

Well Header

API/UWI: 3001544403

SAP Cost Center ID: 1675091001

Permit No.:

State/Prov: New Mexico

County: Eddy

Surface Location: T23S-R30E-S30

Spud Date: 2018/09/10 14:00

Orig KB Elev (ft): 3,134.00

Gr Elev (ft): 3,112.00

KB-Grd (ft): 22.00

Wellbores

Wellbore Name: Original Hole

Actual Deviation Survey: 11/29/2018 07:00, SURVEY

VS Dir (°): 179.00

Kick Off Depth (MD) (ftKB): 9,886.0

KO Method: Steerable Motor

Lat/Long Datum: Latitude (°): Longitude (°):

Deviation Surveys

Date: 2018/11/29

Des: SURVEY

Decl (°):

MD Tie In (ftKB): 0.00

Inclination Tie In (°): 0.0

Azimuth Tie In (°): 0.0

TVDTie In (ftKB): 0.00

NSTie In (ft): 0.00

EWTie In (ft): 0.00

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	Survey Company	Bad Data?	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
9/10/2018	0	0	0	0 Other	No	0	0	0	0	0
9/10/2018	100	1	0	0 Other	No	99.99	-0.87	0.87	0	1
9/10/2018	125	1	345	Other	No	124.99	-1.3	1.3	-0.06	1.04
9/10/2018	200	2	355	Other	No	199.96	-3.24	3.24	-0.34	1.37
9/10/2018	239	0.9	12	Other	No	238.95	-4.22	4.22	-0.34	3
9/10/2018	267	0.4	327	Other	No	266.95	-4.52	4.51	-0.34	2.42
9/10/2018	326	0.8	357	Other	No	325.95	-5.1	5.1	-0.48	0.84
9/11/2018	375	1.5	292	Other	No	374.94	-5.7	5.68	-1.09	2.79
9/13/2018	402	1.8	277.3	Other	No	401.93	-5.9	5.86	-1.84	1.91
9/13/2018	497	2.1	275.9	Other	No	496.87	-6.32	6.23	-5.05	0.32
9/13/2018	593	1.9	282.1	Other	No	592.81	-6.89	6.75	-8.35	0.31
9/13/2018	673	1.2	291.2	Other	No	672.78	-7.51	7.33	-10.43	0.92
9/13/2018	768	1.2	291.6	Other	No	767.76	-8.27	8.05	-12.28	0.01
9/13/2018	865	1.4	286.7	Other	No	864.74	-9.02	8.77	-14.36	0.24
9/13/2018	959	1.1	298.9	Other	No	958.72	-9.82	9.53	-16.25	0.42
9/13/2018	1,055.00	0.8	322.1	Other	No	1,054.70	-10.81	10.51	-17.47	0.5
9/13/2018	1,150.00	1	306.3	Other	No	1,149.69	-11.84	11.52	-18.55	0.33
9/13/2018	1,246.00	1.1	299.5	Other	No	1,245.68	-12.82	12.47	-20.02	0.17
9/13/2018	1,341.00	1.5	295.6	Other	No	1,340.65	-13.84	13.46	-21.94	0.43
9/13/2018	1,437.00	1.9	291.4	Other	No	1,436.61	-15.01	14.58	-24.55	0.44
9/13/2018	1,532.00	1.8	279.1	Other	No	1,531.56	-15.87	15.39	-27.49	0.43
9/13/2018	1,627.00	1.3	259.1	Other	No	1,626.52	-15.95	15.43	-30.03	0.77
9/13/2018	1,723.00	1.5	261.3	Other	No	1,722.50	-15.59	15.03	-32.34	0.22
9/13/2018	1,818.00	2	265.5	Other	No	1,817.45	-15.32	14.71	-35.22	0.54
9/13/2018	1,913.00	2	254.6	Other	No	1,912.39	-14.81	14.14	-38.47	0.4
9/13/2018	2,008.00	1.4	214.3	Other	No	2,007.35	-13.45	12.74	-40.72	1.37
9/13/2018	2,104.00	1.7	177.4	Other	No	2,103.32	-11.07	10.35	-41.32	1.06
9/13/2018	2,199.00	2.2	183	Other	No	2,198.27	-7.84	7.12	-41.35	0.56
9/13/2018	2,294.00	1.6	186.4	Other	No	2,293.21	-4.71	3.98	-41.59	0.64
9/13/2018	2,398.00	0.1	293.4	Other	No	2,397.20	-3.31	2.58	-41.84	1.57
9/13/2018	2,485.00	0.8	359.5	Other	No	2,484.20	-3.94	3.21	-41.91	0.88
9/13/2018	2,580.00	0.8	0.6	Other	No	2,579.19	-5.27	4.54	-41.91	0.02
9/13/2018	2,676.00	0.6	59.9	Other	No	2,675.18	-6.18	5.46	-41.47	0.74
9/13/2018	2,771.00	1.1	114.5	Other	No	2,770.17	-6.03	5.33	-40.21	0.94
9/13/2018	2,866.00	1.4	129.5	Other	No	2,865.15	-4.89	4.22	-38.48	0.46
9/13/2018	2,961.00	2.2	150.1	Other	No	2,960.10	-2.54	1.9	-36.68	1.07
9/13/2018	3,056.00	2.9	151.1	Other	No	3,055.01	1.18	-1.79	-34.61	0.74
9/13/2018	3,155.00	1.9	152.1	Other	No	3,153.92	4.86	-5.43	-32.63	1.01
9/13/2018	3,251.00	0.6	161.6	Other	No	3,249.90	6.76	-7.31	-31.73	1.37

