

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

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

WELL API NO. 30-025-46614
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Chimichangas 12 State Com
8. Well Number 601H
9. OGRID Number 372165
10. Pool name or Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐ HOBBS OCD	
2. Name of Operator Centennial Resource Production, LLC	
3. Address of Operator 1001 17th Street, suite 1800, Denver, CO 80202	
4. Well Location Unit Letter B : 630 feet from the North line and 1350 feet from the East line Section 12 Township 22S Range 34E NMPM County Lea	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3590 GR	

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☒ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
OTHER: ☐

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

Centennial Resource Production, LLC respectfully requests to TA this well due to economic hardship.

We have drilled this well to TD and shut in. There are no perforations.

Please see attached TA procedure.

**Condition of Approval: notify
OCD Hobbs office 24 hours
prior of running MIT Test & Ch:**

Spud Date:

3/18/2020

Rig Release Date:

4/13/2020

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

SIGNATURE

K. Schlichting

TITLE **Sr. Regulatory Analyst**

DATE **04/24/2020**

Type or print name **Kanicia Schlichting**

E-mail address: **kanicia.schlichting@cdevinc.com** PHONE: **720-499-1537**

For State Use Only

APPROVED BY:

Henry J. ...

TITLE

C. ...

DATE

8-7-20

Conditions of Approval (if any):

Chimichangas 12 State Com 601H – T A Procedure

Well Chronology

Please review the Wellbore diagram on the following pages.

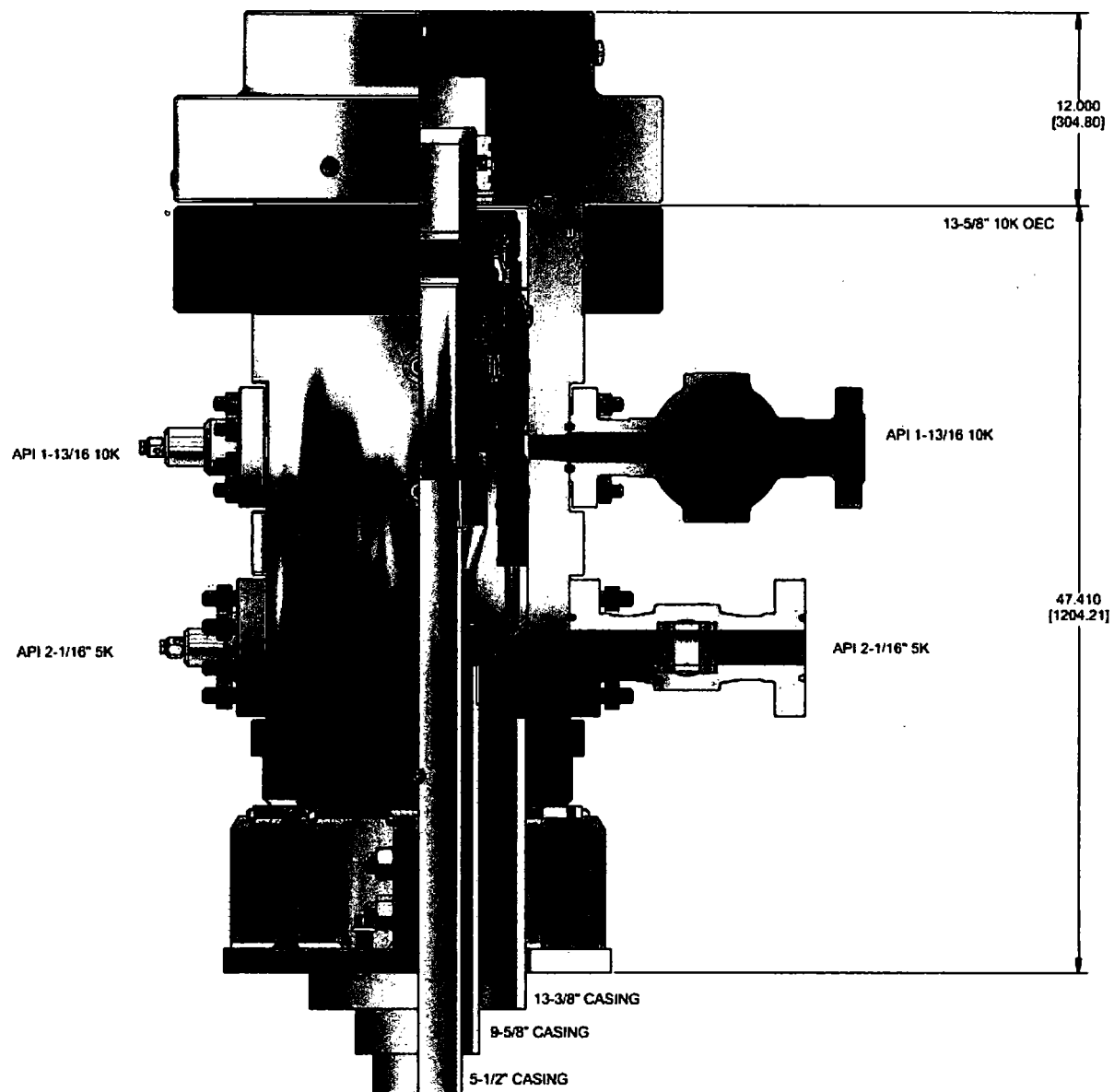
The 13-3/8" surface casing for the Chimichangas 12 State Com 601H was drilled (Spud 3/18/20) and set by Paterson 588 to a depth of 1,800'MD. The 13-3/8" was cemented in one stage with 146bbls of Lead Cement to surface. Patterson spudded from under the 13-3/8" casing on 3/20/20. Prior to drilling out, the 13-3/8" casing was successfully tested to 900psi for 30 minutes. The 12-1/4" intermediate was drilled to a depth of 5505'MD with 9-5/8" casing set and cemented to a depth of 5,495'MD. The 9-5/8" was cemented successfully in 2 stages with 71bbls to surface. The casing was tested successfully to 1350psi for 30 minutes before drilling out of 9 5/8".

