

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.5. Lease Serial No.
NMNM02953C

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 27. If Unit or CA/Agreement, Name and/or No.
891000558X

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

JAMES RANCH UNIT DI 2 113H

2. Name of Operator

XTO PERMIAN OPERATING LLC

Contact: KELLY KARDOS

E-Mail: kelly_kardos@xtoenergy.com

9. API Well No.

30-015-45616-00-X1

3a. Address

6401 HOLIDAY HILL ROAD BLDG 5
MIDLAND, TX 79707

3b. Phone No. (include area code)

Ph: 432-620-4374

10. Field and Pool or Exploratory Area
WILDCAT

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 25 T22S R30E NESW 2600FSL 2080FWL
32.362492 N Lat, 103.836594 W Lon

11. County or Parish, State

EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A PD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

XTO Permian Operating, LLC requests permission to make the following changes to the APD:

Casing & cement design per the attached drilling program.

Change name from James Ranch Unit DI 2 WCY-8W 274H to James Ranch Unit DI 2 113H.

Change SHL from 2420'FSL & 1960'FWL to 2600'FSL & 2080'FWL. No Surface Disturbance

Change BHL from 330'FSL & 2440'FEL to 330'FSL & 2640'FEL

Attachments:

Updated C102 & Supplement

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #505914 verified by the BLM Well Information System
For XTO PERMIAN OPERATING LLC, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 03/06/2020 (20PP1476SE)

Name (Printed/Typed) KELLY KARDOS

Title REGULATORY COORDINATOR

Signature (Electronic Submission)

Date 03/06/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

ACCEPTEDTY ALLEN
Title ASSISTANT FIELD MANAGER RESOURCES

Date 03/10/2020

Conditions of approval, if any, are attached. Approval of this notice 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.

Office Carlsbad

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 on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Accepted for Record 03/27/2020 - Kurt Simmons NMOCD

Additional data for EC transaction #505914 that would not fit on the form

32. Additional remarks, continued

Casing/Cement Design
Multibowl Diagram
Updated Directional Plan

Revisions to Operator-Submitted EC Data for Sundry Notice #505914

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM02953C	NMNM02953C
Agreement:	NMNM70965X	891000558X (NMNM70965X)
Operator:	XTO PERMIAN OPERATING LLC 6401 HOLIDAY HILL RD BLDG 5 MIDLAND, TX 79707 Ph: 432-620-4374	XTO PERMIAN OPERATING LLC 6401 HOLIDAY HILL ROAD BLDG 5 MIDLAND, TX 79707 Ph: 432.683 2277
Admin Contact:	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374
Tech Contact:	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374
Location: State: County:	NM EDDY	NM EDDY
Field/Pool:	LOS MEDANOS WOLFCAMP	WILDCAT
Well/Facility:	JAMES RANCH UNIT DI 2 WCY-8W 274H Sec 25 T22S R30E Mer NMP NESW 2420FSL 1960FWL	JAMES RANCH UNIT DI 2 113H Sec 25 T22S R30E NESW 2420FSL 1960FWL 32.362492 N Lat, 103.836594 W Lon

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
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
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 30-015-45616		² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name JAMES RANCH UNIT DI 2		⁶ Well Number 113H
⁷ OGRID No. 373075	⁸ Operator Name XTO PERMIAN OPERATING, LLC.		⁹ Elevation 3,344'

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
K	25	22 S	30 E		2,600	SOUTH	2,080	WEST	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
O	28	22 S	30 E		330	SOUTH	2,640	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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 SEC. 28 T22S R30E, SEC. 27 T22S R30E, SEC. 26 T22S R30E, SEC. 25 T22S R30E GRID AZ.=223°30'37" HORIZ. DIST.=3,138.88' GRID AZ.=269°53'15" HORIZ. DIST.=13,307.60' 2640', 2590', 330', 2080', 100', 330', 2600' B.H.L., L.T.P., F.T.P., S.H.L. SURFACE LOCATION LAST TAKE POINT SURFACE LOCATION LAST TAKE POINT NAD 83 NME NAD 83 NME NAD 27 NME NAD 27 NME Y= 496,143.0 Y= 493,840.5 Y= 496,082.9 Y= 493,780.4 X= 694,831.3 X= 679,462.6 X= 653,649.3 X= 638,280.5 LAT.= 32.362987°N LAT.= 32.356845°N LAT.= 32.362865°N LAT.= 32.356723°N LONG.= 103.836207°W LONG.= 103.886012°W LONG.= 103.835715°W LONG.= 103.885519°W FIRST TAKE POINT BOTTOM HOLE LOCATION FIRST TAKE POINT BOTTOM HOLE LOCATION NAD 83 NME NAD 83 NME NAD 27 NME NAD 27 NME Y= 493,866.5 Y= 493,840.5 Y= 493,806.4 Y= 493,780.4 X= 692,670.2 X= 679,412.6 X= 651,488.1 X= 638,230.5 LAT.= 32.356757°N LAT.= 32.356845°N LAT.= 32.356635°N LAT.= 32.356723°N LONG.= 103.843240°W LONG.= 103.886174°W LONG.= 103.842748°W LONG.= 103.885681°W CORNER COORDINATES TABLE CORNER COORDINATES TABLE NAD 83 NME NAD 27 NME A - Y= 494,856.2 N, X= 692,761.8 E A - Y= 494,796.1 N, X= 651,579.7 E B - Y= 493,536.7 N, X= 692,773.0 E B - Y= 493,476.6 N, X= 651,590.9 E C - Y= 494,850.4 N, X= 690,076.2 E C - Y= 494,790.3 N, X= 648,894.1 E D - Y= 493,531.0 N, X= 690,084.5 E D - Y= 493,470.9 N, X= 648,902.4 E E - Y= 494,844.7 N, X= 687,391.3 E E - Y= 494,784.6 N, X= 646,209.2 E F - Y= 493,525.5 N, X= 687,397.5 E F - Y= 493,465.4 N, X= 646,215.4 E G - Y= 494,839.4 N, X= 684,719.9 E G - Y= 494,779.3 N, X= 643,537.9 E H - Y= 493,519.8 N, X= 684,725.1 E H - Y= 493,459.7 N, X= 643,543.0 E I - Y= 494,833.9 N, X= 682,049.4 E I - Y= 494,773.8 N, X= 640,867.4 E J - Y= 493,513.8 N, X= 682,060.2 E J - Y= 493,453.7 N, X= 640,878.1 E K - Y= 494,830.2 N, X= 679,372.2 E K - Y= 494,770.1 N, X= 638,190.2 E L - Y= 493,510.4 N, X= 679,378.0 E L - Y= 493,450.3 N, X= 638,195.9 E				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. Kelly Kardos Signature Date Printed Name 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. 08-30-2019 Date of Survey Signature and Seal of Professional Surveyor: MARK DILLON HARP 23786 Certificate Number RR/AW 2019051233					

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

DRILLING PLAN: BLM COMPLIANCE
(Supplement to BLM 3160-3)

XTO Energy Inc.