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State/Prov: New Mexico
Gr Elev (ft): 3,112.00

County: Eddy
KB-Grd (ft): 22.00

Wellbores

Wellbore Name: Original Hole
Deviation Surveys

Date: 2018/11/29
MD Tie In (ftKB): 0.00

Survey Data

Date

Actual Deviation Survey: 11/29/2018 07:00, SURVEY

Des: SURVEY
Inclination Tie In (°): 0.0

VS Dir (°): 179.00

Decl (°):
Azimuth Tie In (°): 0.0

Kick Off Depth (MD) (ftKB): 9,886.0

TVDTie In (ftKB): 0.00

KO Method: Steerable Motor

NSTie In (ft): 0.00

Lat/Long Datum: Latitude (°): Longitude (°):

EWTie In (ft): 0.00

Date	MD (ftKB)	Incl (°)	Azm (°)	Survey Company	Bad Data?	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
9/13/2018	3,343.00	0.4	169.5	Other	No	3,341.89	7.53	-8.09	-31.52	0.23
9/13/2018	3,439.00	0.3	141.7	Other	No	3,437.89	8.07	-8.61	-31.3	0.2
9/13/2018	3,535.00	0.4	129.8	Other	No	3,533.89	8.48	-9.02	-30.89	0.13
9/13/2018	3,630.00	0.5	109.9	Other	No	3,628.89	8.85	-9.38	-30.24	0.19
9/13/2018	3,725.00	0.5	105.8	Other	No	3,723.88	9.12	-9.63	-29.45	0.04
9/13/2018	3,820.00	0.6	105	Other	No	3,818.88	9.37	-9.87	-28.58	0.11
9/13/2018	3,915.00	0.7	113.1	Other	No	3,913.87	9.75	-10.23	-27.56	0.14
9/13/2018	4,010.00	0.7	109.4	Other	No	4,008.87	10.19	-10.65	-26.48	0.05
9/13/2018	4,105.00	0.8	102.1	Other	No	4,103.86	10.54	-10.98	-25.28	0.15
9/13/2018	4,200.00	0.8	113.3	Other	No	4,198.85	10.96	-11.38	-24.03	0.16
9/13/2018	4,296.00	0.8	113	Other	No	4,294.84	11.51	-11.91	-22.79	0
9/13/2018	4,391.00	0.3	154.4	Other	No	4,389.83	12.01	-12.39	-22.08	0.64
9/13/2018	4,487.00	0.3	266.4	Other	No	4,485.83	12.25	-12.64	-22.22	0.52
9/13/2018	4,582.00	0.5	281	Other	No	4,580.83	12.17	-12.57	-22.87	0.23
9/13/2018	4,678.00	0.5	259.5	Other	No	4,676.83	12.15	-12.57	-23.7	0.19
9/13/2018	4,773.00	0.6	272.4	Other	No	4,771.82	12.19	-12.62	-24.6	0.17
9/13/2018	4,869.00	1.1	295.4	Other	No	4,867.81	11.75	-12.21	-25.94	0.62
