

Form 3160-3
(June 2015)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 20185. Lease Serial No.
NMLC0064828A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.
NMNM 068294X

8. Lease Name and Well No.

BIG EDDY UNIT 38E STARK
107H9. API Well No.
30 015 4714110. Field and Pool, or Exploratory
WILDCAT BONE SPRING/null11. Sec., T. R. M. or Blk. and Survey or Area
SEC 28/T22S/R29E/NMP1a. Type of work: ☒ DRILL ☐ REENTER
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other
1c. Type of Completion: ☐ Hydraulic Fracturing ☒ Single Zone ☐ Multiple Zone2. Name of Operator
XTO PERMIAN OPERATING LLC3a. Address
6401 Holiday Hill Road, Bldg 5, Midland, TX 797073b. Phone No. (include area code)
(432) 682-88734. Location of Well (Report location clearly and in accordance with any State requirements. *)
At surface NENE / 570 FNL / 714 FEL / LAT 32.369234 / LONG -103.983114
At proposed prod. zone SENE / 1980 FNL / 50 FEL / LAT 32.365098 / LONG -103.929852

14. Distance in miles and direction from nearest town or post office*

12. County or Parish
EDDY13. State
NM15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)
50 feet16. No of acres in lease
176017. Spacing Unit dedicated to this well
480.018. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. 30 feet19. Proposed Depth
9130 feet / 24969 feet20. BLM/BIA Bond No. in file
FED: COB00005021. Elevations (Show whether DF, KDB, RT, GL, etc.)
3082 feet22. Approximate date work will start*
05/01/201923. Estimated duration
90 days

24. Attachments

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

- | | |
|---|---|
| 1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature
(Electronic Submission)Name (Printed/Typed)
Kelly Kardos / Ph: (432) 682-8873Date
10/28/2019Title
Regulatory CoordinatorApproved by (Signature)
(Electronic Submission)Name (Printed/Typed)
Cody Layton / Ph: (575) 234-5959Date
03/04/2020Title
Assistant Field Manager Lands & MineralsOffice
Carlsbad Field OfficeApplication approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

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

Entered 06/03/2020 - Kurt Simmons, NMOCD



(Continued on page 2)

*(Instructions on page 2)

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- 47141	² Pool Code	³ Pool Name Wildcat; Bone Spring
⁴ Property Code 327326	⁵ Property Name BIG EDDY UNIT 38E STARK	⁶ Well Number 107H
⁷ OGRID No. 373075	⁸ Operator Name XTO PERMIAN OPERATING, LLC.	⁹ Elevation 3,082'

¹⁰ Surface Location

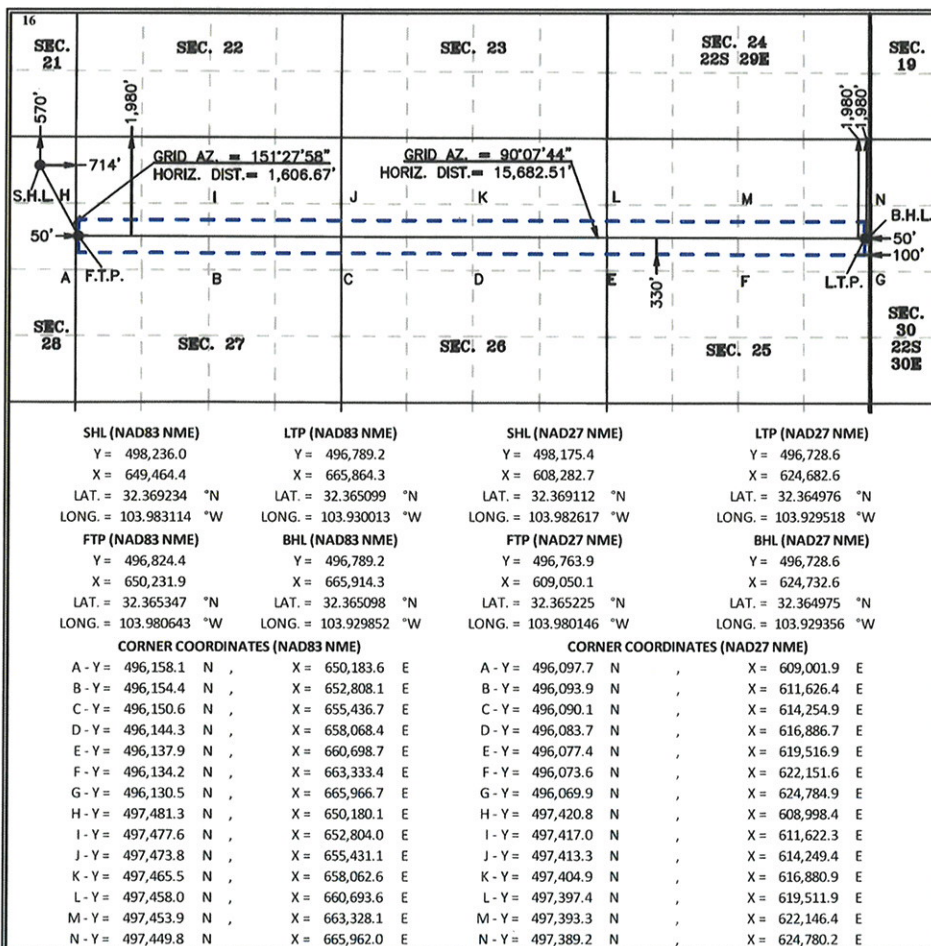
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	22S	29E		570	NORTH	714	EAST	EDDY

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
H	25	22S	29E		1,980	NORTH	50	EAST	EDDY

¹² Dedicated Acres 480	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.



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.

Stephanie Rabadue 10/10/2019
Signature Date
Stephanie Rabadue
Printed Name
stephanie_rabadue@xtoenergy.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.

10-7-2019
Date of Survey
Signature and Seal of Professional Surveyor:
MARK DILLON HARP 23786
Certificate Number AR 2019082961



APD ID: 10400050176

Submission Date: 10/28/2019

Highlighted data
reflects the most
recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 38E STARK

Well Number: 107H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400050176

Tie to previous NOS? N

Submission Date: 10/28/2019

BLM Office: CARLSBAD

User: Kelly Kardos

Title: Regulatory Coordinator

Federal/Indian APD: FED

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

Lease number: NMLC0064828A

Lease Acres: 1760

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? YES

Federal or Indian agreement: FEDERAL

Agreement number: NMNM068294X

Agreement name:

Keep application confidential? N

Permitting Agent? NO

APD Operator: XTO PERMIAN OPERATING LLC

Operator letter of designation:

Operator Info

Operator Organization Name: XTO PERMIAN OPERATING LLC

Operator Address: 6401 Holiday Hill Road, Bldg 5

Zip: 79707

Operator PO Box:

Operator City: Midland

State: TX

Operator Phone: (432)682-8873

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: BIG EDDY UNIT 38E STARK

Well Number: 107H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WILDCAT BONE
SPRING

Pool Name:

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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 38E STARK

Well Number: 107H

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

Is the proposed well in a Helium production area? N

Use Existing Well Pad? N

New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: BEU

Number: 38

DI

Well Class: HORIZONTAL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: DELINEATION

Describe sub-type:

Distance to town:

Distance to nearest well: 30 FT

Distance to lease line: 50 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: BEU_38_Stark_107H_C102_20191028090742.pdf

Well work start Date: 05/01/2019

Duration: 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

Reference Datum: GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	570	FNL	714	FEL	22S	29E	28	Aliquot NENE	32.369234	- 103.983114	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 064829	3082	0	0	N
KOP Leg #1	570	FNL	714	FEL	22S	29E	28	Aliquot NENE	32.369234	- 103.983114	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 064829	1082	2000	2000	N
PPP Leg #1-1	1980	FNL	330	FW L	22S	29E	27	Aliquot SWN W	32.365347	- 103.980643	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 064828 A	- 5034	9300	8116	Y