The 8-3/4" Vertical and Curve were drilled with no issues to a depth of 11,612'MD where a lateral BHA was run and drilled 8-1/2" lateral to TD at 21,322'MD/11,272'TVD. The subsequent 5-1/2" production string was run to a depth of 21,322'MD / 11,272'TVD and cemented in place as follows.

- Lead 587 bbls (1050 sxs) 2.63 yield TXI Lightweight 11.0ppg
- Tail 548 bbls (2040 sxs) 1.51 yield 100 HSLD 80 Cement 13.0ppg
- Displaced with 461 bbls with Corrosion Inhibited Treated Freshwater

During the Cement Job, full returns were observed with a final circulating pressure of 2500psi. Bumped the plug at calculated displacement and increased pressure to 4,900psi. Released pressure with floats holding and 305bbls (651sxs) to Lead cement to surface.

The wellhead was flushed out and packoff installed and tested to 5,000psi for 15 minutes. Finally, a BPV was installed in the 5-1/2" casing mandrel and nightcap installed and tested to 5000psi. The BOPE was nipped down and rig released at 23:30hrs on 4/13/2020. See diagram below of final wellhead configuration.



DRILLING WBD

HORIZONTAL Original Hole 4/14/2020 10:21:03 AM

Vertical schematic (actual)

Well Name
CHIMICHANGAS 12
STATE COM 601H

County
LEA

State/Province
NEW MEXICO

API/UWI	30025466140000
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API/UWI
30025466140000

Total Depth (ftKB)	21.322.0
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Original KB Elevation (ft)	3.614.60
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Ground Elevation (ft)	3.589.60
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KOP / LP

Top Depth (ftKB)
10.615.0

Bottom Depth (ftKB)	11.517.0
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Hole Section

Section Des	Act Top (ftKB)	Act Btm (ftKB)	Start Date	End Date	Size (in)
Conductor	25.0	120.0	2/20/2020 00:00	2/21/2020 00:00	28
Surface	120.0	1,800.0	3/18/2020 11:00	3/18/2020 22:00	17 1/2
Intermediate 1	1,800.0	5,505.0	3/20/2020 12:30	3/22/2020 21:30	12 1/4
Production Vertical	5,505.0	10,615.0	3/22/2020 21:30	3/25/2020 04:00	8 3/4
Production Curve	10,615.0	11,517.0	3/25/2020 04:00	3/27/2020 12:30	8 3/4
Production Lateral	11,517.0	21,322.0	3/27/2020 12:30	4/8/2020 21:30	8 1/2

Casing

Conductor. 120ftKB

Run Date

Centralizers

2/21/2020

Item Des	Top (ft/ft)	Len (ft)	Btm (ft/ft)	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread
Casing Joints	25.0	95.00	120.0	20	19.12	94.00	H-40	

Surface Casing, 1,800ftKB

Run Date

Centralizers

3/19/2020

Item Des	Top (ftKB)	Len (ft)	Btm (ftKB)	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread
Casing Joints	28.2	1,727.04	1,755.2	13 3/8	12.62	54.50	J-55	BTC
Float Collar	1,755.2	1.46	1,756.7	13 3/8	12.62	54.50	J-55	BTC
Casing Joints	1,756.7	41.53	1,798.2	13 3/8	12.62	54.50	J-55	BTC
Float Shoe	1,798.2	1.80	1,800.0	13 3/8	12.62	54.50	J-55	BTC

Intermediate 1, 5.495ftKB

Run Date

Centralizers

3/22/2020

Item Des	Top (ft/KB)	Len (ft)	8tm (ft/KB)	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread
Landing joint	26.0	0.00	26.0	9 5/8	8.84	40.00	J-55	LT&C
Casing Hanger	26.0	2.18	28.2	9 5/8	8.84	40.00	J-55	LT&C
Hanger pup joint	28.2	3.54	31.7	9 5/8	8.84	40.00	J-55	LT&C
Casing Joints	31.7	3,976.57	4,008.3	9 5/8	8.84	40.00	J-55	LT&C
Pup Joint	4,008.3	7.36	4,015.6	9 5/8	8.84	40.00	J-55	LT&C
DVT	4,015.6	2.64	4,018.3	9 5/8	8.84	40.00	J-55	LT&C
ECP	4,018.3	16.57	4,034.9	9 5/8	8.84	40.00	J-55	LT&C
Casing Joints	4,034.9	1,371.68	5,406.5	9 5/8	8.84	40.00	J-55	LT&C
Float Collar	5,406.5	1.44	5,408.0	9 5/8	8.84	40.00	J-55	LT&C
Casing Joints	5,408.0	85.45	5,493.4	9 5/8	8.84	40.00	J-55	LT&C
Float Shoe	5,493.4	1.58	5,495.0	9 5/8	8.84	40.00	J-55	LT&C

[illegible]

Run Date

Centralizers

4/11/2020

Item Des	Top (ftKb)	Len (ft)	Btm (ftKb)	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread
Landing Joint	29.1	0.00	29.1	5 1/2	4.78	20.00	P-110	TCBC-HT
Casing Hanger	29.1	0.73	29.8	5 1/2	4.78	20.00	P-110	TCBC-HT
Casing Pup Joint	29.8	4.15	34.0	5 1/2	4.78	20.00	P-110	TCBC-HT
Casing Joints	34.0	10,480.56	10,514.5	5 1/2	4.78	20.00	P-110	TCBC-HT
Casing Joints	10,514.5	45.20	10,559.7	5 1/2	4.78	20.00	P-110	TCBC-HT
Casing Joints	10,559.7	44.65	10,604.4	5 1/2	4.78	20.00	P-110	TCBC-HT
Casing Pup Joint	10,604.4	10.58	10,615.0	5 1/2	4.78	20.00	P-110	TCBC-HT
Casing Joints	10,615.0	10,681.98	21,297.0	5 1/2	4.78	20.00	P-110	TCBC-HT
Float Collar	21,297.0	1.82	21,298.8	5 1/2	4.78	20.00	P-110	TCBC-HT
Casing Pup Joint	21,298.8	11.43	21,310.2	5 1/2	4.78	20.00	P-110	TCBC-HT
Float Shoe	21,310.2	1.80	21,312.0	5 1/2	4.78	20.00	P-110	TCBC-HT