9/13/2018	4,965.00	1.9	312	Other	No	4,963.78	10.26	-10.75	-27.95	0.94
9/13/2018	5,059.00	1.9	314.9	Other	No	5,057.73	8.08	-8.6	-30.21	0.1
9/13/2018	5,155.00	2.2	315.5	Other	No	5,153.67	5.6	-6.17	-32.63	0.31
9/13/2018	5,250.00	2.1	315.6	Other	No	5,248.60	3.01	-3.62	-35.13	0.11
9/13/2018	5,346.00	2.2	313.4	Other	No	5,344.53	0.44	-1.1	-37.7	0.14
9/13/2018	5,441.00	2.3	310.5	Other	No	5,439.46	-2.1	1.39	-40.47	0.16
9/13/2018	5,537.00	2.4	311.5	Other	No	5,535.38	-4.73	3.97	-43.44	0.11
9/13/2018	5,633.00	2.3	311	Other	No	5,631.30	-7.38	6.57	-46.4	0.11
9/13/2018	5,728.00	2.3	305	Other	No	5,726.22	-9.77	8.91	-49.4	0.25
9/13/2018	5,823.00	2.1	305.7	Other	No	5,821.15	-11.93	11.02	-52.38	0.21
9/13/2018	5,920.00	2.1	303.5	Other	No	5,918.09	-14	13.04	-55.3	0.08
9/13/2018	6,015.00	1.9	299.4	Other	No	6,013.03	-15.79	14.77	-58.12	0.26
9/13/2018	6,110.00	1.8	300.3	Other	No	6,107.98	-17.36	16.3	-60.78	0.11
9/13/2018	6,205.00	1.8	298.6	Other	No	6,202.93	-18.87	17.77	-63.38	0.06
9/13/2018	6,300.00	1.8	296	Other	No	6,297.88	-20.28	19.14	-66.03	0.09
9/13/2018	6,396.00	1.5	296	Other	No	6,393.84	-21.54	20.35	-68.52	0.31
9/13/2018	6,491.00	1.5	291.4	Other	No	6,488.81	-22.58	21.35	-70.79	0.13
9/13/2018	6,586.00	1.4	286.3	Other	No	6,583.78	-23.4	22.13	-73.07	0.17
9/13/2018	6,682.00	1.4	283.2	Other	No	6,679.75	-24.03	22.72	-75.33	0.08
9/13/2018	6,777.00	1.5	281.4	Other	No	6,774.72	-24.59	23.23	-77.68	0.12
9/17/2018	6,871.00	1.3	279.2	Other	No	6,868.69	-25.04	23.65	-79.94	0.22
9/17/2018	6,967.00	1.5	271.3	Other	No	6,964.67	-25.28	23.85	-82.27	0.29

Well Header

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Surface Location: T235-R30E-S30

SAP Cost Center ID: 1675091001

Spud Date: 2018/09/10 14:00

Permit No.:

Orig KB Elev (ft): 3,134.00

State/Prov: New Mexico

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County: Eddy

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Wellbore Name: Original Hole