James Ranch Unit DI 2 113H

Projected TD: 27525' MD / 11179' TVD

SHL: 2600' FSL & 2080' FWL , Section 25, T22S, R30E

BHL: 330' FSL & 2640' FEL , Section 28, T22S, R30E

Eddy County, NM

1. Geologic Name of Surface Formation

A. Quaternary

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	366'	Water
Top of Salt	653'	Water
Base of Salt	3605'	Water
Bell Canyon	3907'	Water
Bone Spring Lime	7685'	Water
Lw. Avalon Sh.	8293'	Water/Oil/Gas
1st Bone Spring Ss	8750'	Water/Oil/Gas
2nd Bone Spring Carb	9206'	Water/Oil/Gas
3rd Bone Spring Carb	9851'	Water/Oil/Gas
3rd Bone Spring Shale	10069'	Water/Oil/Gas
3rd Bone Spring Ss	10569'	Water/Oil/Gas
Wolfcamp	10959'	Water/Oil/Gas
Target/Land Curve	11179'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

*** Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 18-5/8" inch casing @ 628' (25' above the salt) and circulating cement back to surface. The salt will be isolated by setting 13-3/8" inch casing at 3705' and circulating cement to surface. The second intermediate will isolate from the salt down to the next casing seat by setting 9-5/8" inch casing at 9901' and cemented back into the 13-3/8 inch casing shoe. A 8-3/4" inch curve and lateral hole will be drilled to MD/TD and 5-1/2 inch casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 9401 feet) per Potash regulations.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
24"	0' – 628'	18-5/8"	87.5	STC	H-40	New	1.44	2.22	10.17
17-1/2"	0' – 3705'	13-3/8"	68	STC	J-55	New	1.35	1.70	2.68
12-1/4"	0' – 9901'	9-5/8"	40	LTC	HCL-80	New	1.69	2.05	1.84
8-3/4"	0' – 27525'	5-1/2"	17	BTC	P-110	New	1.12	1.27	1.88

- XTO requests to not utilize centralizers in the curve and lateral
- 18-5/8" Collapse analyzed using 75% evacuation. Casing to be filled while running.
- 13-3/8" Collapse analyzed using 50% evacuation based on regional experience.
- 9-5/8" Collapse analyzed using 33% evacuation based on regional experience.
- 5-1/2" Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- Test on 2M Annular & Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less

Wellhead:

Temporary Wellhead

- 18-5/8" SOW bottom x 21-1/4" 2M top flange.

- Permanent Wellhead – GE RSH Multibowl System

A. Starting Head: 13-5/8" 5M top flange x 13-3/8" SOW bottom

B. Tubing Head: 13-5/8" 5M bottom flange x 7-1/16" 10M top flange

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 9-5/8" casing per BLM Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 18-5/8", 87.5 New H-40, STC casing to be set at +/- 628'

Lead: 430 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft³/sx, 10.13 gal/sx water)

Tail: 550 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

1st Intermediate Casing: 13-3/8", 68 New J-55, STC casing to be set at +/- 3705'

Lead: 2520 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft³/sx, 10.13 gal/sx water)

Tail: 300 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 9-5/8", 40 New HCL-80, LTC casing to be set at +/- 9901'

ECP/DV Tool to be set at 3805'

1st Stage

Lead: 1860 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft³/sx, 9.61 gal/sx water)

Tail: 230 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Stage

Lead: 1100 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft³/sx, 9.61 gal/sx water)

Tail: 230 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

Production Casing: 5-1/2", 17 New P-110, BTC casing to be set at +/- 27525'

Lead: 80 sxs NeoCem (mixed at 10.5 ppg, 2.69 ft³/sx, 12.26 gal/sx water) Top of Cement:

Tail: 3550 sxs VersaCem (mixed at 13.2 ppg, 1.61 ft³/sx, 8.38 gal/sx water) Top of Cement: **9401 feet**

Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

5. Pressure Control Equipment

The blow out preventer equipment (BOP) on surface casing temporary wellhead will consist of a 21-1/4" minimum 2M Hydril. MASP should not exceed 1131 psi.

Once the permanent WH is installed on the 13-3/8" casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. MASP should not exceed 3412 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up on the 13-3/8", 5M bradenhead and flange, the BOP test will be limited to 5M psi. When nipping up on the 9-5/8", the BOP will be tested to a minimum of 5M psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 628'	24"	FW/Native	8.4-8.8	35-40	NC
628' - 3705'	17-1/2"	Brine	9.8-10.2	30-32	NC
3705' to 9901'	12-1/4"	FW / Cut Brine	8.7-9.4	30-32	NC
9901' to 27525'	8-3/4"	Cut Brine / Polymer	9.8 - 10.1	29-32	NC - 20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 18-5/8" surface casing with brine solution. A 9.8 ppg -10.2 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

7. Auxiliary Well Control and Monitoring Equipment

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 13-3/8" casing.

8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 175 to 195 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 5871 psi.

10. Anticipated Starting Date and Duration of Operations

Road and location construction will begin after Santa Fe and BLM have approved the APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 40 days. If production casing is run, an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

James Ranch Unit DI 2 113H
 Projected TD: 27525' MD / 11179' TVD
 SHL: 2600' FSL & 2080' FWL , Section 25, T22S, R30E
 BHL: 330' FSL & 2640' FEL , Section 28, T22S, R30E
 Eddy County, NM

Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
24"	0' – 628'	18-5/8"	87.5	STC	H-40	New	1.44	2.22	10.17
17-1/2"	0' – 3705'	13-3/8"	68	STC	J-55	New	1.35	1.70	2.68
12-1/4"	0' – 9901'	9-5/8"	40	LTC	HCL-80	New	1.69	2.05	1.84
8-3/4"	0' – 27525'	5-1/2"	17	BTC	P-110	New	1.12	1.27	1.88

- XTO requests to not utilize centralizers in the curve and lateral
- 18-5/8" Collapse analyzed using 75% evacuation. Casing to be filled while running.
- 13-3/8" Collapse analyzed using 50% evacuation based on regional experience.
- 9-5/8" Collapse analyzed using 33% evacuation based on regional experience.
- 5-1/2" Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

Cement Program

Surface Casing:

Lead: 430 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
 Lead: 430 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
 Compressives: 12-hr = 900 psi 24 hr = 1500 psi

1st Intermediate Casing:

Lead: 2520 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
 Tail: 300 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
 Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing:

ECP/DV Tool to be set at 3805'

1st Stage:

Lead: 1860 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft3/sx, 9.61 gal/sx water)
 Tail: 230 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
 Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Stage:

Lead: 1100 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft3/sx, 9.61 gal/sx water)
 Tail: 230 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
 Compressives: 12-hr = 900 psi 24 hr = 1500 psi

Production Casing:

