.0	6.0	6.0	85.20	63.5	757.2	759.8	747.8	11.98	63.404		
1,765.6	1,765.6	1,768.6	1,768.6	6.2	6.2	85.20	63.5	757.2	759.8	747.4	12.45	61.009 CC		
1,800.0	1,800.0	1,800.0	1,800.0	6.3	6.3	85.20	63.5	757.2	759.8	747.1	12.69	59.877 ES		
1,900.0	1,900.0	1,882.4	1,882.3	6.7	6.6	85.23	63.2	758.3	761.2	747.9	13.33	57.104		
2,000.0	2,000.0	1,962.2	1,962.1	7.1	6.9	85.32	62.4	761.6	765.2	751.3	13.95	54.865		
2,100.0	2,100.0	2,041.6	2,041.4	7.4	7.2	-169.36	61.0	767.0	773.6	759.1	14.54	53.194		
2,200.0	2,199.8	2,120.3	2,119.6	7.7	7.4	-169.18	59.1	774.5	788.0	772.9	15.12	52.119		
2,300.0	2,299.5	2,200.0	2,198.7	8.1	7.7	-168.96	56.6	784.2	808.3	792.6	15.69	51.504		
2,400.0	2,398.7	2,294.0	2,291.8	8.4	8.1	-168.72	53.3	796.8	833.2	816.9	16.35	50.974		
,	,	,	,	***							· · ·			
2,500.0	2,497.7	2,390.3	2,387.2	8.8	8.4	-168.60	49.9	809.8	859.8	842.8	17.01	50.539		
2,600.0	2,596.8	2,486.7	2,482.6	9.2	8.8	-168.50	46.6	822.8	886.5	868.8	17.68	50.130		
2,700.0	2,695.8	2,583.1	2,578.1	9.5	9.1	-168.39	43.2	835.8	913.1	894.7	18.36	49.739		
2,800.0	2,794.8	2,679.5	2,673.5	9.9	9.5	-168.30	39.8	848.8	939.7	920.7	19.04	49.366		
2,900.0	2,893.8	2,775.9	2,769.0	10.3	9.9	-168.21	36.5	861.7	966.3	946.6	19.72	49.010		



Company: NEW MEXICO Project: (SP) LEA

Reference Site: EILEEN 25 FED COM

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Reference Depths are relative to KB @ 3710.0usft

Offset Depths are relative to Offset Datum Central Meridian is 104° 20' 0.000 W

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference: Well EILEEN 25 FED COM 142H

TVD Reference: KB @ 3710.0usft MD Reference: KB @ 3710.0usft

North Reference: Grid

Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Compass_17

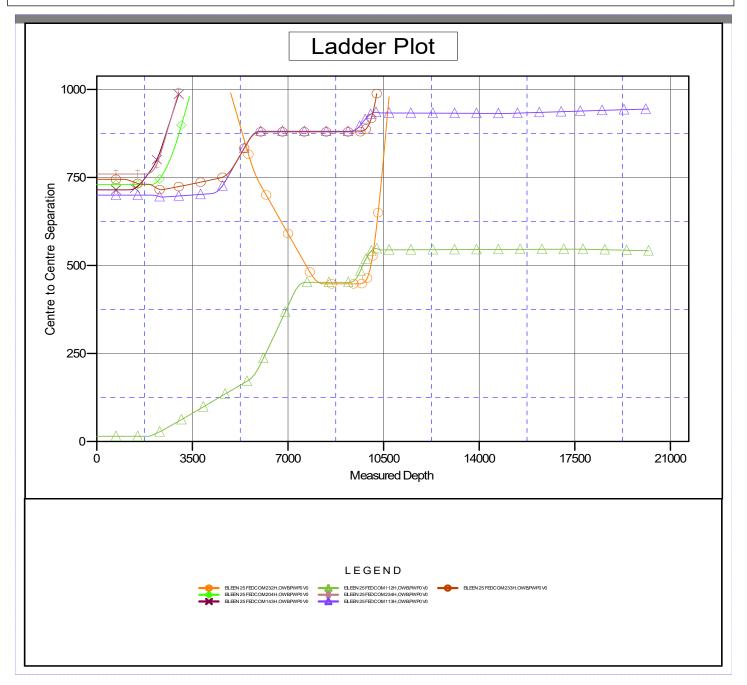
Offset TVD Reference:

Offset Datum

Coordinates are relative to: EILEEN 25 FED COM 142H

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

Grid Convergence at Surface is: 0.39°





Company: **NEW MEXICO** Project: (SP) LEA

EILEEN 25 FED COM Reference Site:

Site Error: 0.0 usft

Reference Well: EILEEN 25 FED COM 142H

Well Error: 0.0 usft Reference Wellbore **OWB** Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: KB @ 3710.0usft MD Reference: KB @ 3710.0usft

North Reference:

Minimum Curvature **Survey Calculation Method:** Output errors are at 2.00 sigma Database:

Offset TVD Reference:

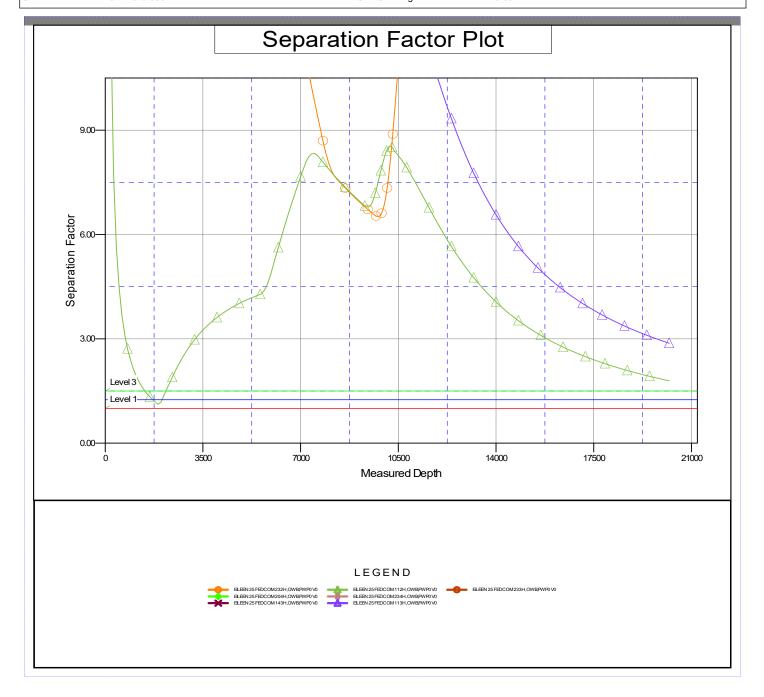
Well EILEEN 25 FED COM 142H

Grid

Compass_17 Offset Datum

Reference Depths are relative to KB @ 3710.0usft Coordinates are relative to: EILEEN 25 FED COM 142H Coordinate System is US State Plane 1983, New Mexico Eastern Zone Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W Grid Convergence at Surface is: 0.39°



Page 5

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.