Deviation Surveys

Date: 2018/11/29

MD Tie In (ftKB): 0.00

Survey Data

Date

Actual Deviation Survey: 11/29/2018 07:00, SURVEY

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Inclination Tie In (°): 0.0

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Date	MD (ftKB)	Incl (°)	Azm (°)	Survey Company	Bad Data?	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
9/17/2018	7,063.00	1.2	263.6	Other	No	7,060.64	-25.24	23.77	-84.53	0.36
9/17/2018	7,158.00	1.4	261.2	Other	No	7,155.61	-24.99	23.48	-86.66	0.22
9/17/2018	7,253.00	2.2	256.8	Other	No	7,250.57	-24.44	22.88	-89.58	0.85
9/17/2018	7,349.00	2.1	271.6	Other	No	7,346.50	-24.13	22.51	-93.14	0.59
9/17/2018	7,444.00	1.5	264.8	Other	No	7,441.45	-24.12	22.45	-96.11	0.67
9/17/2018	7,539.00	1.5	229.2	Other	No	7,536.42	-23.23	21.52	-98.29	0.97
9/17/2018	7,635.00	1.2	160.9	Other	No	7,632.40	-21.47	19.75	-98.92	1.6
9/17/2018	7,731.00	2.2	173.1	Other	No	7,728.36	-18.69	16.97	-98.37	1.1
9/17/2018	7,826.00	3	134.9	Other	No	7,823.27	-15.09	13.41	-96.39	1.96
9/17/2018	7,923.00	1.8	139.5	Other	No	7,920.18	-12.09	10.46	-93.6	1.25
9/20/2018	8,018.00	0.6	174.2	Other	No	8,015.16	-10.44	8.83	-92.58	1.42
9/20/2018	8,114.00	0.7	183.4	Other	No	8,111.15	-9.36	7.74	-92.56	0.15
9/20/2018	8,209.00	1.1	221.6	Other	No	8,206.14	-8.11	6.48	-93.2	0.74
9/20/2018	8,305.00	1.6	241.3	Other	No	8,302.11	-6.8	5.15	-94.99	0.7
9/20/2018	8,400.00	1.8	267	Other	No	8,397.07	-6.14	4.43	-97.64	0.82
9/20/2018	8,556.00	1.8	237.3	Other	No	8,553.00	-4.76	2.98	-102.15	0.59
9/20/2018	8,620.00	1.6	242	Other	No	8,616.97	-3.83	2.02	-103.79	0.38
9/20/2018	8,716.00	2.1	256.2	Other	No	8,712.92	-2.83	0.97	-106.68	0.7
9/20/2018	8,812.00	2.3	252.1	Other	No	8,808.85	-1.88	-0.04	-110.22	0.26
9/20/2018	8,906.00	1.9	248.7	Other	No	8,902.79	-0.79	-1.19	-113.47	0.45
9/20/2018	9,000.00	1.7	228.8	Other	No	8,996.74	0.65	-2.67	-115.97	0.69
9/20/2018	9,095.00	1.6	228.1	Other	No	9,091.70	2.43	-4.49	-118.01	0.11
9/20/2018	9,190.00	1.9	294.5	Other	No	9,186.67	2.62	-4.72	-120.43	2.03
9/20/2018	9,286.00	2.5	316.6	Other	No	9,282.60	0.38	-2.54	-123.32	1.07
9/20/2018	9,381.00	2.2	310.8	Other	No	9,377.52	-2.36	0.16	-126.13	0.4
9/20/2018	9,477.00	2.8	323.7	Other	No	9,473.43	-5.5	3.25	-128.91	0.85
9/20/2018	9,572.00	2.1	325.7	Other	No	9,568.34	-8.85	6.56	-131.26	0.74
9/20/2018	9,762.00	1.2	313.9	Other	No	9,758.26	-13.16	10.82	-134.66	0.5
11/26/2018	9,827.00	0.3	281.9	Other	No	9,823.25	-13.68	11.32	-135.32	1.48
11/28/2018	9,865.00	0.2	146	Other	No	9,861.25	-13.65	11.29	-135.38	1.22
11/28/2018	9,913.00	2.1	177.3	Other	No	9,909.24	-12.7	10.34	-135.29	4.02
11/28/2018	9,961.00	6.4	183.7	Other	No	9,957.10	-9.15	6.79	-135.42	9
11/28/2018	10,009.00	10.7	194.5	Other	No	10,004.56	-2.19	-0.2	-136.71	9.52
11/28/2018	10,057.00	13.4	194.8	Other	No	10,051.49	7.46	-9.89	-139.24	5.63
11/29/2018	10,105.00	17.4	193.4	Other	No	10,097.76	19.77	-22.25	-142.33	8.37
11/29/2018	10,152.00	20.6	188.6	Other	No	10,142.20	34.73	-37.27	-145.2	7.57
11/29/2018	10,199.00	23.3	188.7	Other	No	10,185.79	52.05	-54.64	-147.84	5.75
11/29/2018	10,247.00	27.8	186.8	Other	No	10,229.08	72.51	-75.15	-150.6	9.53
11/29/2018	10,295.00	33.3	184.4	Other	No	10,270.41	96.73	-99.42	-152.94	11.73