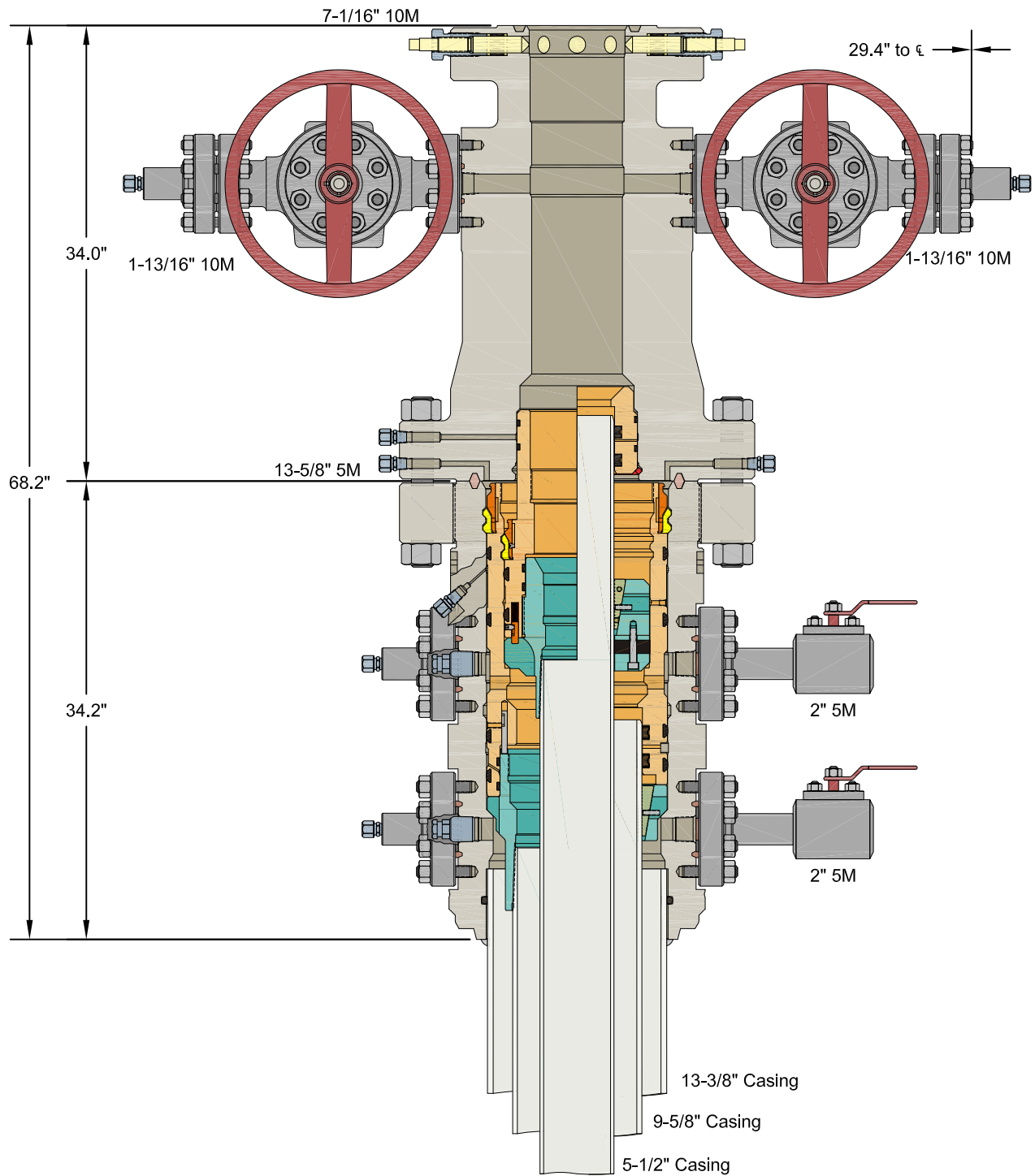
Lead: 80 sxs NeoCem (mixed at 10.5 ppg, 2.69 ft3/sx, 12.26 gal/sx water) Top of Cement:
 Tail: 3550 sxs VersaCem (mixed at 13.2 ppg, 1.61 ft3/sx, 8.38 gal/sx water) Top of Cement:
 Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

Mud Circulation Program

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 628'	24"	FW/Native	8.4-8.8	35-40	NC
628' - 3705'	17-1/2"	Brine	9.8-10.2	30-32	NC
3705' to 9901'	12-1/4"	FW / Cut Brine	8.7-9.4	30-32	NC
9901' to 27525'	8-3/4"	Cut Brine / Polymer	9.8 - 10.1	29-32	NC - 20



GE Oil & Gas



ALL DIMENSIONS ARE APPROXIMATE

This drawing is the property of GE Oil & Gas Pressure Control LP and is considered confidential. Unless otherwise approved in writing, neither it nor its contents may be used, copied, transmitted or reproduced except for the sole purpose of GE Oil & Gas Pressure Control LP.

XTO ENERGY, INC.

13-3/8" x 9-5/8" x 5-1/2" 10M RSH-2 Wellhead
Assembly, With T-EBS-F Tubing Head

DRAWN

VJK

16FEB17

APPRV

KN

16FEB17

FOR REFERENCE ONLY

DRAWING NO.

10012842

**5D Plan Report****XTO Energy**

Field Name: *XTO NAD 27 NME*
Site Name: *James Ranch Unit DI 2 Pad*
Well Name: *JRU DI 2 113H*
Plan: *P1:V3 (Current plan)*

5 March 2020





JRU DI 2 113H

Field Name: XTO NAD 27 NME	Map Units: US ft		Company Name: XTO Energy	
	Vertical Reference Datum (VRD): Mean Sea Level			
	Projected Coordinate System: NAD27 / New Mexico East			
	Comment:			
Site: James Ranch Unit DI 2 Pad	Units: US ft	North Reference: Grid	Convergence Angle: 0.27	
	Position:	Northing: 496082.70 US ft	Latitude: 32° 21' 46.32"	
		Easting: 653559.30 US ft	Longitude: -103° 50' 9.62"	
	Elevation above MSL:3344.00 US ft			
Comment: Eddy Co, NM				
Slot: JRU DI 2 113H	Position (Relative to Site Centre)			
	+N/-S: 0.20 US ft	Northing: 496082.90 US ft	Latitude: 32° 21' 46.32"	
	+E/-W: 90.00 US ft	Easting: 653649.30 US ft	Longitude: -103° 50' 8.57"	
	Elevation above MSL: 3344.00 US ft			
Comment:				
Well: JRU DI 2 113H	Type:Main well		UWI:	Plan:P1:V3 (Current plan)
	File Number:	Comment:		
	Closure Distance:15589.8US ft		Closure Azimuth:261.51°	
	Vertical Section: Position of Origin (Relative to Slot centre)			
	+N/-S: -0.00 US ft		+E/-W: -0.00 US ft	Az: 269.89°
	Magnetic Parameters:			
	Model: Need IFR	Field Strength: 47833.5nT	Declination: 6.93°	Dip: 60.06°

Drill floor: Plan: P1:V3 (Current plan)

Rig Height (Well TVD Reference): **Elevation above MSL:** 3369.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00°
25.00 US ft