Cementing

Conductor Cement - Start Date: 3/1/2020

Cementing Company	Amount (... 0	Vol Pum... 0.0	Evaluation Method	Cement Evaluation Results
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Cement Stages

Stage 1

Plug Bump Pressure (psi)	Plug Failed? No	Float Failed? No
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Fluid	Amount (sacks)	Dens (lb/gal)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)	Excess (%)	Vol Pumped (bbl)
Lead						

Production Casing/Liner, 5 1/2 In; 29-21,312 ftKB
Date TD Reached; 21,322
TD - Original Hole: 21,322

DRILLING WBD

HORIZONTAL, Original Hole, 4/14/2020 10:21:03 AM

Vertical schematic (actual)

Cementing

Surface Casing Cement - Start Date: 3/19/2020

Cementing Company COMPASS	Amount (...) 1,430	Vol Pum... 715.4	Evaluation Method Returns to Surface	Cement Evaluation Results 146 BBLS OF CEMENT TO SURFACE
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Cement Stages

Stage 1

Plug Bump Pressure (psi) 974.0			Plug Failed? No		Float Failed? No	
Fluid	Amount (sacks)	Dens (lb/gal)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)	Excess (%)	Vol Pumped (bbl)
Lead	1,025	13.50	1.69	8.96	75.0	308.5
Tail	405	14.80	1.33	6.33	100.0	95.9

Intermediate Casing Cement - Start Date: 3/22/2020

Cementing Company COMPASS	Amount (...) 1,950	Vol Pum... 1,885.3	Evaluation Method RETURNS TO SURFACE	Cement Evaluation Results NO CEMENT ON 1ST STAGE, CIRCULATED 170 BBLS OFF DVT. 71 BBLS OF CEMENT ON 2ND STAGE.
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Cement Stages

Stage 1

Plug Bump Pressure (psi) 1,340.0			Plug Failed? No		Float Failed? No	
Fluid	Amount (sacks)	Dens (lb/gal)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)	Excess (%)	Vol Pumped (bbl)
Lead	675	10.50	4.69	30.08	150.0	563.8
Tail	160	14.80	1.33	6.33	20.0	37.9

Stage 2

Plug Bump Pressure (psi) 2,135.0			Plug Failed? No		Float Failed? No	
Fluid	Amount (sacks)	Dens (lb/gal)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)	Excess (%)	Vol Pumped (bbl)
Lead	1,025	11.80	2.68	15.86	200.0	489.2
Tail	90	14.80	1.33	6.33	50.0	21.3

Production Casing Cement - Start Date: 4/11/2020

Cementing Company COMPASS	Amount (...) 3,090	Vol Pum... 1,676.0	Evaluation Method Returns to Surface	Cement Evaluation Results 305 BBLS CEMENT RETURNED TO SURFACE.
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Cement Stages

Stage 1

Plug Bump Pressure (psi) 3,000.0			Plug Failed? No		Float Failed? No	
Fluid	Amount (sacks)	Dens (lb/gal)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)	Excess (%)	Vol Pumped (bbl)
Lead	1,050	11.10	3.14	19.14	25.0	587.0
Tail	2,040	13.00	1.51	7.51	25.0	548.0

Wellbores

Actual Deviation Survey AS DRILLED, Proposed?	Start Depth (ftKB) 25.0	VS Dir (°) 180.13	Total Depth (ftKB) 21,322.00	Total Depth (TVD) (...) 11,270.19	Max TVD (ftKB) 11,277.43
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Note Correction

Comment

Survey Data

MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
25.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00	3/26/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
139.00	0.53	93.93	139.00	-0.04	0.53	0.03	0.46	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
201.00	0.97	11.14	200.99	0.46	0.91	-0.46	1.69	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
260.00	1.06	80.22	259.99	1.04	1.55	-1.05	1.95	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
317.00	1.06	16.41	316.98	1.64	2.22	-1.64	1.97	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
374.00	0.88	19.40	373.97	2.56	2.51	-2.56	0.33	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
431.00	0.35	31.88	430.97	3.12	2.75	-3.12	0.95	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
520.00	0.62	43.84	519.96	3.69	3.23	-3.70	0.32	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
580.00	0.53	33.29	579.96	4.16	3.60	-4.17	0.23	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
670.00	0.53	47.53	669.96	4.79	4.14	-4.80	0.15	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
760.00	0.62	359.71	759.95	5.56	4.44	-5.57	0.53	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
851.00	0.44	358.13	850.95	6.40	4.43	-6.41	0.20	3/23/2020
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
943.00	0.44	342.21	942.95	7.09	4.31	-7.10	0.13	3/23/2020