Well Header

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SAP Cost Center ID: 1675091001

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Orig KB Elev (ft): 3,134.00

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Wellbores

Wellbore Name: Original Hole

Actual Deviation Survey: 11/29/2018 07:00, SURVEY

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Survey Data

Date

MD (ftKB)

Incl (°)

Azm (°)

Survey Company

Bad Data?

TVD (ftKB) VS (ft)

NS (ft)

EW (ft)

DLS (°/100ft)

11/29/2018	10,342.00	38.2	185.1 Other	No	10,308.54	124.05	-126.77	-155.22	10.46
11/29/2018	10,389.00	42.1	184.1 Other	No	10,344.46	154.2	-156.98	-157.64	8.41
11/29/2018	10,436.00	45.8	182 Other	No	10,378.29	186.73	-189.54	-159.36	8.46
11/29/2018	10,483.00	48.4	181.6 Other	No	10,410.28	221.12	-223.95	-160.44	5.57
11/29/2018	10,531.00	51.9	180.1 Other	No	10,441.03	257.94	-260.79	-160.97	7.68
11/29/2018	10,579.00	56.3	181 Other	No	10,469.17	296.8	-299.66	-161.35	9.29
11/29/2018	10,627.00	63.2	182.6 Other	No	10,493.34	338.18	-341.08	-162.67	14.66
11/29/2018	10,674.00	69.6	184.1 Other	No	10,512.15	381.1	-384.05	-165.2	13.93
11/29/2018	10,721.00	75.2	182.9 Other	No	10,526.36	425.75	-428.74	-167.93	12.16
11/29/2018	10,768.00	82.1	180.1 Other	No	10,535.60	471.75	-474.78	-169.12	15.8
11/29/2018	10,816.00	85.8	179.7 Other	No	10,540.66	519.47	-522.5	-169.04	7.75
11/29/2018	10,863.00	88.6	180.4 Other	No	10,542.95	566.4	-569.44	-169.08	6.14
11/29/2018	10,910.00	89.4	180.3 Other	No	10,543.78	613.38	-616.43	-169.37	1.72
11/29/2018	11,006.00	89	178.7 Other	No	10,545.12	709.37	-712.41	-168.53	1.72
11/29/2018	11,102.00	89.6	179.9 Other	No	10,546.29	805.35	-808.4	-167.36	1.4
11/29/2018	11,197.00	89	179.4 Other	No	10,547.45	900.34	-903.39	-166.78	0.82
11/29/2018	11,292.00	90	179.1 Other	No	10,548.28	995.33	-998.38	-165.53	1.1
11/29/2018	11,388.00	91.3	178.4 Other	No	10,547.19	1,091.32	-1,094.34	-163.44	1.54
11/30/2018	11,483.00	91.2	178.7 Other	No	10,545.12	1,186.30	-1,189.29	-161.03	0.33
11/30/2018	11,578.00	91.3	180.4 Other	No	10,543.04	1,281.27	-1,284.26	-160.29	1.79
11/30/2018	11,673.00	88.8	180.9 Other	No	10,542.96	1,376.22	-1,379.25	-161.37	2.68
11/30/2018	11,769.00	89.9	179.9 Other	No	10,544.05	1,472.18	-1,475.24	-162.04	1.55
11/30/2018	11,865.00	88.4	180 Other	No	10,545.47	1,568.16	-1,571.22	-161.95	1.57
11/30/2018	11,962.00	89.7	179.5 Other	No	10,547.08	1,665.13	-1,668.21	-161.53	1.44
11/30/2018	12,058.00	89.3	178.6 Other	No	10,547.92	1,761.13	-1,764.19	-159.94	1.03
11/30/2018	12,152.00	89.5	178.2 Other	No	10,548.90	1,855.12	-1,858.15	-157.31	0.48
11/30/2018	12,249.00	90.1	177 Other	No	10,549.24	1,952.09	-1,955.06	-153.25	1.38
11/30/2018	12,345.00	91	178.1 Other	No	10,548.32	2,048.05	-2,050.96	-149.15	1.48
11/30/2018	12,440.00	91.8	181.3 Other	No	10,546.00	2,143.00	-2,145.92	-148.65	3.47
11/30/2018	12,537.00	89.4	183 Other	No	10,544.98	2,239.84	-2,242.84	-152.29	3.03
11/30/2018	12,632.00	89.5	182 Other	No	10,545.90	2,334.65	-2,337.74	-156.43	1.06
11/30/2018	12,728.00	91.2	181.9 Other	No	10,545.31	2,430.52	-2,433.68	-159.7	1.77
11/30/2018	12,824.00	91.6	182.7 Other	No	10,542.96	2,526.33	-2,529.57	-163.55	0.93
11/30/2018	12,918.00	90.3	180.4 Other	No	10,541.41	2,620.22	-2,623.52	-166.09	2.81
11/30/2018	13,013.00	90.2	178.7 Other	No	10,540.99	2,715.21	-2,718.51	-165.35	1.79
11/30/2018	13,108.00	89	179.3 Other	No	10,541.65	2,810.21	-2,813.49	-163.69	1.41
11/30/2018	13,203.00	91	179.1 Other	No	10,541.65	2,905.20	-2,908.48	-162.36	2.12
11/30/2018	13,298.00	89	179.2 Other	No	10,541.65	3,000.20	-3,003.46	-160.95	2.11
11/30/2018	13,393.00	91	179.2 Other	No	10,541.65	3,095.19	-3,098.45	-159.63	2.11

