

Submit a Copy To Appropriate District Office
District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

WELL API NO. 30-015-53303
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name BLACK CAT 16 STATE COM
8. Well Number 122H
9. OGRID Number 372165
10. Pool name or Wildcat [97569] WINCHESTER; BONE SPRING, WEST

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator PERMIAN RESOURCES OPERATING, LLC	
3. Address of Operator 300 N MARIENFELD STREET SUITE 1000, MIDLAND, TX 79701	
4. Well Location Unit Letter <u>A</u> : 1020 feet from the <u>N</u> line and <u>452</u> feet from the <u>E</u> line Section <u>16</u> Township <u>19S</u> Range <u>28E</u> NMPM County <u>Eddy</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3522.76' GL	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: SHL Change ☒		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Permian Resources Operating, LLC would like to request the following changes to this APD:

Proposed SHL from 994' FNL & 333' FEL to 1020' FNL & 452' FEL.

TVD/MD change from 7284'TVD & 17465'MD to 7288'TVD & 17460'MD.

Target formation change from 3rd Bone Spring Sand to 2nd Bone Spring Sand.

Please see attached updated plat, well plan, drilling plan, and wellbore diagram to reflect these changes.

Spud Date:

4/15/2024

Rig Release Date:

4/25/2024

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Ashley Brown TITLE Senior Regulatory Analyst DATE 08/11/2023

Type or print name Ashley Brown E-mail address: ashley.brown@permianres.com PHONE: 432-400-2972

For State Use Only

APPROVED BY: Ward Rikala TITLE Petroleum Specialist A DATE 08/18/2023

Conditions of Approval (if any):

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015-53303	2 Pool Code [97569]	3 Pool Name WINCHESTER; BONE SPRING, WEST
4 Property Code 333726	5 Property Name BLACK CAT 16 STATE COM	6 Well Number 122H
7 OGRID No. 372165	8 Operator Name PERMIAN RESOURCES OPERATING, LLC	9 Elevation 3522.76'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	19-S	28-E		1020'	NORTH	452'	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	17	19-S	28-E		1940'	NORTH	10'	WEST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.

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

16 1940' 1940' 1020' 1940' SHL 452' 100' 10' FTP TO LTP = 10,198.87' LTP BHL FTP 17 G F E D C CORNER DATA NEW MEXICO EAST - NAD 83 A - FOUND IRON PIPE W/ BRASS CAP N:606757.31' E:590806.24' B - FOUND 1" IRON PIPE N:604120.46' E:590796.45' C - FOUND IRON PIPE W/ BRASS CAP N:601487.49' E:590787.58' D - FOUND IRON PIPE W/ BRASS CAP N:601458.74' E:588190.50' E - FOUND IRON PIPE W/ BRASS CAP N:601430.34' E:585595.57' F - FOUND IRON PIPE W/ BRASS CAP N:601406.13' E:582988.92' G - FOUND IRON PIPE W/ BRASS CAP N:601382.22' E:580382.84' H - FOUND IRON PIPE W/ BRASS CAP N:604011.85' E:580396.86' I - FOUND 2" IRON PIPE N:606641.54' E:580411.81' J - FOUND 1" IRON PIPE N:606668.08' E:583007.40' K - FOUND 2" IRON PIPE N:606695.00' E:585602.41' L - CALCULATED CORNER N:606726.16' E:588204.33' M - FOUND 1" IRON PIPE N:604062.54' E:585596.50' SURFACE HOLE LOCATION (SHL) NEW MEXICO EAST - NAD 83 X=590349.48 LAT.= 32.66510054° N Y=605731.38 LONG.= 104.17406376° W NEW MEXICO EAST - NAD 27 X=549169.77 LAT.= 32.66498383° N Y=605669.27 LONG.= 104.17355469° W 1020' FNL, 452' FEL - SECTION 16 FIRST TAKE POINT (FTP) NEW MEXICO EAST - NAD 83 X=590699.03 LAT.= 32.66258268° N Y=604815.89 LONG.= 104.17293235° W NEW MEXICO EAST - NAD 27 X=549519.30 LAT.= 32.66246593° N Y=604753.79 LONG.= 104.17242337° W 1940' FNL, 100' FEL - SECTION 16 LAST TAKE POINT (LTP) NEW MEXICO EAST - NAD 83 X=580500.79 LAT.= 32.66230855° N Y=604702.34 LONG.= 104.20607205° W NEW MEXICO EAST - NAD 27 X=539321.06 LAT.= 32.66219214° N Y=604640.32 LONG.= 104.20556231° W 1940' FNL, 100' FWL - SECTION 17 BOTTOM HOLE LOCATION (BHL) NEW MEXICO EAST - NAD 83 X=580410.78 LAT.= 32.66230632° N Y=604701.42 LONG.= 104.20636453° W NEW MEXICO EAST - NAD 27 X=539231.05 LAT.= 32.66218991° N Y=604639.40 LONG.= 104.20585479° W 1940' FNL, 10' FWL - SECTION 17	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Ashley Brown</i> 08/11/2023 Signature Date Ashley Brown Printed Name ashley.brown@permianres.com E-mail Address 18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 07/31/2023 Date of Survey Signature and Seal of Professional Surveyor: <i>Charles L. Jurica</i> 25490 PROFESSIONAL SURVEYOR Certificate Number
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Permian Resources - Black Cat 16 State Com 122H

1. Geologic Formations

Formation	Lithology	Elevation	TVD	Target
Rustler	Sandstone	3346	207	No
Top of Salt	Salt	3246	307	No
Capitan	Limestone	NP	NP	No
Tansill	Anhydrite/Shale	2881	672	No
Yates	Anhydrite/Shale	2766	787	No
Seven Rivers	Limestone	2371	1182	No
Queen	Limestone	1807	1746	No
Grayburg	Limestone	1483	2070	No
Delaware Sands	Sandstone	641	2912	No
BYCN	Sandstone	NP	NP	No
Bone Spring Lime	Limestone/Shale	251	3302	No
1st Bone Spring Sand	Sandstone/Limestone/Shale	-2649	6202	No
2nd Bone Spring Sand	Sandstone/Limestone/Shale	-3540	7093	Yes
3rd Bone Spring Sand	Sandstone/Limestone/Shale	-4709	8262	No
Wolfcamp	Shale	-5109	8662	No

2. Blowout Prevention

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12.25	13-5/8"	5M	Annular	x	2500 psi
			Blind Ram	x	5000 psi
			Pipe Ram	x	
			Double Ram		
			Other*		
8.75	13-5/8"	5M	Annular	x	2500 psi
			Blind Ram	x	5000 psi
			Pipe Ram	x	
			Double Ram		
			Other*		

Equipment: 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 the components installed will be functional and tested. All BOPE connections shall be flanged, welded or clamped. All choke lines shall be straight unless targeted with running tees or tee blocks are used, and choke lines shall be anchored to prevent whip and reduce vibrations. All valves in the choke line & the choke manifold shall be full opening as to not cause restrictions and to allow for straight fluid paths to minimize potential erosion. All gauges utilized in the well control system shall be of a type designed for drilling fluid service. A top drive inside BOP valve will be utilized at all times. Subs equipped with full opening valves sized to fit the drill pipe and collars will be available on the rig floor in the open position. The key to operate said valve equipped subs will be on the rig floor at all times. The accumulator system will have sufficient capacity to open the HCR and close all three sets of rams plus the annular preventer while retaining at least 300 psi above precharge on the closing manifold (accumulator system shall be capable of doing so without using the closing unit pumps). The fluid reservoir capacity will be double the usable fluid volume of the accumulator system capacity, and the fluid level will be maintained at the manufacturer's recommended level. Prior to connecting the closing unit to the BOP stack, an accumulator precharge pressure test shall be performed to ensure the precharge pressure is within 100 psi of the desired precharge pressure (only nitrogen gas will be used to precharge). Two independent power sources will be made available at all times to power the closing unit pumps so that the pumps can automatically start when the closing valve manifold pressure has decreased to the preset level. Closing unit pumps will be sized to allow opening of HCR and closing of annular preventer on 5" drill pipe achieving at least 200 psi above precharge pressure with the accumulator system isolated from service in less than two minutes. A valve shall be installed in the closing line as close to the annular preventer as possible to act as a locking device; the valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative. Remote controls capable of opening and closing all preventers & the HCR shall be readily accessible to the driller; master controls with the same capability will be operable at the accumulator. The wellhead will be a multibowl speed head allowing for hangoff of intermediate casing & isolation of the 133/8 x 95/8 annulus without breaking the connection between the BOP & wellhead to install an additional casing head. A wear bushing will be installed & inspected frequently to guard against internal wear to wellhead. VBRs (variablebore rams) will be run in upper rambody of BOP stack to provide redundancy to annular preventer while RIH w/ production casing;

Requesting Variance? YES

Variance request: Flex hose and offline cement variances, see attachments in section 8.

Testing Procedure: 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. following related repairs d. at 30 day intervals e. checked daily as to mechanical operating conditions. The ram type preventer(s) will be tested using a test plug to 250 psi (low) and 5,000 psi (high) (casinghead WP) with a test plug upon its installation onto the 13 surface casing. If a test plug is not used, the ram type preventer(s) shall be tested to 70% of the minimum internal yield pressure of the casing. The annular type preventer(s) shall be tested to 3500 psi. Pressure will be maintained for at least 10 minutes or until provisions of the test are met, whichever is longer. A Sundry Notice (Form 3160 5), along with a copy of the BOP test report, shall be submitted to the local BLM office within 5 working days following the test. If the bleed line is connected into the buffer tank (header), all BOP equipment including the buffer tank and associated valves will be rated at the required BOP pressure. The BLM office will be provided with a minimum of four (4) hours notice of BOP testing to allow witnessing. The BOP Configuration, choke manifold layout, and accumulator system, will be in compliance with Onshore Order 2 for a 5,000 psi system. A remote accumulator and a multi-bowl system will be used, please see attachment in section 8 for multi-bowl procedure. Pressures, capacities, and specific placement and use of the manual and/or hydraulic controls, accumulator controls, bleed lines, etc., will be identified at the time of the BLM 'witnessed BOP test. Any remote controls will be capable of both opening and closing all preventers and shall be readily accessible.