			<u>1 – Plan D</u> fective May 25	escription , 2021			
I. Operator: Permian	Resources	s Operating, LL	<u>C</u> OGRID: _	372165		<u> Date:0</u> 7	<u>/ 14 / 202</u> 5
II. Type: 🛛 Original [☐ Amendment	due to ☐ 19.15.27.9	9.D(6)(a) NMA	.C □ 19.15.27.9.D((6)(b) NM	IAC 🗆 Oth	er.
If Other, please describe	e:						
III. Well(s): Provide the be recompleted from a s					wells prop	posed to be	drilled or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Antici Gas M		Anticipated Produced Water BBL/D
See Attached Sp	readheet						
IV. Central Delivery P V. Anticipated Schedu proposed to be recomple	le: Provide the	following informat	ion for each ne		vell or set		5.27.9(D)(1) NMAC] opposed to be drilled or
Well Name	API	Spud Date	TD Reached Date	Completion Commencement		Initial Flow Back Date	
See Attached Spr	eadsheet						
VII. Separation Equipm VII. Operational Prac Subsection A through F VIII. Best Management during active and planne	tices: Attac of 19.15.27.8	ch a complete descr NMAC.	iption of the ac	ctions Operator wil	l take to	comply wit	h the requirements of

Page 6

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	Available Maximum Daily Capacity
			Start Date	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 \square will \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have capacity to gather 100% of the anticipated natural gas gathering system \square will not have gathering system \square will not have gathering system \square will not ha	atural ga
production volume from the well prior to the date of first production.	

XIII. Line Pressure. Operator \square does \square does not anticipate that its existing well(s) connected to the same segment, or \square	ortion, of t	he
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 nlan to	manage nr	aduction	in response	to the i	increased lin	e nressur

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

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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: power generation on lease; (a) **(b)** power generation for grid; compression on lease; (c) liquids removal on lease; (d) reinjection for underground storage; (e) reinjection for temporary storage; **(f)**

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

reinjection for enhanced oil recovery;

fuel cell production; and

- (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.

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(g) (h)

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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.

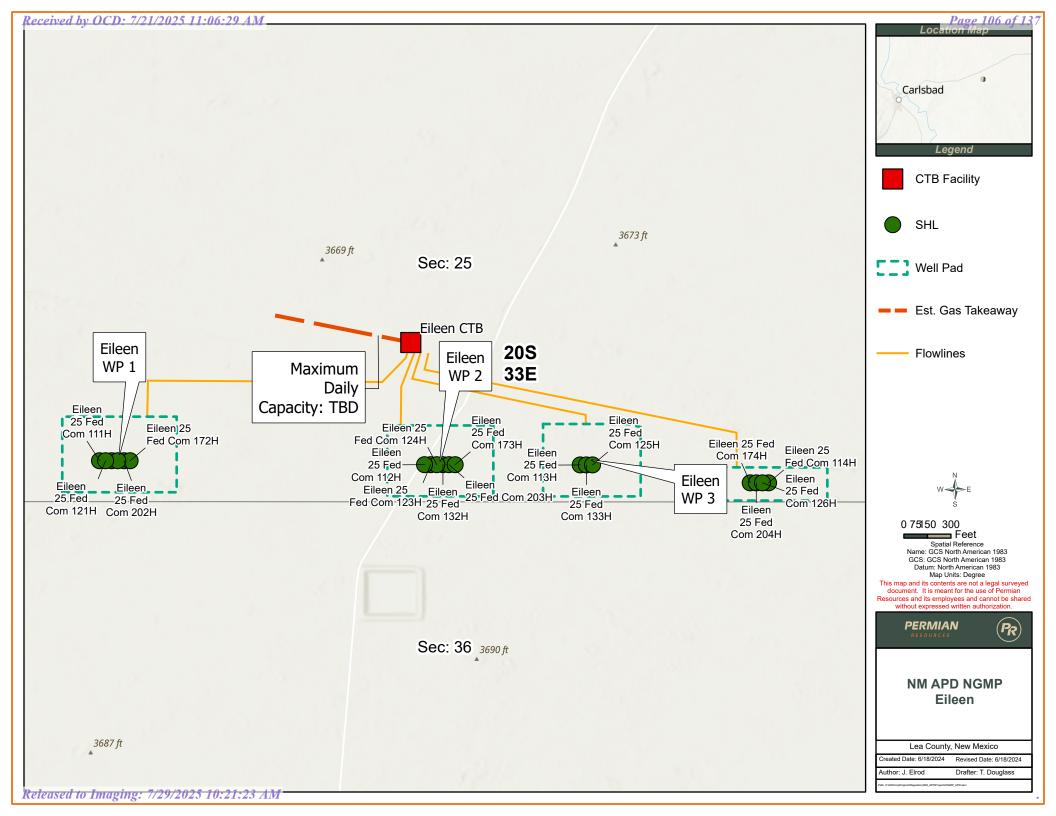
Signature: Released to Imaging: 7/29/1020 10:21:28 AM						
Printed Name: JENNIFER ELROD						
Title: SR. REGULATORY ANALYST						
E-mail Address: jennifer.elrod@permianres.com						
Date: 7/14/2025						
Phone: 940-452-6214						
OIL CONSERVATION DIVISION						
(Only applicable when submitted as a standalone form)						
Approved By:						
Title:						
Approval Date:						
Conditions of Approval:						