Well Header

API/UWI: 3001544403

Surface Location: T23S-R30E-S30

SAP Cost Center ID: 1675091001

Spud Date: 2018/09/10 14:00

Permit No.:

Orig KB Elev (ft): 3,134.00

State/Prov: New Mexico

Gr Elev (ft): 3,112.00

County: Eddy

KB-Grd (ft): 22.00

Wellbores

Wellbore Name: Original Hole

Actual Deviation Survey: 11/29/2018 07:00, SURVEY

VS Dir (°): 179.00

Kick Off Depth (MD) (ftKB): 9,886.0

KO Method: Steerable Motor

Lat/Long Datum:

Latitude (°):

Longitude (°):

Deviation Surveys

Date: 2018/11/29

Des: SURVEY

Decl (°):

MD Tie In (ftKB): 0.00

Inclination Tie In (°): 0.0

Azimuth Tie In (°): 0.0

TVDTie In (ftKB): 0.00

NSTie In (ft): 0.00

EWTie In (ft): 0.00

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	Survey Company	Bad Data?	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
11/30/2018	13,488.00		89.9	179.1 Other	No	10,540.91	3,190.19	-3,193.43	-158.22	1.16
11/30/2018	13,584.00		87.8	179 Other	No	10,542.83	3,286.16	-3,289.39	-156.63	2.19
11/30/2018	13,678.00		89.7	178.8 Other	No	10,544.89	3,380.13	-3,383.35	-154.82	2.03
11/30/2018	13,775.00		89.8	179.8 Other	No	10,545.31	3,477.13	-3,480.34	-153.64	1.04
11/30/2018	13,870.00	91.25	180 Other	179.8 Other	No	10,544.44	3,572.11	-3,575.33	-153.47	1.54
11/30/2018	13,966.00	89.3	178.9 Other	178.9 Other	No	10,543.98	3,668.10	-3,671.32	-152.55	2.33
11/30/2018	14,061.00	90.6	179.3 Other	179.3 Other	No	10,544.06	3,763.10	-3,766.31	-151.06	1.43
11/30/2018	14,156.00	89.5	178.7 Other	178.7 Other	No	10,543.98	3,858.10	-3,861.29	-149.4	1.32
11/30/2018	14,253.00	90.8	178.3 Other	178.3 Other	No	10,543.72	3,955.09	-3,958.26	-146.86	1.4
11/30/2018	14,349.00	90.4	179.1 Other	179.1 Other	No	10,542.72	4,051.08	-4,054.23	-144.68	0.93
11/30/2018	14,444.00	88.5	179.9 Other	179.9 Other	No	10,543.63	4,146.07	-4,149.21	-143.85	2.17
11/30/2018	14,538.00	90.3	179.8 Other	179.8 Other	No	10,544.61	4,240.05	-4,243.20	-143.61	1.92
11/30/2018	14,634.00	89.1	180.4 Other	180.4 Other	No	10,545.12	4,336.03	-4,339.20	-143.77	1.4
11/30/2018	14,730.00	91.1	180.3 Other	180.3 Other	No	10,544.95	4,432.00	-4,435.19	-144.36	2.09
11/30/2018	14,826.00	89.3	180.9 Other	180.9 Other	No	10,544.61	4,527.96	-4,531.18	-145.37	1.98