Choke Diagram Attachment: 5 M Choke Manifold

BOP Diagram Attachment: BOP Schematic

3. Casing

String	Hole Size	Casing Size	Top	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	232	0	232	232	J55	54.5	BTC	9.86	3.61	Dry	8.07	Dry	7.57
Intermediate	12.25	9.625	0	2862	0	2862	2862	J55	36	BTC	3.14	1.72	Dry	3.15	Dry	2.78
Production	8.75	5.5	0	7649	0	7288	7649	P110RY	17	GeoConn	1.97	2.06	Dry	2.44	Dry	2.44
Production	7.875	5.5	7649	17460	7288	7288	9811	P110RY	17	GeoConn	1.97	2.06	Dry	2.44	Dry	2.44
BLM Min Safety Factor											1.125	1		1.6		1.6

Non API casing spec sheets and casing design assumptions attached.

4. Cement

String	Lead/Tail	Top MD	Bottom MD	Quantity (sx)	Yield	Density	Cu Ft	Excess %	Cement Type	Additives
Surface	Tail	0	232	190	1.34	14.8	250	50%	Class C	Accelerator
Intermediate	Lead	0	2280	510	2.08	12.7	1050	50%	Class C	Salt, Extender, and LCM
Intermediate	Tail	2280	2862	210	1.34	14.8	280	50%	Class C	Accelerator
Production	Lead	2362	6899	660	2.41	11.5	1570	40%	Class H	POZ, Extender, Fluid Loss, Dispersant, Retarder
Production	Tail	6899	17460	1370	1.73	12.5	2370	25%	Class H	POZ, Extender, Fluid Loss, Dispersant, Retarder

5. Circulating Medium

Mud System Type: Closed

Will an air or gas system be used: No

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.

Cuttings Volume: 7860 Cu Ft

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight	Max Weight
0	232	Water Based Mud	8.6	9.5
232	2862	Salt Saturated	10	10
2862	7649	Brine	9	10
7649	17460	OBM	9	10

6. Test, Logging, Coring

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

Will utilize MWD/LWD (Gamma Ray logging) from intermediate hole to TD of the well.

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

DIRECTIONAL SURVEY, GAMMA RAY LOG,

Coring operation description for the well:

N/A

7. Pressure

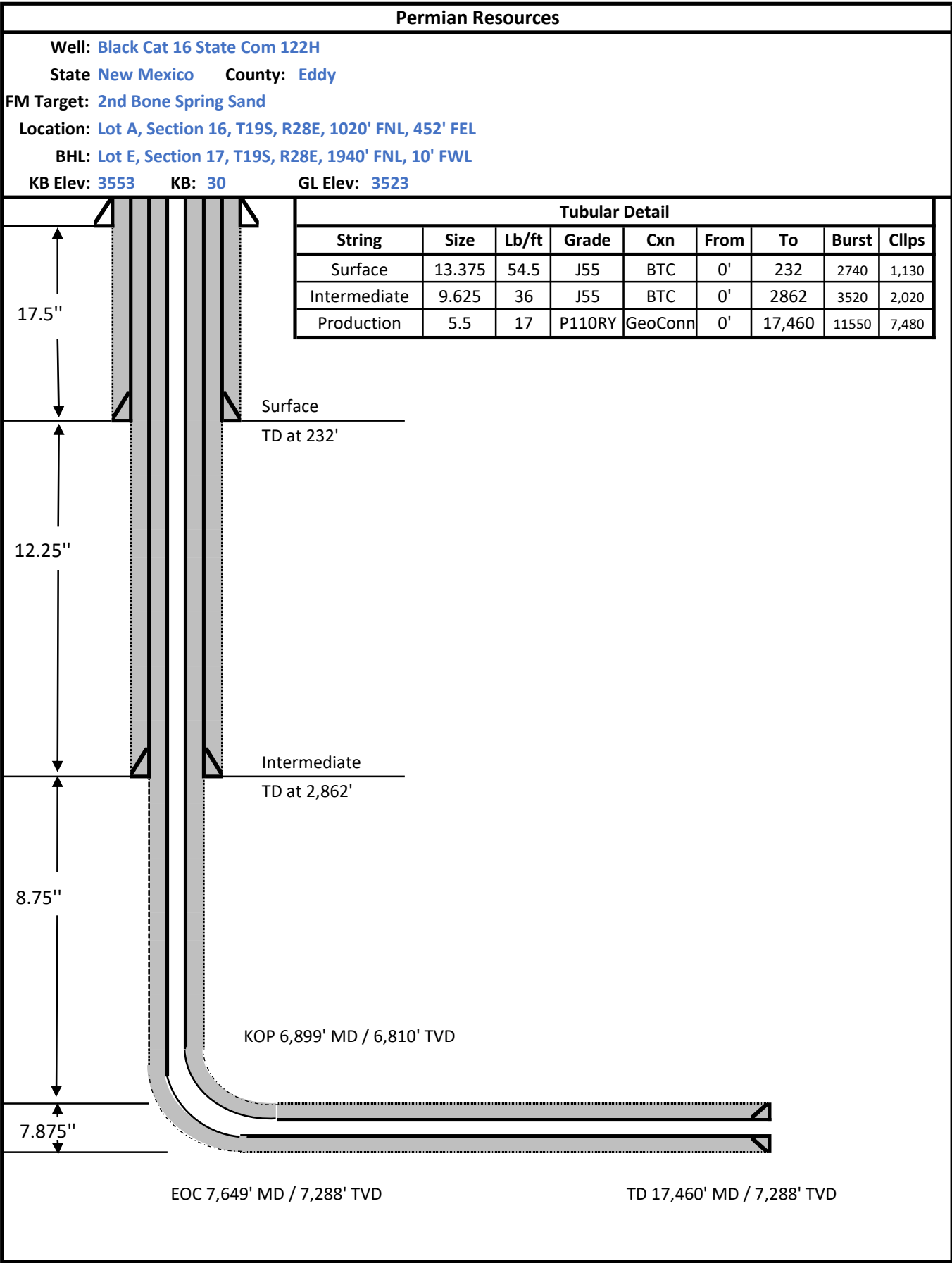
Anticipated Bottom Hole Pressure	3790	psi
Anticipated Surface Pressure	2186.4	psi
Anticipated Bottom Hole Temperature	131	°F
Anticipated Abnormal pressure, temp, or geo hazards	No	

8. Waste Management

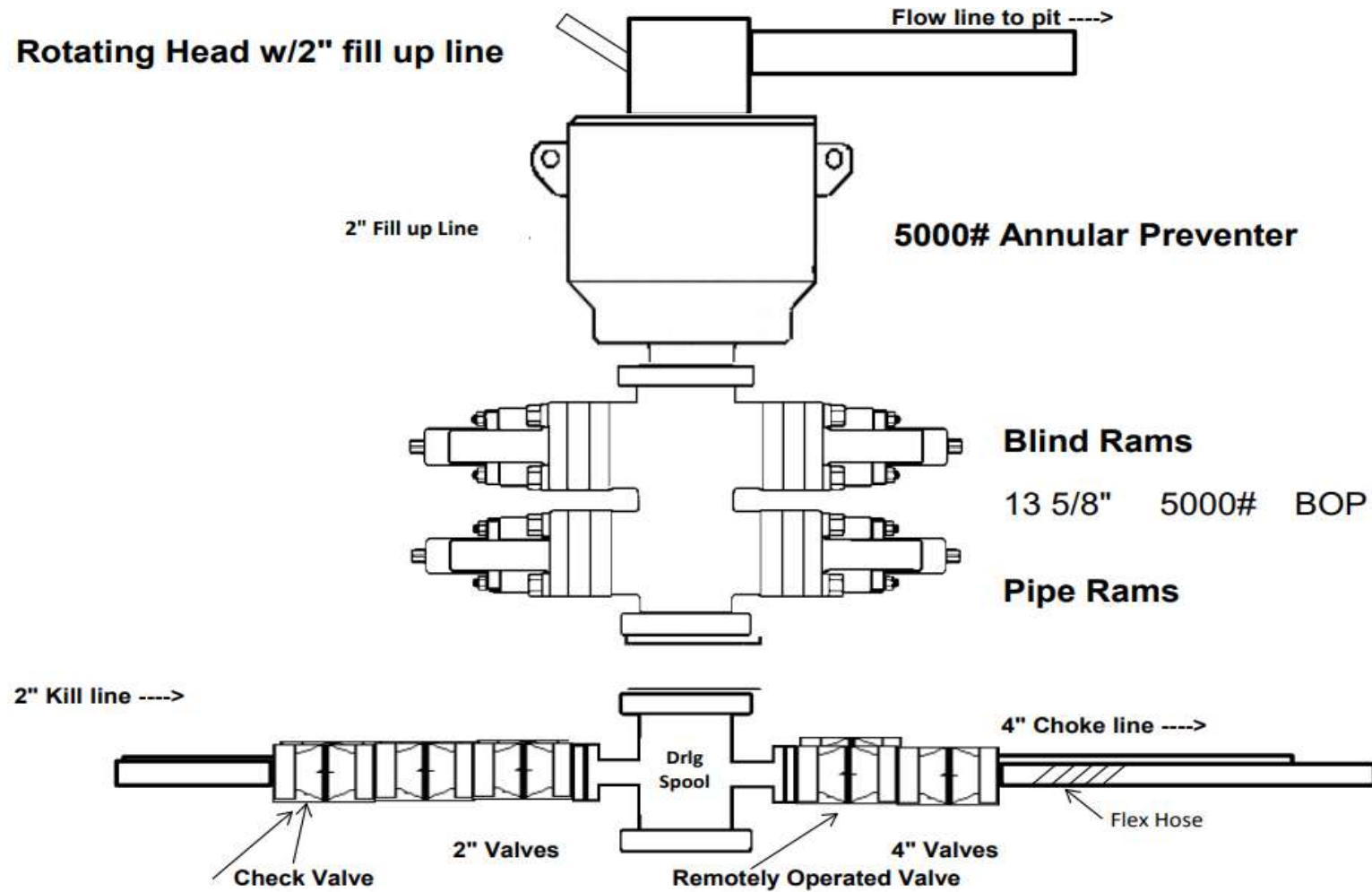
Waste Type:	Drilling
Waste content description:	Fresh water based drilling fluid
Amount of waste:	1500 bbls
Waste disposal frequency:	Weekly (after drilling all surfaces)
Safe containment description:	Steel tanks with plastic-lined containment berms
Waste disposal type:	Haul to commercial facility
Disposal location ownership:	Commercial
Waste Type:	Grey Water & Human Waste
Waste content description:	Grey Water/Human Waste
Amount of waste:	5000 gallons
Waste disposal frequency:	Weekly
Safe containment description:	Approved waste storage tanks with containment
Waste disposal type:	Haul to commercial facility
Disposal location ownership:	Commercial
Waste Type:	Garbage
Waste content description:	General trash/garbage
Amount of waste:	5000 lbs
Waste disposal frequency:	Weekly
Safe containment description:	Enclosed trash trailer
Waste disposal type:	Haul to commercial facility
Disposal location ownership:	Commercial
Waste Type:	Drilling
Waste content description:	Drill Cuttings
Amount of waste:	7860 Cu Ft
Waste disposal frequency:	Per well
Safe containment description:	Steel tanks
Waste disposal type:	Haul to commercial facility
Disposal location ownership:	Commercial
Waste Type:	Drilling
Waste content description:	Brine water based drilling fluid
Amount of waste:	1500 bbls
Waste disposal frequency:	Monthly
Safe containment description:	Steel tanks with plastic-lined containment berms
Waste disposal type:	Haul to commercial facility
Disposal location ownership:	Commercial