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 38E STARK

Well Number: 107H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-2	1980	FNL	330	FWL	22S	29E	26	Aliquot SWN W	32.36601	- 103.96303	EDD Y	NEW MEXICO	NEW MEXICO	F	NMNM 0038641	- 5832	14220	8914	Y
PPP Leg #1-3	1980	FNL	1650	FWL	22S	29E	26	Aliquot SENE	32.36601	- 103.95895	EDD Y	NEW MEXICO	NEW MEXICO	S	STATE	- 5856	15540	8938	Y
EXIT Leg #1	1980	FNL	100	FEL	22S	29E	25	Aliquot NENE	32.36509	- 103.930013	EDD Y	NEW MEXICO	NEW MEXICO	F	NMNM 008944	- 6047	24919	9129	Y
BHL Leg #1	1980	FNL	50	FEL	22S	29E	25	Aliquot SENE	32.36509	- 103.929852	EDD Y	NEW MEXICO	NEW MEXICO	F	NMNM 008944	- 6048	24969	9130	Y



APD ID: 10400050176

Submission Date: 10/28/2019

Highlighted data
reflects the most
recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 38E STARK

Well Number: 107H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
573053	PERMIAN	3082	0	0	OTHER : Alluvium	NONE	N
573044	RUSTLER	2962	120	120	SILTSTONE	USEABLE WATER	N
573045	TOP SALT	2841	241	241	SALT	POTASH	N
573046	BASE OF SALT	697	2385	2385	SALT	POTASH	N
573042	DELAWARE	25	3057	3057	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
573043	BONE SPRING	-3665	6747	6747	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
573058	BONE SPRING 1ST	-4728	7810	7810	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
573057	BONE SPRING 2ND	-4949	8031	8031	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M

Rating Depth: 9130

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 918 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 3M Hydril and a 13-5/8 minimum 3M Double Ram BOP. MASP should not exceed 2629 psi.

Requesting Variance? YES

Variance request: XTO requests to not utilize centralizers in the curve and lateral. 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). 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.

Testing Procedure: 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, 3M bradenhead and flange, the BOP test will be limited to 3000 psi. When nipping up on the 9-5/8, the BOP will be tested to a minimum of 3000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 3M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

Choke Diagram Attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 38E STARK

Well Number: 107H

BEU_38_2M3MCM_20191024095356.pdf

BOP Diagram Attachment:

BEU_38_2MBOP_20191024095421.pdf

BEU_38_3MBOP_20191024095432.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	24	18.625	NEW	API	N	0	216	0	216	3082	2866	216	H-40	87.5	ST&C	6.45	1.78	DRY	29.58	DRY	29.58
2	INTERMEDIATE	17.5	13.375	NEW	API	N	0	3007	0	3007	3080	75	3007	J-55	68	ST&C	2.1	1.59	DRY	3.3	DRY	3.3
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	8372	0	8372	3080	-5290	8372	HCL-80	40	LT&C	2.42	2.19	DRY	2.17	DRY	2.17
4	PRODUCTION	8.75	5.5	NEW	API	N	0	24969	0	9130	3080	-6048	24969	P-110	17	BUTT	1.65	1.12	DRY	1.97	DRY	1.97

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU_38_Stark_107H_Csg_20191028092407.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 38E STARK

Well Number: 107H

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU_38_Stark_107H_Csg_20191028092420.pdf

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU_38_Stark_107H_Csg_20191028092449.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU_38_Stark_107H_Csg_20191028092527.pdf

Section 4 - Cement

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 38E STARK

Well Number: 107H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	216	390	1.35	14.8	5772	100	Halcem-C	2% CaCl

INTERMEDIATE	Lead		0	3007	2010	1.87	12.9	3758	100	EconoCem-HLTRRC	none
INTERMEDIATE	Tail				300	1.35	14.8	405	100	Halcem-C	2% CaCl
INTERMEDIATE	Lead		3057	8372	850	1.88	12.9	1598	100	Halcem-C	2% CaCl
INTERMEDIATE	Tail				230	1.33	14.8	305.9	100	Halcem-C	2% CaCl
INTERMEDIATE	Lead	3057	0	8372	1600	1.88	12.9	3008	100	Halcem-C	2% CaCl
INTERMEDIATE	Tail				230	1.33	14.8	305.9	100	Halcem-C	2% CaCl
PRODUCTION	Lead		0	2496 9	2900	1.61	13.2	4669	30	VersaCem	none

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: The necessary mud products for weight addition and fluid loss control will be on location at all times.

Describe the mud monitoring system utilized: A Pason or Totco will be used to detect changes in loss or gain of mud volume.

Circulating Medium Table

Operator Name: XTO PERMIAN OPERATING LLC**Well Name:** BIG EDDY UNIT 38E STARK**Well Number:** 107H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
3007	8372	OTHER : FW / Cut Brine	8.7	9.4							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
0	216	OTHER : FW/Native	8.4	8.8							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
8372	9130	OTHER : FW/Cut Brine/Polymer	9.8	10.1							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
216	3007	OTHER : Brine	9.8	10.2							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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 38E STARK

Well Number: 107H

Section 6 - Test, Logging, Coring

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

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

Open hole logging will not be done on this well.

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

CEMENT BOND LOG,COMPENSATED NEUTRON LOG,DIRECTIONAL SURVEY,GAMMA RAY LOG,

Coring operation description for the well:

No coring will take place on this well.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4525

Anticipated Surface Pressure: 2561

Anticipated Bottom Hole Temperature(F): 185

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

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

BEU_38_H2S_Dia_20191024102056.pdf

BEU_38_H2S_Plan_20191024102044.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

BEU_38_Stark_107H_DD_20191028092721.pdf

Other proposed operations facets description:

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.

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.

Other proposed operations facets attachment:

BEU_38_GCP_20191024102213.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 38E STARK

Well Number: 107H

Other Variance attachment:

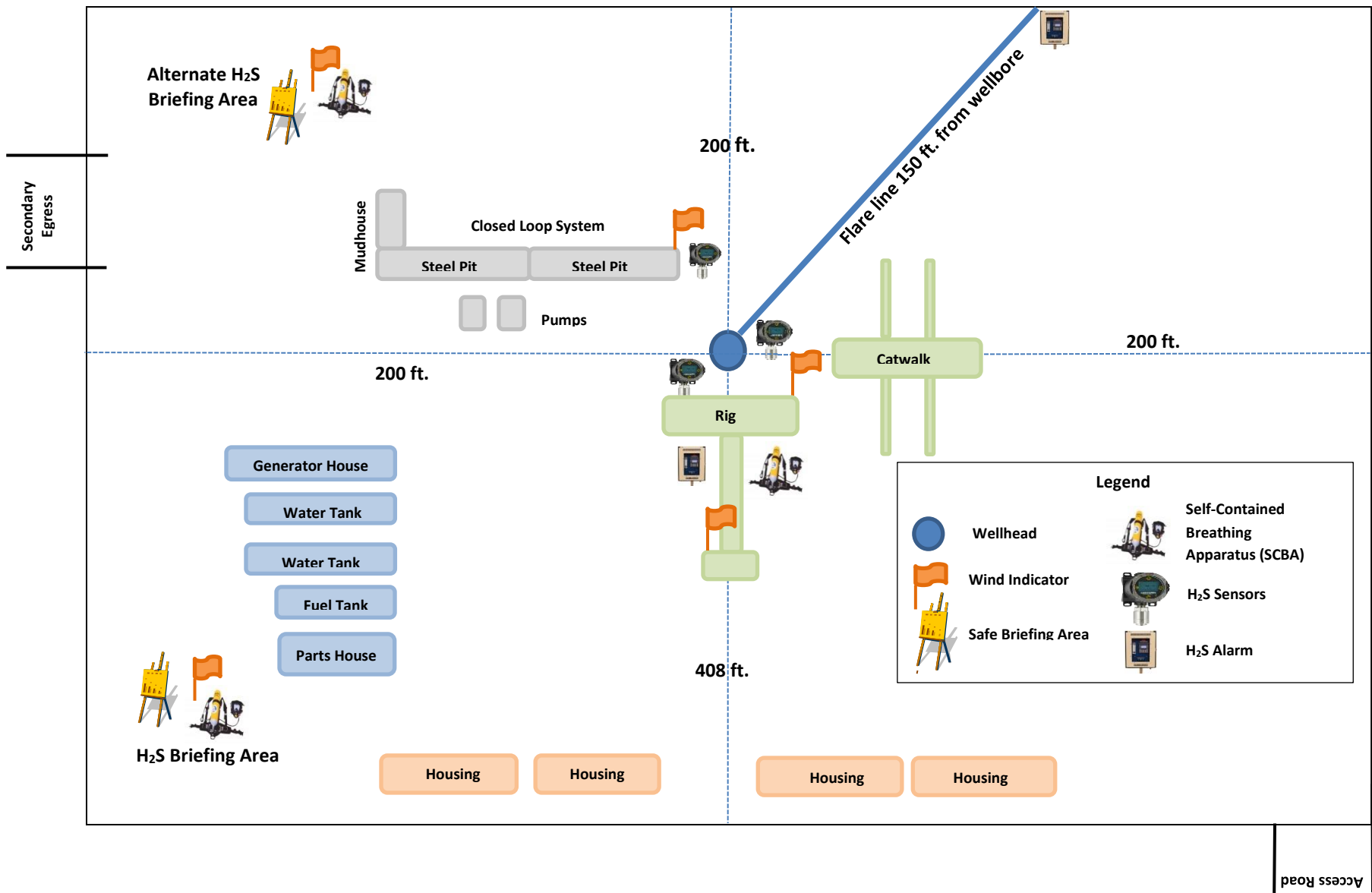
BEU_38_FH_20191024102229.pdf

BEU_38_MBS5.5_20191024102240.pdf



Prevailing Winds
Direction SW

H₂S Briefing Areas and Alarm Locations





HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - o Detection of H₂S, and
 - o Measures for protection against the gas,
 - o Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

All XTO location personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. (Operator Name)'s response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

CARLSBAD OFFICE – EDDY & LEA COUNTIES

3104 E. Greene St., Carlsbad, NM 88220
Carlsbad, NM

575-887-7329

XTO PERSONNEL:

Kendall Decker, Drilling Manager	903-521-6477
Milton Turman, Drilling Superintendent	817-524-5107
Jeff Raines, Construction Foreman	432-557-3159
Toady Sanders, EH & S Manager	903-520-1601
Wes McSpadden, Production Foreman	575-441-1147

SHERIFF DEPARTMENTS:

Eddy County	575-887-7551
Lea County	575-396-3611

NEW MEXICO STATE POLICE:

575-392-5588

FIRE DEPARTMENTS:

	911
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359

HOSPITALS:

	911
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359

AGENT NOTIFICATIONS:

For Lea County:

Bureau of Land Management – Hobbs	575-393-3612
New Mexico Oil Conservation Division – Hobbs	575-393-6161

For Eddy County:

Bureau of Land Management - Carlsbad	575-234-5972
New Mexico Oil Conservation Division - Artesia	575-748-1283



XTO Energy

Eddy County, NM (NAD-27)

Big Eddy Unit 38E Stark

#107H

OH

Plan: PERMIT

Standard Planning Report

15 October, 2019



Project: Eddy County, NM (NAD-27)
Site: Big Eddy Unit 38E Stark
Well: #107H
Wellbore: OH
Design: PERMIT

WELL DETAILS: #107H

Rig Name:
RKB = 30' @ 3112.00usft
Ground Level: 3082.00
Easting 608282.70
Latitude 32.3691116
Longitude -103.9826170

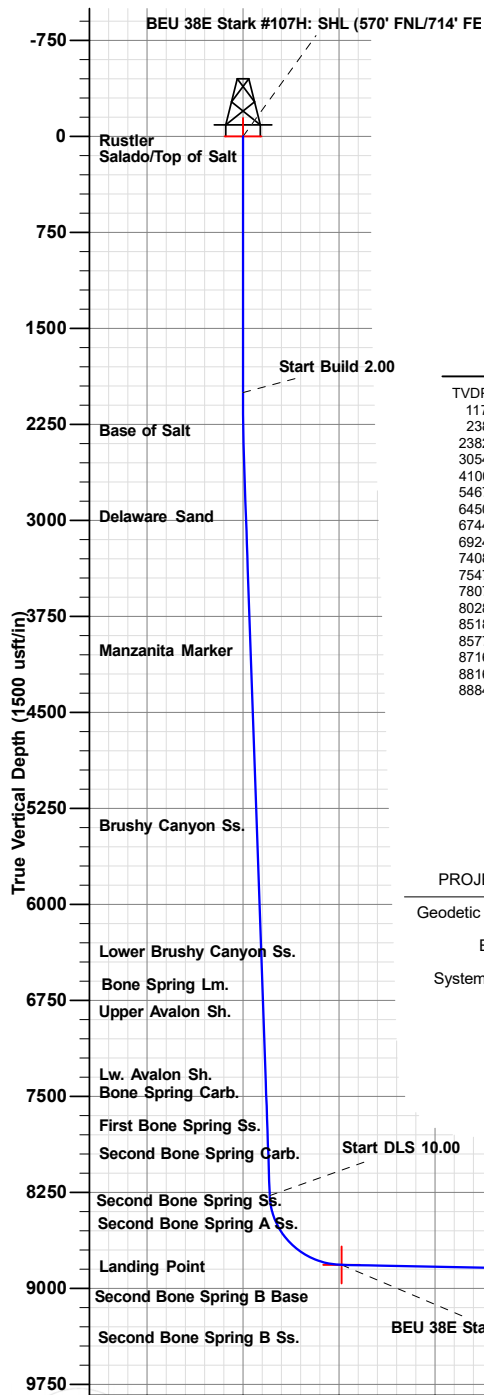
+N/-S 0.00 +E/-W 0.00 Northing 498175.40 Easting 608282.70 Latitude 32.3691116 Longitude -103.9826170

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00
3	2620.12	12.40	170.95	2615.29	-66.02	10.51	2.00	170.95	10.66
4	8414.95	12.40	170.95	8274.88	-1295.12	206.25	0.00	0.00	209.19
5	9284.11	88.85	90.13	8816.00	-1411.50	767.40	10.00	-81.28	770.60
6	24919.78	88.85	90.13	9129.00	-1446.69	16399.90	0.00	0.00	16403.14
7	24969.79	88.85	90.13	9130.00	-1446.80	16449.90	0.00	0.00	16453.14

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BEU 38E Stark #107H: SHL (570' FNL/714' FEL)	0.00	0.00	0.00	498175.40	608282.70	32.3691116	-103.9826170	Point
BEU 38E Stark #107H: FTP	8816.00	-1411.50	767.40	496763.90	609050.10	32.3652246	-103.9801466	Point
BEU 38E Stark #107H: LTP	9129.00	-1446.80	16399.90	496728.60	624682.60	32.3649756	-103.9295182	Point
BEU 38E Stark #107H: PBHL (1980' FNL/50' FEL)	9130.00	-1446.80	16449.90	496728.60	624732.60	32.3649751	-103.9293563	Point