Target set: JRU DI 2 113H Comment:									
Target Name:	C.Pt.MD (USFt)	TVD (US ft)	TVD (MSL) (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (USFt)	Easting (USFt)	C.Pt.Distance (US ft)	Comment
FTP	14267.08	11176.00	7807.00	-2276.50	-2161.20	493806.40	651488.10	0.00	
9000'VS	21101.51	11169.00	7800.00	-2289.88	-8995.62	493793.02	644653.68	0.00	
LTP 2590' FWL	27474.94	11114.43	7745.43	-2302.50	-15368.80	493780.40	638280.50	0.10	
PBHL 113H	27524.94	11114.00	7745.00	-2302.50	-15418.80	493780.40	638230.50	0.00	

Tie Point:

MD: 0.00 USFt **Inclination:** 0.00° **Azimuth:** 0.00° **TVD:** 0.00 USFt **North Offset:** - 0.00 USFt **East Offset:** - 0.00 USFt

Survey Tool Ranges: (Using Anticipated Survey Programme)

Name	Start MD(USFt)	End MD(USFt)	Source Survey
MWD + IFR	0.00	3000.00	ASP
MWD + IFR + MS	3000.00	27527.00	ASP

5D Plan Report

Wellpath created using minimum curvature.

Salient Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)												
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	B.Rate (°/100US ft)	T.Rate (°/100US ft)	T.Face (°)	DLS (°/100US ft)	Comment
0.00	0.00	0.00	0.00	-3369.00	-0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	
3000.00	0.00	0.00	3000.00	-369.00	-0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	Nudge
3266.67	4.00	110.00	3266.45	-102.55	-8.74	-3.18	8.74	1.50	0.00	110.00	1.50	Hold
3566.67	4.00	110.00	3565.72	196.72	-28.39	-10.34	28.41	0.00	0.00	0.00	0.00	Drop
3833.33	0.00	0.00	3832.17	463.17	-37.13	-13.52	37.15	-1.50	0.00	180.00	1.50	Hold
10607.20	0.00	0.00	10606.04	7237.04	-37.13	-13.52	37.15	0.00	0.00	0.00	0.00	KOP
11507.80	90.06	211.00	11179.00	7810.00	259.22	-505.16	-258.25	10.00	0.00	211.00	10.00	LP
12763.83	90.06	211.00	11177.68	7808.68	908.19	-1581.78	-905.16	0.00	0.00	0.00	0.00	Turn
14235.96	90.06	269.88	11176.03	7807.03	2134.44	-2276.44	-2130.08	-0.00	4.00	89.97	4.00	Hold
14267.08	90.06	269.88	11176.00	7807.00	2165.57	-2276.50	-2161.20	0.00	0.00	0.00	0.00	FTP
21101.51	90.06	269.89	11169.00	7800.00	9000.00	-2289.88	-8995.62	0.00	0.00	60.47	0.00	9000'VS
21123.06	90.49	269.89	11168.90	7799.90	9021.55	-2289.92	-9017.17	2.00	-0.02	359.55	2.00	Hold
27474.94	90.49	269.89	11114.43	7745.43	15373.19	-2302.40	-15368.80	0.00	0.00	0.00	0.00	LTP 2590' FWL
27524.94	90.49	269.89	11114.00	7745.00	15423.19	-2302.50	-15418.80	0.00	0.00	0.00	0.00	PBHL 113H

Interpolated Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
0.00	0.00	0.00	0.00	-3369.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
100.00	0.00	0.00	100.00	-3269.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
200.00	0.00	0.00	200.00	-3169.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
300.00	0.00	0.00	300.00	-3069.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
400.00	0.00	0.00	400.00	-2969.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
500.00	0.00	0.00	500.00	-2869.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
600.00	0.00	0.00	600.00	-2769.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
700.00	0.00	0.00	700.00	-2669.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
800.00	0.00	0.00	800.00	-2569.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
900.00	0.00	0.00	900.00	-2469.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
1000.00	0.00	0.00	1000.00	-2369.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
1100.00	0.00	0.00	1100.00	-2269.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
1200.00	0.00	0.00	1200.00	-2169.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
1300.00	0.00	0.00	1300.00	-2069.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
1400.00	0.00	0.00	1400.00	-1969.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
1500.00	0.00	0.00	1500.00	-1869.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
1600.00	0.00	0.00	1600.00	-1769.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
1700.00	0.00	0.00	1700.00	-1669.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
1800.00	0.00	0.00	1800.00	-1569.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
1900.00	0.00	0.00	1900.00	-1469.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
2000.00	0.00	0.00	2000.00	-1369.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
2100.00	0.00	0.00	2100.00	-1269.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
2200.00	0.00	0.00	2200.00	-1169.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
2300.00	0.00	0.00	2300.00	-1069.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
2400.00	0.00	0.00	2400.00	-969.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
2500.00	0.00	0.00	2500.00	-869.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
2600.00	0.00	0.00	2600.00	-769.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
2700.00	0.00	0.00	2700.00	-669.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
2800.00	0.00	0.00	2800.00	-569.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
2900.00	0.00	0.00	2900.00	-469.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	
3000.00	0.00	0.00	3000.00	-369.00	-0.00	-0.00	-0.00	496082.90	653649.30	0.00	Nudge
3100.00	1.50	110.00	3099.99	-269.01	-1.23	-0.45	1.23	496082.45	653650.53	1.50	
3200.00	3.00	110.00	3199.91	-169.09	-4.92	-1.79	4.92	496081.11	653654.22	1.50	
3266.67	4.00	110.00	3266.45	-102.55	-8.74	-3.18	8.74	496079.72	653658.04	1.50	Hold
3300.00	4.00	110.00	3299.70	-69.30	-10.92	-3.98	10.93	496078.92	653660.23	0.00	
3400.00	4.00	110.00	3399.46	30.46	-17.47	-6.36	17.48	496076.54	653666.78	0.00	
3500.00	4.00	110.00	3499.22	130.22	-24.02	-8.75	24.04	496074.15	653673.34	0.00	
3566.67	4.00	110.00	3565.72	196.72	-28.39	-10.34	28.41	496072.56	653677.71	0.00	Drop