Conductor, 25-120

Conductor, 20 in; 25-120 ftKB

Surface, 120-1,800

Surface Casing, 13 3/8 in; 28-1,800 ftKB

Intermediate 1; 1,800-5,505

Intermediate 1; 9 5/8 in; 26-5,495 ftKB

Production Vertical; 5,505-10,815

KOP-LP; 10,815-11,517

Production Curve; 10,815-11,517

Drilled Lateral Length; 11,517-21,322

Production Lateral; 11,517-21,322

Production Casing/Liner; 5 1/2 in; 28-21,312 ftKB

Date TD Reached; 21,322

TD - Original Hole; 21,322

DRILLING WBD

HORIZONTAL, Original Hole, 4/14/2020 10:21:03 AM

Survey Data

Vertical schematic (actual)	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	1,033.00	0.09	356.55	1,032.95	7.49	4.20	-7.50	0.39	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	1,126.00	0.09	180.95	1,125.95	7.49	4.19	-7.50	0.19	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	1,218.00	0.00	299.95	1,217.95	7.42	4.19	-7.43	0.10	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	1,309.00	0.18	277.98	1,308.95	7.44	4.05	-7.44	0.20	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	1,400.00	0.18	286.41	1,399.94	7.50	3.77	-7.50	0.03	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	1,495.00	0.18	286.94	1,494.94	7.58	3.49	-7.59	0.00	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	1,590.00	0.09	249.15	1,589.94	7.60	3.27	-7.61	0.13	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	1,685.00	0.26	269.89	1,684.94	7.57	2.99	-7.58	0.19	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	1,728.00	0.26	281.49	1,727.94	7.59	2.80	-7.60	0.12	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	1,900.00	0.09	276.83	1,899.94	7.68	2.28	-7.69	0.10	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	1,995.00	0.83	316.31	1,994.94	8.19	1.73	-8.20	0.80	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	2,090.00	2.30	312.72	2,089.90	9.98	-0.15	-9.98	1.55	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	2,185.00	3.26	317.00	2,184.79	13.25	-3.39	-13.24	1.03	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	2,280.00	4.71	326.03	2,279.56	18.46	-7.41	-18.44	1.66	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	2,469.00	7.48	328.85	2,467.47	35.43	-18.11	-35.39	1.47	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	2,564.00	7.71	327.02	2,561.64	46.07	-24.78	-46.01	0.35	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	2,659.00	7.35	326.99	2,655.82	56.51	-31.56	-56.44	0.38	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	2,753.00	7.07	328.13	2,749.07	66.46	-37.89	-66.38	0.33	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	2,848.00	6.81	331.10	2,843.38	76.36	-43.70	-76.26	0.47	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	2,942.00	7.50	331.98	2,936.65	86.65	-49.27	-86.54	0.74	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	3,037.00	7.84	334.99	3,030.80	98.00	-54.93	-97.87	0.55	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	3,132.00	7.30	339.28	3,124.97	109.52	-59.80	-109.38	0.82	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	3,227.00	6.25	335.33	3,219.30	119.86	-64.09	-119.71	1.21	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	3,322.00	7.55	337.15	3,313.61	130.31	-68.68	-130.16	1.39	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	3,417.00	7.86	335.81	3,407.76	141.99	-73.76	-141.82	0.38	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	3,512.00	7.49	339.43	3,501.91	153.71	-78.60	-153.53	0.64	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	3,606.00	6.48	339.83	3,595.21	164.43	-82.58	-164.24	1.08	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	3,700.00	6.58	331.12	3,688.60	174.12	-87.01	-173.92	1.06	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	3,795.00	6.99	329.40	3,782.93	183.86	-92.58	-183.65	0.48	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	3,889.00	6.45	331.13	3,876.29	193.41	-98.04	-193.19	0.61	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	3,984.00	5.95	330.09	3,970.73	202.35	-103.07	-202.12	0.54	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	4,079.00	6.59	327.65	4,065.16	211.22	-108.45	-210.98	0.73	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	4,173.00	6.91	324.60	4,158.51	220.39	-114.61	-220.13	0.51	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	4,268.00	6.59	328.10	4,252.85	229.68	-120.80	-229.40	0.55	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	4,363.00	6.35	329.07	4,347.25	238.81	-126.38	-238.52	0.28	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	4,458.00	6.38	334.70	4,441.66	248.09	-131.34	-247.79	0.66	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	4,552.00	5.98	334.76	4,535.12	257.24	-135.66	-256.93	0.43	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	4,646.00	6.04	335.35	4,628.60	266.16	-139.81	-265.85	0.09	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	4,741.00	5.64	335.32	4,723.11	274.95	-143.84	-274.62	0.42	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	4,836.00	5.67	335.53	4,817.65	283.46	-147.73	-283.13	0.04	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	4,930.00	5.62	334.12	4,911.19	291.83	-151.67	-291.48	0.16	3/23/2020

Conductor; 25-120

Conductor; 20 in; 25-120 ftKB

Surface; 120-1,800

Surface Casing; 13 3/8 in; 28-1,800 ftKB

Intermediate 1; 1,800-5,505

Intermediate 1; 5 5/8 in; 28-5,495 ftKB

Production Vertical; 5,505-10,615

KOP-LP; 10,615-11,517

Production Curve; 10,615-11,517

Drilled Lateral Length; 11,517-21,322

Production Lateral; 11,517-21,322

Production Casing/Liner; 5 1/2 in; 29-21,312 ftKB

Date TD Reached; 21,322

TD - Original Hole; 21,322

DRILLING WBD

HORIZONTAL, Original Hole, 4/14/2020 10:21:03 AM

Survey Data

Vertical schematic (actual)

	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	5,025.00	5.35	334.02	5,005.75	300.00	-155.64	-299.64	0.28	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	5,120.00	4.70	328.93	5,100.39	307.31	-159.59	-306.95	0.83	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	5,214.00	4.70	328.93	5,194.07	313.91	-163.56	-313.54	0.00	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	5,309.00	4.30	335.97	5,288.78	320.49	-167.02	-320.11	0.72	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	5,404.00	4.89	331.53	5,383.48	327.31	-170.40	-326.92	0.72	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	5,448.00	5.19	332.11	5,427.31	330.71	-172.23	-330.32	0.69	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	5,578.00	5.07	331.72	5,556.78	340.97	-177.70	-340.57	0.10	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	5,673.00	7.12	336.78	5,651.24	350.08	-182.01	-349.66	2.23	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	5,767.00	8.65	334.56	5,744.35	361.82	-187.34	-361.39	1.66	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	5,862.00	9.20	332.36	5,838.20	374.99	-193.93	-374.55	0.68	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	5,957.00	9.32	333.02	5,931.96	388.58	-200.95	-388.12	0.17	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	6,052.00	9.07	332.08	6,025.74	402.05	-207.94	-401.58	0.31	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	6,147.00	8.65	332.56	6,119.61	415.01	-214.74	-414.52	0.45	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	6,241.00	8.44	331.25	6,212.57	427.33	-221.32	-426.82	0.30	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	6,337.00	8.59	330.90	6,307.51	439.77	-228.19	-439.25	0.17	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	6,432.00	8.67	329.60	6,401.43	452.14	-235.27	-451.61	0.22	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	6,527.00	7.29	327.16	6,495.51	463.38	-242.16	-462.83	1.50	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	6,622.00	6.99	325.26	6,589.77	473.20	-248.72	-472.63	0.40	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	6,716.00	6.68	326.43	6,683.11	482.45	-255.00	-481.87	0.36	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	6,811.00	5.25	320.72	6,777.59	490.42	-260.81	-489.83	1.63	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	6,905.00	5.26	320.24	6,871.19	497.06	-266.29	-496.46	0.05	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	7,000.00	4.73	316.51	6,965.83	503.25	-271.77	-502.64	0.65	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	7,095.00	4.69	316.14	7,060.51	508.90	-277.16	-508.27	0.05	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	7,190.00	3.07	316.81	7,155.29	513.55	-281.59	-512.91	1.71	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	7,284.00	2.74	314.82	7,249.17	516.97	-284.91	-516.32	0.37	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	7,379.00	2.64	320.43	7,344.07	520.26	-287.91	-519.60	0.30	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	7,474.00	1.41	305.64	7,439.01	522.62	-290.25	-521.96	1.40	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	7,569.00	1.47	309.82	7,533.98	524.09	-292.14	-523.42	0.13	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	7,664.00	1.54	311.02	7,628.94	525.70	-294.04	-525.04	0.08	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	7,758.00	0.52	235.80	7,722.93	526.29	-295.34	-525.62	1.59	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	7,853.00	0.61	178.95	7,817.93	525.55	-295.69	-524.87	0.57	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	7,948.00	0.48	175.23	7,912.92	524.64	-295.65	-523.97	0.14	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	8,043.00	0.81	160.22	8,007.92	523.61	-295.39	-522.94	0.39	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	8,138.00	0.76	157.30	8,102.91	522.40	-294.92	-521.73	0.07	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	8,232.00	0.58	139.37	8,196.90	521.47	-294.37	-520.80	0.29	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	8,327.00	0.71	115.32	8,291.89	520.85	-293.52	-520.18	0.31	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	8,422.00	0.67	115.30	8,386.89	520.36	-292.49	-519.69	0.04	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	8,516.00	0.66	101.76	8,480.88	520.01	-291.46	-519.35	0.17	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	8,611.00	0.79	102.28	8,575.87	519.76	-290.29	-519.10	0.14	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	8,706.00	0.92	94.90	8,670.86	519.56	-288.89	-518.90	0.18	3/23/2020
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	8,801.00	0.87	81.23	8,765.85	519.60	-287.41	-518.95	0.23	3/23/2020