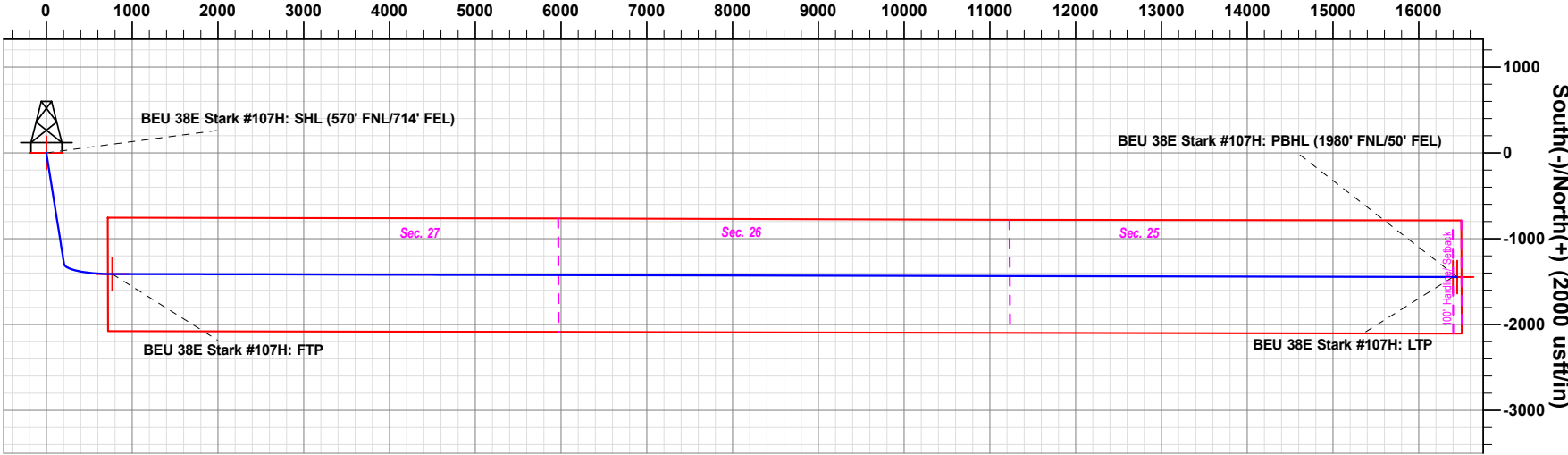
FORMATION TOP DETAILS

TVDPath	Formation
117.00	Rustler
238.00	Salado/Top of Salt
2382.00	Base of Salt
3054.00	Delaware Sand
4100.00	Manzanita Marker
5467.00	Brushy Canyon Ss.
6450.00	Lower Brushy Canyon Ss.
6744.00	Bone Spring Lm.
6924.00	Upper Avalon Sh.
7408.00	Lw. Avalon Sh.
7547.00	Bone Spring Carb.
7807.00	First Bone Spring Ss.
8028.00	Second Bone Spring Carb.
8518.00	Second Bone Spring Ss.
8577.00	Second Bone Spring A Ss.
8716.00	Second Bone Spring B Ss.
8816.00	Landing Point
8884.00	Second Bone Spring B Base

PROJECT DETAILS: Eddy County, NM (NAD-27)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

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



Vertical Section at 90.13° (1500 usft/in)

Plan: PERMIT (#107H/OH)

Created By: Matthew May Date: 16:51, October 15 2019

The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented. Any decisions made or wells drilled utilizing this or any other information supplied by Prototype are at the sole risk and responsibility of the user.



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 30' @ 3112.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 30' @ 3112.00usft
Site:	Big Eddy Unit 38E Stark	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Project	Eddy County, NM (NAD-27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Big Eddy Unit 38E Stark			
Site Position:		Northing:	498,396.70 usft	Latitude:	32.3697177
From:	Map	Easting:	608,524.80 usft	Longitude:	-103.9818305
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.19 °

Well	#107H					
Well Position	+N/-S	-221.30 usft	Northing:	498,175.40 usft	Latitude:	32.3691116
	+E/-W	-242.10 usft	Easting:	608,282.70 usft	Longitude:	-103.9826170
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,082.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/15/19	6.90	60.10	47,744

Design	PERMIT			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	90.13

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,620.12	12.40	170.95	2,615.29	-66.02	10.51	2.00	2.00	0.00	170.95	
8,414.95	12.40	170.95	8,274.88	-1,295.12	206.25	0.00	0.00	0.00	0.00	
9,284.11	88.85	90.13	8,816.00	-1,411.50	767.40	10.00	8.80	-9.30	-81.28	BEU 38E Stark #10
24,919.78	88.85	90.13	9,129.00	-1,446.69	16,399.90	0.00	0.00	0.00	0.00	BEU 38E Stark #10
24,969.79	88.85	90.13	9,130.00	-1,446.80	16,449.90	0.00	0.00	0.00	0.00	BEU 38E Stark #10



Planning Report

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Company:	XTO Energy	TVD Reference:	RKB = 30' @ 3112.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 30' @ 3112.00usft
Site:	Big Eddy Unit 38E Stark	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
117.00	0.00	0.00	117.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
238.00	0.00	0.00	238.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado/Top of Salt									
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	2.00	170.95	2,099.98	-1.72	0.27	0.28	2.00	2.00	0.00
2,200.00	4.00	170.95	2,199.84	-6.89	1.10	1.11	2.00	2.00	0.00
2,300.00	6.00	170.95	2,299.45	-15.50	2.47	2.50	2.00	2.00	0.00
2,383.14	7.66	170.95	2,382.00	-25.26	4.02	4.08	2.00	2.00	0.00
Base of Salt									
2,400.00	8.00	170.95	2,398.70	-27.53	4.38	4.45	2.00	2.00	0.00
2,500.00	10.00	170.95	2,497.47	-42.98	6.84	6.94	2.00	2.00	0.00
2,600.00	12.00	170.95	2,595.62	-61.82	9.85	9.99	2.00	2.00	0.00
2,620.12	12.40	170.95	2,615.29	-66.02	10.51	10.66	2.00	2.00	0.00
2,700.00	12.40	170.95	2,693.30	-82.97	13.21	13.40	0.00	0.00	0.00
2,800.00	12.40	170.95	2,790.97	-104.18	16.59	16.83	0.00	0.00	0.00
2,900.00	12.40	170.95	2,888.64	-125.39	19.97	20.25	0.00	0.00	0.00
3,000.00	12.40	170.95	2,986.30	-146.60	23.35	23.68	0.00	0.00	0.00
3,069.31	12.40	170.95	3,054.00	-161.30	25.69	26.05	0.00	0.00	0.00
Delaware Sand									
3,100.00	12.40	170.95	3,083.97	-167.81	26.72	27.10	0.00	0.00	0.00
3,200.00	12.40	170.95	3,181.64	-189.02	30.10	30.53	0.00	0.00	0.00
3,300.00	12.40	170.95	3,279.30	-210.23	33.48	33.96	0.00	0.00	0.00
3,400.00	12.40	170.95	3,376.97	-231.44	36.86	37.38	0.00	0.00	0.00
3,500.00	12.40	170.95	3,474.64	-252.65	40.23	40.81	0.00	0.00	0.00
3,600.00	12.40	170.95	3,572.30	-273.86	43.61	44.23	0.00	0.00	0.00
3,700.00	12.40	170.95	3,669.97	-295.07	46.99	47.66	0.00	0.00	0.00
3,800.00	12.40	170.95	3,767.63	-316.28	50.37	51.09	0.00	0.00	0.00
3,900.00	12.40	170.95	3,865.30	-337.49	53.75	54.51	0.00	0.00	0.00
4,000.00	12.40	170.95	3,962.97	-358.70	57.12	57.94	0.00	0.00	0.00
4,100.00	12.40	170.95	4,060.63	-379.91	60.50	61.36	0.00	0.00	0.00
4,140.31	12.40	170.95	4,100.00	-388.46	61.86	62.74	0.00	0.00	0.00
Manzanita Marker									
4,200.00	12.40	170.95	4,158.30	-401.12	63.88	64.79	0.00	0.00	0.00



Planning Report

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Company:	XTO Energy	TVD Reference:	RKB = 30' @ 3112.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 30' @ 3112.00usft
Site:	Big Eddy Unit 38E Stark	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