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
3600.00	3.50	110.00	3598.98	229.98	-30.44	-11.09	30.46	496071.81	653679.76	1.50	
3700.00	2.00	110.00	3698.86	329.86	-34.94	-12.73	34.97	496070.17	653684.27	1.50	
3800.00	0.50	110.00	3798.84	429.84	-36.99	-13.47	37.02	496069.43	653686.32	1.50	
3833.33	0.00	0.00	3832.17	463.17	-37.13	-13.52	37.15	496069.38	653686.45	1.50	Hold
3900.00	0.00	0.00	3898.84	529.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
4000.00	0.00	0.00	3998.84	629.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
4100.00	0.00	0.00	4098.84	729.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
4200.00	0.00	0.00	4198.84	829.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
4300.00	0.00	0.00	4298.84	929.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
4400.00	0.00	0.00	4398.84	1029.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
4500.00	0.00	0.00	4498.84	1129.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
4600.00	0.00	0.00	4598.84	1229.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
4700.00	0.00	0.00	4698.84	1329.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
4800.00	0.00	0.00	4798.84	1429.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
4900.00	0.00	0.00	4898.84	1529.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
5000.00	0.00	0.00	4998.84	1629.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
5100.00	0.00	0.00	5098.84	1729.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
5200.00	0.00	0.00	5198.84	1829.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
5300.00	0.00	0.00	5298.84	1929.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
5400.00	0.00	0.00	5398.84	2029.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
5500.00	0.00	0.00	5498.84	2129.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
5600.00	0.00	0.00	5598.84	2229.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
5700.00	0.00	0.00	5698.84	2329.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
5800.00	0.00	0.00	5798.84	2429.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
5900.00	0.00	0.00	5898.84	2529.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
6000.00	0.00	0.00	5998.84	2629.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
6100.00	0.00	0.00	6098.84	2729.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
6200.00	0.00	0.00	6198.84	2829.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
6300.00	0.00	0.00	6298.84	2929.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
6400.00	0.00	0.00	6398.84	3029.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
6500.00	0.00	0.00	6498.84	3129.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
6600.00	0.00	0.00	6598.84	3229.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
6700.00	0.00	0.00	6698.84	3329.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
6800.00	0.00	0.00	6798.84	3429.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
6900.00	0.00	0.00	6898.84	3529.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
7000.00	0.00	0.00	6998.84	3629.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
7100.00	0.00	0.00	7098.84	3729.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
7200.00	0.00	0.00	7198.84	3829.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
7300.00	0.00	0.00	7298.84	3929.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
7400.00	0.00	0.00	7398.84	4029.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
7500.00	0.00	0.00	7498.84	4129.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
7600.00	0.00	0.00	7598.84	4229.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
7700.00	0.00	0.00	7698.84	4329.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
7800.00	0.00	0.00	7798.84	4429.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
7900.00	0.00	0.00	7898.84	4529.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
8000.00	0.00	0.00	7998.84	4629.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
8100.00	0.00	0.00	8098.84	4729.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
8200.00	0.00	0.00	8198.84	4829.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
8300.00	0.00	0.00	8298.84	4929.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
8400.00	0.00	0.00	8398.84	5029.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
8500.00	0.00	0.00	8498.84	5129.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
8600.00	0.00	0.00	8598.84	5229.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
8700.00	0.00	0.00	8698.84	5329.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
8800.00	0.00	0.00	8798.84	5429.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
8900.00	0.00	0.00	8898.84	5529.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
9000.00	0.00	0.00	8998.84	5629.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
9100.00	0.00	0.00	9098.84	5729.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
9200.00	0.00	0.00	9198.84	5829.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
9300.00	0.00	0.00	9298.84	5929.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
9400.00	0.00	0.00	9398.84	6029.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
9500.00	0.00	0.00	9498.84	6129.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
9600.00	0.00	0.00	9598.84	6229.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
9700.00	0.00	0.00	9698.84	6329.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
9800.00	0.00	0.00	9798.84	6429.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
9900.00	0.00	0.00	9898.84	6529.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
10000.00	0.00	0.00	9998.84	6629.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
10100.00	0.00	0.00	10098.84	6729.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
10200.00	0.00	0.00	10198.84	6829.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
10300.00	0.00	0.00	10298.84	6929.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
10400.00	0.00	0.00	10398.84	7029.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
10500.00	0.00	0.00	10498.84	7129.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
10600.00	0.00	0.00	10598.84	7229.84	-37.13	-13.52	37.15	496069.38	653686.45	0.00	
10607.20	0.00	0.00	10606.04	7237.04	-37.13	-13.52	37.15	496069.38	653686.45	0.00	KOP
10700.00	9.28	211.00	10698.43	7329.43	-33.25	-19.95	33.29	496062.95	653682.59	10.00	
10800.00	19.28	211.00	10795.22	7426.22	-20.52	-41.06	20.60	496041.84	653669.90	10.00	
10900.00	29.28	211.00	10886.26	7517.26	0.69	-76.27	-0.55	496006.63	653648.75	10.00	
11000.00	39.28	211.00	10968.78	7599.78	29.76	-124.48	-29.52	495958.42	653619.78	10.00	
11100.00	49.28	211.00	11040.29	7671.29	65.79	-184.25	-65.43	495898.65	653583.87	10.00	
11200.00	59.28	211.00	11098.59	7729.59	107.68	-253.75	-107.19	495829.15	653542.11	10.00	
11300.00	69.28	211.00	11141.94	7772.94	154.17	-330.88	-153.54	495752.02	653495.76	10.00	
11400.00	79.28	211.00	11169.00	7800.00	203.84	-413.29	-203.05	495669.61	653446.25	10.00	
11500.00	89.28	211.00	11178.95	7809.95	255.19	-498.47	-254.23	495584.43	653395.07	10.00	
11507.80	90.06	211.00	11179.00	7810.00	259.22	-505.16	-258.25	495577.74	653391.05	10.00	LP
11600.00	90.06	211.00	11178.90	7809.90	306.86	-584.18	-305.74	495498.72	653343.56	0.00	
11700.00	90.06	211.00	11178.80	7809.80	358.53	-669.90	-357.24	495413.00	653292.06	0.00	
11800.00	90.06	211.00	11178.69	7809.69	410.19	-755.62	-408.74	495327.28	653240.56	0.00	
11900.00	90.06	211.00	11178.59	7809.59	461.86	-841.33	-460.25	495241.57	653189.05	0.00	
12000.00	90.06	211.00	11178.48	7809.48	513.53	-927.05	-511.75	495155.85	653137.55	0.00	
12100.00	90.06	211.00	11178.38	7809.38	565.20	-1012.77	-563.26	495070.13	653086.04	0.00	
12200.00	90.06	211.00	11178.27	7809.27	616.87	-1098.48	-614.76	494984.42	653034.54	0.00	
12300.00	90.06	211.00	11178.17	7809.17	668.54	-1184.20	-666.26	494898.70	652983.04	0.00	
12400.00	90.06	211.00	11178.06	7809.06	720.20	-1269.92	-717.77	494812.98	652931.53	0.00	
12500.00	90.06	211.00	11177.96	7808.96	771.87	-1355.63	-769.27	494727.27	652880.03	0.00	
12600.00	90.06	211.00	11177.85	7808.85	823.54	-1441.35	-820.77	494641.55	652828.53	0.00	
12700.00	90.06	211.00	11177.75	7808.75	875.21	-1527.07	-872.28	494555.83	652777.02	0.00	
12763.83	90.06	211.00	11177.68	7808.68	908.19	-1581.78	-905.16	494501.12	652744.14	0.00	Turn
12800.00	90.06	212.45	11177.64	7808.64	927.27	-1612.55	-924.17	494470.35	652725.13	4.00	
12900.00	90.06	216.45	11177.54	7808.54	983.98	-1694.99	-980.72	494387.91	652668.58	4.00	
13000.00	90.06	220.45	11177.43	7808.43	1046.29	-1773.30	-1042.89	494309.60	652606.41	4.00	
13100.00	90.07	224.45	11177.31	7808.31	1113.91	-1847.07	-1110.37	494235.83	652538.93	4.00	
13200.00	90.07	228.45	11177.20	7808.20	1186.50	-1915.96	-1182.82	494166.94	652466.48	4.00	
13300.00	90.07	232.45	11177.08	7808.08	1263.71	-1979.63	-1259.91	494103.27	652389.39	4.00	
13400.00	90.07	236.45	11176.96	7807.96	1345.16	-2037.76	-1341.25	494045.14	652308.05	4.00	
13500.00	90.07	240.45	11176.85	7807.85	1430.46	-2090.08	-1426.45	493992.82	652222.85	4.00	
13600.00	90.07	244.45	11176.73	7807.73	1519.19	-2136.33	-1515.09	493946.57	652134.21	4.00	
13700.00	90.07	248.45	11176.61	7807.61	1610.92	-2176.28	-1606.74	493906.62	652042.56	4.00	
13800.00	90.07	252.45	11176.50	7807.50	1705.19	-2209.74	-1700.96	493873.16	651948.34	4.00	
13900.00	90.06	256.45	11176.39	7807.39	1801.56	-2236.55	-1797.27	493846.35	651852.03	4.00	
14000.00	90.06	260.45	11176.28	7807.28	1899.56	-2256.58	-1895.23	493826.32	651754.07	4.00	
14100.00	90.06	264.45	11176.17	7807.17	1998.69	-2269.72	-1994.34	493813.18	651654.96	4.00	
14200.00	90.06	268.45	11176.07	7807.07	2098.49	-2275.91	-2094.13	493806.99	651555.17	4.00	
14235.96	90.06	269.88	11176.03	7807.03	2134.44	-2276.44	-2130.08	493806.46	651519.22	4.00	Hold
14267.08	90.06	269.88	11176.00	7807.00	2165.57	-2276.50	-2161.20	493806.40	651488.10	0.00	FTP
14300.00	90.06	269.88	11175.97	7806.97	2198.49	-2276.57	-2194.12	493806.33	651455.18	0.00	
14400.00	90.06	269.88	11175.87	7806.87	2298.49	-2276.77	-2294.12	493806.13	651355.18	0.00	
14500.00	90.06	269.88	11175.77	7806.77	2398.49	-2276.97	-2394.12	493805.93	651255.18	0.00	