9. Other Information

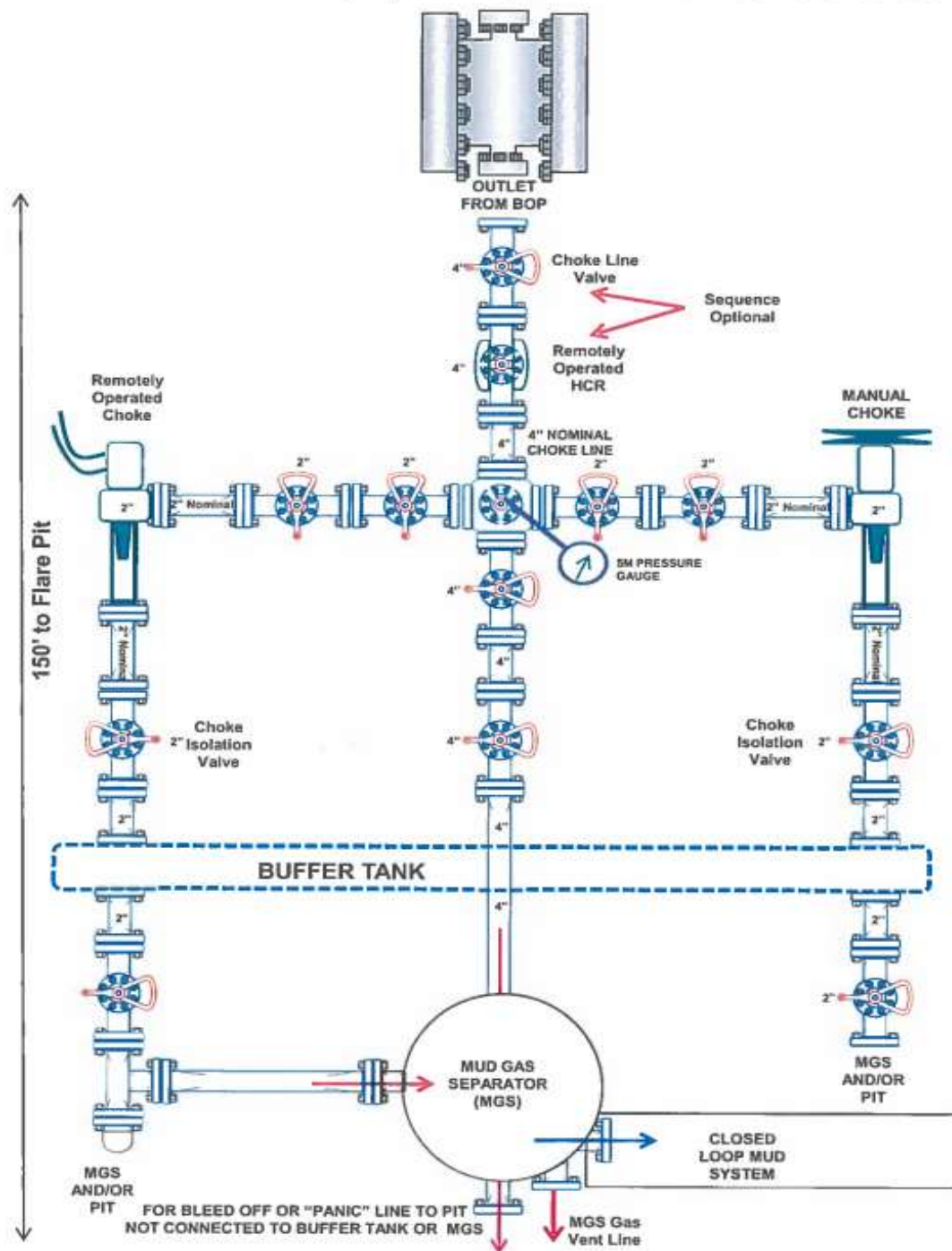
Well Plan and AC Report: attached
Batching Drilling Procedure: attached
WBD: attached
Flex Hose Specs: attached
Offline Cementing Procedure Attached:



5,000 psi BOP Schematic



5M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)





ContiTech

CONTITECH RUBBER
Industrial Kft.

No:QC-DB- 210/ 2014

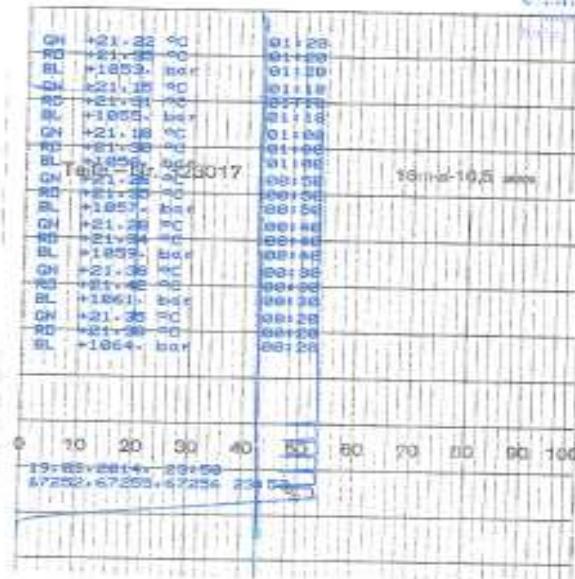
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QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°:	504
PURCHASER: ContiTech Oil & Marine Corp.				P.O. N°:	4500408659
CONTITECH RUBBER order N°: 538236		HOSE TYPE: 3" ID		Choke and Kill Hose	
HOSE SERIAL N°: 67255		NOMINAL / ACTUAL LENGTH: 10,67 m / 10,77 m			
W.P. 68,9 MPa	10000 psi	T.P. 103,4 MPa	15000 psi	Duration:	60 min.
Pressure test with water at ambient temperature See attachment. (1 page)					
↑ 10 mm = 10 Min. → 10 mm = 20 MPa					
COUPLINGS Type		Serial N°		Quality	Heat N°
3" coupling with		9251 9254		AISI 4130	A0579N
4 1/16" 10K API b.w. Flange end				AISI 4130	035608
Not Designed For Well Testing				API Spec 16 C	
				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 Purchaser Order and that these items/equipment were fabricated, inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
COUNTRY OF ORIGIN HUNGARY/EU					
Date:	Inspector		Quality Control		
20. March 2014.			ContiTech Rubber Industrial Kft. Quality Control Dept.  		

ContiTech Rubber Industrial Kft. : Budapest 1150, H-8728 Szigetud [H 4701 P.O.Box 322 Szigetud, Hungary]
 Phone: +36 82 584 722 / Fax: +36 82 584 728 / e-mail: info@bud.contitech.hu / info@hu.contitech.hu / www.contitech.hu
 The Court of Company Law of the Registry Court (Registry Court No: Cg.90-09-00220) / EU VAT No: HU11507208
 Belföldi Adószám: 14020101-20830003

ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE No: 501, 504, 505

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CONTITECH RUBBER Industrial Kft.	No:QC-DB- 210/ 2014
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	ContiTech

Hose Data Sheet

CRI Order No.	538236
Customer	ContiTech Oil & Marine Corp.
Customer Order No.	4500409659
Item No.	1
Hose Type	Flexible Hose
Standard	API SPEC 16 C
Inside dia in inches	3
Length	35 ft
Type of coupling one end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
Type of coupling other end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St. steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	No
Lifting collar	No
Element C	No
Safety chain	No
Safety wire rope	No
Max. design temperature [°C]	100
Min. design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

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ALL DIMENSIONS APPROXIMATE

CENTENNIAL RESOURCE DEVELOPMENT
LEE CO, NM

DRAWN	DLE	10JUN20
APPRV		

DRAWING NO. HBE0000338

Permian Resources Casing Design Criteria

A sundry will be requested if any lesser grade or different size casing is substituted. All casing will be centralized as specified in On Shore Order II. Casing will be tested as specified in On Shore Order II.

Casing Design Assumptions:

Surface

- 1) Burst Design Loads
 - a) Displacement to Gas
 - (1) Internal: Assumes a full column of gas in the casing with a gas gradient of 0.7 psi/ft in the absence of better information. It is limited to the controlling pressure based on the maximum expected pore pressure within the next drilling interval.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
 - b) Casing Pressure Test
 - (1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
- 2) Collapse Loads
 - a) Cementing
 - (1) Internal: Displacement fluid density.
 - (2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.
 - b) Lost Returns with Mud Drop
 - (1) Internal: Lost circulation at the TD of the next hole section and the fluid level falls to a depth where the hydrostatic pressure of the mud column equals pore pressure at the depth of the lost circulation zone.
 - (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
- 3) Tension Loads
 - a) Overpull Force
 1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.
 - b) Green Cement Casing Test
 1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Intermediate I

- 1) Burst Design Loads
 - a) Displacement to Gas
 - (1) Internal: Assumes a full column of gas in the casing with a gas gradient of 0.7 psi/ft in the absence of better information. It is limited to the controlling pressure based on the maximum expected pore pressure within the next drilling interval.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
 - b) Casing Pressure Test
 - (1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.