Conductor; 25-120

Conductor; 20 in; 25-120 ftKB

Surface; 120-1,800

Surface Casing; 13 3/8 in; 28-1,800 ftKB

Intermediate 1; 1,800-5,505

Intermediate 1; 9 5/8 in; 26-5,495 ftKB

Production Vertical; 5,505-10,615

KOP-LP; 10,615-11,517

Production Curve; 10,615-11,517

Drilled Lateral Length; 11,517-21,322

Production Lateral; 11,517-21,322

Production Casing/Liner; 5 1/2 in; 29-21,312 ftKB

Date TD Reached; 21,322

TD - Original Hole; 21,322

DRILLING WBD

HORIZONTAL, Original Hole, 4/14/2020 10:21:03 AM

Survey Data

Vertical schematic (actual)	Survey Data								
	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	8,896.00	0.61	84.19	8,860.84	519.77	-286.20	-519.11	0.28	3/23/2020
	8,990.00	0.13	1.12	8,954.84	519.92	-285.70	-519.27	0.65	3/23/2020
	9,085.00	0.24	278.48	9,049.84	520.06	-285.89	-519.41	0.27	3/23/2020
	9,180.00	0.94	280.26	9,144.84	520.23	-286.86	-519.58	0.74	3/23/2020
	9,275.00	1.41	278.37	9,239.82	520.54	-288.78	-519.88	0.50	3/23/2020
	9,371.00	1.40	273.87	9,335.79	520.79	-291.12	-520.13	0.12	3/23/2020
	9,465.00	1.91	283.72	9,429.75	521.24	-293.79	-520.57	0.62	3/23/2020
	9,560.00	2.65	285.66	9,524.67	522.21	-297.44	-521.53	0.78	3/23/2020
	9,655.00	0.69	236.67	9,619.63	522.48	-300.03	-521.80	2.38	3/25/2020
	9,750.00	0.77	236.78	9,714.62	521.82	-301.04	-521.14	0.08	3/25/2020
	9,845.00	1.06	244.93	9,809.61	521.10	-302.37	-520.41	0.33	3/25/2020
	9,939.00	1.16	248.69	9,903.59	520.38	-304.05	-519.69	0.13	3/25/2020
	10,035.00	1.27	259.22	9,999.57	519.83	-306.00	-519.14	0.26	3/25/2020
	10,129.00	1.19	259.75	10,093.55	519.46	-307.98	-518.76	0.09	3/25/2020
	10,224.00	1.29	260.27	10,188.53	519.11	-310.01	-518.40	0.11	3/25/2020
	10,319.00	1.53	261.44	10,283.50	518.74	-312.31	-518.03	0.25	3/25/2020
	10,414.00	1.08	311.04	10,378.48	519.14	-314.24	-518.42	1.23	3/25/2020
	10,508.00	0.88	265.38	10,472.46	519.66	-315.63	-518.94	0.83	3/25/2020
	10,559.00	0.75	264.10	10,523.46	519.59	-316.35	-518.87	0.26	3/25/2020
	10,650.00	3.66	174.67	10,614.39	516.64	-316.68	-515.92	4.10	3/26/2020
	10,718.00	10.60	165.08	10,681.83	508.42	-314.86	-507.71	10.32	3/26/2020
	10,765.00	16.18	166.80	10,727.53	497.86	-312.25	-497.15	11.90	3/26/2020
	10,812.00	20.28	166.61	10,772.16	483.56	-308.87	-482.86	8.72	3/26/2020
	10,859.00	24.80	169.52	10,815.56	465.93	-305.19	-465.24	9.90	3/26/2020
	10,907.00	28.58	170.43	10,858.44	444.70	-301.45	-444.02	7.92	3/26/2020
	10,954.00	32.13	171.72	10,898.99	421.24	-297.78	-420.57	7.68	3/26/2020
	11,002.00	35.93	173.00	10,938.77	394.62	-294.22	-393.95	8.06	3/26/2020
	11,049.00	40.33	173.64	10,975.73	365.81	-290.85	-365.15	9.40	3/26/2020
	11,096.00	43.97	174.25	11,010.57	334.45	-287.53	-333.79	7.79	3/26/2020
	11,143.00	48.47	174.80	11,043.08	300.68	-284.30	-300.03	9.61	3/26/2020
	11,190.00	52.40	175.57	11,073.01	264.58	-281.27	-263.94	8.46	3/26/2020
	11,237.00	57.08	177.88	11,100.14	226.28	-279.10	-225.64	10.73	3/26/2020
	11,285.00	63.03	181.81	11,124.09	184.72	-279.03	-184.08	14.28	3/26/2020
	11,332.00	68.71	183.95	11,143.30	141.90	-281.20	-141.26	12.78	3/26/2020
	11,379.00	74.59	183.61	11,158.09	97.41	-284.14	-96.76	12.53	3/26/2020
	11,426.00	81.89	182.47	11,167.66	51.49	-286.57	-50.84	15.71	3/26/2020
	11,473.00	89.33	181.56	11,171.26	4.69	-288.22	-4.03	15.95	3/26/2020
	11,568.00	92.67	179.02	11,169.60	-90.27	-288.70	90.93	4.42	3/26/2020
	11,598.00	90.85	177.74	11,168.68	-120.25	-287.85	120.90	7.42	3/28/2020
	11,692.00	89.73	177.12	11,168.20	-214.15	-283.63	214.79	1.36	3/28/2020
	11,787.00	89.59	177.44	11,168.77	-309.04	-279.13	309.67	0.37	3/28/2020