WELL NAME	API	UL/SECT/T/R	FOOTAGES	ANTICIPATED OIL BBL/D	ANTICIPATED GAS MCF/D	ANTICIPATED WATER BBL/D
EILEEN 25 FED COM 121H		C-23-20S-32E	255' FNL, 1743' FWL	782	704	3281
EILEEN 25 FED COM 122H		C-23-20S-32E	285' FNL, 1744' FWL	782	704	3281
EILEEN 25 FED COM 123H		C-23-20S-32E	225' FNL, 1613' FWL	782	704	3281
EILEEN 25 FED COM 124H		C-23-20S-32E	225'FNL, 1743' FWL	782	704	3281
EILEEN 25 FED COM 125H		C-23-20S-32E	255' FNL, 1613' FWL	782	704	3281
EILEEN 25 FED COM 126H		C-23-20S-32E	285' FNL, 1614' FWL	782	704	3281
EILEEN 25 FED COM 131H		C-23-20S-32E	315' FNL, 1614' FWL	1225	1142	1272
EILEEN 25 FED COM 132H		C-23-20S-32E	345' FNL, 1614' FWL	1225	1142	1272
EILEEN 25 FED COM 133H		B-23-20S-32E	325' FNL, 2108' FEL	1225	1142	1272
EILEEN 25 FED COM 171H		M-25-20S-33E	250' FSL, 875' FWL	1225	1142	1272
EILEEN 25 FED COM 172H		B-23-20S-32E	292' FNL, 2108' FEL	1225	1142	1272
EILEEN 25 FED COM 173H		B-23-20S-32E	259' FNL, 2241' FEL	1225	1142	1272
EILEEN 25 FED COM 174H		B-23-20S-32E	259' FNL, 2108' FEL	1225	1142	1272
EILEEN 25 FED COM 202H		B-23-20S-32E	292' FNL, 2241' FEL	1190	1074	3282
EILEEN 25 FED COM 203H		B-23-20S-32E	325' FNL, 2241' FEL	1190	1074	3282
EILEEN 25 FED COM 204H		A-23-20S-32E	354' FNL, 177' FEL	1190	1074	3282
EILEEN 25 FED COM 501H		M-25-20S-33E	320' FSL, 735' FWL	1190	1074	3282
EILEEN 25 FED COM 502H		M-25-20S-33E	320' FSL, 750' FWL	1190	1074	3282
EILEEN 25 FED COM 503H		N-25-20S-33E	266' FSL, 2438' FWL	1190	1074	3282
EILEEN 25 FED COM 504H		N-25-20S-33E	266' FSL, 2453' FWL	1190	1074	3282
EILEEN 25 FED COM 505H		P-25-20S-33E	10' FSL, 1055' FEL	1190	1074	3282
EILEEN 25 FED COM 506H		P-25-20S-33E	10' FSL, 1040' FEL	1190	1074	3282
EILEEN 25 FED COM 601H		M-25-20S-33E	260' FSL, 630' FWL	1225	1142	1272
EILEEN 25 FED COM 602H		M-25-20S-33E	260' FSL, 645' FWL	1225	1142	1272
EILEEN 25 FED COM 603H		O-25-20S-33E	266' FSL, 2641' FEL	1225	1142	1272
EILEEN 25 FED COM 604H		O-25-20S-33E	175' FSL, 2013' FEL	1225	1142	1272
EILEEN 25 FED COM 605H		O-25-20S-33E	175' FSL, 1998' FEL	1225	1142	1272
EILEEN 25 FED COM 606H		A-36-20S-33E	50' FNL, 1130' FEL	1225	1142	1272
Eileen 25 Fed Com 112H		N-25-20S-33E	227' FSL, 2563' FWL	1225	1142	1272
Eileen 25 Fed Com 142H		N-25-20S-33E	227' FSL, 2563' FWL	1225	1142	1272

WELL NAME	API	SPUD	TD	COMPLETION DATE	FLOW BACK DATE	FIRST PRODUCTION
EILEEN 25 FED COM 121H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 122H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 123H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 124H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 125H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 126H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 131H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 132H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 133H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 171H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 172H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 173H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 174H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 202H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 203H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 204H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 501H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 502H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 503H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 504H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 505H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 506H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 601H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 602H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 603H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 604H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 605H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 606H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
Eileen 25 Fed Com 112H		July 2025	Aug 2025	Aug 2025	Aug 2025	Sept 2025
Eileen 25 Fed Com 142H		July 2025	Aug 2025	Aug 2025	Aug 2025	Sept 2025

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Permian Resources Operating, LLC (372165)

Natural Gas Management Plan Descriptions

VI. Separation Equipment:

Permian utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations. Our goal is to maintain 5 minutes of retention time in the test vessel and 20 minutes in the heater treater at peak production rates. The gas produced is routed from the separator to the gas sales line.

VII. Operational Practices:

Drilling

During Permian's drilling operations it is uncommon for venting or flaring to occur. If flaring is needed due to safety concerns, gas will be routed to a flare and volumes will be estimated.

Flowback

During completion/recompletion flowback operations, after separation flowback begins and as soon as it is technically feasible, Permian routes gas though a permanent separator and the controlled facility where the gas is either sold or flared through a high-pressure flare if needed.

Production

Per 19.15.27.8.D, Permian's facilities are designed to minimize waste. Our produced gas will only be vented or flared in an emergency or malfunction situation, except as allowed for normal operations noted in 19.15.27.8.D(2) & (4). All gas that is flared is metered. All gas that may be vented will be estimated.

Performance Standards

Permian utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations.

All of Permian's permanent storage tanks associated with production operations which are routed to a flare or control device are equipped with an automatic gauging system.

All of Permian's flare stacks, both currently installed and for future installation, are:

- 1) Appropriately sized and designed to ensure proper combustion efficiency.
- 2) Equipped with an automatic ignitor or continuous pilot.
- 3) Anchored and located at least 100 feet from the well and storage tanks.

Permian's field operations and HSE teams have implemented an AVO inspection schedule that adheres to the requirements of 19.15.27.8.E(5).

All of our operations and facilities are designed to minimize waste. We routinely employ the following methods and practices:

- Closed-loop systems
- Enclosed and properly sized tanks

Permian Resources Operating, LLC (372165)

- Vapor recovery units to maximize recovery of low-pressure gas streams and potential unauthorized emissions
- Low-emitting or electric engines whenever practical
- Combustors and flare stacks in the event of a malfunction or emergency
- Routine facility inspections to identify leaking components, functioning control devices, such as flares and combustors, and repair / replacement of malfunctioning components where applicable

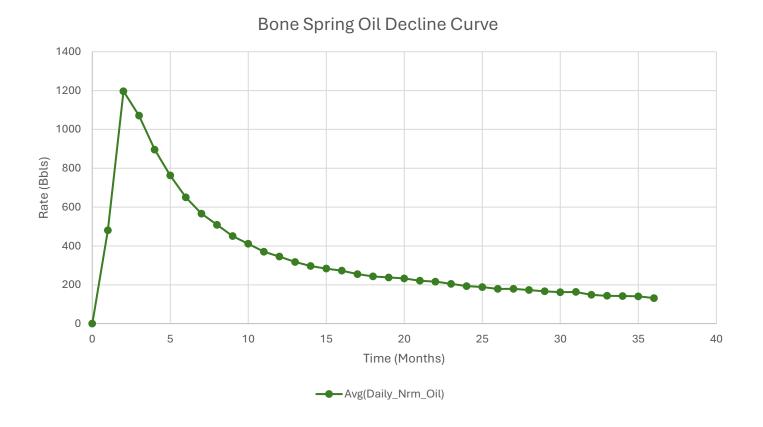
Measurement or estimation

Permian measures or estimates the volumes of natural gas vented, flared and/or beneficially used for all of our drilling, completing and producing wells. We utilize accepted industry standards and methodology which can be independently verified. Annual GOR testing is completed on our wells and will be submitted as required by the OCD. None of our equipment is designed to allow diversion around metering elements except during inspection, maintenance and repair operations.