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
14600.00	90.06	269.89	11175.67	7806.67	2498.49	-2277.17	-2494.12	493805.73	651155.18	0.00	
14700.00	90.06	269.89	11175.57	7806.57	2598.49	-2277.37	-2594.12	493805.53	651055.18	0.00	
14800.00	90.06	269.89	11175.47	7806.47	2698.49	-2277.57	-2694.12	493805.33	650955.18	0.00	
14900.00	90.06	269.89	11175.37	7806.37	2798.49	-2277.77	-2794.12	493805.13	650855.18	0.00	
15000.00	90.06	269.89	11175.27	7806.27	2898.49	-2277.97	-2894.12	493804.93	650755.18	0.00	
15100.00	90.06	269.89	11175.17	7806.17	2998.49	-2278.17	-2994.12	493804.73	650655.18	0.00	
15200.00	90.06	269.89	11175.07	7806.07	3098.49	-2278.37	-3094.12	493804.53	650555.18	0.00	
15300.00	90.06	269.89	11174.97	7805.97	3198.49	-2278.57	-3194.12	493804.33	650455.18	0.00	
15400.00	90.06	269.89	11174.87	7805.87	3298.49	-2278.77	-3294.12	493804.13	650355.18	0.00	
15500.00	90.06	269.89	11174.77	7805.77	3398.49	-2278.97	-3394.12	493803.93	650255.18	0.00	
15600.00	90.06	269.89	11174.67	7805.67	3498.49	-2279.16	-3494.12	493803.74	650155.18	0.00	
15700.00	90.06	269.89	11174.57	7805.57	3598.49	-2279.36	-3594.12	493803.54	650055.18	0.00	
15800.00	90.06	269.89	11174.46	7805.46	3698.49	-2279.56	-3694.12	493803.34	649955.18	0.00	
15900.00	90.06	269.89	11174.36	7805.36	3798.49	-2279.76	-3794.12	493803.14	649855.18	0.00	
16000.00	90.06	269.89	11174.26	7805.26	3898.49	-2279.96	-3894.12	493802.94	649755.18	0.00	
16100.00	90.06	269.89	11174.16	7805.16	3998.49	-2280.16	-3994.12	493802.74	649655.18	0.00	
16200.00	90.06	269.89	11174.06	7805.06	4098.49	-2280.36	-4094.12	493802.54	649555.18	0.00	
16300.00	90.06	269.89	11173.96	7804.96	4198.49	-2280.55	-4194.12	493802.35	649455.18	0.00	
16400.00	90.06	269.89	11173.86	7804.86	4298.49	-2280.75	-4294.12	493802.15	649355.18	0.00	
16500.00	90.06	269.89	11173.76	7804.76	4398.49	-2280.95	-4394.12	493801.95	649255.18	0.00	
16600.00	90.06	269.89	11173.66	7804.66	4498.49	-2281.15	-4494.12	493801.75	649155.18	0.00	
16700.00	90.06	269.89	11173.55	7804.55	4598.49	-2281.34	-4594.12	493801.56	649055.18	0.00	
16800.00	90.06	269.89	11173.45	7804.45	4698.49	-2281.54	-4694.12	493801.36	648955.18	0.00	
16900.00	90.06	269.89	11173.35	7804.35	4798.49	-2281.74	-4794.12	493801.16	648855.18	0.00	
17000.00	90.06	269.89	11173.25	7804.25	4898.49	-2281.93	-4894.12	493800.97	648755.18	0.00	
17100.00	90.06	269.89	11173.15	7804.15	4998.49	-2282.13	-4994.12	493800.77	648655.18	0.00	
17200.00	90.06	269.89	11173.04	7804.04	5098.49	-2282.33	-5094.11	493800.57	648555.19	0.00	
17300.00	90.06	269.89	11172.94	7803.94	5198.49	-2282.52	-5194.11	493800.38	648455.19	0.00	
17400.00	90.06	269.89	11172.84	7803.84	5298.49	-2282.72	-5294.11	493800.18	648355.19	0.00	
17500.00	90.06	269.89	11172.74	7803.74	5398.49	-2282.92	-5394.11	493799.98	648255.19	0.00	
17600.00	90.06	269.89	11172.64	7803.64	5498.49	-2283.11	-5494.11	493799.79	648155.19	0.00	
17700.00	90.06	269.89	11172.53	7803.53	5598.49	-2283.31	-5594.11	493799.59	648055.19	0.00	
17800.00	90.06	269.89	11172.43	7803.43	5698.49	-2283.50	-5694.11	493799.40	647955.19	0.00	
17900.00	90.06	269.89	11172.33	7803.33	5798.49	-2283.70	-5794.11	493799.20	647855.19	0.00	
18000.00	90.06	269.89	11172.23	7803.23	5898.49	-2283.90	-5894.11	493799.00	647755.19	0.00	
18100.00	90.06	269.89	11172.12	7803.12	5998.49	-2284.09	-5994.11	493798.81	647655.19	0.00	
18200.00	90.06	269.89	11172.02	7803.02	6098.49	-2284.29	-6094.11	493798.61	647555.19	0.00	
18300.00	90.06	269.89	11171.92	7802.92	6198.49	-2284.48	-6194.11	493798.42	647455.19	0.00	
18400.00	90.06	269.89	11171.81	7802.81	6298.49	-2284.68	-6294.11	493798.22	647355.19	0.00	
18500.00	90.06	269.89	11171.71	7802.71	6398.49	-2284.87	-6394.11	493798.03	647255.19	0.00	
18600.00	90.06	269.89	11171.61	7802.61	6498.49	-2285.06	-6494.11	493797.84	647155.19	0.00	
18700.00	90.06	269.89	11171.51	7802.51	6598.49	-2285.26	-6594.11	493797.64	647055.19	0.00	
18800.00	90.06	269.89	11171.40	7802.40	6698.49	-2285.45	-6694.11	493797.45	646955.19	0.00	
18900.00	90.06	269.89	11171.30	7802.30	6798.49	-2285.65	-6794.11	493797.25	646855.19	0.00	
19000.00	90.06	269.89	11171.19	7802.19	6898.49	-2285.84	-6894.11	493797.06	646755.19	0.00	
19100.00	90.06	269.89	11171.09	7802.09	6998.49	-2286.03	-6994.11	493796.87	646655.19	0.00	
19200.00	90.06	269.89	11170.99	7801.99	7098.49	-2286.23	-7094.11	493796.67	646555.19	0.00	
19300.00	90.06	269.89	11170.88	7801.88	7198.49	-2286.42	-7194.11	493796.48	646455.19	0.00	
19400.00	90.06	269.89	11170.78	7801.78	7298.49	-2286.61	-7294.11	493796.29	646355.19	0.00	
19500.00	90.06	269.89	11170.68	7801.68	7398.49	-2286.81	-7394.11	493796.09	646255.19	0.00	
19600.00	90.06	269.89	11170.57	7801.57	7498.49	-2287.00	-7494.11	493795.90	646155.19	0.00	
19700.00	90.06	269.89	11170.47	7801.47	7598.49	-2287.19	-7594.11	493795.71	646055.19	0.00	
19800.00	90.06	269.89	11170.36	7801.36	7698.49	-2287.39	-7694.11	493795.51	645955.19	0.00	
19900.00	90.06	269.89	11170.26	7801.26	7798.49	-2287.58	-7794.11	493795.32	645855.19	0.00	
20000.00	90.06	269.89	11170.16	7801.16	7898.49	-2287.77	-7894.11	493795.13	645755.19	0.00	
20100.00	90.06	269.89	11170.05	7801.05	7998.49	-2287.96	-7994.11	493794.94	645655.19	0.00	
20200.00	90.06	269.89	11169.95	7800.95	8098.49	-2288.16	-8094.11	493794.74	645555.19	0.00	
20300.00	90.06	269.89	11169.84	7800.84	8198.49	-2288.35	-8194.11	493794.55	645455.19	0.00	