Conductor; 25-120

Conductor; 20 in; 25-120 ftKB

Surface; 120-1,800

Surface Casing; 13 3/8 in; 28-1,800 ftKB

Intermediate 1; 1,800-5,505

Intermediate 1; 9 5/8 in; 26-5,495 ftKB

Production Vertical; 5,505-10,815

KOP-LP; 10,815-11,517

Production Curve; 10,815-11,517

Drilled Lateral Length; 11,517-21,322

Production Lateral; 11,517-21,322

Production Casing/Liner; 5 1/2 in; 29-21,312 ftKB

Date TD Reached; 21,322

TD - Original Hole; 21,322

DRILLING WBD

HORIZONTAL, Original Hole, 4/14/2020 10:21:03 AM

Survey Data

Vertical schematic (actual)	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100R)	Date
	11,882.00	89.47	177.32	11,169.55	-403.94	-274.78	404.56	0.18	3/28/2020
	11,977.00	89.59	177.87	11,170.33	-498.85	-270.80	499.46	0.59	3/28/2020
	12,071.00	89.45	178.52	11,171.11	-592.80	-267.84	593.41	0.71	3/28/2020
	12,166.00	89.41	179.55	11,172.06	-687.78	-266.24	688.38	1.08	3/28/2020
	12,260.00	89.65	180.63	11,172.83	-781.78	-266.39	782.38	1.18	3/28/2020
	12,355.00	89.47	181.59	11,173.56	-876.75	-268.23	877.36	1.03	3/28/2020
	12,450.00	89.36	182.39	11,174.53	-971.69	-271.52	972.30	0.85	3/29/2020
	12,544.00	89.59	183.29	11,175.39	-1,065.57	-276.18	1,066.19	0.99	3/29/2020
	12,639.00	89.27	183.64	11,176.34	-1,160.39	-281.92	1,161.03	0.50	3/29/2020
	12,734.00	90.16	184.45	11,176.81	-1,255.15	-288.62	1,255.80	1.27	3/29/2020
	12,829.00	90.39	183.46	11,176.35	-1,349.92	-295.18	1,350.59	1.07	3/29/2020
	12,924.00	90.57	181.12	11,175.56	-1,444.84	-298.97	1,445.51	2.47	3/29/2020
	13,018.00	90.50	182.00	11,174.68	-1,538.80	-301.53	1,539.48	0.94	3/29/2020
	13,113.00	90.28	181.34	11,174.03	-1,633.75	-304.30	1,634.44	0.73	3/29/2020
	13,208.00	90.41	181.84	11,173.46	-1,728.72	-306.93	1,729.41	0.54	3/29/2020
	13,303.00	90.26	181.82	11,172.90	-1,823.67	-309.97	1,824.36	0.16	3/29/2020
	13,398.00	90.52	181.40	11,172.26	-1,918.63	-312.64	1,919.33	0.52	3/29/2020
	13,493.00	90.61	178.32	11,171.32	-2,013.61	-312.41	2,014.31	3.24	3/29/2020
	13,587.00	90.35	179.23	11,170.53	-2,107.58	-310.40	2,108.28	1.01	3/29/2020
	13,682.00	90.62	179.30	11,169.73	-2,202.57	-309.18	2,203.27	0.29	3/29/2020
	13,776.00	90.21	180.06	11,169.05	-2,296.57	-308.65	2,297.26	0.92	3/29/2020
	13,871.00	90.45	179.62	11,168.50	-2,391.57	-308.39	2,392.26	0.53	3/29/2020
	13,966.00	90.47	180.02	11,167.74	-2,486.56	-308.09	2,487.25	0.42	3/29/2020
	14,060.00	90.26	178.86	11,167.14	-2,580.55	-307.17	2,581.24	1.25	3/29/2020
	14,155.00	90.50	179.09	11,166.51	-2,675.54	-305.47	2,676.22	0.35	3/29/2020
	14,250.00	89.70	179.17	11,166.34	-2,770.52	-304.03	2,771.21	0.85	3/29/2020
	14,344.00	90.07	178.82	11,166.53	-2,864.51	-302.38	2,865.19	0.54	3/29/2020
	14,439.00	89.45	179.56	11,166.93	-2,959.50	-301.04	2,960.17	1.02	3/29/2020
	14,533.00	89.73	178.47	11,167.60	-3,053.48	-299.42	3,054.15	1.20	3/29/2020
	14,627.00	89.03	179.45	11,168.62	-3,147.46	-297.71	3,148.12	1.28	3/29/2020
	14,721.00	89.04	179.22	11,170.20	-3,241.44	-296.62	3,242.10	0.24	3/29/2020
	14,816.00	89.50	180.41	11,171.41	-3,336.43	-296.32	3,337.09	1.34	3/29/2020
	14,911.00	88.88	179.40	11,172.76	-3,431.42	-296.16	3,432.08	1.25	3/29/2020
	15,006.00	89.02	179.68	11,174.50	-3,526.40	-295.40	3,527.06	0.33	3/30/2020
	15,100.00	88.38	180.10	11,176.63	-3,620.37	-295.22	3,621.03	0.81	3/30/2020
	15,196.00	88.03	180.16	11,179.64	-3,716.32	-295.43	3,716.99	0.37	3/30/2020
	15,290.00	88.72	179.26	11,182.30	-3,810.28	-294.96	3,810.94	1.21	3/30/2020
	15,384.00	88.03	179.20	11,184.97	-3,904.24	-293.70	3,904.89	0.74	3/30/2020
	15,479.00	88.26	179.92	11,188.04	-3,999.18	-292.97	3,999.84	0.80	3/30/2020
	15,572.00	88.15	179.31	11,190.96	-4,092.14	-292.34	4,092.79	0.67	3/30/2020
	15,667.00	88.56	179.16	11,193.68	-4,187.09	-291.07	4,187.74	0.46	3/30/2020