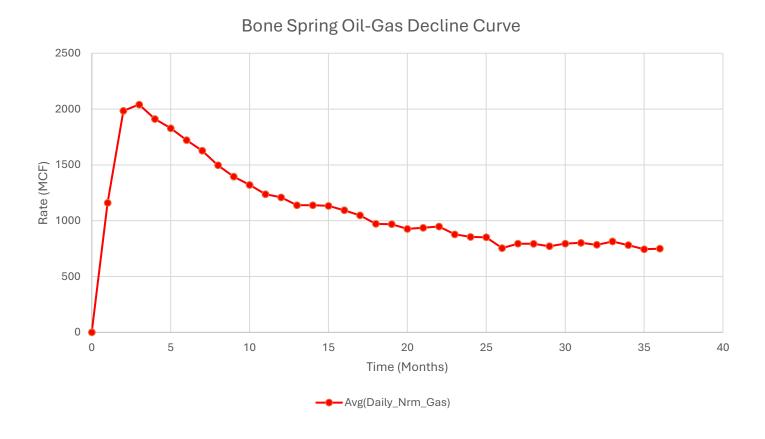
VIII. Best Management Practices:

Permian utilizes the following BMPs to minimize venting during active and planned maintenance activities:

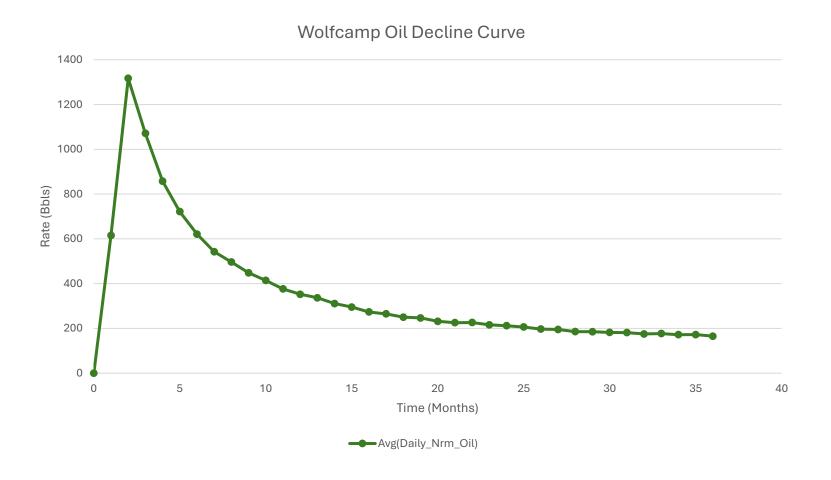
- Use a closed-loop process wherever possible during planned maintenance activities, such as blowdowns, liquid removal, and work over operations.
- Employ low-emitting or electric engines for equipment, such as compressors
- Adhere to a strict preventative maintenance program which includes routine facility inspections, identification of component malfunctions, and repairing or replacing components such as hatches, seals, valves, etc. where applicable
- Utilize vapor recovery units (VRU's) to maximize recovery of volumes of low-pressure gas streams and potential unauthorized emissions
- Route low pressure gas and emissions streams to a combustion device to prevent venting where necessary



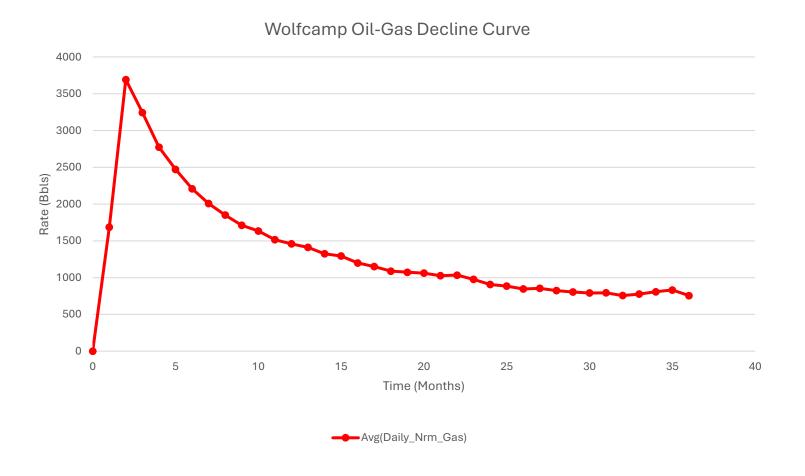
- 1. Represented curve is generic based on 3-Years available information for the Bone Spring formation and may not be representative of forecasted production or actual volumes.
- 2. Decline curves are based on an average 10,000ft lateral length. Multiple factors may influence production and decline curves, including but not limited to: lateral length and completion type.



- 1. Represented curve is generic based on 3-Years available information for the Bone Spring formation and may not be representative of forecasted production or actual volumes.
- 2. Decline curves are based on an average 10,000ft lateral length. Multiple factors may influence production and decline curves, including but not limited to: lateral length and completion type.



- 1. Represented curve is generic based on 3-Years available information for the Bone Spring formation and may not be representative of forecasted production or actual volumes.
- 2. Decline curves are based on an average 10,000ft lateral length. Multiple factors may influence production and decline curves, including but not limited to: lateral length and completion type.



- 1. Represented curve is generic based on 3-Years available information for the Bone Spring formation and may not be representative of forecasted production or actual volumes.
- 2. Decline curves are based on an average 10,000ft lateral length. Multiple factors may influence production and decline curves, including but not limited to: lateral length and completion type.

Permian Resources requests the below wellbore design in conjunction with R-111-Q.

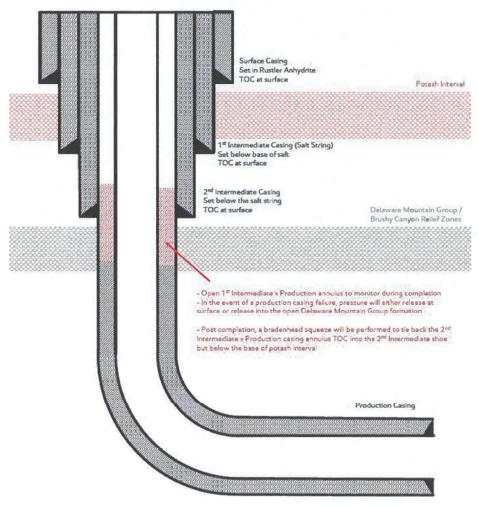
The WBD below depicts the cement design required for R-111-Q.

The annulus between the production and intermediate casing strings shall be actively monitored for pressure during hydraulic fracturing operations. If pressure communication is observed, indicating a possible production casing failure, hydraulic fracturing operations must immediately cease, and source of the pressure increase shall be investigated. During hydraulic fracturing operations, a pressure relief valve or appropriate venting system shall be installed to relieve pressure in the event of a production casing failure. The opening pressure of any pressure relief valves must be set below 50% of the intermediate casing burst rating. If the well design features an uncemented intermediate casing shoe (for example as shown in Exhibit B, Figure B) and the well approaches to within ¼ mile of an offset well drilling, completing or producing from the Delaware Mountain Group, then the pressure relief valve opening pressure shall be set no more than 1000 psi and at no time shall the pressure on the annulus be allowed to exceed 1000 psi. This requirement can be waived by the offset well operator.

Production cement will be 500' below the 2nd intermediate shoe with 0% excess leaving the DMG un-cemented as a pressure relief zone.

Bradenhead operations will be performed within 180 days of completing hydraulic fracturing operations, tying back cement at least 500' inside the 2nd intermediate shoe but below Marker Bed 126.