11/30/2018	14,921.00	91.6	180.8 Other	180.8 Other	No	10,543.87	4,622.90	-4,626.16	-146.78	2.42
11/30/2018	15,017.00	91.7	179.9 Other	179.9 Other	No	10,541.10	4,718.83	-4,722.12	-147.36	0.94
11/30/2018	15,112.00	87.8	180.1 Other	180.1 Other	No	10,541.52	4,813.80	-4,817.10	-147.36	4.11
11/30/2018	15,208.00	88.6	179.9 Other	179.9 Other	No	10,544.53	4,909.73	-4,913.05	-147.36	0.86
11/30/2018	15,303.00	91.3	179.1 Other	179.1 Other	No	10,544.62	5,004.72	-5,008.04	-146.53	2.96
11/30/2018	15,399.00	90.6	179.7 Other	179.7 Other	No	10,543.03	5,100.70	-5,104.02	-145.53	0.96
11/30/2018	15,494.00	89.3	179.4 Other	179.4 Other	No	10,543.11	5,195.70	-5,199.02	-144.78	1.4
11/30/2018	15,590.00	89.9	179.8 Other	179.8 Other	No	10,543.78	5,291.69	-5,295.01	-144.11	0.75
11/30/2018	15,686.00	89.9	180.6 Other	180.6 Other	No	10,543.95	5,387.67	-5,391.01	-144.45	0.83
11/30/2018	15,712.00	90.5	180.5 Other	180.5 Other	No	10,543.85	5,413.66	-5,417.01	-144.7	2.34
11/30/2018	15,807.00	88.1	179 Other	179 Other	No	10,545.02	5,508.63	-5,511.99	-144.28	2.98
11/30/2018	15,902.00	88.4	178.1 Other	178.1 Other	No	10,547.92	5,603.58	-5,606.91	-141.88	1
11/30/2018	15,998.00	89.3	178.6 Other	178.6 Other	No	10,549.84	5,699.56	-5,702.85	-139.12	1.07
11/30/2018	16,094.00	90	177.9 Other	177.9 Other	No	10,550.43	5,795.55	-5,798.81	-136.18	1.03
11/30/2018	16,189.00	90.6	179.3 Other	179.3 Other	No	10,549.93	5,890.54	-5,893.77	-133.86	1.6
11/30/2018	16,284.00	91.1	179.3 Other	179.3 Other	No	10,548.52	5,985.53	-5,988.75	-132.7	0.53
11/30/2018	16,380.00	91	180 Other	180 Other	No	10,546.76	6,081.50	-6,084.74	-132.12	0.74
11/30/2018	16,476.00	87.8	180.6 Other	180.6 Other	No	10,547.77	6,177.46	-6,180.72	-132.62	3.39
11/30/2018	16,571.00	87.8	179.7 Other	179.7 Other	No	10,551.42	6,272.37	-6,275.65	-132.87	0.95
11/30/2018	16,666.00	88.3	179.7 Other	179.7 Other	No	10,554.65	6,367.31	-6,370.59	-132.37	0.53
11/30/2018	16,761.00	89.8	178.6 Other	178.6 Other	No	10,556.22	6,462.29	-6,465.56	-130.96	1.96
11/30/2018	16,857.00	91.2	177.7 Other	177.7 Other	No	10,555.39	6,558.27	-6,561.50	-127.86	1.73
11/30/2018	16,952.00	92	179.9 Other	179.9 Other	No	10,552.73	6,653.23	-6,656.44	-125.87	2.46
11/30/2018	17,046.00	90.9	180.6 Other	180.6 Other	No	10,550.35	6,747.17	-6,750.41	-126.28	1.39