- (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
- 2) Collapse Loads
 - a) Cementing
 - (1) Internal: Displacement fluid density.
 - (2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.
 - b) Lost Returns with Mud Drop
 - (1) Internal: Lost circulation at the TD of the next hole section and the fluid level falls to a depth where the hydrostatic pressure of the mud column equals pore pressure at the depth of the lost circulation zone.
 - (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
- 3) Tension Loads
 - a) Overpull Force
 - 1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.
 - b) Green Cement Casing Test
 - 1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Intermediate or Intermediate II

- 1) Burst Design Loads
 - a) Gas Kick Profile
 - (1) Internal: Load profile based on influx encountered in lateral portion of wellbore with a maximum influx volume of 150 bbl and a kick intensity of 1.5 ppg using maximum anticipated MW of 9.9 ppg.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
 - b) Casing Pressure Test
 - (1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
- 2) Collapse Loads
 - a) Cementing
 - (1) Internal: Displacement fluid density.
 - (2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.
 - b) Lost Returns with Mud Drop
 - (1) Internal: Lost circulation at the deepest TVD of the next hole section and the fluid level falls to a depth where the hydrostatic pressure of the mud column equals pore pressure at the depth of the lost circulation zone.
 - (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
- 3) Tension Loads
 - a) Overpull Force
 - 1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.
 - b) Green Cement Casing Test
 - 1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Production

- 1) Burst Design Loads
 - a) Injection Down Casing
 - (1) Internal: Surface pressure plus injection fluid gradient.
 - (2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.
 - b) Casing Pressure Test (Drilling)
 - (1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
 - c) Casing Pressure Test (Production)
 - (1) Internal: The design pressure test should be the greater of the planned test pressure prior to simulation down the casing, the regulatory test pressure, and the expected gas lift system pressure. The design test fluid should be the fluid associated with the pressure test having the greatest pressure.
 - (2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.
 - d) Tubing Leak
 - (1) Internal: SITP plus a packer fluid gradient to the top of packer.
 - (2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.
- 2) Collapse Loads
 - a) Cementing
 - (1) Internal: Displacement fluid density.
 - (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
 - b) Full Evacuation
 - (1) Internal: Full void pipe.
 - (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
- 3) Tension Loads
 - a) Overpull Force
 1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.
 - b) Green Cement Casing Test
 1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Permian Resources

Multi-Well Pad Batch Drilling Procedure

Surface Casing - PR intends to Batch set all 13-3/8" casing to a depth approved in the APD. 17-1/2" 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 17-1/2" Surface hole to Approved Depth with Rig and perform wellbore cleanup cycles. Trip out and rack back drilling BHA.
2. Run and land 13-3/8" 54.5# J55 BTC 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

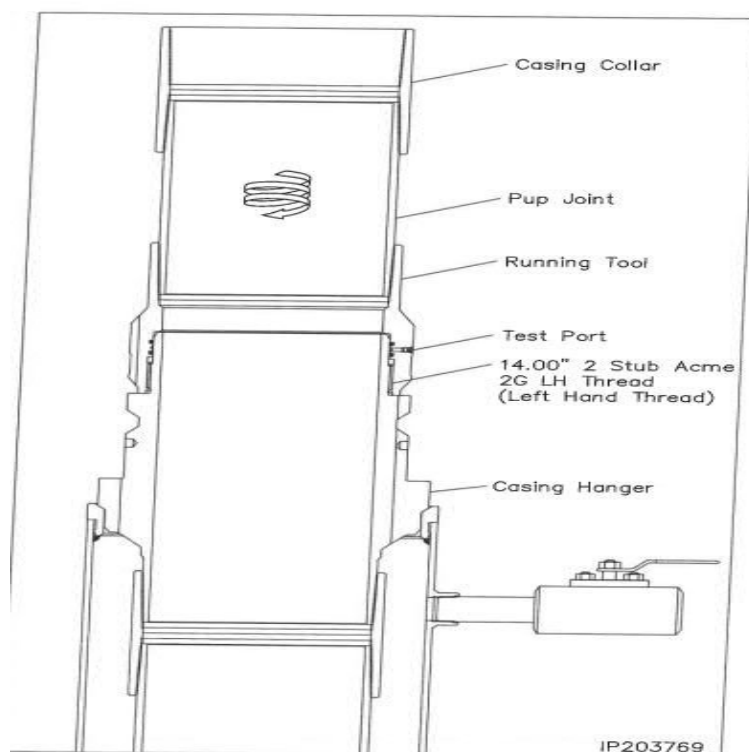


Illustration 1-1

Intermediate Casing – PR intends to Batch set all intermediate casing strings to a depth approved in the APD, typically set into Lamar. 12-1/4" Intermediate Holes will be batch drilled by the rig. Appropriate notifications will be made prior 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 13-3/8" 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.

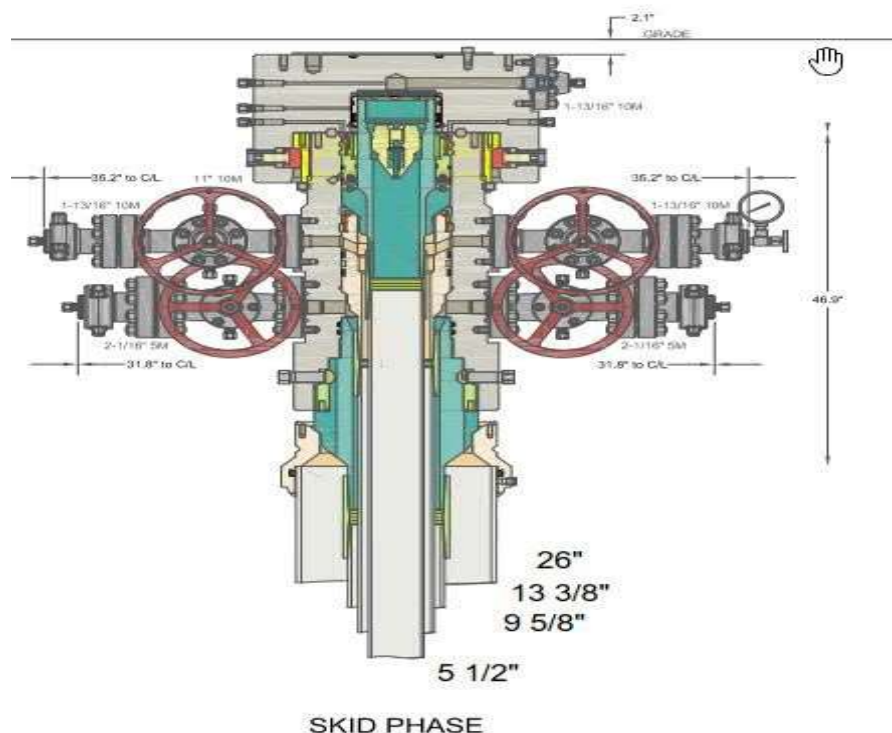


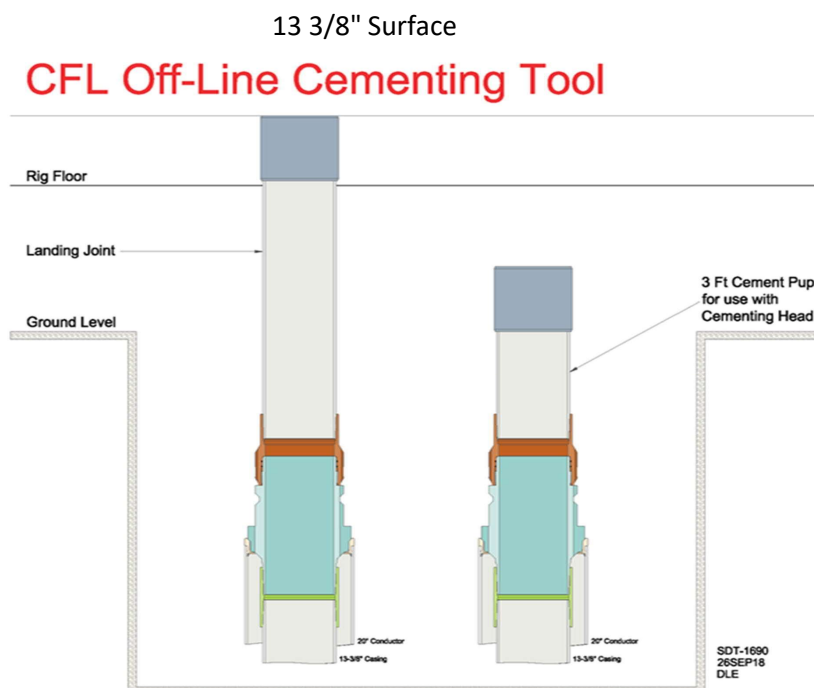
Illustration 2-2

Production Casing – 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.