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)
4,300.00	12.40	170.95	4,255.97	-422.33	67.26	68.22	0.00	0.00	0.00
4,400.00	12.40	170.95	4,353.63	-443.54	70.64	71.64	0.00	0.00	0.00
4,500.00	12.40	170.95	4,451.30	-464.75	74.01	75.07	0.00	0.00	0.00
4,600.00	12.40	170.95	4,548.96	-485.96	77.39	78.49	0.00	0.00	0.00
4,700.00	12.40	170.95	4,646.63	-507.17	80.77	81.92	0.00	0.00	0.00
4,800.00	12.40	170.95	4,744.30	-528.38	84.15	85.35	0.00	0.00	0.00
4,900.00	12.40	170.95	4,841.96	-549.59	87.52	88.77	0.00	0.00	0.00
5,000.00	12.40	170.95	4,939.63	-570.80	90.90	92.20	0.00	0.00	0.00
5,100.00	12.40	170.95	5,037.30	-592.01	94.28	95.62	0.00	0.00	0.00
5,200.00	12.40	170.95	5,134.96	-613.22	97.66	99.05	0.00	0.00	0.00
5,300.00	12.40	170.95	5,232.63	-634.43	101.04	102.47	0.00	0.00	0.00
5,400.00	12.40	170.95	5,330.30	-655.64	104.41	105.90	0.00	0.00	0.00
5,500.00	12.40	170.95	5,427.96	-676.85	107.79	109.33	0.00	0.00	0.00
5,539.97	12.40	170.95	5,467.00	-685.33	109.14	110.70	0.00	0.00	0.00
Brushy Canyon Ss.									
5,600.00	12.40	170.95	5,525.63	-698.06	111.17	112.75	0.00	0.00	0.00
5,700.00	12.40	170.95	5,623.29	-719.27	114.55	116.18	0.00	0.00	0.00
5,800.00	12.40	170.95	5,720.96	-740.49	117.92	119.60	0.00	0.00	0.00
5,900.00	12.40	170.95	5,818.63	-761.70	121.30	123.03	0.00	0.00	0.00
6,000.00	12.40	170.95	5,916.29	-782.91	124.68	126.46	0.00	0.00	0.00
6,100.00	12.40	170.95	6,013.96	-804.12	128.06	129.88	0.00	0.00	0.00
6,200.00	12.40	170.95	6,111.63	-825.33	131.44	133.31	0.00	0.00	0.00
6,300.00	12.40	170.95	6,209.29	-846.54	134.81	136.73	0.00	0.00	0.00
6,400.00	12.40	170.95	6,306.96	-867.75	138.19	140.16	0.00	0.00	0.00
6,500.00	12.40	170.95	6,404.63	-888.96	141.57	143.59	0.00	0.00	0.00
6,546.46	12.40	170.95	6,450.00	-898.81	143.14	145.18	0.00	0.00	0.00
Lower Brushy Canyon Ss.									
6,600.00	12.40	170.95	6,502.29	-910.17	144.95	147.01	0.00	0.00	0.00
6,700.00	12.40	170.95	6,599.96	-931.38	148.32	150.44	0.00	0.00	0.00
6,800.00	12.40	170.95	6,697.62	-952.59	151.70	153.86	0.00	0.00	0.00
6,847.48	12.40	170.95	6,744.00	-962.66	153.31	155.49	0.00	0.00	0.00
Bone Spring Lm.									
6,900.00	12.40	170.95	6,795.29	-973.80	155.08	157.29	0.00	0.00	0.00
7,000.00	12.40	170.95	6,892.96	-995.01	158.46	160.72	0.00	0.00	0.00
7,031.79	12.40	170.95	6,924.00	-1,001.75	159.53	161.80	0.00	0.00	0.00
Upper Avalon Sh.									
7,100.00	12.40	170.95	6,990.62	-1,016.22	161.84	164.14	0.00	0.00	0.00
7,200.00	12.40	170.95	7,088.29	-1,037.43	165.21	167.57	0.00	0.00	0.00
7,300.00	12.40	170.95	7,185.96	-1,058.64	168.59	170.99	0.00	0.00	0.00
7,400.00	12.40	170.95	7,283.62	-1,079.85	171.97	174.42	0.00	0.00	0.00
7,500.00	12.40	170.95	7,381.29	-1,101.06	175.35	177.84	0.00	0.00	0.00
7,527.35	12.40	170.95	7,408.00	-1,106.86	176.27	178.78	0.00	0.00	0.00
Lw. Avalon Sh.									
7,600.00	12.40	170.95	7,478.96	-1,122.27	178.72	181.27	0.00	0.00	0.00
7,669.67	12.40	170.95	7,547.00	-1,137.05	181.08	183.66	0.00	0.00	0.00
Bone Spring Carb.									
7,700.00	12.40	170.95	7,576.62	-1,143.48	182.10	184.70	0.00	0.00	0.00
7,800.00	12.40	170.95	7,674.29	-1,164.69	185.48	188.12	0.00	0.00	0.00
7,900.00	12.40	170.95	7,771.95	-1,185.90	188.86	191.55	0.00	0.00	0.00
7,935.88	12.40	170.95	7,807.00	-1,193.51	190.07	192.78	0.00	0.00	0.00
First Bone Spring Ss.									
8,000.00	12.40	170.95	7,869.62	-1,207.11	192.24	194.97	0.00	0.00	0.00
8,100.00	12.40	170.95	7,967.29	-1,228.32	195.61	198.40	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 30' @ 3112.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 30' @ 3112.00usft
Site:	Big Eddy Unit 38E Stark	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

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)
8,162.16	12.40	170.95	8,028.00	-1,241.51	197.71	200.53	0.00	0.00	0.00
Second Bone Spring Carb.									
8,200.00	12.40	170.95	8,064.95	-1,249.53	198.99	201.83	0.00	0.00	0.00
8,300.00	12.40	170.95	8,162.62	-1,270.74	202.37	205.25	0.00	0.00	0.00
8,400.00	12.40	170.95	8,260.29	-1,291.95	205.75	208.68	0.00	0.00	0.00
8,414.95	12.40	170.95	8,274.88	-1,295.12	206.25	209.19	0.00	0.00	0.00
8,450.00	13.38	155.82	8,309.06	-1,302.54	208.51	211.46	10.00	2.80	-43.18
8,500.00	16.03	138.99	8,357.44	-1,313.04	215.41	218.39	10.00	5.30	-33.65
8,550.00	19.60	127.47	8,405.05	-1,323.36	226.61	229.61	10.00	7.14	-23.04
8,600.00	23.68	119.58	8,451.53	-1,333.42	242.00	245.03	10.00	8.15	-15.79
8,650.00	28.04	113.95	8,496.52	-1,343.16	261.49	264.53	10.00	8.72	-11.25
8,674.60	30.25	111.75	8,518.00	-1,347.80	272.53	275.58	10.00	9.00	-8.96
Second Bone Spring Ss.									
8,700.00	32.57	109.76	8,539.68	-1,352.48	284.91	287.98	10.00	9.13	-7.83
8,745.39	36.78	106.77	8,577.00	-1,360.54	309.43	312.52	10.00	9.27	-6.58
Second Bone Spring A Ss.									
8,750.00	37.21	106.50	8,580.68	-1,361.33	312.09	315.18	10.00	9.36	-5.86
8,800.00	41.93	103.88	8,619.22	-1,369.64	342.82	345.93	10.00	9.43	-5.25
8,850.00	46.69	101.70	8,654.99	-1,377.34	376.87	380.00	10.00	9.53	-4.36
8,900.00	51.49	99.84	8,687.73	-1,384.37	413.98	417.12	10.00	9.60	-3.72
8,947.88	56.11	98.27	8,716.00	-1,390.44	452.13	455.28	10.00	9.65	-3.27
Second Bone Spring B Ss.									
8,950.00	56.31	98.21	8,717.18	-1,390.69	453.87	457.03	10.00	9.67	-3.07
9,000.00	61.15	96.75	8,743.12	-1,396.24	496.23	499.40	10.00	9.69	-2.91
9,050.00	66.01	95.43	8,765.36	-1,400.98	540.75	543.92	10.00	9.71	-2.65
9,100.00	70.88	94.20	8,783.73	-1,404.87	587.07	590.26	10.00	9.74	-2.46
9,150.00	75.76	93.04	8,798.08	-1,407.88	634.86	638.05	10.00	9.75	-2.32
9,200.00	80.64	91.93	8,808.30	-1,410.00	683.74	686.93	10.00	9.76	-2.22
9,250.00	85.52	90.85	8,814.33	-1,411.21	733.34	736.54	10.00	9.77	-2.16
9,284.11	88.85	90.13	8,816.00	-1,411.50	767.40	770.60	10.00	9.77	-2.13
Landing Point									
9,300.00	88.85	90.13	8,816.32	-1,411.54	783.29	786.49	0.00	0.00	0.00
9,400.00	88.85	90.13	8,818.32	-1,411.76	883.27	886.47	0.00	0.00	0.00
9,500.00	88.85	90.13	8,820.32	-1,411.99	983.25	986.45	0.00	0.00	0.00
9,600.00	88.85	90.13	8,822.32	-1,412.21	1,083.23	1,086.43	0.00	0.00	0.00
9,700.00	88.85	90.13	8,824.33	-1,412.44	1,183.21	1,186.41	0.00	0.00	0.00
9,800.00	88.85	90.13	8,826.33	-1,412.66	1,283.19	1,286.39	0.00	0.00	0.00
9,900.00	88.85	90.13	8,828.33	-1,412.89	1,383.17	1,386.37	0.00	0.00	0.00
10,000.00	88.85	90.13	8,830.33	-1,413.11	1,483.15	1,486.35	0.00	0.00	0.00
10,100.00	88.85	90.13	8,832.33	-1,413.34	1,583.13	1,586.33	0.00	0.00	0.00
10,200.00	88.85	90.13	8,834.33	-1,413.56	1,683.11	1,686.31	0.00	0.00	0.00
10,300.00	88.85	90.13	8,836.34	-1,413.79	1,783.09	1,786.29	0.00	0.00	0.00
10,400.00	88.85	90.13	8,838.34	-1,414.01	1,883.07	1,886.27	0.00	0.00	0.00
10,500.00	88.85	90.13	8,840.34	-1,414.24	1,983.05	1,986.25	0.00	0.00	0.00
10,600.00	88.85	90.13	8,842.34	-1,414.46	2,083.03	2,086.23	0.00	0.00	0.00
10,700.00	88.85	90.13	8,844.34	-1,414.69	2,183.01	2,186.21	0.00	0.00	0.00
10,800.00	88.85	90.13	8,846.35	-1,414.91	2,282.99	2,286.19	0.00	0.00	0.00
10,900.00	88.85	90.13	8,848.35	-1,415.14	2,382.97	2,386.17	0.00	0.00	0.00
11,000.00	88.85	90.13	8,850.35	-1,415.36	2,482.95	2,486.15	0.00	0.00	0.00
11,100.00	88.85	90.13	8,852.35	-1,415.59	2,582.93	2,586.13	0.00	0.00	0.00
11,200.00	88.85	90.13	8,854.35	-1,415.81	2,682.91	2,686.11	0.00	0.00	0.00
11,300.00	88.85	90.13	8,856.35	-1,416.04	2,782.89	2,786.09	0.00	0.00	0.00
11,400.00	88.85	90.13	8,858.36	-1,416.26	2,882.86	2,886.07	0.00	0.00	0.00
11,500.00	88.85	90.13	8,860.36	-1,416.49	2,982.84	2,986.05	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 30' @ 3112.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 30' @ 3112.00usft
Site:	Big Eddy Unit 38E Stark	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