4-String Design – Open 1st Int x Production Casing (ICP 2 above relief zone)



[Figure E] 4 String - Uncemented Annulus between 2nd Intermediate and Production Casing Strings

Permian Resources BOP Break Testing Variance Procedure

Subject: Request for a Variance Allowing break Testing of the Blowout Preventer Equipment (BOPE). Permian Resources requests a variance to ONLY test broken pressure seals on the BOPE and function test BOP when skidding a drilling rig between multiple wells on a pad.

Background

Title 43 CFR 3172, Drilling Operations, Sections 6.b.9.iv states that the BOP test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) requires a complete BOP test and not just a test of the affected component. 43 CFR 3172.13, Variances from minimum standards states, "An operator may request the authorized officer to approve a variance from any of the minimum standards prescribed in §§ 3172.6 through 3172.12. All such requests shall be submitted in writing to the appropriate authorized officer and provide information as to the circumstances which warrant approval of the variance(s) requested and the proposed alternative methods by which the related minimum standard(s) are to be satisfied. The authorized officer, after considering all relevant factors, if appropriate, may approve the requested variance(s) if it is determined that the proposed alternative(s) meet or exceed the objectives of the applicable minimum standard(s).". Permian Resources feels the break testing the BOPE is such a situation. Therefore, as per 43 CFR 3172.13, Permian Resources submits this request for the variance.

Supporting Documentation

The language used in 43 CFR 3172 became effective on December 19, 1988 and has remained the standard for regulating BLM onshore drilling operations for over 30 years. During this time, there have been significant changes in drilling technology. The BLM continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since 43 CFR 3172 was originally released. The Permian Resources drilling rig fleet has many modern upgrades that allow the intact BOP stack to be moved between well slots on a multi-well pad, as well as, wellhead designs that incorporate quick connects facilitating release of the BOP from the wellhead without breaking any BOP stack components apart. These technologies have been used extensively offshore, and other regulators, API, and many operators around the world have endorsed break testing as safe and reliable.

Figure 1: Winch System attached to BOP Stack



Figure 2: BOP Winch System



American Petroleum Institute (API) standards, specification and recommended practices are considered the industry standard and are consistently utilized and referenced by the industry. 43 CFR 3172 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, Well Control Equipment Systems for Drilling Wells (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states "A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component." See Table C.4 below for reference.

52	API STANDARD	53				
Table C.4—Initial Pressure Testing, Surface BOP Stacks						
	Pressure Test—Low	Pressure Test—High Pressure**				
Component to be Pressure Tested	Pressure** psig (MPa)	Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket			
Annular preventer	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.			
Fixed pipe, variable bore, blind, and BSR preventers∞	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ІТР			
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2 41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP			
Choke manifold—upstream of chokes*	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP			
Choke manifold—downstream of chokes*	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or M whichever is lower	ASP for the well program,			
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program				
	during the evaluation period. The p	ressure shall not decrease below the allest OD drill pipe to be used in well p				
For pad drilling operations, moving pressure-controlling connections	from one wellhead to another within when the integrity of a pressure se-	n the 21 days, pressure testing is requal is broken.	uired for pressure-containing and			
For surface offshore operations, the	e ram BOPs shall be pressure test land operations, the ram BOPs sha	led with the ram locks engaged and all be pressure tested with the ram loc	the closing and locking pressure iks engaged and the closing and			

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specification and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

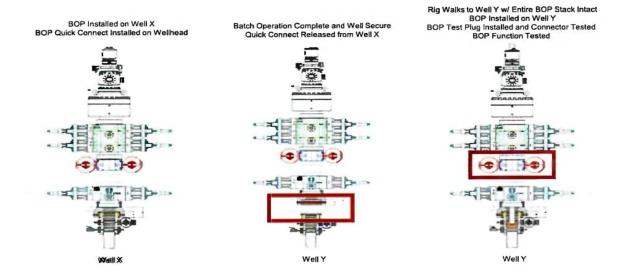
Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

Permian Resources feels break testing and our current procedures meet the intent of 43 CFR 3172 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. Permian Resources internal standards require complete BOPE tests more often than that of 43 CFR 3172 (every 21 days). In addition to function testing the annular, pipe rams and blind rams after each BOP nipple up, Permian Resources performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of 43 CFR 3172.

Procedures

- 1) Permian Resources will use this document for our break testing plan for New Mexico Delaware Basin. The summary below will be referenced in the APD or Sundry Notice and receive approval prior to implementing this variance.
- 2) Permian Resources will perform BOP break testing on multi-wells pads where multiple intermediate sections can be drilled and cased within the 21-day BOP test window.
 - a)A full BOP test will be conducted on the first well on the pad.
- b) The first intermediate hole section drilled on the pad will be the deepest. All the remaining hole sections will be the same formation depth or shallower.
- c) A full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
 - d) A full BOP test will be required prior to drilling any production hole.
- 3) After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
 - a) Between the HCV valve and choke line connection
 - b)Between the BOP quick connect and the wellhead
- 4) The BOP is then lifted and removed from the wellhead by a hydraulic system.
- 5) After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
- 6) The connections mentioned in 3a and 3b will then be reconnected.
- 7) Install test plug into the wellhead using test joint or drill pipe.
- 8) A shell test is performed against the upper pipe rams testing the two breaks.
- 9) The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
- 10) Function tests will be performed on the following components: lower pipe rams, blind rams, and annular.
- 11) For a multi-well pad the same two breaks on the BOP would be made and on the next wells and steps 4 through 10 would be repeated.
- 12) A second break test would only be done if the intermediate hole section being drilled could not be completed within the 21 day BOP test window.

Note: Picture below highlights BOP components that will be tested during batch operations



Summary

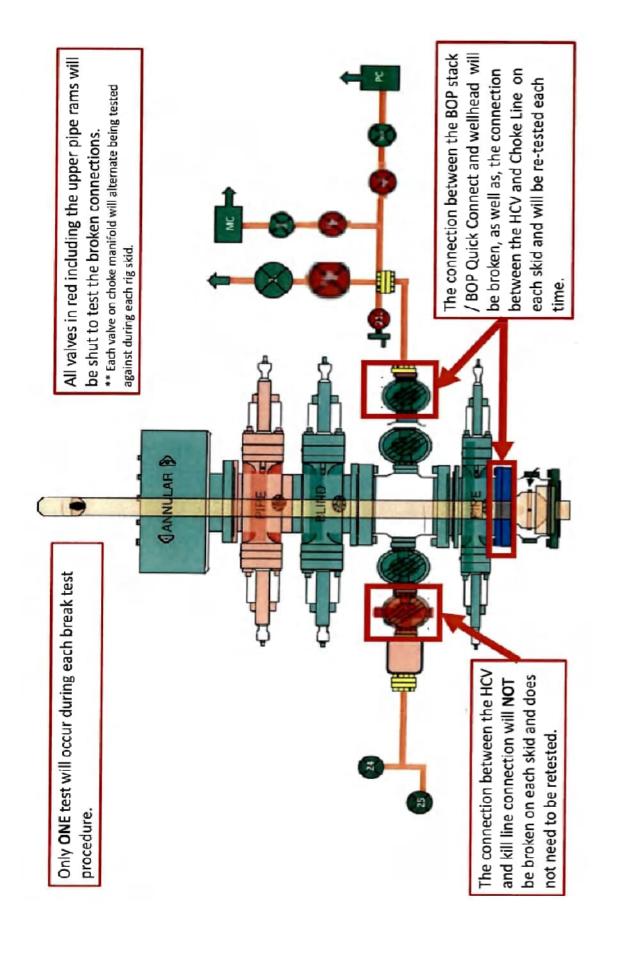
A variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API Standard 53 states, that for pad drilling operations, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control

event occurs prior to the commencement of a BOPE Break Testing operation.

Based on public data and the supporting documentation submitted herein to the BLM, we will request permission to ONLY retest broken pressure seals if the following conditions are met:

- 1) After a full BOP test is conducted on the first well on the pad.
- 2) The first intermediate hole section drilled on the pad will be the deepest. All the remaining hole sections will be the same depth or shallower.
- 3) A full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
- 4) A full BOP test will be required prior to drilling the production hole.



Permian Resources Multi-Well Pad Batch Drilling Procedure

<u>Surface Casing</u> - PR intends to Batch set all surface casing to a depth approved in the APD. Surface Holes will be batch drilled by a rig. Appropriate notifications will be made prior to spudding the well, running and cementing casing and prior to skidding to the rig to the next well on pad.

- 1. Drill Surface hole to Approved Depth with Rig and perform wellbore cleanup cycles. Trip out and rack back drilling BHA.
- 2. Run and land planned surface casing see Illustration 1-1 Below to depth approved in APD.
- 3. Set packoff and test to 5k psi
- 4. Offline Cement
- 5. Install wellhead with pressure gauge and nightcap. Nightcap is shown on final wellhead Stack up Illustration #2-2.
- 6. Skid Rig to adjacent well to drill Surface hole.
- 7. Surface casing test will be performed by the rig in order to allow ample time for Cement to develop 500psi compressive strength. Casing test to 0.22 psi/ft or 1500 psi whichever is greater not to exceed 70% casing burst.

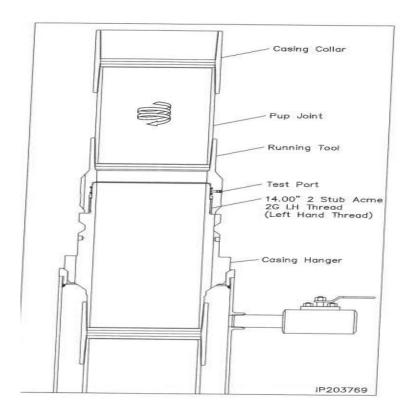


Illustration 1-1

<u>Intermediate Casing</u> – PR intends to Batch set all intermediate casing strings to a depth approved in the APD. Intermediate Holes will be batch drilled by the rig. Appropriate notifications will be made prior to testing BOPE, and prior to running/cementing all casing strings.

- 1. Rig will remove the nightcap and install and test BOPE.
- 2. Test Surface casing per COA WOC timing (.22 psi/ft or 1500 psi whichever is greater) not to exceed 70% casing burst. Cement must have achieved 500psi compressive strength prior to test
- 3. Install wear bushing then drill out surface casing shoe-track plus 20' and conduct FIT to minimum of the MW equivalent anticipated to control the formation pressure to the next casing point.
- 4. Drill Intermediate hole to approved casing point. Trip out of hole with BHA to run Casing.
- 5. Remove wear bushing then run and land Intermediate Casing with mandrel hanger in wellhead.
- 6. Cement casing to surface with floats holding.
- 7. Washout stack then run wash tool in wellhead and wash hanger and pack-off setting area.
- 8. Install pack-off and test void to 5,000 psi for 15 minutes. Nightcap shown on final wellhead stack up illustration 2-2 on page 3.
- 9. Test casing per COA WOC timing (.22 psi/ft or 1500 psi whichever is greater) not to exceed 70% casing burst. Cement must have achieved 500psi compressive strength prior to test.
- 10. Install nightcap skid rig to adjacent well to drill Intermediate hole.

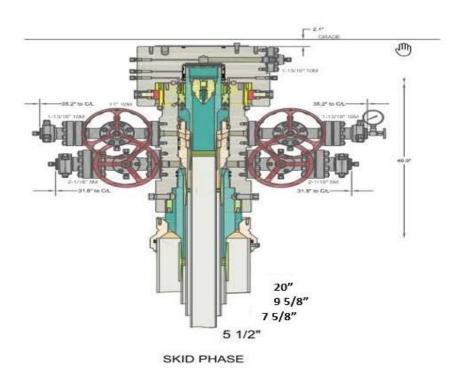


Illustration 2-2

<u>Production Casing</u> – PR intends to Batch set all Production casings with Rig. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

- 1. Drilling Rig will remove the nightcap and install and test BOPE.
- 2. Install wear bushing then drill Intermediate shoe-track plus 20' and conduct FIT to minimum MW equivalent to control the formation pressure to TD of well.
- 3. Drill Vertical hole to KOP Trip out for Curve BHA.
- 4. Drill Curve, landing in production interval Trip for Lateral BHA.
- 5. Drill Lateral / Production hole to Permitted BHL, perform cleanup cycles and trip out to run Production Casing.
- 6. Remove wear bushing then run Production casing to TD landing casing mandrel in wellhead.
- 7. Cement Production string with floats holding.
- 8. Run in with wash tool and wash wellhead area install pack-off and test void to 5,000psi for 15 minutes.
- 9. Install BPV in Production mandrel hanger Nipple down BOPE and install nightcap.
- 10. Test nightcap void to 5,000 psi for 30 minutes per illustration 2-2
- 11. Skid rig to adjacent well on pad to drill production hole.



GATES ENGINEERING & SERVICES NORTH AMERICA

7603 Prairie Oak Dr. Houston, TX. 77086 PHONE: +1 (281) 602-4100 FAX: +1 (281) 602-4147

EMAIL: gesna.quality@gates.com WEB: www.gates.com/oilandgas

CERTIFICATE OF CONFORMANCE

This is to verify that the items detailed below meet the requirements of the Customer's Purchase Order referenced herein, and are in Conformance with applicable specifications, and that Records of Required Tests are on file and subject to examination. The following items were inspected and hydrostatically tested at **Gates Engineering & Services North America** facilities in Houston, TX, USA.

CUSTOMER:

HELMERICH & PAYNE INTERNATIONAL DRILLING CO.

CUSTOMER P.O.#:

740414061 (SN: 62429 - 88061537)

CUSTOMER P/N:

SN: 62429 - 88061537

PART DESCRIPTION:

INSPECT AND RETEST CUSTOMER HOSE 3IN X 16FT CHOKE & KILL ASSEMBLY C/W 3-1/16

FLANGES BX154 SS INLAID RING GROOVE EACH END

SALES ORDER #:

525826

QUANTITY:

1

SERIAL #:

62429 H3-012523-17

SIGNATURE:	F. CISNEROS-	
TITLE:	QUALITY ASSURANCE	
DATE:	1/26/2023	



H3-12183

1/25/2023 2:59:32 PM

TEST REPORT

CUSTOMER

Sales order #:

HELMERICH & PAYNE Company:

INTERNATIONAL DRILLING CO.