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
20400.00	90.06	269.89	11169.74	7800.74	8298.49	-2288.54	-8294.11	493794.36	645355.19	0.00	
20500.00	90.06	269.89	11169.63	7800.63	8398.49	-2288.73	-8394.11	493794.17	645255.19	0.00	
20600.00	90.06	269.89	11169.53	7800.53	8498.49	-2288.92	-8494.11	493793.98	645155.19	0.00	
20700.00	90.06	269.89	11169.42	7800.42	8598.49	-2289.11	-8594.11	493793.79	645055.19	0.00	
20800.00	90.06	269.89	11169.32	7800.32	8698.49	-2289.30	-8694.11	493793.60	644955.19	0.00	
20900.00	90.06	269.89	11169.21	7800.21	8798.49	-2289.50	-8794.11	493793.40	644855.19	0.00	
21000.00	90.06	269.89	11169.11	7800.11	8898.49	-2289.69	-8894.11	493793.21	644755.19	0.00	
21100.00	90.06	269.89	11169.00	7800.00	8998.49	-2289.88	-8994.11	493793.02	644655.19	0.00	
21101.51	90.06	269.89	11169.00	7800.00	9000.00	-2289.88	-8995.62	493793.02	644653.68	0.00	9000'VS
21123.06	90.49	269.89	11168.90	7799.90	9021.55	-2289.92	-9017.17	493792.98	644632.13	2.00	HOLD
21200.00	90.49	269.89	11168.24	7799.24	9098.48	-2290.07	-9094.10	493792.83	644555.20	0.00	
21300.00	90.49	269.89	11167.38	7798.38	9198.48	-2290.27	-9194.10	493792.63	644455.20	0.00	
21400.00	90.49	269.89	11166.52	7797.52	9298.47	-2290.47	-9294.09	493792.43	644355.21	0.00	
21500.00	90.49	269.89	11165.66	7796.66	9398.47	-2290.66	-9394.09	493792.24	644255.21	0.00	
21600.00	90.49	269.89	11164.81	7795.81	9498.47	-2290.86	-9494.09	493792.04	644155.21	0.00	
21700.00	90.49	269.89	11163.95	7794.95	9598.46	-2291.06	-9594.08	493791.84	644055.22	0.00	
21800.00	90.49	269.89	11163.09	7794.09	9698.46	-2291.25	-9694.08	493791.65	643955.22	0.00	
21900.00	90.49	269.89	11162.23	7793.23	9798.46	-2291.45	-9794.08	493791.45	643855.22	0.00	
22000.00	90.49	269.89	11161.38	7792.38	9898.45	-2291.64	-9894.07	493791.26	643755.23	0.00	
22100.00	90.49	269.89	11160.52	7791.52	9998.45	-2291.84	-9994.07	493791.06	643655.23	0.00	
22200.00	90.49	269.89	11159.66	7790.66	10098.45	-2292.04	-10094.06	493790.86	643555.24	0.00	
22300.00	90.49	269.89	11158.80	7789.80	10198.44	-2292.23	-10194.06	493790.67	643455.24	0.00	
22400.00	90.49	269.89	11157.95	7788.95	10298.44	-2292.43	-10294.06	493790.47	643355.24	0.00	
22500.00	90.49	269.89	11157.09	7788.09	10398.43	-2292.63	-10394.05	493790.27	643255.25	0.00	
22600.00	90.49	269.89	11156.23	7787.23	10498.43	-2292.82	-10494.05	493790.08	643155.25	0.00	
22700.00	90.49	269.89	11155.37	7786.37	10598.43	-2293.02	-10594.04	493789.88	643055.26	0.00	
22800.00	90.49	269.89	11154.52	7785.52	10698.42	-2293.22	-10694.04	493789.68	642955.26	0.00	
22900.00	90.49	269.89	11153.66	7784.66	10798.42	-2293.41	-10794.04	493789.49	642855.26	0.00	
23000.00	90.49	269.89	11152.80	7783.80	10898.42	-2293.61	-10894.03	493789.29	642755.27	0.00	
23100.00	90.49	269.89	11151.94	7782.94	10998.41	-2293.81	-10994.03	493789.09	642655.27	0.00	
23200.00	90.49	269.89	11151.09	7782.09	11098.41	-2294.00	-11094.02	493788.90	642555.28	0.00	
23300.00	90.49	269.89	11150.23	7781.23	11198.40	-2294.20	-11194.02	493788.70	642455.28	0.00	
23400.00	90.49	269.89	11149.37	7780.37	11298.40	-2294.40	-11294.02	493788.50	642355.28	0.00	
23500.00	90.49	269.89	11148.51	7779.51	11398.40	-2294.59	-11394.01	493788.31	642255.29	0.00	
23600.00	90.49	269.89	11147.66	7778.66	11498.39	-2294.79	-11494.01	493788.11	642155.29	0.00	
23700.00	90.49	269.89	11146.80	7777.80	11598.39	-2294.98	-11594.01	493787.92	642055.29	0.00	
23800.00	90.49	269.89	11145.94	7776.94	11698.39	-2295.18	-11694.00	493787.72	641955.30	0.00	
23900.00	90.49	269.89	11145.08	7776.08	11798.38	-2295.38	-11794.00	493787.52	641855.30	0.00	
24000.00	90.49	269.89	11144.23	7775.23	11898.38	-2295.57	-11893.99	493787.33	641755.31	0.00	
24100.00	90.49	269.89	11143.37	7774.37	11998.38	-2295.77	-11993.99	493787.13	641655.31	0.00	
24200.00	90.49	269.89	11142.51	7773.51	12098.37	-2295.97	-12093.99	493786.93	641555.31	0.00	
24300.00	90.49	269.89	11141.65	7772.65	12198.37	-2296.16	-12193.98	493786.74	641455.32	0.00	
24400.00	90.49	269.89	11140.80	7771.80	12298.36	-2296.36	-12293.98	493786.54	641355.32	0.00	
24500.00	90.49	269.89	11139.94	7770.94	12398.36	-2296.56	-12393.97	493786.34	641255.33	0.00	
24600.00	90.49	269.89	11139.08	7770.08	12498.36	-2296.75	-12493.97	493786.15	641155.33	0.00	
24700.00	90.49	269.89	11138.22	7769.22	12598.35	-2296.95	-12593.97	493785.95	641055.33	0.00	
24800.00	90.49	269.89	11137.37	7768.37	12698.35	-2297.15	-12693.96	493785.75	640955.34	0.00	
24900.00	90.49	269.89	11136.51	7767.51	12798.35	-2297.34	-12793.96	493785.56	640855.34	0.00	
25000.00	90.49	269.89	11135.65	7766.65	12898.34	-2297.54	-12893.96	493785.36	640755.34	0.00	
25100.00	90.49	269.89	11134.79	7765.79	12998.34	-2297.74	-12993.95	493785.16	640655.35	0.00	
25200.00	90.49	269.89	11133.94	7764.94	13098.34	-2297.93	-13093.95	493784.97	640555.35	0.00	
25300.00	90.49	269.89	11133.08	7764.08	13198.33	-2298.13	-13193.94	493784.77	640455.36	0.00	
25400.00	90.49	269.89	11132.22	7763.22	13298.33	-2298.32	-13293.94	493784.58	640355.36	0.00	
25500.00	90.49	269.89	11131.36	7762.36	13398.32	-2298.52	-13393.94	493784.38	640255.36	0.00	
25600.00	90.49	269.89	11130.51	7761.51	13498.32	-2298.72	-13493.93	493784.18	640155.37	0.00	
25700.00	90.49	269.89	11129.65	7760.65	13598.32	-2298.91	-13593.93	493783.99	640055.37	0.00	
25800.00	90.49	269.89	11128.79	7759.79	13698.31	-2299.11	-13693.92	493783.79	639955.38	0.00	
25900.00	90.49	269.89	11127.93	7758.93	13798.31	-2299.31	-13793.92	493783.59	639855.38	0.00	