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)
11,600.00	88.85	90.13	8,862.36	-1,416.71	3,082.82	3,086.03	0.00	0.00	0.00
11,700.00	88.85	90.13	8,864.36	-1,416.94	3,182.80	3,186.01	0.00	0.00	0.00
11,800.00	88.85	90.13	8,866.36	-1,417.16	3,282.78	3,285.99	0.00	0.00	0.00
11,900.00	88.85	90.13	8,868.37	-1,417.39	3,382.76	3,385.97	0.00	0.00	0.00
12,000.00	88.85	90.13	8,870.37	-1,417.61	3,482.74	3,485.95	0.00	0.00	0.00
12,100.00	88.85	90.13	8,872.37	-1,417.84	3,582.72	3,585.93	0.00	0.00	0.00
12,200.00	88.85	90.13	8,874.37	-1,418.06	3,682.70	3,685.91	0.00	0.00	0.00
12,300.00	88.85	90.13	8,876.37	-1,418.29	3,782.68	3,785.89	0.00	0.00	0.00
12,400.00	88.85	90.13	8,878.37	-1,418.51	3,882.66	3,885.87	0.00	0.00	0.00
12,500.00	88.85	90.13	8,880.38	-1,418.74	3,982.64	3,985.85	0.00	0.00	0.00
12,600.00	88.85	90.13	8,882.38	-1,418.96	4,082.62	4,085.83	0.00	0.00	0.00
12,681.01	88.85	90.13	8,884.00	-1,419.14	4,163.61	4,166.82	0.00	0.00	0.00
Second Bone Spring B Base									
12,700.00	88.85	90.13	8,884.38	-1,419.19	4,182.60	4,185.81	0.00	0.00	0.00
12,800.00	88.85	90.13	8,886.38	-1,419.41	4,282.58	4,285.79	0.00	0.00	0.00
12,900.00	88.85	90.13	8,888.38	-1,419.64	4,382.56	4,385.77	0.00	0.00	0.00
13,000.00	88.85	90.13	8,890.39	-1,419.86	4,482.54	4,485.75	0.00	0.00	0.00
13,100.00	88.85	90.13	8,892.39	-1,420.09	4,582.52	4,585.73	0.00	0.00	0.00
13,200.00	88.85	90.13	8,894.39	-1,420.31	4,682.50	4,685.71	0.00	0.00	0.00
13,300.00	88.85	90.13	8,896.39	-1,420.54	4,782.48	4,785.69	0.00	0.00	0.00
13,400.00	88.85	90.13	8,898.39	-1,420.76	4,882.46	4,885.67	0.00	0.00	0.00
13,500.00	88.85	90.13	8,900.40	-1,420.99	4,982.44	4,985.65	0.00	0.00	0.00
13,600.00	88.85	90.13	8,902.40	-1,421.21	5,082.42	5,085.63	0.00	0.00	0.00
13,700.00	88.85	90.13	8,904.40	-1,421.44	5,182.40	5,185.61	0.00	0.00	0.00
13,800.00	88.85	90.13	8,906.40	-1,421.66	5,282.38	5,285.59	0.00	0.00	0.00
13,900.00	88.85	90.13	8,908.40	-1,421.89	5,382.36	5,385.57	0.00	0.00	0.00
14,000.00	88.85	90.13	8,910.40	-1,422.11	5,482.34	5,485.55	0.00	0.00	0.00
14,100.00	88.85	90.13	8,912.41	-1,422.34	5,582.32	5,585.53	0.00	0.00	0.00
14,200.00	88.85	90.13	8,914.41	-1,422.56	5,682.30	5,685.51	0.00	0.00	0.00
14,300.00	88.85	90.13	8,916.41	-1,422.79	5,782.28	5,785.49	0.00	0.00	0.00
14,400.00	88.85	90.13	8,918.41	-1,423.01	5,882.26	5,885.47	0.00	0.00	0.00
14,500.00	88.85	90.13	8,920.41	-1,423.24	5,982.24	5,985.45	0.00	0.00	0.00
14,600.00	88.85	90.13	8,922.42	-1,423.46	6,082.22	6,085.43	0.00	0.00	0.00
14,700.00	88.85	90.13	8,924.42	-1,423.69	6,182.20	6,185.41	0.00	0.00	0.00
14,800.00	88.85	90.13	8,926.42	-1,423.91	6,282.18	6,285.39	0.00	0.00	0.00
14,900.00	88.85	90.13	8,928.42	-1,424.14	6,382.15	6,385.37	0.00	0.00	0.00
15,000.00	88.85	90.13	8,930.42	-1,424.36	6,482.13	6,485.35	0.00	0.00	0.00
15,100.00	88.85	90.13	8,932.42	-1,424.59	6,582.11	6,585.33	0.00	0.00	0.00
15,200.00	88.85	90.13	8,934.43	-1,424.81	6,682.09	6,685.31	0.00	0.00	0.00
15,300.00	88.85	90.13	8,936.43	-1,425.04	6,782.07	6,785.29	0.00	0.00	0.00
15,400.00	88.85	90.13	8,938.43	-1,425.26	6,882.05	6,885.27	0.00	0.00	0.00
15,500.00	88.85	90.13	8,940.43	-1,425.49	6,982.03	6,985.25	0.00	0.00	0.00
15,600.00	88.85	90.13	8,942.43	-1,425.71	7,082.01	7,085.23	0.00	0.00	0.00
15,700.00	88.85	90.13	8,944.44	-1,425.94	7,181.99	7,185.21	0.00	0.00	0.00
15,800.00	88.85	90.13	8,946.44	-1,426.16	7,281.97	7,285.19	0.00	0.00	0.00
15,900.00	88.85	90.13	8,948.44	-1,426.39	7,381.95	7,385.17	0.00	0.00	0.00
16,000.00	88.85	90.13	8,950.44	-1,426.61	7,481.93	7,485.15	0.00	0.00	0.00
16,100.00	88.85	90.13	8,952.44	-1,426.84	7,581.91	7,585.13	0.00	0.00	0.00
16,200.00	88.85	90.13	8,954.44	-1,427.06	7,681.89	7,685.11	0.00	0.00	0.00
16,300.00	88.85	90.13	8,956.45	-1,427.29	7,781.87	7,785.09	0.00	0.00	0.00
16,400.00	88.85	90.13	8,958.45	-1,427.51	7,881.85	7,885.07	0.00	0.00	0.00
16,500.00	88.85	90.13	8,960.45	-1,427.74	7,981.83	7,985.05	0.00	0.00	0.00
16,600.00	88.85	90.13	8,962.45	-1,427.96	8,081.81	8,085.03	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 30' @ 3112.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 30' @ 3112.00usft
Site:	Big Eddy Unit 38E Stark	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