SN62429 525826

Customer reference:

Production description:

TEST OBJECT

Serial number:

Lot number:

Description:

SN62429

H3-012523-17

Hose ID:

3.0 CK03 16C 10K

Part number:

TEST INFORMATION

Test procedure: Test pressure:

Test pressure hold: Work pressure: Work pressure hold:

Length difference: Length difference:

15000.00 psi 3600.00 sec 10000.00 psi 900.00 sec

GTS-04-053

0.00 % 0.00 inch Fitting 1: Part number:

Description:

Fitting 2: Part number:

Description:

Length:

feet

16

3.0 x 3-1/16 10K

3.0 x 3-1/16 10K

Visual check:

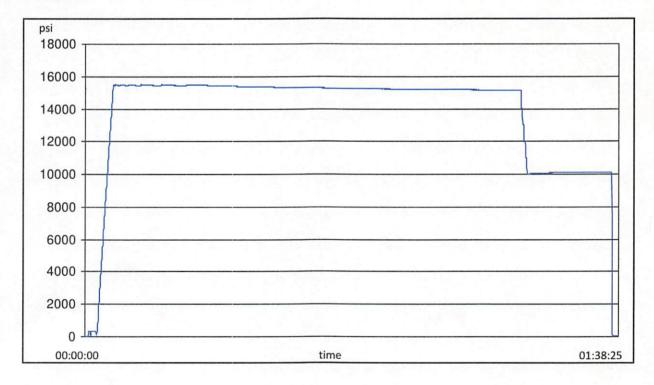
Pressure test result:

Length measurement result:

Test operator:

Martin

PASS



D:\Certificates\Report_012523-H3-012523-17.pdf Filename:



H3-12183

1/25/2023 2:59:32 PM

TEST REPORT

GAUGE TRACEABILITY

Description	Serial number	Calibration date	Calibration due date
S-25-A-W	110AQA1S	2022-03-09	2023-03-09
S-25-A-W	110CBWVV	2022-03-09	2023-03-09
Comment			

Filename: D:\Certificates\Report_012523-H3-012523-17.pdf



CONTITECH RUBBER No: QC-DB-062 / 2022 Industrial Kft.

Page: 16 / 131

ContiTech

TEST CERT Supplier's Decla	TIFICATE accoration of Cor	ording to El	N 10204 3.1 c. to ISO/IEC	and 2 17050	CERT.	N°: 8	1142
CUSTOMER:	Corp.	C.O. N°:		450162440	7		
Supplier's name: Con	Supplier's addr	ess: Bu	dapesti út 1	0. H-6728	Szeged		
CONTITECH ORDER N°:	1386035	HOSE TYPE:	3" ID		Choke & I	Kill Hose	
HOSE SERIAL N°:	81142	NOMINAL / AC	TUAL LENGTH		7,92 m	/ 7,90 m	
W.P. 69,0 MPa	10000 psi	T.P. 103,5	MPa 150	00 psi	Duration:	60	min.
Pressure test with water a ambient temperature	at						

See attachment (1 page)

COUPLINGS Type	Serial N°	Quality	Heat N°
3" coupling with	4411	AISI 4130	68655
3 1/16" 10K API b.w. Flange end		AISI 4130	043795
3" coupling with	4428	AISI 4130	68626
3 1/16" 10K API Swivel Flange end		AISI 4130	041743
Hub		AISI 4130	54538

Not Designed For Well Testing

API Spec 16C 3rd Edition – FSL3

Fire Rated

Temperature rate: "B"

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Customer Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, other technical standards and specifications and meet the relevant acceptance criteria and design requirements. This declaration of conformity is issued under the sole responsibility of the manufacturer.

COUNTRY OF ORIGIN HUNGARY/EU

Date: 28. February 2022.	Inspector	Quality Control ContiTech Rubbi Industrial Kft. Quality Control De (1)	
	202-4-4544-44-454466-440		MACLES
		lstván Farkas (Lajos Bacsa

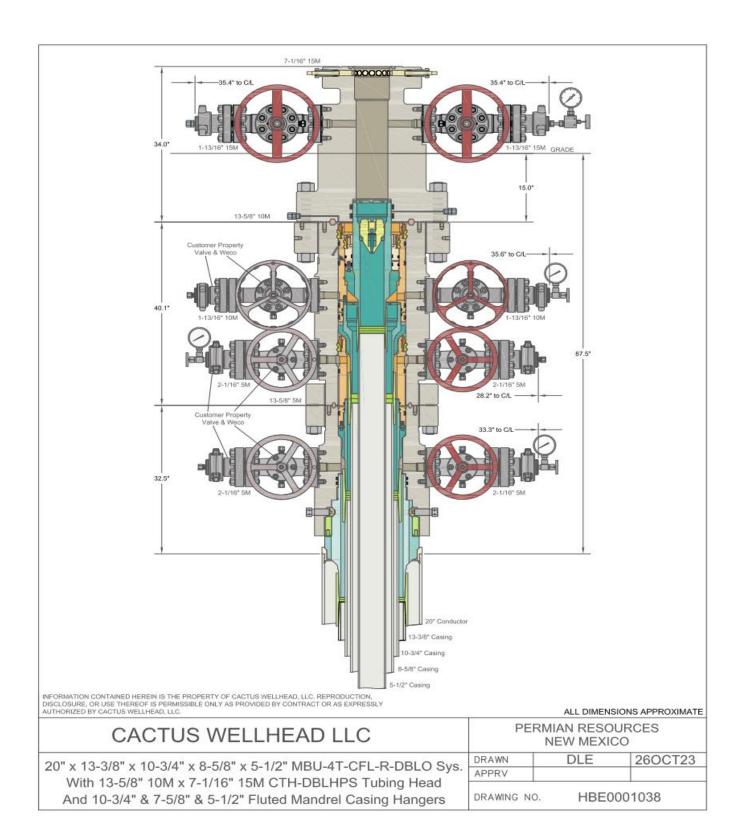
ContiTech Rubber Industrial Kft. | Budapesti út 10. H-6728 Szeged | H-6701 P.O.Box 152 Szeged, Hungary Phone: +36 20 292 2075 | e-mail: info@fluid.contitech.hu | Internet: www.contitech-rubber.hu; www.contitech-oil-gas.com The Court of Csongrád County as Registry Court | Registry Court No: Cg.06-09-002502 | EU VAT No: HU11087209 Bank data Commerzbank Zrt., Budapest | 14220108-26830003

ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE No: 81137, 81138, 81139, 81140, 81141, 81142