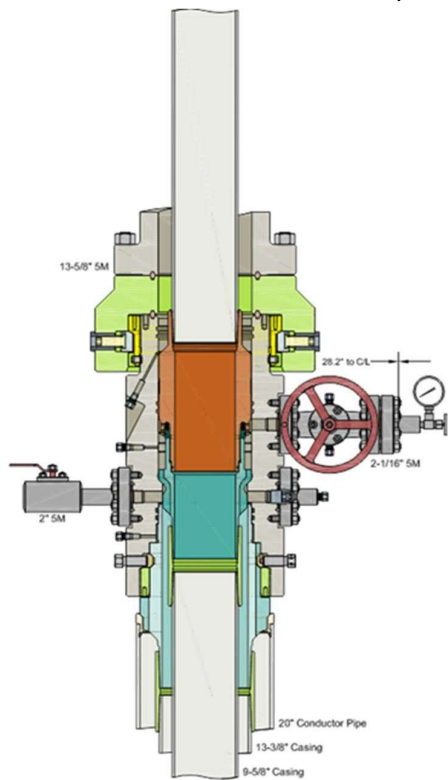
1. Big Rig will remove the nightcap and install and test BOPE.
2. Install wear bushing then drill Intermediate shoe-track plus 20' and conduct FIT to minimum MW equivalent to control the formation pressure to TD of well.
3. Drill Vertical hole to KOP – Trip out for Curve BHA.
4. Drill Curve, landing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

Permian Resources Offline Cementing Procedure 13-3/8" & 9-5/8" Casing

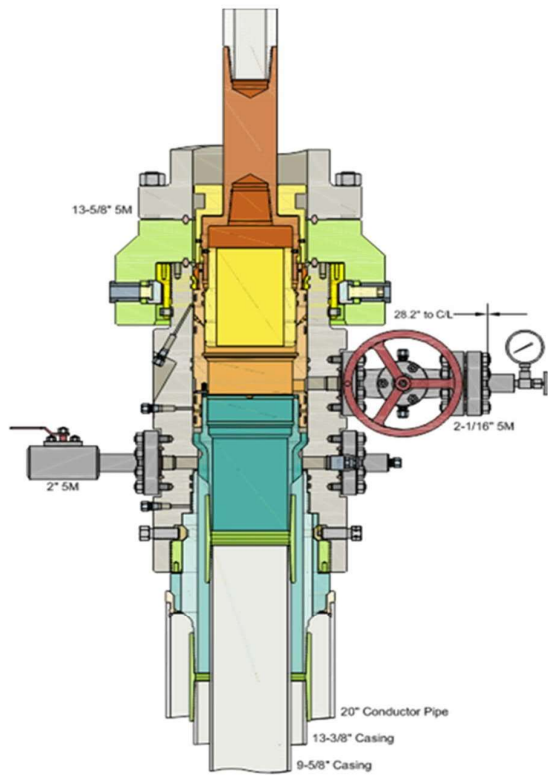
1. Drill hole to Total Depth with Rig and perform wellbore cleanup cycles.
2. Run and casing to Depth.
3. Land casing with mandrel.
4. Circulate 1.5 csg capacity.
5. Flow test – Confirm well is static and floats are holding.
6. Set Annular packoff and pressure test. Test to 5k.
7. Nipple down BOP and 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.



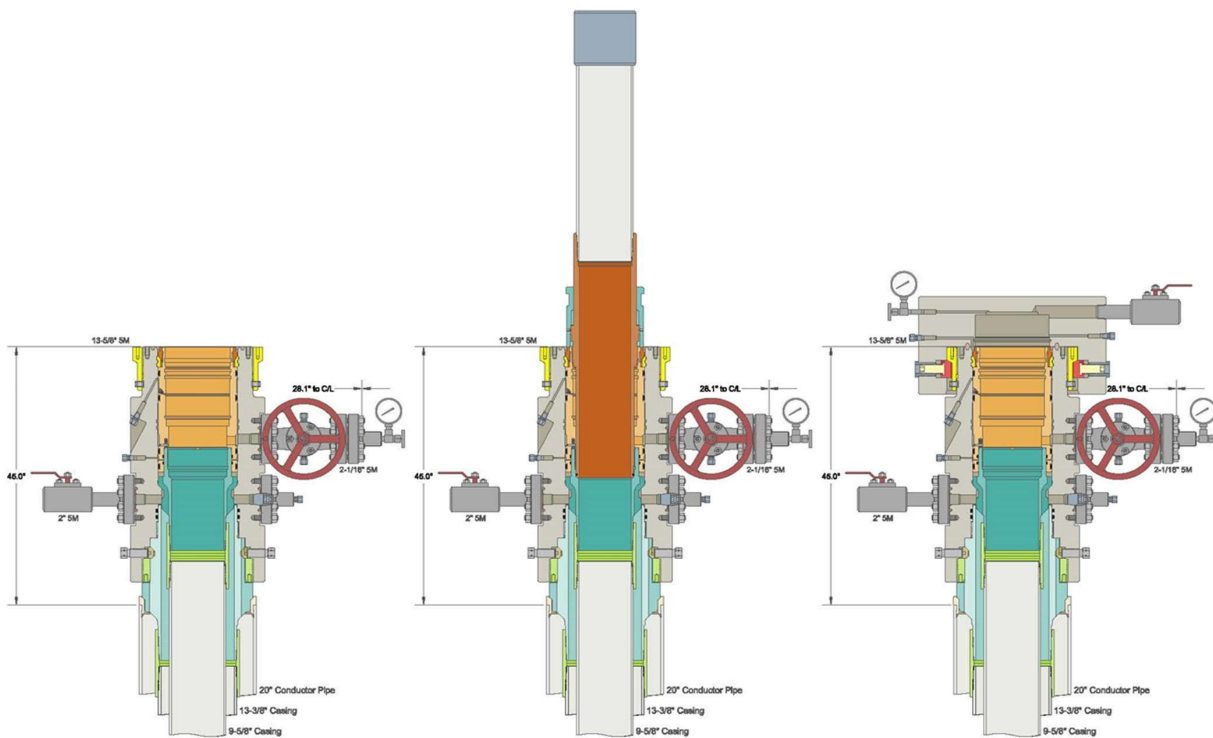
9 5/8" Intermediate



Run 9-5/8" Casing
Land Casing on 9-5/8" Mandrel Hanger
Cement 9-5/8" Casing
Retrieve Running Tool

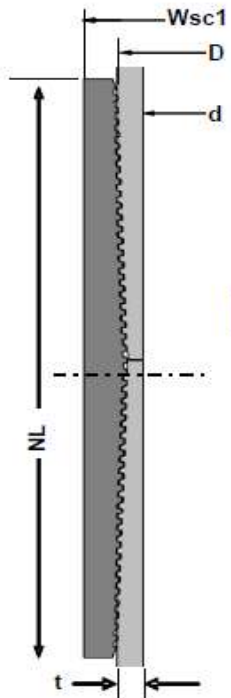


Run 13-5/8" Packoff
Test Upper and Lower Seals
Engage Lockring
Retrieve Running Tool



Metal One Corp. 	GEOCONN-SC Pipe: SeAH P110RY 95%PBW (SMYS110ksi) *1 Coupling: P110RY (SMYS110ksi) Connection Data Sheet	Page Date Rev.	MAI GC 5.5 17 SeAH P110RY 95%RBW+SC-Cplg6.050 P110RY 3-Feb-21 0
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GEOCONN-SC



Geometry	Imperial		S.I.	
Pipe Body				
Grade *1	P110RY	-	P110RY	-
SMYS	110	ksi	110	ksi
Pipe OD (D)	5.500	in	139.70	mm
Weight	17.00	lb/ft	25.33	kg/m
Wall Thickness (t)	0.304	in	7.72	mm
Pipe ID (d)	4.892	in	124.26	mm
Drift Dia.	4.767	in	121.08	mm
Connection				
Coupling SMYS	110	ksi	110	ksi
SC-Coupling OD (Wsc1)	6.050	in	153.67	mm
Coupling Length (NL)	8.350	in	212.09	mm
Make up Loss	4.125	in	104.78	mm
Pipe Critical Area	4.96	in ²	3,202	mm ²
Box Critical Area	6.10	in ²	3,937	mm ²
Thread Taper	1 / 16 (3/4" per ft)			
Number of Threads	5 TPI			

Performance	Imperial		S.I.	
Performance Properties for Pipe Body				
S.M.Y.S. *1	546	kips	2,428	kN
M.I.Y.P. *1	11,550	psi	79.66	MPa
Collapse Strength *1	7,480	psi	51.59	MPa
Note S.M.Y.S. = Specified Minimum YIELD Strength of Pipe body M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body *1: SeAH P110RY 95%RBW: SMYS110ksi, MIYP11,550psi				
Performance Properties for Connection				
Min. Connection Joint Strength	100%		of S.M.Y.S.	
Min. Compression Yield	100%		of S.M.Y.S.	
Internal Pressure	100%		of M.I.Y.P.	
External Pressure	100%		of Collapse Strength	
Max. DLS (deg. /100ft)			>90	
Recommended Torque				
Min.	10,800	ft-lb	14,600	N-m
Opti.	12,000	ft-lb	16,200	N-m
Max.	13,200	ft-lb	17,800	N-m
Operational Max.	15,600	ft-lb	21,100	N-m
Note : Operational Max. torque can be applied for high torque application				

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Statements 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 specification is suitable for use in a particular application.

The products described in this Connection Data Sheet are not recommended for use in deep water offshore applications. For more information, please refer to http://www.mto.co.jp/mto-con/ Images/top/WebsiteTerms_Active_20333287_1.pdf the contents of which are incorporated by reference into this Connection Data Sheet.