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)
16,700.00	88.85	90.13	8,964.45	-1,428.19	8,181.79	8,185.01	0.00	0.00	0.00
16,800.00	88.85	90.13	8,966.46	-1,428.41	8,281.77	8,284.99	0.00	0.00	0.00
16,900.00	88.85	90.13	8,968.46	-1,428.64	8,381.75	8,384.97	0.00	0.00	0.00
17,000.00	88.85	90.13	8,970.46	-1,428.86	8,481.73	8,484.95	0.00	0.00	0.00
17,100.00	88.85	90.13	8,972.46	-1,429.09	8,581.71	8,584.93	0.00	0.00	0.00
17,200.00	88.85	90.13	8,974.46	-1,429.31	8,681.69	8,684.91	0.00	0.00	0.00
17,300.00	88.85	90.13	8,976.46	-1,429.54	8,781.67	8,784.89	0.00	0.00	0.00
17,400.00	88.85	90.13	8,978.47	-1,429.76	8,881.65	8,884.87	0.00	0.00	0.00
17,500.00	88.85	90.13	8,980.47	-1,429.99	8,981.63	8,984.85	0.00	0.00	0.00
17,600.00	88.85	90.13	8,982.47	-1,430.21	9,081.61	9,084.83	0.00	0.00	0.00
17,700.00	88.85	90.13	8,984.47	-1,430.44	9,181.59	9,184.81	0.00	0.00	0.00
17,800.00	88.85	90.13	8,986.47	-1,430.66	9,281.57	9,284.79	0.00	0.00	0.00
17,900.00	88.85	90.13	8,988.48	-1,430.89	9,381.55	9,384.77	0.00	0.00	0.00
18,000.00	88.85	90.13	8,990.48	-1,431.11	9,481.53	9,484.75	0.00	0.00	0.00
18,100.00	88.85	90.13	8,992.48	-1,431.34	9,581.51	9,584.73	0.00	0.00	0.00
18,200.00	88.85	90.13	8,994.48	-1,431.56	9,681.49	9,684.71	0.00	0.00	0.00
18,300.00	88.85	90.13	8,996.48	-1,431.79	9,781.46	9,784.69	0.00	0.00	0.00
18,400.00	88.85	90.13	8,998.48	-1,432.01	9,881.44	9,884.67	0.00	0.00	0.00
18,500.00	88.85	90.13	9,000.49	-1,432.24	9,981.42	9,984.65	0.00	0.00	0.00
18,600.00	88.85	90.13	9,002.49	-1,432.47	10,081.40	10,084.63	0.00	0.00	0.00
18,700.00	88.85	90.13	9,004.49	-1,432.69	10,181.38	10,184.61	0.00	0.00	0.00
18,800.00	88.85	90.13	9,006.49	-1,432.92	10,281.36	10,284.59	0.00	0.00	0.00
18,900.00	88.85	90.13	9,008.49	-1,433.14	10,381.34	10,384.57	0.00	0.00	0.00
19,000.00	88.85	90.13	9,010.50	-1,433.37	10,481.32	10,484.55	0.00	0.00	0.00
19,100.00	88.85	90.13	9,012.50	-1,433.59	10,581.30	10,584.53	0.00	0.00	0.00
19,200.00	88.85	90.13	9,014.50	-1,433.82	10,681.28	10,684.51	0.00	0.00	0.00
19,300.00	88.85	90.13	9,016.50	-1,434.04	10,781.26	10,784.49	0.00	0.00	0.00
19,400.00	88.85	90.13	9,018.50	-1,434.27	10,881.24	10,884.47	0.00	0.00	0.00
19,500.00	88.85	90.13	9,020.50	-1,434.49	10,981.22	10,984.45	0.00	0.00	0.00
19,600.00	88.85	90.13	9,022.51	-1,434.72	11,081.20	11,084.43	0.00	0.00	0.00
19,700.00	88.85	90.13	9,024.51	-1,434.94	11,181.18	11,184.41	0.00	0.00	0.00
19,800.00	88.85	90.13	9,026.51	-1,435.17	11,281.16	11,284.39	0.00	0.00	0.00
19,900.00	88.85	90.13	9,028.51	-1,435.39	11,381.14	11,384.37	0.00	0.00	0.00
20,000.00	88.85	90.13	9,030.51	-1,435.62	11,481.12	11,484.35	0.00	0.00	0.00
20,100.00	88.85	90.13	9,032.52	-1,435.84	11,581.10	11,584.33	0.00	0.00	0.00
20,200.00	88.85	90.13	9,034.52	-1,436.07	11,681.08	11,684.31	0.00	0.00	0.00
20,300.00	88.85	90.13	9,036.52	-1,436.29	11,781.06	11,784.29	0.00	0.00	0.00
20,400.00	88.85	90.13	9,038.52	-1,436.52	11,881.04	11,884.27	0.00	0.00	0.00
20,500.00	88.85	90.13	9,040.52	-1,436.74	11,981.02	11,984.25	0.00	0.00	0.00
20,600.00	88.85	90.13	9,042.52	-1,436.97	12,081.00	12,084.23	0.00	0.00	0.00
20,700.00	88.85	90.13	9,044.53	-1,437.19	12,180.98	12,184.21	0.00	0.00	0.00
20,800.00	88.85	90.13	9,046.53	-1,437.42	12,280.96	12,284.19	0.00	0.00	0.00
20,900.00	88.85	90.13	9,048.53	-1,437.64	12,380.94	12,384.17	0.00	0.00	0.00
21,000.00	88.85	90.13	9,050.53	-1,437.87	12,480.92	12,484.15	0.00	0.00	0.00
21,100.00	88.85	90.13	9,052.53	-1,438.09	12,580.90	12,584.13	0.00	0.00	0.00
21,200.00	88.85	90.13	9,054.54	-1,438.32	12,680.88	12,684.11	0.00	0.00	0.00
21,300.00	88.85	90.13	9,056.54	-1,438.54	12,780.86	12,784.09	0.00	0.00	0.00
21,400.00	88.85	90.13	9,058.54	-1,438.77	12,880.84	12,884.07	0.00	0.00	0.00
21,500.00	88.85	90.13	9,060.54	-1,438.99	12,980.82	12,984.05	0.00	0.00	0.00
21,600.00	88.85	90.13	9,062.54	-1,439.22	13,080.80	13,084.03	0.00	0.00	0.00
21,700.00	88.85	90.13	9,064.54	-1,439.44	13,180.78	13,184.01	0.00	0.00	0.00
21,800.00	88.85	90.13	9,066.55	-1,439.67	13,280.75	13,283.99	0.00	0.00	0.00
21,900.00	88.85	90.13	9,068.55	-1,439.89	13,380.73	13,383.97	0.00	0.00	0.00
22,000.00	88.85	90.13	9,070.55	-1,440.12	13,480.71	13,483.95	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 30' @ 3112.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 30' @ 3112.00usft
Site:	Big Eddy Unit 38E Stark	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