CONTITECH RUBBER No: QC-DB-062 / 2022 Industrial Kft. Page: 17 / 131

14 10min/div Cursor B 13:00:00 : 5.000 sec : 2022/02/26 11:20:10.000 : 2022/02/26 13:08:00.000 12:50:00 12:40:00 12:30:00 ContiTach Rubber Industrial Kft.
Quality Control Dept.
(1) Sampling Int. Start Time Stop Time 12:20:00 12:10:00 Absolute Time [h:m:s] Cursor A 048171_81137-81142.GEV;...,048181_81137-81142.GEV 81137,81138,81139,81140,81141,81142 GX10 85Fb66399 1295 -13.31 12:00:00 01:00:00:000 Press-Temp 2022/02/26 11:20:10.000 - 2022/02/26 13:08:00.000 110BFGHI 81137,81138,81139,81140,81141,81142 Difference Value B-A 1253 1057.49 19.88 11:50:00 2022/02/26 13:04:35.000 Cursor B Value B 533 1070.80 11:40:00 2022/02/26 12:04:35.000 Value A 11:30:00 Ambient Temperature[°C] Absolute Time Tag Comment Pressure[bar] 2022/02/26 2000 000 File Name File Message Device Type Serial No. Data Count 500 Print Group Print Range Comment Pressure[bar] 40+

Ambient Temperature[°C]



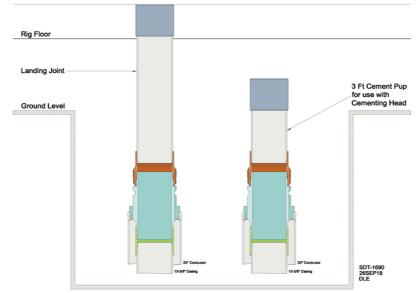
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Permian Resources Offline Cementing Procedure Surface & Intermediate Casing

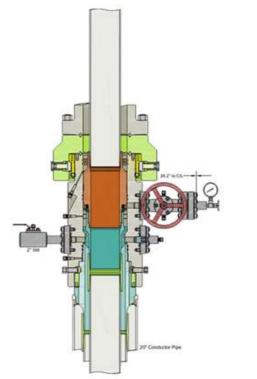
- 1. Drill hole to Total Depth with Rig and perform wellbore cleanup cycles.
- 2. Run and casing to Depth.
- 3. Land casing with mandrel.
- 4. Circulate 1.5 csg capacity.
- 5. Flow test Confirm well is static and floats are holding.
- 6. Set Annular packoff and pressure test. Test to 5k.
- 7. Nipple down BOP and install cap flange.
- 8. Skid rig to next well on pad
- 9. Remove cap flange (confirm well is static before removal)
 - a) If well is not static use the casing outlet valves to kill well
 - b) Drillers method will be used in well control event
 - c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
 - d) Kill mud will be circulated once influx is circulated out of hole
 - e) Confirm well is static and remove cap flange to start offline cement operations
- 10. Install offline cement tool.
- 11. Rig up cementers.
- 12. Circulate bottoms up with cement truck
- 13. Commence planned cement job, take returns through the annulus wellhead valve
- 14. After plug is bumped confirm floats hold and well is static
- 15. Rig down cementers and equipment
- 16. Install night cap with pressure gauge to monitor.

13 3/8" Surface

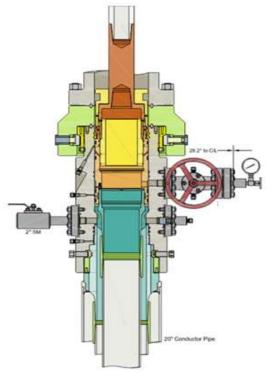
CFL Off-Line Cementing Tool



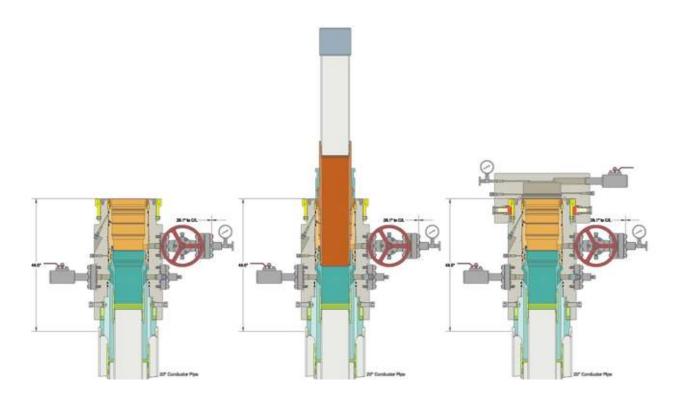
Intermediate



Run 7 5/8" Casing Land Casing on 7 5/8" Mandrel Hanger Cement 7 5/8" Casing Retrieve Running Tool



Run 9 5/8" Packoff
Test Upper and Lower Seals
Engage Lockring
Retrieve Running Tool





U.S. Department of the Interior BUREAU OF LAND MANAGEMENT PWD Data Report

PWD disturbance (acres):

APD ID: 10400103469 **Submission Date:** 01/29/2025

Operator Name: PERMIAN RESOURCES OPERATING LLC

Well Name: EILEEN 25 FED COM
Well Number: 142H
Well Type: OIL WELL
Well Work Type: Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: PERMIAN RESOURCES OPERATING LLC

Well Name: EILEEN 25 FED COM Well Number: 142H

Lined pit Monitor description:

Lined pit Monitor

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

Do you propose to put the produced water to beneficial use?

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: PERMIAN RESOURCES OPERATING LLC

Well Name: EILEEN 25 FED COM Well Number: 142H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: Injection well name:

Assigned injection well API number? Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

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Operator Name: PERMIAN RESOURCES OPERATING LLC

Well Name: EILEEN 25 FED COM Well Number: 142H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Bond Info Data

APD ID: 10400103469 **Submission Date:** 01/29/2025

Operator Name: PERMIAN RESOURCES OPERATING LLC

Well Name: EILEEN 25 FED COM Well Number: 142H

Well Type: OIL WELL Well Work Type: Drill

Highlighted data reflects the most recent changes Show Final Text

Bond

Federal/Indian APD: FED

BLM Bond number: NMB001841

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

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

Phone: (505) 629-6116

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

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

CONDITIONS

Action 487062

CONDITIONS

Operator:	OGRID:
Permian Resources Operating, LLC	372165
300 N. Marienfeld St Ste 1000	Action Number:
Midland, TX 79701	487062
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
clevans	Cement is required to circulate on both surface and intermediate1 strings of casing.	7/21/2025
clevans	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	7/21/2025
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.	7/29/2025
matthew.gomez	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.	7/29/2025
matthew.gomez	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.	7/29/2025
matthew.gomez	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.	7/29/2025
matthew.gomez	File As Drilled C-102 and a directional Survey with C-104 completion packet.	7/29/2025
matthew.gomez	This well is within the Capitan Reef. The first intermediate casing string shall be sat and cemented back to surface immediately above the Capitan Reef. The second intermediate string shall be set and cemented back to surface immediately below the base of the Capitan Reef.	7/29/2025
matthew.gomez	Only freshwater based mud shall be utilized until the Capitan Reef is cased and cemented.	7/29/2025
matthew.gomez	This well is proposed to be within the R-111-Q defined boundary. Operator must follow all procedures and requirements listed within the order.	7/29/2025