Permian Resources Operating, LLC

Eddy County, NM (NAD 83 NME)

(Black Cat 16 State) Sec-16_T-19-S_R-28-E

Black Cat 16 State Com 122H

OWB

Plan: Plan #1

Standard Planning Report

07 August, 2023



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Black Cat 16 State Com 122H
Company:	Permian Resources Operating, LLC	TVD Reference:	KB @ 3553.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3553.0usft
Site:	(Black Cat 16 State) Sec-16_T-19-S_R-28-E	North Reference:	Grid
Well:	Black Cat 16 State Com 122H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Project	Eddy County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	(Black Cat 16 State) Sec-16_T-19-S_R-28-E		
Site Position:	Northing:	605,726.46 usft	Latitude: 32° 39' 54.311 N
From: Map	Easting:	590,469.46 usft	Longitude: 104° 10' 25.226 W
Position Uncertainty:	0.0 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.09 °

Well	Black Cat 16 State Com 122H		
Well Position	+N/-S	4.9 usft	Northing: 605,731.38 usft
	+E/-W	-120.0 usft	Easting: 590,349.48 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 32° 39' 54.362 N
			Longitude: 104° 10' 26.630 W
			Ground Level: 3,523.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/3/2023	6.89	60.28	47,544.60895308

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	269.36

Plan Survey Tool Program	Date	8/7/2023		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,459.6 Plan #1 (OWB)	MWD+IFR1+MS	
			OWSG MWD + IFR1 + Multi-St	

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,531.9	10.64	159.10	1,528.9	-46.0	17.6	2.00	2.00	0.00	159.10	
6,306.8	10.64	159.10	6,221.6	-869.5	332.0	0.00	0.00	0.00	0.00	
6,838.7	0.00	0.00	6,750.5	-915.5	349.5	2.00	-2.00	0.00	180.00	
6,898.7	0.00	0.00	6,810.5	-915.5	349.5	0.00	0.00	0.00	0.00	
7,648.7	90.00	269.36	7,288.0	-920.8	-127.9	12.00	12.00	-12.09	269.36	
17,460.1	90.00	269.36	7,288.0	-1,030.0	-9,938.7	0.00	0.00	0.00	0.00	PBHL BC16 SC 122H

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Black Cat 16 State Com 122H
Company:	Permian Resources Operating, LLC	TVD Reference:	KB @ 3553.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3553.0usft
Site:	(Black Cat 16 State) Sec-16_T-19-S_R-28-E	North Reference:	Grid
Well:	Black Cat 16 State Com 122H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
207.0	0.00	0.00	207.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
307.0	0.00	0.00	307.0	0.0	0.0	0.0	0.00	0.00	0.00
Salado T/Salt									
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
672.0	0.00	0.00	672.0	0.0	0.0	0.0	0.00	0.00	0.00
Tansill									
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
787.0	0.00	0.00	787.0	0.0	0.0	0.0	0.00	0.00	0.00
Yate									
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Nudge 2°/100 at 1000.00 MD									
1,100.0	2.00	159.10	1,100.0	-1.6	0.6	-0.6	2.00	2.00	0.00
1,182.1	3.64	159.10	1,182.0	-5.4	2.1	-2.0	2.00	2.00	0.00
Seven Rivers									
1,200.0	4.00	159.10	1,199.8	-6.5	2.5	-2.4	2.00	2.00	0.00
1,300.0	6.00	159.10	1,299.5	-14.7	5.6	-5.4	2.00	2.00	0.00
1,400.0	8.00	159.10	1,398.7	-26.0	9.9	-9.7	2.00	2.00	0.00
1,500.0	10.00	159.10	1,497.5	-40.7	15.5	-15.1	2.00	2.00	0.00
1,531.9	10.64	159.10	1,528.9	-46.0	17.6	-17.0	2.00	2.00	0.00
Hold 10.64° inc at 1531.90 MD									
1,600.0	10.64	159.10	1,595.8	-57.7	22.0	-21.4	0.00	0.00	0.00
1,700.0	10.64	159.10	1,694.1	-75.0	28.6	-27.8	0.00	0.00	0.00
1,752.8	10.64	159.10	1,746.0	-84.1	32.1	-31.2	0.00	0.00	0.00
Queen									
1,800.0	10.64	159.10	1,792.3	-92.2	35.2	-34.2	0.00	0.00	0.00
1,900.0	10.64	159.10	1,890.6	-109.5	41.8	-40.6	0.00	0.00	0.00
2,000.0	10.64	159.10	1,988.9	-126.7	48.4	-47.0	0.00	0.00	0.00
2,082.5	10.64	159.10	2,070.0	-141.0	53.8	-52.2	0.00	0.00	0.00
Grayburg									
2,100.0	10.64	159.10	2,087.2	-144.0	55.0	-53.4	0.00	0.00	0.00
2,200.0	10.64	159.10	2,185.5	-161.2	61.6	-59.8	0.00	0.00	0.00
2,300.0	10.64	159.10	2,283.7	-178.5	68.1	-66.1	0.00	0.00	0.00
2,400.0	10.64	159.10	2,382.0	-195.7	74.7	-72.5	0.00	0.00	0.00
2,500.0	10.64	159.10	2,480.3	-213.0	81.3	-78.9	0.00	0.00	0.00
2,516.0	10.64	159.10	2,496.0	-215.7	82.4	-79.9	0.00	0.00	0.00
San Andres									
2,600.0	10.64	159.10	2,578.6	-230.2	87.9	-85.3	0.00	0.00	0.00
2,700.0	10.64	159.10	2,676.9	-247.5	94.5	-91.7	0.00	0.00	0.00
2,800.0	10.64	159.10	2,775.2	-264.7	101.1	-98.1	0.00	0.00	0.00
2,900.0	10.64	159.10	2,873.4	-281.9	107.7	-104.5	0.00	0.00	0.00
2,939.2	10.64	159.10	2,912.0	-288.7	110.2	-107.0	0.00	0.00	0.00
Delaware Sands CYCN									
3,000.0	10.64	159.10	2,971.7	-299.2	114.2	-110.9	0.00	0.00	0.00

Database: EDM 5000.15 Single User Db
Company: Permian Resources Operating, LLC
Project: Eddy County, NM (NAD 83 NME)
Site: (Black Cat 16 State) Sec-16_T-19-S_R-28-E
Well: Black Cat 16 State Com 122H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Black Cat 16 State Com 122H
TVD Reference: KB @ 3553.0usft
MD Reference: KB @ 3553.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,100.0	10.64	159.10	3,070.0	-316.4	120.8	-117.3	0.00	0.00	0.00
3,200.0	10.64	159.10	3,168.3	-333.7	127.4	-123.7	0.00	0.00	0.00
3,300.0	10.64	159.10	3,266.6	-350.9	134.0	-130.1	0.00	0.00	0.00
3,336.1	10.64	159.10	3,302.0	-357.2	136.4	-132.4	0.00	0.00	0.00
Bone Springs BGSL									
3,400.0	10.64	159.10	3,364.8	-368.2	140.6	-136.5	0.00	0.00	0.00
3,500.0	10.64	159.10	3,463.1	-385.4	147.2	-142.8	0.00	0.00	0.00
3,600.0	10.64	159.10	3,561.4	-402.7	153.7	-149.2	0.00	0.00	0.00
3,700.0	10.64	159.10	3,659.7	-419.9	160.3	-155.6	0.00	0.00	0.00
3,800.0	10.64	159.10	3,758.0	-437.2	166.9	-162.0	0.00	0.00	0.00
3,900.0	10.64	159.10	3,856.2	-454.4	173.5	-168.4	0.00	0.00	0.00
4,000.0	10.64	159.10	3,954.5	-471.7	180.1	-174.8	0.00	0.00	0.00
4,100.0	10.64	159.10	4,052.8	-488.9	186.7	-181.2	0.00	0.00	0.00
4,200.0	10.64	159.10	4,151.1	-506.1	193.3	-187.6	0.00	0.00	0.00
4,300.0	10.64	159.10	4,249.4	-523.4	199.8	-194.0	0.00	0.00	0.00
4,400.0	10.64	159.10	4,347.7	-540.6	206.4	-200.4	0.00	0.00	0.00
4,500.0	10.64	159.10	4,445.9	-557.9	213.0	-206.8	0.00	0.00	0.00
4,600.0	10.64	159.10	4,544.2	-575.1	219.6	-213.2	0.00	0.00	0.00
4,700.0	10.64	159.10	4,642.5	-592.4	226.2	-219.6	0.00	0.00	0.00
4,800.0	10.64	159.10	4,740.8	-609.6	232.8	-225.9	0.00	0.00	0.00
4,900.0	10.64	159.10	4,839.1	-626.9	239.4	-232.3	0.00	0.00	0.00
5,000.0	10.64	159.10	4,937.3	-644.1	245.9	-238.7	0.00	0.00	0.00
5,100.0	10.64	159.10	5,035.6	-661.4	252.5	-245.1	0.00	0.00	0.00
5,200.0	10.64	159.10	5,133.9	-678.6	259.1	-251.5	0.00	0.00	0.00
5,300.0	10.64	159.10	5,232.2	-695.9	265.7	-257.9	0.00	0.00	0.00
5,400.0	10.64	159.10	5,330.5	-713.1	272.3	-264.3	0.00	0.00	0.00
5,500.0	10.64	159.10	5,428.7	-730.4	278.9	-270.7	0.00	0.00	0.00
5,600.0	10.64	159.10	5,527.0	-747.6	285.4	-277.1	0.00	0.00	0.00
5,700.0	10.64	159.10	5,625.3	-764.8	292.0	-283.5	0.00	0.00	0.00
5,800.0	10.64	159.10	5,723.6	-782.1	298.6	-289.9	0.00	0.00	0.00
5,900.0	10.64	159.10	5,821.9	-799.3	305.2	-296.3	0.00	0.00	0.00
6,000.0	10.64	159.10	5,920.2	-816.6	311.8	-302.6	0.00	0.00	0.00
6,100.0	10.64	159.10	6,018.4	-833.8	318.4	-309.0	0.00	0.00	0.00
6,200.0	10.64	159.10	6,116.7	-851.1	325.0	-315.4	0.00	0.00	0.00
6,286.8	10.64	159.10	6,202.0	-866.0	330.7	-321.0	0.00	0.00	0.00
FBSG									
6,306.8	10.64	159.10	6,221.6	-869.5	332.0	-322.3	0.00	0.00	0.00
Drop 2°/100 at 6306.80 MD									
6,400.0	8.77	159.10	6,313.5	-884.2	337.6	-327.7	2.00	-2.00	0.00
6,500.0	6.77	159.10	6,412.6	-896.8	342.4	-332.4	2.00	-2.00	0.00
6,600.0	4.77	159.10	6,512.1	-906.2	346.0	-335.9	2.00	-2.00	0.00
6,700.0	2.77	159.10	6,611.9	-912.4	348.4	-338.1	2.00	-2.00	0.00
6,800.0	0.77	159.10	6,711.8	-915.2	349.5	-339.2	2.00	-2.00	0.00
6,838.7	0.00	0.00	6,750.5	-915.5	349.5	-339.3	2.00	-2.00	0.00
Vertical at 6838.70 MD									
6,898.7	0.00	0.00	6,810.5	-915.5	349.5	-339.3	0.00	0.00	0.00
KOP 12°/100 at 6898.70 MD									
6,900.0	0.16	269.36	6,811.8	-915.5	349.5	-339.3	12.00	12.00	0.00
6,925.0	3.16	269.36	6,836.8	-915.5	348.8	-338.6	12.00	12.00	0.00
6,950.0	6.16	269.36	6,861.7	-915.5	346.8	-336.5	12.00	12.00	0.00
6,975.0	9.16	269.36	6,886.5	-915.6	343.5	-333.2	12.00	12.00	0.00
7,000.0	12.16	269.36	6,911.1	-915.6	338.8	-328.6	12.00	12.00	0.00
7,025.0	15.16	269.36	6,935.4	-915.7	332.9	-322.7	12.00	12.00	0.00
7,050.0	18.16	269.36	6,959.3	-915.8	325.8	-315.5	12.00	12.00	0.00