Well Header
API/UWI: 3001544403 SAP Cost Center ID: 1675091001 Permit No.: State/Prov: New Mexico County: Eddy
Surface Location: T23S-R30E-S30 Spud Date: 2018/09/10 14:00 Orig KB Elev (ft): 3,134.00 Gr Elev (ft): 3,112.00 KB-Grd (ft): 22.00

Wellbores
Wellbore Name: Original Hole Actual Deviation Survey: 11/29/2018 07:00, SURVEY VS Dir (°): 179.00 Kick Off Depth (MD) (ftKB): 9,886.0 KO Method: Steerable Motor Lat/Long Datum: Latitude (°): Longitude (°):
Deviation Surveys
Date: 2018/11/29 Des: SURVEY Decl (°):
MD Tie In (ftKB): 0.00 Inclination Tie In (°): 0.0 Azimuth Tie In (°): 0.0 TVDTie In (ftKB): 0.00 NSTie In (ft): 0.00 EWTie In (ft): 0.00
Survey Data
Date MD (ftKB) Incl (°) Azm (°) Survey Company Bad Data? TVD (ftKB) VS (ft) NS (ft) EW (ft) DLS (°/100ft)

11/30/2018	17,141.00	89.5	178.3	Other	No	10,550.02	6,842.16	-6,845.39	-125.37	2.83
11/30/2018	17,237.00	90.7	178.3	Other	No	10,549.86	6,938.15	-6,941.35	-122.52	1.25
11/30/2018	17,331.00	92	180	Other	No	10,547.64	7,032.12	-7,035.31	-121.13	2.28
11/30/2018	17,427.00	90.6	180.9	Other	No	10,545.46	7,128.06	-7,131.28	-121.88	1.73
11/30/2018	17,521.00	89.7	181.3	Other	No	10,545.22	7,222.00	-7,225.26	-123.69	1.05
11/30/2018	17,617.00	89.7	180	Other	No	10,545.72	7,317.95	-7,321.25	-124.78	1.35
11/30/2018	17,713.00	90.5	180.1	Other	No	10,545.55	7,413.94	-7,417.25	-124.86	0.84
11/30/2018	17,808.00	91.8	180.1	Other	No	10,543.65	7,508.90	-7,512.23	-125.03	1.37
11/30/2018	17,904.00	89.8	180.1	Other	No	10,542.30	7,604.87	-7,608.21	-125.19	2.08
11/30/2018	17,998.00	92.6	180.9	Other	No	10,540.34	7,698.80	-7,702.18	-126.01	3.1
11/30/2018	18,094.00	89.9	179.8	Other	No	10,538.24	7,794.74	-7,798.14	-126.6	3.04
11/30/2018	18,189.00	88.8	179.3	Other	No	10,539.32	7,889.73	-7,893.13	-125.85	1.27
11/30/2018	18,283.00	90.9	178.7	Other	No	10,539.57	7,983.73	-7,987.11	-124.21	2.32
11/30/2018	18,378.00	91.6	178.8	Other	No	10,537.49	8,078.70	-8,082.06	-122.14	0.74
11/30/2018	18,474.00	90	176.6	Other	No	10,536.15	8,174.66	-8,177.97	-118.29	2.83
11/30/2018	18,542.00	90.1	175.3	Other	No	10,536.09	8,242.56	-8,245.80	-113.49	1.92