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											Comment
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	
26000.00	90.49	269.89	11127.08	7758.08	13898.31	-2299.50	-13893.92	493783.40	639755.38	0.00	
26100.00	90.49	269.89	11126.22	7757.22	13998.30	-2299.70	-13993.91	493783.20	639655.39	0.00	
26200.00	90.49	269.89	11125.36	7756.36	14098.30	-2299.90	-14093.91	493783.00	639555.39	0.00	
26300.00	90.49	269.89	11124.50	7755.50	14198.29	-2300.09	-14193.90	493782.81	639455.40	0.00	
26400.00	90.49	269.89	11123.65	7754.65	14298.29	-2300.29	-14293.90	493782.61	639355.40	0.00	
26500.00	90.49	269.89	11122.79	7753.79	14398.29	-2300.49	-14393.90	493782.41	639255.40	0.00	
26600.00	90.49	269.89	11121.93	7752.93	14498.28	-2300.68	-14493.89	493782.22	639155.41	0.00	
26700.00	90.49	269.89	11121.07	7752.07	14598.28	-2300.88	-14593.89	493782.02	639055.41	0.00	
26800.00	90.49	269.89	11120.22	7751.22	14698.28	-2301.08	-14693.89	493781.82	638955.41	0.00	
26900.00	90.49	269.89	11119.36	7750.36	14798.27	-2301.27	-14793.88	493781.63	638855.42	0.00	
27000.00	90.49	269.89	11118.50	7749.50	14898.27	-2301.47	-14893.88	493781.43	638755.42	0.00	
27100.00	90.49	269.89	11117.64	7748.64	14998.27	-2301.67	-14993.87	493781.23	638655.43	0.00	
27200.00	90.49	269.89	11116.79	7747.79	15098.26	-2301.86	-15093.87	493781.04	638555.43	0.00	
27300.00	90.49	269.89	11115.93	7746.93	15198.26	-2302.06	-15193.87	493780.84	638455.43	0.00	
27400.00	90.49	269.89	11115.07	7746.07	15298.25	-2302.25	-15293.86	493780.65	638355.44	0.00	
27474.94	90.49	269.89	11114.43	7745.43	15373.19	-2302.40	-15368.80	493780.50	638280.50	0.00	LTP 2590' FWL
27500.00	90.49	269.89	11114.21	7745.21	15398.25	-2302.45	-15393.86	493780.45	638255.44	0.00	
27524.94	90.49	269.89	11114.00	7745.00	15423.19	-2302.50	-15418.80	493780.40	638230.50	0.00	PBHL 113H