Database: EDM 5000.15 Single User Db
Company: Permian Resources Operating, LLC
Project: Eddy County, NM (NAD 83 NME)
Site: (Black Cat 16 State) Sec-16_T-19-S_R-28-E
Well: Black Cat 16 State Com 122H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Black Cat 16 State Com 122H
TVD Reference: KB @ 3553.0usft
MD Reference: KB @ 3553.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,075.0	21.16	269.36	6,982.8	-915.8	317.4	-307.1	12.00	12.00	0.00
7,100.0	24.16	269.36	7,005.9	-916.0	307.7	-297.5	12.00	12.00	0.00
7,125.0	27.16	269.36	7,028.4	-916.1	296.9	-286.7	12.00	12.00	0.00
7,150.0	30.16	269.36	7,050.4	-916.2	284.9	-274.7	12.00	12.00	0.00
7,175.0	33.16	269.36	7,071.7	-916.4	271.8	-261.5	12.00	12.00	0.00
7,199.7	36.13	269.36	7,092.0	-916.5	257.7	-247.5	12.00	12.00	0.00
SBSG									
7,200.0	36.16	269.36	7,092.2	-916.5	257.6	-247.3	12.00	12.00	0.00
7,225.0	39.16	269.36	7,112.0	-916.7	242.3	-232.1	12.00	12.00	0.00
7,250.0	42.16	269.36	7,131.0	-916.9	226.0	-215.8	12.00	12.00	0.00
7,275.0	45.16	269.36	7,149.1	-917.1	208.8	-198.5	12.00	12.00	0.00
FTP BC16 SC 122H									
7,300.0	48.16	269.36	7,166.2	-917.3	190.6	-180.3	12.00	12.00	0.00
7,325.0	51.16	269.36	7,182.4	-917.5	171.5	-161.3	12.00	12.00	0.00
7,350.0	54.16	269.36	7,197.6	-917.7	151.7	-141.4	12.00	12.00	0.00
7,375.0	57.16	269.36	7,211.7	-917.9	131.0	-120.8	12.00	12.00	0.00
7,400.0	60.16	269.36	7,224.7	-918.2	109.7	-99.4	12.00	12.00	0.00
7,425.0	63.16	269.36	7,236.5	-918.4	87.7	-77.4	12.00	12.00	0.00
7,450.0	66.16	269.36	7,247.2	-918.7	65.1	-54.8	12.00	12.00	0.00
7,475.0	69.16	269.36	7,256.7	-918.9	42.0	-31.7	12.00	12.00	0.00
7,500.0	72.16	269.36	7,265.0	-919.2	18.4	-8.1	12.00	12.00	0.00
7,525.0	75.16	269.36	7,272.0	-919.4	-5.6	15.9	12.00	12.00	0.00
7,550.0	78.16	269.36	7,277.8	-919.7	-29.9	40.2	12.00	12.00	0.00
7,575.0	81.16	269.36	7,282.3	-920.0	-54.5	64.8	12.00	12.00	0.00
7,600.0	84.16	269.36	7,285.5	-920.3	-79.3	89.6	12.00	12.00	0.00
7,618.3	86.36	269.36	7,287.0	-920.5	-97.5	107.8	12.00	12.00	0.00
Target									
7,625.0	87.16	269.36	7,287.4	-920.5	-104.2	114.5	12.00	12.00	0.00
7,648.7	90.00	269.36	7,288.0	-920.8	-127.9	138.2	12.00	12.00	0.00
LP at 7648.70 MD									
7,700.0	90.00	269.36	7,288.0	-921.4	-179.2	189.5	0.00	0.00	0.00
7,800.0	90.00	269.36	7,288.0	-922.5	-279.2	289.5	0.00	0.00	0.00
7,900.0	90.00	269.36	7,288.0	-923.6	-379.2	389.5	0.00	0.00	0.00
8,000.0	90.00	269.36	7,288.0	-924.7	-479.2	489.5	0.00	0.00	0.00
8,100.0	90.00	269.36	7,288.0	-925.8	-579.2	589.5	0.00	0.00	0.00
8,200.0	90.00	269.36	7,288.0	-926.9	-679.2	689.5	0.00	0.00	0.00
8,300.0	90.00	269.36	7,288.0	-928.0	-779.2	789.5	0.00	0.00	0.00
8,400.0	90.00	269.36	7,288.0	-929.2	-879.2	889.5	0.00	0.00	0.00
8,500.0	90.00	269.36	7,288.0	-930.3	-979.2	989.5	0.00	0.00	0.00
8,600.0	90.00	269.36	7,288.0	-931.4	-1,079.2	1,089.5	0.00	0.00	0.00
8,700.0	90.00	269.36	7,288.0	-932.5	-1,179.1	1,189.5	0.00	0.00	0.00
8,800.0	90.00	269.36	7,288.0	-933.6	-1,279.1	1,289.5	0.00	0.00	0.00
8,900.0	90.00	269.36	7,288.0	-934.7	-1,379.1	1,389.5	0.00	0.00	0.00
9,000.0	90.00	269.36	7,288.0	-935.8	-1,479.1	1,489.5	0.00	0.00	0.00
9,100.0	90.00	269.36	7,288.0	-936.9	-1,579.1	1,589.5	0.00	0.00	0.00
9,200.0	90.00	269.36	7,288.0	-938.1	-1,679.1	1,689.5	0.00	0.00	0.00
9,300.0	90.00	269.36	7,288.0	-939.2	-1,779.1	1,789.5	0.00	0.00	0.00
9,400.0	90.00	269.36	7,288.0	-940.3	-1,879.1	1,889.5	0.00	0.00	0.00
9,500.0	90.00	269.36	7,288.0	-941.4	-1,979.1	1,989.5	0.00	0.00	0.00
9,600.0	90.00	269.36	7,288.0	-942.5	-2,079.1	2,089.5	0.00	0.00	0.00
9,700.0	90.00	269.36	7,288.0	-943.6	-2,179.1	2,189.5	0.00	0.00	0.00
9,800.0	90.00	269.36	7,288.0	-944.7	-2,279.1	2,289.5	0.00	0.00	0.00
9,900.0	90.00	269.36	7,288.0	-945.8	-2,379.1	2,389.5	0.00	0.00	0.00



Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Black Cat 16 State Com 122H
Company:	Permian Resources Operating, LLC	TVD Reference:	KB @ 3553.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3553.0usft
Site:	(Black Cat 16 State) Sec-16_T-19-S_R-28-E	North Reference:	Grid
Well:	Black Cat 16 State Com 122H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,000.0	90.00	269.36	7,288.0	-947.0	-2,479.1	2,489.5	0.00	0.00	0.00	
10,100.0	90.00	269.36	7,288.0	-948.1	-2,579.1	2,589.5	0.00	0.00	0.00	
10,200.0	90.00	269.36	7,288.0	-949.2	-2,679.1	2,689.5	0.00	0.00	0.00	
10,300.0	90.00	269.36	7,288.0	-950.3	-2,779.1	2,789.5	0.00	0.00	0.00	
10,400.0	90.00	269.36	7,288.0	-951.4	-2,879.0	2,889.5	0.00	0.00	0.00	
10,500.0	90.00	269.36	7,288.0	-952.5	-2,979.0	2,989.5	0.00	0.00	0.00	
10,600.0	90.00	269.36	7,288.0	-953.6	-3,079.0	3,089.5	0.00	0.00	0.00	
10,700.0	90.00	269.36	7,288.0	-954.7	-3,179.0	3,189.5	0.00	0.00	0.00	
10,800.0	90.00	269.36	7,288.0	-955.9	-3,279.0	3,289.5	0.00	0.00	0.00	
10,900.0	90.00	269.36	7,288.0	-957.0	-3,379.0	3,389.5	0.00	0.00	0.00	
11,000.0	90.00	269.36	7,288.0	-958.1	-3,479.0	3,489.5	0.00	0.00	0.00	
11,100.0	90.00	269.36	7,288.0	-959.2	-3,579.0	3,589.5	0.00	0.00	0.00	
11,200.0	90.00	269.36	7,288.0	-960.3	-3,679.0	3,689.5	0.00	0.00	0.00	
11,300.0	90.00	269.36	7,288.0	-961.4	-3,779.0	3,789.5	0.00	0.00	0.00	
11,400.0	90.00	269.36	7,288.0	-962.5	-3,879.0	3,889.5	0.00	0.00	0.00	
11,500.0	90.00	269.36	7,288.0	-963.7	-3,979.0	3,989.5	0.00	0.00	0.00	
11,600.0	90.00	269.36	7,288.0	-964.8	-4,079.0	4,089.5	0.00	0.00	0.00	
11,700.0	90.00	269.36	7,288.0	-965.9	-4,179.0	4,189.5	0.00	0.00	0.00	
11,800.0	90.00	269.36	7,288.0	-967.0	-4,279.0	4,289.5	0.00	0.00	0.00	
11,900.0	90.00	269.36	7,288.0	-968.1	-4,379.0	4,389.5	0.00	0.00	0.00	
12,000.0	90.00	269.36	7,288.0	-969.2	-4,478.9	4,489.5	0.00	0.00	0.00	
12,100.0	90.00	269.36	7,288.0	-970.3	-4,578.9	4,589.5	0.00	0.00	0.00	
12,200.0	90.00	269.36	7,288.0	-971.4	-4,678.9	4,689.5	0.00	0.00	0.00	
12,300.0	90.00	269.36	7,288.0	-972.6	-4,778.9	4,789.5	0.00	0.00	0.00	
12,400.0	90.00	269.36	7,288.0	-973.7	-4,878.9	4,889.5	0.00	0.00	0.00	
12,500.0	90.00	269.36	7,288.0	-974.8	-4,978.9	4,989.5	0.00	0.00	0.00	
12,600.0	90.00	269.36	7,288.0	-975.9	-5,078.9	5,089.5	0.00	0.00	0.00	
12,700.0	90.00	269.36	7,288.0	-977.0	-5,178.9	5,189.5	0.00	0.00	0.00	
12,800.0	90.00	269.36	7,288.0	-978.1	-5,278.9	5,289.5	0.00	0.00	0.00	
12,900.0	90.00	269.36	7,288.0	-979.2	-5,378.9	5,389.5	0.00	0.00	0.00	
13,000.0	90.00	269.36	7,288.0	-980.3	-5,478.9	5,489.5	0.00	0.00	0.00	
13,100.0	90.00	269.36	7,288.0	-981.5	-5,578.9	5,589.5	0.00	0.00	0.00	
13,200.0	90.00	269.36	7,288.0	-982.6	-5,678.9	5,689.5	0.00	0.00	0.00	
13,300.0	90.00	269.36	7,288.0	-983.7	-5,778.9	5,789.5	0.00	0.00	0.00	
13,400.0	90.00	269.36	7,288.0	-984.8	-5,878.9	5,889.5	0.00	0.00	0.00	
13,500.0	90.00	269.36	7,288.0	-985.9	-5,978.9	5,989.5	0.00	0.00	0.00	
13,600.0	90.00	269.36	7,288.0	-987.0	-6,078.8	6,089.5	0.00	0.00	0.00	
13,700.0	90.00	269.36	7,288.0	-988.1	-6,178.8	6,189.5	0.00	0.00	0.00	
13,800.0	90.00	269.36	7,288.0	-989.2	-6,278.8	6,289.5	0.00	0.00	0.00	
13,900.0	90.00	269.36	7,288.0	-990.4	-6,378.8	6,389.5	0.00	0.00	0.00	
14,000.0	90.00	269.36	7,288.0	-991.5	-6,478.8	6,489.5	0.00	0.00	0.00	
14,100.0	90.00	269.36	7,288.0	-992.6	-6,578.8	6,589.5	0.00	0.00	0.00	
14,200.0	90.00	269.36	7,288.0	-993.7	-6,678.8	6,689.5	0.00	0.00	0.00	
14,300.0	90.00	269.36	7,288.0	-994.8	-6,778.8	6,789.5	0.00	0.00	0.00	
14,400.0	90.00	269.36	7,288.0	-995.9	-6,878.8	6,889.5	0.00	0.00	0.00	
14,500.0	90.00	269.36	7,288.0	-997.0	-6,978.8	6,989.5	0.00	0.00	0.00	
14,600.0	90.00	269.36	7,288.0	-998.1	-7,078.8	7,089.5	0.00	0.00	0.00	
14,700.0	90.00	269.36	7,288.0	-999.3	-7,178.8	7,189.5	0.00	0.00	0.00	
14,800.0	90.00	269.36	7,288.0	-1,000.4	-7,278.8	7,289.5	0.00	0.00	0.00	
14,900.0	90.00	269.36	7,288.0	-1,001.5	-7,378.8	7,389.5	0.00	0.00	0.00	
15,000.0	90.00	269.36	7,288.0	-1,002.6	-7,478.8	7,489.5	0.00	0.00	0.00	
15,100.0	90.00	269.36	7,288.0	-1,003.7	-7,578.8	7,589.5	0.00	0.00	0.00	
15,200.0	90.00	269.36	7,288.0	-1,004.8	-7,678.7	7,689.5	0.00	0.00	0.00	
15,300.0	90.00	269.36	7,288.0	-1,005.9	-7,778.7	7,789.5	0.00	0.00	0.00	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Black Cat 16 State Com 122H
Company:	Permian Resources Operating, LLC	TVD Reference:	KB @ 3553.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3553.0usft
Site:	(Black Cat 16 State) Sec-16_T-19-S_R-28-E	North Reference:	Grid
Well:	Black Cat 16 State Com 122H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,400.0	90.00	269.36	7,288.0	-1,007.0	-7,878.7	7,889.5	0.00	0.00	0.00
15,500.0	90.00	269.36	7,288.0	-1,008.2	-7,978.7	7,989.5	0.00	0.00	0.00
15,600.0	90.00	269.36	7,288.0	-1,009.3	-8,078.7	8,089.5	0.00	0.00	0.00
15,700.0	90.00	269.36	7,288.0	-1,010.4	-8,178.7	8,189.5	0.00	0.00	0.00
15,800.0	90.00	269.36	7,288.0	-1,011.5	-8,278.7	8,289.5	0.00	0.00	0.00
15,900.0	90.00	269.36	7,288.0	-1,012.6	-8,378.7	8,389.5	0.00	0.00	0.00
16,000.0	90.00	269.36	7,288.0	-1,013.7	-8,478.7	8,489.5	0.00	0.00	0.00
16,100.0	90.00	269.36	7,288.0	-1,014.8	-8,578.7	8,589.5	0.00	0.00	0.00
16,200.0	90.00	269.36	7,288.0	-1,015.9	-8,678.7	8,689.5	0.00	0.00	0.00
16,300.0	90.00	269.36	7,288.0	-1,017.1	-8,778.7	8,789.5	0.00	0.00	0.00
16,400.0	90.00	269.36	7,288.0	-1,018.2	-8,878.7	8,889.5	0.00	0.00	0.00
16,500.0	90.00	269.36	7,288.0	-1,019.3	-8,978.7	8,989.5	0.00	0.00	0.00
16,600.0	90.00	269.36	7,288.0	-1,020.4	-9,078.7	9,089.5	0.00	0.00	0.00
16,700.0	90.00	269.36	7,288.0	-1,021.5	-9,178.7	9,189.5	0.00	0.00	0.00
16,800.0	90.00	269.36	7,288.0	-1,022.6	-9,278.6	9,289.5	0.00	0.00	0.00
16,900.0	90.00	269.36	7,288.0	-1,023.7	-9,378.6	9,389.5	0.00	0.00	0.00
17,000.0	90.00	269.36	7,288.0	-1,024.8	-9,478.6	9,489.5	0.00	0.00	0.00
17,100.0	90.00	269.36	7,288.0	-1,026.0	-9,578.6	9,589.5	0.00	0.00	0.00
17,200.0	90.00	269.36	7,288.0	-1,027.1	-9,678.6	9,689.5	0.00	0.00	0.00
17,300.0	90.00	269.36	7,288.0	-1,028.2	-9,778.6	9,789.5	0.00	0.00	0.00
17,370.1	90.00	269.36	7,288.0	-1,029.0	-9,848.7	9,859.6	0.00	0.00	0.00
LTP BC16 SC 122H									
17,400.0	90.00	269.36	7,288.0	-1,029.3	-9,878.6	9,889.5	0.00	0.00	0.00
17,460.1	90.00	269.36	7,288.0	-1,030.0	-9,938.7	9,949.6	0.00	0.00	0.00
TD at 17460.10 MD - PBHL BC16 SC 122H									

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
PBHL BC16 SC 122H - plan hits target center - Point	0.00	0.00	7,288.0	-1,030.0	-9,938.7	604,701.42	580,410.78	32° 39' 44.303 N	104° 12' 22.912 W
LTP BC16 SC 122H - plan misses target center by 0.1usft at 17370.1usft MD (7288.0 TVD, -1029.0 N, -9848.7 E) - Point	0.00	0.00	7,288.0	-1,029.0	-9,848.7	604,702.34	580,500.79	32° 39' 44.311 N	104° 12' 21.859 W
FTP BC16 SC 122H - plan misses target center by 197.8usft at 7275.0usft MD (7149.1 TVD, -917.1 N, 208.8 E) - Point	0.00	0.00	7,288.0	-915.5	349.5	604,815.89	590,699.03	32° 39' 45.298 N	104° 10' 22.556 W

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Black Cat 16 State Com 122H
Company:	Permian Resources Operating, LLC	TVD Reference:	KB @ 3553.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3553.0usft
Site:	(Black Cat 16 State) Sec-16_T-19-S_R-28-E	North Reference:	Grid
Well:	Black Cat 16 State Com 122H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
207.0	207.0	Rustler		0.00	
307.0	307.0	Salado T/Salt		0.00	
672.0	672.0	Tansill		0.00	
787.0	787.0	Yate		0.00	
1,182.1	1,182.0	Seven Rivers		0.00	
1,752.8	1,746.0	Queen		0.00	
2,082.5	2,070.0	Grayburg		0.00	
2,516.0	2,496.0	San Andres		0.00	
2,939.2	2,912.0	Delaware Sands CYCN		0.00	
3,336.1	3,302.0	Bone Springs BGSL		0.00	
6,286.8	6,202.0	FBSG		0.00	
7,199.7	7,092.0	SBSG		0.00	
7,618.3	7,287.0	Target		0.00	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,000.0	1,000.0	0.0	0.0	Nudge 2°/100 at 1000.00 MD
1,531.9	1,528.9	-46.0	17.6	Hold 10.64° inc at 1531.90 MD
6,306.8	6,221.6	-869.5	332.0	Drop 2°/100 at 6306.80 MD
6,838.7	6,750.5	-915.5	349.5	Vertical at 6838.70 MD
6,898.7	6,810.5	-915.5	349.5	KOP 12°/100 at 6898.70 MD
7,648.7	7,288.0	-920.8	-127.9	LP at 7648.70 MD
17,460.1	7,288.0	-1,030.0	-9,938.7	TD at 17460.10 MD

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

CONDITIONS

Action 251054

CONDITIONS

Operator: Permian Resources Operating, LLC 1001 17th Street, Suite 1800 Denver, CO 80202	OGRID: 372165
	Action Number: 251054
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Same COA's as original APD still apply.	8/18/2023