Conductor; 25-120

Conductor; 20 in; 25-120 ftKB

Surface; 120-1,800

Surface Casing; 13 3/8 in; 28-1,800 ftKB

Intermediate 1; 1,800-5,505

Intermediate 1; 9 5/8 in; 28-5,495 ftKB

Production Vertical; 5,505-10,615

KOP-LP; 10,615-11,517

Production Curve; 10,615-11,517

Drilled Lateral Length; 11,517-21,322

Production Lateral; 11,517-21,322

Production Casing/Liner; 5 1/2 in; 28-21,312 ftKB

Date TD Reached; 21,322

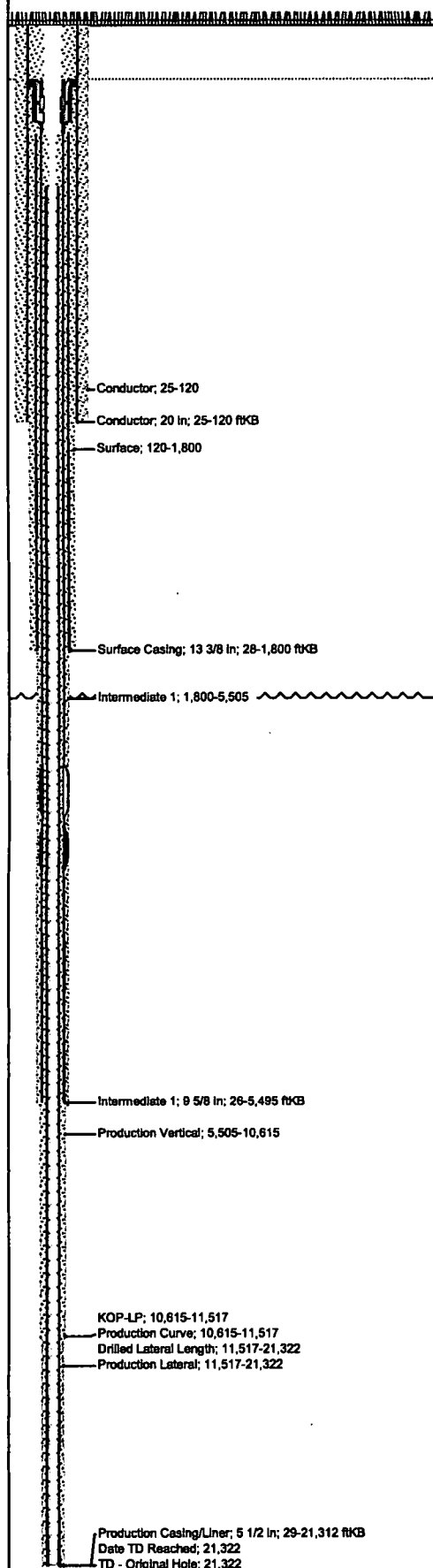
TD - Original Hole; 21,322

DRILLING WBD

HORIZONTAL, Original Hole, 4/14/2020 10:21:03 AM

Survey Data

Vertical schematic (actual)



MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
15,762.00	88.22	180.06	11,196.35	-4,282.05	-290.43	4,282.69	1.01	3/30/2020
15,857.00	87.94	179.99	11,199.54	-4,376.99	-290.47	4,377.64	0.30	3/30/2020
15,951.00	88.49	179.59	11,202.46	-4,470.95	-290.13	4,471.59	0.72	3/30/2020
16,046.00	88.51	180.66	11,204.95	-4,565.91	-290.33	4,566.56	1.13	3/30/2020
16,141.00	88.98	180.13	11,207.03	-4,660.89	-290.99	4,661.54	0.75	3/30/2020
16,236.00	88.76	179.58	11,208.91	-4,755.87	-290.75	4,756.52	0.62	3/30/2020
16,331.00	89.23	178.60	11,210.57	-4,850.84	-289.24	4,851.48	1.14	3/30/2020
16,425.00	89.31	179.26	11,211.77	-4,944.82	-287.48	4,945.45	0.71	3/30/2020
16,520.00	88.97	177.79	11,213.19	-5,039.77	-285.04	5,040.40	1.59	3/30/2020
16,615.00	88.55	180.37	11,215.25	-5,134.73	-283.51	5,135.36	2.75	3/30/2020
16,711.00	89.03	181.07	11,217.28	-5,230.70	-284.72	5,231.33	0.88	3/30/2020
16,805.00	88.79	180.99	11,219.07	-5,324.67	-286.41	5,325.30	0.27	3/30/2020
16,900.00	88.89	181.02	11,220.99	-5,419.63	-288.07	5,420.27	0.11	3/30/2020
16,995.00	88.70	180.57	11,222.99	-5,514.60	-289.39	5,515.24	0.51	3/31/2020
17,089.00	88.90	181.12	11,224.96	-5,608.57	-290.78	5,609.21	0.62	3/30/2020
17,184.00	89.41	180.55	11,226.36	-5,703.55	-292.16	5,704.20	0.81	3/30/2020
17,279.00	90.89	181.42	11,226.11	-5,798.53	-293.80	5,799.18	1.81	3/30/2020
17,374.00	88.53	180.54	11,226.59	-5,893.51	-295.42	5,894.16	2.65	3/30/2020
17,468.00	89.25	180.42	11,228.41	-5,987.49	-296.21	5,988.14	0.78	3/30/2020
17,562.00	88.68	181.77	11,230.11	-6,081.45	-298.00	6,082.11	1.56	3/30/2020
17,657.00	88.99	180.95	11,232.04	-6,176.40	-300.26	6,177.07	0.92	3/31/2020
17,752.00	88.78	181.32	11,233.89	-6,271.37	-302.14	6,272.04	0.45	3/31/2020
17,847.00	88.99	181.37	11,235.74	-6,366.32	-304.37	6,367.00	0.23	3/31/2020
17,942.00	88.90	180.77	11,237.49	-6,461.29	-306.14	6,461.97	0.64	3/31/2020
18,037.00	87.58	180.07	11,240.40	-6,556.24	-306.84	6,556.92	1.57	3/31/2020
18,131.00	85.56	178.48	11,246.03	-6,650.06	-305.65	6,650.73	2.73	3/31/2020
18,227.00	86.63	176.89	11,252.57	-6,745.75	-301.78	6,746.42	1.99	3/31/2020
18,284.00	84.29	176.21	11,257.08	-6,802.46	-298.36	6,803.12	4.27	3/31/2020
18,330.00	86.09	176.90	11,260.93	-6,848.22	-295.61	6,848.87	4.19	3/31/2020
18,425.00	88.81	178.31	11,265.16	-6,943.03	-291.65	6,943.67	3.22	3/31/2020
18,519.00	88.72	177.78	11,267.19	-7,036.95	-288.44	7,037.59	0.57	3/31/2020
18,614.00	92.33	178.13	11,266.32	-7,131.87	-285.05	7,132.50	3.82	3/31/2020
18,709.00	89.26	178.97	11,265.00	-7,226.82	-282.65	7,227.44	3.35	3/31/2020
18,804.00	89.58	178.18	11,265.96	-7,321.78	-280.29	7,322.40	0.90	3/31/2020
18,899.00	90.39	181.26	11,265.99	-7,416.77	-279.82	7,417.39	3.35	3/31/2020
18,994.00	91.22	181.79	11,264.65	-7,511.73	-282.35	7,512.35	1.04	3/31/2020
19,089.00	88.95	181.26	11,264.51	-7,606.69	-284.88	7,607.31	2.45	3/31/2020
19,184.00	88.87	181.48	11,266.32	-7,701.64	-287.15	7,702.27	0.25	3/31/2020
19,278.00	88.24	180.50	11,268.69	-7,795.60	-288.77	7,796.23	1.24	3/31/2020
19,373.00	87.70	179.79	11,272.05	-7,890.54	-289.01	7,891.17	0.94	3/31/2020
19,468.00	89.82	179.82	11,274.11	-7,985.51	-288.69	7,986.14	2.23	3/31/2020

DRILLING WBD

HORIZONTAL, Original Hole, 4/14/2020 10:21:03 AM

Survey Data

Vertical schematic (actual)	MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Date
	19,563.00	90.49	179.04	11,273.85	-8,080.50	-287.74	8,081.13	1.08	3/31/2020
	19,657.00	89.81	178.76	11,273.61	-8,174.48	-285.94	8,175.11	0.78	3/31/2020
	19,751.00	89.29	175.77	11,274.34	-8,268.36	-281.45	8,268.98	3.23	3/31/2020
	19,846.00	89.90	178.14	11,275.02	-8,363.22	-276.41	8,363.82	2.58	3/31/2020
	19,940.00	90.16	179.29	11,274.97	-8,457.19	-274.30	8,457.79	1.25	3/31/2020
	20,035.00	90.60	179.29	11,274.34	-8,552.18	-273.12	8,552.78	0.46	3/31/2020
	20,129.00	90.48	179.82	11,273.45	-8,646.18	-272.39	8,646.77	0.58	3/31/2020
	20,223.00	90.78	180.79	11,272.42	-8,740.17	-272.89	8,740.76	1.08	3/31/2020
	20,317.00	90.80	180.48	11,271.12	-8,834.15	-273.94	8,834.75	0.33	3/31/2020
	20,411.00	89.42	180.16	11,270.94	-8,928.15	-274.46	8,928.75	1.51	3/31/2020
	20,505.00	89.04	179.87	11,272.20	-9,022.14	-274.49	9,022.74	0.51	3/31/2020
	20,599.00	87.74	179.72	11,274.84	-9,116.10	-274.15	9,116.70	1.39	3/31/2020
	20,694.00	89.14	180.51	11,277.43	-9,211.06	-274.34	9,211.66	1.69	3/31/2020
	20,788.00	91.07	181.27	11,277.26	-9,305.05	-275.80	9,305.65	2.21	3/31/2020
	20,882.00	90.08	180.68	11,276.31	-9,399.03	-277.40	9,399.63	1.23	3/31/2020
	20,976.00	91.60	180.70	11,274.94	-9,493.01	-278.53	9,493.61	1.62	3/31/2020
	21,071.00	90.87	179.70	11,272.89	-9,587.98	-278.86	9,588.59	1.30	3/31/2020
	21,164.00	90.66	180.05	11,271.65	-9,680.97	-278.66	9,681.58	0.44	3/31/2020
	21,259.00	90.49	180.30	11,270.69	-9,775.97	-278.95	9,776.58	0.32	3/31/2020
	21,273.00	90.45	180.05	11,270.58	-9,789.97	-278.99	9,790.57	1.81	3/31/2020
	21,322.00	90.45	180.05	11,270.19	-9,838.97	-279.04	9,839.57	0.00	3/31/2020

Conductor; 25-120

Conductor; 20 in; 25-120 ftKB

Surface; 120-1,800

Surface Casing; 13 3/8 in; 28-1,800 ftKB

Intermediate 1; 1,800-5,505

Intermediate 1; 9 5/8 in; 26-5,495 ftKB

Production Vertical; 5,505-10,615

KOP-LP; 10,615-11,517

Production Curve; 10,615-11,517

Drilled Lateral Length; 11,517-21,322

Production Lateral; 11,517-21,322

Production Casing/Liner; 5 1/2 in; 29-21,312 ftKB

Date TD Reached; 21,322

TD - Original Hole; 21,322