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)
22,100.00	88.85	90.13	9,072.55	-1,440.34	13,580.69	13,583.93	0.00	0.00	0.00
22,200.00	88.85	90.13	9,074.55	-1,440.57	13,680.67	13,683.91	0.00	0.00	0.00
22,300.00	88.85	90.13	9,076.56	-1,440.79	13,780.65	13,783.89	0.00	0.00	0.00
22,400.00	88.85	90.13	9,078.56	-1,441.02	13,880.63	13,883.87	0.00	0.00	0.00
22,500.00	88.85	90.13	9,080.56	-1,441.24	13,980.61	13,983.85	0.00	0.00	0.00
22,600.00	88.85	90.13	9,082.56	-1,441.47	14,080.59	14,083.83	0.00	0.00	0.00
22,700.00	88.85	90.13	9,084.56	-1,441.69	14,180.57	14,183.81	0.00	0.00	0.00
22,800.00	88.85	90.13	9,086.56	-1,441.92	14,280.55	14,283.79	0.00	0.00	0.00
22,900.00	88.85	90.13	9,088.57	-1,442.14	14,380.53	14,383.77	0.00	0.00	0.00
23,000.00	88.85	90.13	9,090.57	-1,442.37	14,480.51	14,483.75	0.00	0.00	0.00
23,100.00	88.85	90.13	9,092.57	-1,442.59	14,580.49	14,583.73	0.00	0.00	0.00
23,200.00	88.85	90.13	9,094.57	-1,442.82	14,680.47	14,683.71	0.00	0.00	0.00
23,300.00	88.85	90.13	9,096.57	-1,443.04	14,780.45	14,783.69	0.00	0.00	0.00
23,400.00	88.85	90.13	9,098.58	-1,443.27	14,880.43	14,883.67	0.00	0.00	0.00
23,500.00	88.85	90.13	9,100.58	-1,443.49	14,980.41	14,983.65	0.00	0.00	0.00
23,600.00	88.85	90.13	9,102.58	-1,443.72	15,080.39	15,083.63	0.00	0.00	0.00
23,700.00	88.85	90.13	9,104.58	-1,443.94	15,180.37	15,183.61	0.00	0.00	0.00
23,800.00	88.85	90.13	9,106.58	-1,444.17	15,280.35	15,283.59	0.00	0.00	0.00
23,900.00	88.85	90.13	9,108.58	-1,444.39	15,380.33	15,383.57	0.00	0.00	0.00
24,000.00	88.85	90.13	9,110.59	-1,444.62	15,480.31	15,483.55	0.00	0.00	0.00
24,100.00	88.85	90.13	9,112.59	-1,444.84	15,580.29	15,583.53	0.00	0.00	0.00
24,200.00	88.85	90.13	9,114.59	-1,445.07	15,680.27	15,683.51	0.00	0.00	0.00
24,300.00	88.85	90.13	9,116.59	-1,445.29	15,780.25	15,783.49	0.00	0.00	0.00
24,400.00	88.85	90.13	9,118.59	-1,445.52	15,880.23	15,883.47	0.00	0.00	0.00
24,500.00	88.85	90.13	9,120.60	-1,445.74	15,980.21	15,983.45	0.00	0.00	0.00
24,600.00	88.85	90.13	9,122.60	-1,445.97	16,080.19	16,083.43	0.00	0.00	0.00
24,700.00	88.85	90.13	9,124.60	-1,446.19	16,180.17	16,183.41	0.00	0.00	0.00
24,800.00	88.85	90.13	9,126.60	-1,446.42	16,280.15	16,283.39	0.00	0.00	0.00
24,900.00	88.85	90.13	9,128.60	-1,446.64	16,380.13	16,383.37	0.00	0.00	0.00
24,919.78	88.85	90.13	9,129.00	-1,446.69	16,399.90	16,403.14	0.00	0.00	0.00
24,969.79	88.85	90.13	9,130.00	-1,446.80	16,449.90	16,453.14	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
BEU 38E Stark #107H - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	498,175.40	608,282.70	32.3691116	-103.9826170
BEU 38E Stark #107H - plan hits target center - Point	0.00	0.00	8,816.00	-1,411.50	767.40	496,763.90	609,050.10	32.3652246	-103.9801466
BEU 38E Stark #107H - plan misses target center by 0.11usft at 24919.78usft MD (9129.00 TVD, -1446.69 N, 16399.90 E) - Point	0.00	0.00	9,129.00	-1,446.80	16,399.90	496,728.60	624,682.60	32.3649756	-103.9295182
BEU 38E Stark #107H - plan hits target center - Point	0.00	0.00	9,130.00	-1,446.80	16,449.90	496,728.60	624,732.60	32.3649751	-103.9293563



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 30' @ 3112.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 30' @ 3112.00usft
Site:	Big Eddy Unit 38E Stark	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
117.00	117.00	Rustler			
238.00	238.00	Salado/Top of Salt			
2,383.14	2,382.00	Base of Salt			
3,069.31	3,054.00	Delaware Sand			
4,140.31	4,100.00	Manzanita Marker			
5,539.97	5,467.00	Brushy Canyon Ss.			
6,546.46	6,450.00	Lower Brushy Canyon Ss.			
6,847.48	6,744.00	Bone Spring Lm.			
7,031.79	6,924.00	Upper Avalon Sh.			
7,527.35	7,408.00	Lw. Avalon Sh.			
7,669.67	7,547.00	Bone Spring Carb.			
7,935.88	7,807.00	First Bone Spring Ss.			
8,162.16	8,028.00	Second Bone Spring Carb.			
8,674.60	8,518.00	Second Bone Spring Ss.			
8,745.39	8,577.00	Second Bone Spring A Ss.			
8,947.88	8,716.00	Second Bone Spring B Ss.			
9,284.11	8,816.00	Landing Point			
12,681.01	8,884.00	Second Bone Spring B Base			

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 10/10/2019

☒ Original

Operator & OGRID No.: XTO Permian Operating, LLC [373075]

☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility: BEU 38 CTB

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Big Eddy Unit 38E Stark 100H		A-28-22S-29E	348'FNL & 471'FEL	2500 MCF/D	Sold	CTB to be Connected
Big Eddy Unit 38E Stark 101H		A-28-22S-29E	402'FNL & 635'FEL	2500 MCF/D	Sold	CTB to be Connected
Big Eddy Unit 38E Stark 102H		A-28-22S-29E	375'FNL & 484'FEL	2500 MCF/D	Sold	CTB to be Connected
Big Eddy Unit 38E Stark 103H		A-28-22S-29E	429'FNL & 648'FEL	2500 MCF/D	Sold	CTB to be Connected
Big Eddy Unit 38E Stark 104H		A-28-22S-29E	542'FNL & 563'FEL	2500 MCF/D	Sold	CTB to be Connected
Big Eddy Unit 38E Stark 105H		A-28-22S-29E	597'FNL & 727'FEL	2500 MCF/D	Sold	CTB to be Connected
Big Eddy Unit 38E Stark 106H		A-28-22S-29E	570'FNL & 576'FEL	2500 MCF/D	Sold	CTB to be Connected
Big Eddy Unit 38E Stark 107H		A-28-22S-29E	570'FNL & 714'FEL	2500 MCF/D	Sold	CTB to be Connected
Big Eddy Unit 38E Stark 108H		A-28-22S-29E	878'FNL & 721'FEL	2500 MCF/D	Sold	CTB to be Connected
Big Eddy Unit 38E Stark 109H		A-28-22S-29E	878'FNL & 859'FEL	2500 MCF/D	Sold	CTB to be Connected
Big Eddy Unit 38E Stark 110H		A-28-22S-29E	905'FNL & 734'FEL	2500 MCF/D	Sold	CTB to be Connected
Big Eddy Unit 38E Stark 111H		A-28-22S-29E	905'FNL & 872'FEL	2500 MCF/D	Sold	CTB to be Connected

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP Midstream and will be connected to DCP Midstream low/high pressure gathering system located in Eddy County, New Mexico. It will require 0' of pipeline to connect the facility to low/high pressure gathering system. XTO Permian Operating, LLC, provides (periodically) to DCP Midstream a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, XTO Permian Operating, LLC, and DCP Midstream have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP Midstream Processing Plant located in Sec. 19, Twn. 19S, Rng. 32E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP Midstream system at that time. Based on current information, it is XTO Permian Operating, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines