

**CENTENNIAL RESOURCE
DEVELOPMENT, LLC**

LEA COUNTY, NM (NAD 83 - UTM ZONE 13 - TRUE)
NE NE SEC 16 T24S R34E
PIRATE STATE #302H
16 June, 2019

Survey: FINAL SURVEYS





Project: LEA COUNTY, NM (NAD 83 - UTM ZONE 13 - TRUE)
Site: NE NE SEC 16 T24S R34E
Well: PIRATE STATE #302H
Wellbore: JOB # 2019-359-650
Design: FINAL SURVEYS



ANNOTATIONS

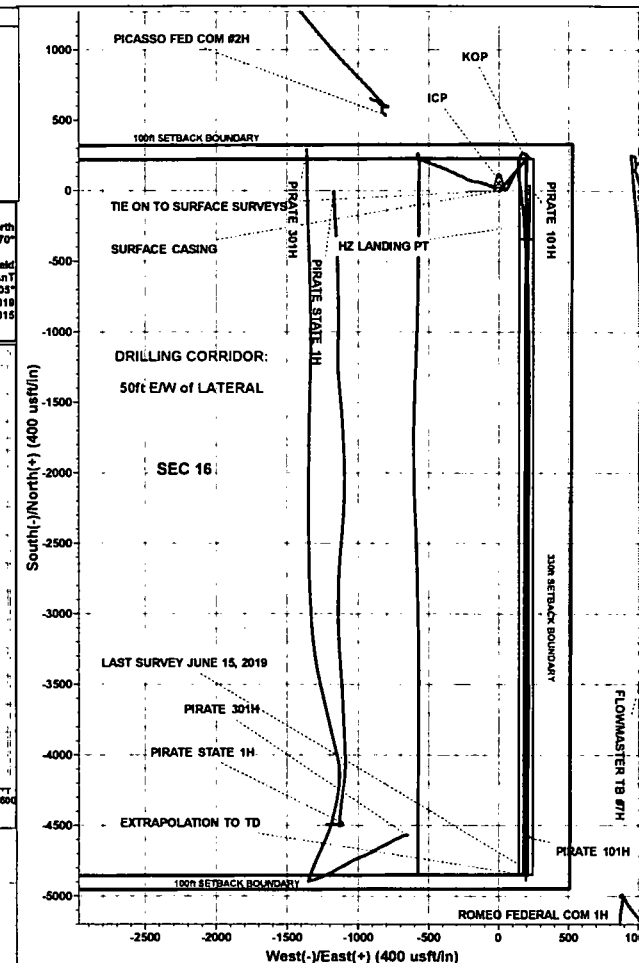
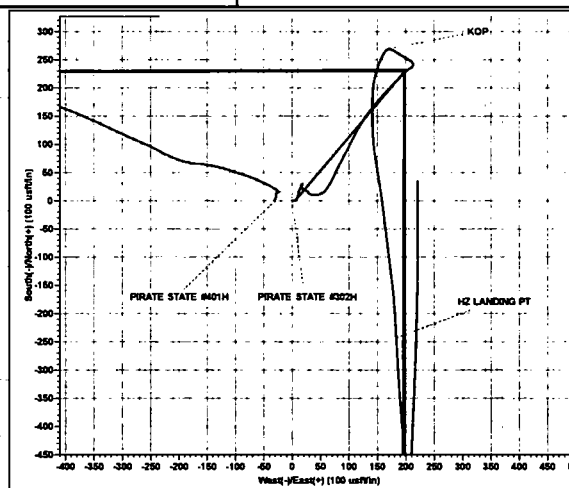
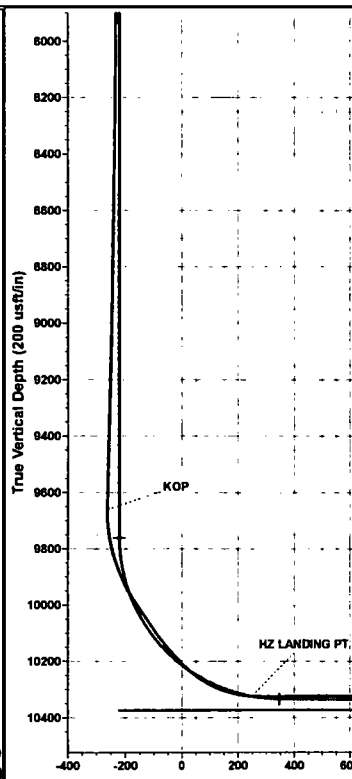
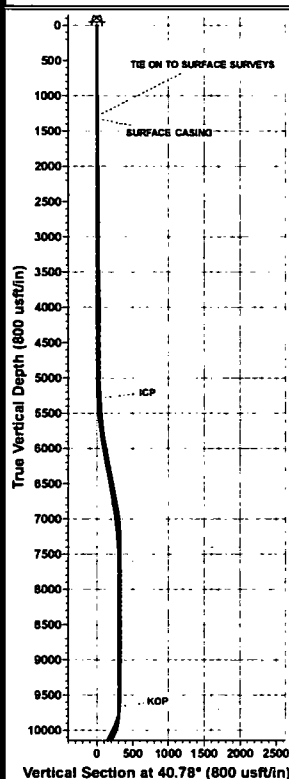
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
1285.05	1285.10	0.60	48.85	1.31	6.07	-1.07	11.40	TIE ON TO SURFACE SURVEYS
1323.45	1323.50	0.56	48.06	1.58	6.35	-1.32	11.76	SURFACE CASING
5283.57	5285.00	3.24	66.82	11.84	50.16	-8.82	96.40	ICP
9680.66	9688.00	3.66	290.94	269.74	170.98	-282.67	433.93	KOP
10323.44	10394.00	87.03	177.14	-243.23	183.24	250.38	958.38	HZ LANDING PT
10327.39	15168.00	91.07	180.41	-4813.79	206.20	4818.18	5329.97	LAST SURVEY JUNE 15, 2019
10326.68	15205.00	91.07	180.41	-4852.78	205.92	4857.13	5368.96	EXTRAPOLATION TO TD

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL - PIRATE STATE #302H (P2)	10373.10	-4847.29	194.30	11695534.15	2114275.69	32.210570	-103.467457
HZ LP - PIRATE STATE #302H (P2)	10333.62	-338.19	197.81	11700042.19	2114214.90	32.222964	-103.467448
KOP - PIRATE STATE #302H (P2)	9760.68	228.77	198.20	11700610.02	2114207.20	32.224525	-103.467445



Azimuths to True North
Magnetic North: 8.70°
Magnetic Field
Strength: 47753.9anT
Dip Angle: 60.95°
Date: 10/05/2019
Model: IGRF2015



LAST SURVEY JUNE 15, 2019
EXTRAPOLATION TO TD

Survey Report



Company:	CENTENNIAL RESOURCE DEVELOPMENT	Local Co-ordinate Reference:	Well PIRATE STATE #302H
Project:	LEA COUNTY, NM (NAD 83 - UTM Zone 13N)	TVD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Site:	NE NE SEC 16 T24S R34E	MD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Well:	PIRATE STATE #302H	North Reference:	True
Wellbore:	JOB # 2019-359-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Project	LEA COUNTY, NM (NAD 83 - UTM Zone 13 - TRUE)
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Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		Using geodetic scale factor

Site	NE NE SEC 16 T24S R34E
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Site Position:		Northing:	11,700,377.48 usft	Latitude:	32.223893
From:	Map	Easting:	2,114,012.32 usft	Longitude:	-103.468086
Position Uncertainty:	0.00 usft	Slot Radius:	1.10 ft	Grid Convergence:	0.82 °

Well	PIRATE STATE #302H
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Well Position	+N/-S	0.00 usft	Northing:	11,700,377.48 usft	Latitude:	32.223893
	+E/-W	0.00 usft	Easting:	2,114,012.32 usft	Longitude:	-103.468086
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,529.10 usft

Wellbore	JOB # 2019-359-650
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (mT)
	IGRF2015	10/05/2019	6.70	60.05	47.753

Design	FINAL SURVEYS
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Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	177.70

Survey Program	Date 16/06/2019
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From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
189.10	15,205.00	FINAL SURVEYS (JOB # 2019-359-650)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Survey	
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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea 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	3,555.60	0.00	0.00	0.00	0.00	0.00	0.00
189.10	1.00	85.65	189.09	3,366.51	0.13	1.65	-0.06	0.53	0.53	0.00
277.10	0.10	281.65	277.09	3,278.51	0.20	2.34	-0.11	1.25	-1.02	-186.36
365.10	0.20	242.65	365.09	3,190.51	0.14	2.12	-0.06	0.16	0.11	-44.32
455.10	0.60	141.65	455.08	3,100.52	-0.30	2.28	0.39	0.74	0.44	-112.22
549.10	0.60	95.65	549.08	3,006.52	-0.73	3.07	0.85	0.50	0.00	-48.94
642.10	0.90	67.65	642.07	2,913.53	-0.50	4.23	0.67	0.50	0.32	-30.11
736.10	0.80	81.65	736.06	2,819.54	-0.13	5.56	0.35	0.24	-0.11	14.89
828.10	0.60	337.65	828.06	2,727.54	0.41	6.02	-0.17	1.21	-0.22	-113.04
922.10	0.30	289.65	922.05	2,633.55	0.95	5.60	-0.73	0.49	-0.32	-51.06
1,015.10	0.20	301.65	1,015.05	2,540.55	1.12	5.23	-0.91	0.12	-0.11	12.90
1,108.10	0.50	44.65	1,108.05	2,447.55	1.49	5.38	-1.27	0.62	0.32	110.75
1,200.10	0.50	173.65	1,200.05	2,355.55	1.38	5.70	-1.15	0.98	0.00	140.22

Survey Report



Company:	CENTENNIAL RESOURCE DEVELO	Local Co-ordinate Reference:	Well PIRATE STATE #302H
Project:	LEA COUNTY, NM (NAD 83 - UTM ZI	TVD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Site:	NE NE SEC 16 T24S R34E	MD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Well:	PIRATE STATE #302H	North Reference:	True
Wellbore:	JOB # 2019-359-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
TIE ON TO SURFACE SURVEYS										
1,285.10	0.60	46.65	1,285.05	2,270.55	1.31	6.07	-1.07	1.16	0.12	-149.41
SURFACE CASING										
1,323.50	0.56	48.06	1,323.45	2,232.15	1.58	6.35	-1.32	0.11	-0.11	3.68
1,430.00	0.45	53.30	1,429.94	2,125.66	2.18	7.08	-1.89	0.11	-0.10	4.92
1,524.00	0.74	27.90	1,523.94	2,031.66	2.93	7.66	-2.62	0.41	0.31	-27.02
1,619.00	0.60	22.51	1,618.93	1,936.67	3.93	8.13	-3.61	0.16	-0.15	-5.67
1,712.00	0.72	21.53	1,711.93	1,843.67	4.93	8.53	-4.58	0.13	0.13	-1.05
1,806.00	0.79	24.34	1,805.92	1,749.68	6.07	9.02	-5.70	0.08	0.07	2.99
1,900.00	0.70	24.94	1,899.91	1,655.69	7.18	9.53	-6.79	0.10	-0.10	0.64
1,994.00	0.76	20.28	1,993.90	1,561.70	8.28	9.99	-7.88	0.09	0.06	-4.96
2,088.00	0.66	12.83	2,087.89	1,467.71	9.40	10.32	-8.98	0.14	-0.11	-7.93
2,182.00	0.73	15.54	2,181.89	1,373.71	10.50	10.60	-10.07	0.08	0.07	2.88
2,276.00	0.90	12.25	2,275.88	1,279.72	11.80	10.92	-11.35	0.19	0.18	-3.50
2,370.00	0.98	17.30	2,369.87	1,185.73	13.29	11.32	-12.82	0.12	0.09	5.37
2,464.00	1.19	20.25	2,463.85	1,091.75	14.97	11.89	-14.48	0.23	0.22	3.14
2,559.00	0.26	28.98	2,558.84	996.76	16.09	12.34	-15.58	0.98	-0.98	9.19
2,653.00	0.51	200.00	2,652.84	902.76	15.88	12.30	-15.37	0.82	0.27	181.94
2,747.00	0.51	206.04	2,746.84	808.76	15.11	11.97	-14.62	0.06	0.00	6.43
2,841.00	0.43	202.58	2,840.83	714.77	14.41	11.65	-13.93	0.09	-0.09	-3.68
2,935.00	0.17	185.02	2,934.83	620.77	13.94	11.51	-13.47	0.29	-0.28	-18.68
3,029.00	0.03	349.99	3,028.83	526.77	13.83	11.49	-13.36	0.21	-0.15	175.50
3,123.00	0.16	12.56	3,122.83	432.77	13.98	11.51	-13.51	0.14	0.14	24.01
3,217.00	0.50	16.09	3,216.83	338.77	14.50	11.66	-14.03	0.36	0.36	3.76
3,312.00	0.74	16.68	3,311.82	243.78	15.49	11.95	-15.00	0.25	0.25	0.62
3,406.00	0.91	17.17	3,405.81	149.79	16.78	12.34	-16.28	0.18	0.18	0.52
3,500.00	1.21	24.17	3,499.80	55.80	18.40	12.97	-17.87	0.35	0.32	7.45
3,594.00	1.42	19.28	3,593.77	-38.17	20.41	13.76	-19.84	0.25	0.22	-5.20
3,688.00	1.47	17.40	3,687.74	-132.14	22.66	14.50	-22.06	0.07	0.05	-2.00
3,782.00	1.56	18.44	3,781.71	-226.11	25.02	15.27	-24.39	0.10	0.10	1.11
3,876.00	1.82	19.08	3,875.67	-320.07	27.65	16.16	-26.98	0.28	0.28	0.68
3,970.00	1.60	39.30	3,969.63	-414.03	30.07	17.48	-29.35	0.68	-0.23	21.51
4,064.00	0.58	187.72	4,063.62	-508.02	30.62	18.25	-29.86	2.25	-1.09	157.89
4,158.00	1.65	191.14	4,157.60	-602.00	28.82	17.92	-28.08	1.14	1.14	3.64
4,252.00	1.91	184.42	4,251.55	-695.95	25.93	17.54	-25.21	0.35	0.28	-7.15
4,346.00	1.71	174.78	4,345.51	-789.91	22.97	17.55	-22.25	0.39	-0.21	-10.26
4,441.00	1.38	146.85	4,440.47	-884.87	20.60	18.30	-19.85	0.85	-0.35	-29.40
4,535.00	2.36	102.24	4,534.43	-978.83	19.24	20.81	-18.39	1.79	1.04	-47.46
4,629.00	2.50	113.85	4,628.34	-1,072.74	18.00	24.58	-17.00	0.54	0.15	12.35
4,723.00	1.27	136.95	4,722.29	-1,166.69	16.41	27.17	-15.31	1.51	-1.31	24.57
4,817.00	0.81	164.86	4,816.28	-1,260.68	15.01	28.05	-13.87	0.71	-0.49	29.69
4,911.00	1.91	140.84	4,910.25	-1,354.65	13.15	29.21	-11.97	1.29	1.17	-25.55
5,005.00	2.88	110.82	5,004.17	-1,448.57	11.10	32.41	-9.79	1.65	1.03	-31.94
5,099.00	4.20	96.48	5,097.99	-1,542.39	9.87	38.04	-8.34	1.68	1.40	-15.26
5,193.00	3.98	78.14	5,191.75	-1,636.15	10.15	44.65	-8.36	1.40	-0.23	-19.51
ICP										
5,285.00	3.24	66.62	5,283.57	-1,727.97	11.84	50.16	-9.82	1.12	-0.80	-12.52
5,358.00	2.85	61.97	5,356.47	-1,800.87	13.51	53.66	-11.35	0.63	-0.53	-6.37
5,452.00	3.30	43.22	5,450.34	-1,894.74	16.58	57.57	-14.26	1.17	0.48	-19.95
5,546.00	4.73	33.85	5,544.10	-1,988.50	21.77	61.58	-19.29	1.67	1.52	-9.97
5,640.00	6.30	30.01	5,637.67	-2,082.07	29.46	66.32	-26.78	1.71	1.67	-4.09
5,734.00	7.34	26.46	5,731.00	-2,175.40	39.30	71.58	-36.40	1.19	1.11	-3.78
5,828.00	8.35	25.10	5,824.12	-2,268.52	50.86	77.15	-47.73	1.09	1.07	-1.45

Survey Report



Company:	CENTENNIAL RESOURCE DEVELO	Local Co-ordinate Reference:	Well PIRATE STATE #302H
Project:	LEA COUNTY, NM (NAD 83 - UTM Z	TVD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Site:	NE NE SEC 16 T24S R34E	MD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Well:	PIRATE STATE #302H	North Reference:	True
Wellbore:	JOB # 2019-359-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,922.00	9.58	27.52	5,916.97	-2,361.37	63.98	83.66	-60.57	1.37	1.31	2.57
6,016.00	10.81	27.38	6,009.48	-2,453.88	78.74	91.33	-75.02	1.31	1.31	-0.15
6,110.00	11.54	26.54	6,101.70	-2,546.10	94.98	99.58	-90.92	0.80	0.78	-0.89
6,204.00	11.17	24.99	6,193.86	-2,638.26	111.64	107.63	-107.24	0.51	-0.39	-1.65
6,298.00	11.24	29.41	6,286.07	-2,730.47	127.88	115.98	-123.13	0.92	0.07	4.70
6,392.00	11.39	32.96	6,378.24	-2,822.64	143.65	125.52	-138.50	0.76	0.16	3.78
6,486.00	11.49	38.16	6,470.38	-2,914.78	158.80	136.36	-153.21	1.10	0.11	5.53
6,580.00	11.52	39.21	6,562.49	-3,006.89	173.43	148.08	-167.36	0.23	0.03	1.12
6,674.00	10.75	41.45	6,654.72	-3,099.12	187.28	159.81	-180.72	0.94	-0.82	2.38
6,768.00	10.18	42.71	6,747.16	-3,191.56	199.95	171.25	-192.93	0.65	-0.61	1.34
6,862.00	9.28	44.19	6,839.80	-3,284.20	211.49	182.17	-204.02	0.99	-0.96	1.57
6,957.00	8.15	43.84	6,933.71	-3,378.11	221.84	192.17	-213.96	1.19	-1.19	-0.37
7,004.00	6.96	45.11	6,980.30	-3,424.70	226.25	196.50	-218.20	2.56	-2.53	2.70
7,051.00	5.83	46.71	7,027.00	-3,471.40	229.90	200.25	-221.69	2.43	-2.40	3.40
7,098.00	4.33	52.89	7,073.82	-3,518.22	232.61	203.41	-224.27	3.39	-3.19	13.15
7,145.00	3.03	61.58	7,120.72	-3,565.12	234.27	205.91	-225.83	3.00	-2.77	18.49
7,239.00	1.82	67.43	7,214.63	-3,659.03	236.02	209.48	-227.44	1.31	-1.29	6.22
7,333.00	0.57	30.73	7,308.61	-3,753.01	237.00	211.09	-228.35	1.49	-1.33	-39.04
7,427.00	0.60	24.69	7,402.61	-3,847.01	237.85	211.54	-229.18	0.07	0.03	-6.43
7,521.00	0.67	33.75	7,496.60	-3,941.00	238.75	212.05	-230.07	0.13	0.07	9.64
7,615.00	0.62	23.90	7,590.60	-4,035.00	239.67	212.56	-230.97	0.13	-0.05	-10.48
7,709.00	0.38	28.77	7,684.59	-4,128.99	240.41	212.92	-231.69	0.26	-0.26	5.18
7,804.00	0.34	6.83	7,779.59	-4,223.99	240.97	213.10	-232.24	0.15	-0.04	-23.09
7,898.00	0.41	14.27	7,873.59	-4,317.99	241.57	213.22	-232.84	0.09	0.07	7.91
7,992.00	0.42	352.21	7,967.59	-4,411.99	242.24	213.26	-233.50	0.17	0.01	-23.47
8,086.00	0.50	324.53	8,061.58	-4,505.98	242.91	212.97	-234.19	0.25	0.09	-29.45
8,180.00	0.69	329.02	8,155.58	-4,599.98	243.73	212.44	-235.03	0.21	0.20	4.78
8,274.00	0.86	323.74	8,249.57	-4,693.97	244.79	211.73	-236.11	0.20	0.18	-5.62
8,368.00	1.06	317.30	8,343.56	-4,787.96	245.99	210.73	-237.36	0.24	0.21	-6.85
8,462.00	1.16	312.37	8,437.54	-4,881.94	247.27	209.43	-238.69	0.15	0.11	-5.24
8,556.00	1.28	306.58	8,531.52	-4,975.92	248.54	207.89	-240.01	0.18	0.13	-6.16
8,650.00	1.46	302.02	8,625.49	-5,069.89	249.80	206.03	-241.35	0.22	0.19	-4.85
8,744.00	1.57	301.57	8,719.46	-5,163.86	251.11	203.92	-242.74	0.12	0.12	-0.48
8,839.00	1.72	298.85	8,814.42	-5,258.82	252.48	201.56	-244.20	0.18	0.16	-2.86
8,933.00	1.85	297.84	8,908.37	-5,352.77	253.87	198.98	-245.70	0.14	0.14	-1.07
9,027.00	2.04	299.43	9,002.32	-5,446.72	255.40	196.18	-247.34	0.21	0.20	1.69
9,121.00	2.29	302.77	9,096.25	-5,540.65	257.24	193.15	-249.30	0.30	0.27	3.55
9,215.00	2.44	301.20	9,190.17	-5,634.57	259.29	189.86	-251.48	0.17	0.16	-1.67
9,309.00	3.00	304.55	9,284.07	-5,728.47	261.72	186.12	-254.06	0.62	0.60	3.56
9,403.00	2.09	305.10	9,377.97	-5,822.37	264.10	182.69	-256.57	0.97	-0.97	0.59
9,497.00	2.14	297.78	9,471.91	-5,916.31	265.91	179.73	-258.49	0.29	0.05	-7.79
9,591.00	2.90	293.81	9,565.82	-6,010.22	267.68	176.01	-260.42	0.83	0.81	-4.22
KOP										
9,686.00	3.66	290.94	9,660.66	-6,105.06	269.74	170.98	-262.67	0.82	0.80	-3.02
9,733.00	6.61	236.50	9,707.49	-6,151.89	268.78	167.32	-261.86	11.44	6.28	-115.83
9,780.00	10.20	212.76	9,753.99	-6,198.39	263.79	162.81	-257.05	10.47	7.64	-50.51
9,827.00	15.65	205.74	9,799.79	-6,244.19	254.57	157.80	-248.04	12.05	11.60	-14.94
9,874.00	19.46	200.97	9,844.59	-6,288.99	241.54	152.24	-235.25	8.66	8.11	-10.15
9,921.00	23.27	194.83	9,888.36	-6,332.76	225.25	147.06	-219.18	9.39	8.11	-13.06
9,968.00	26.28	188.60	9,931.04	-6,375.44	205.98	143.12	-200.08	8.47	6.40	-13.26
10,015.00	30.85	180.87	9,972.32	-6,416.72	183.62	141.38	-177.81	12.49	9.72	-16.45
10,062.00	34.36	179.79	10,011.90	-6,456.30	158.30	141.25	-152.52	7.57	7.47	-2.30
10,109.00	34.14	179.59	10,050.75	-6,495.15	131.85	141.39	-126.08	0.53	-0.47	-0.43

Survey Report



Company:	CENTENNIAL RESOURCE DEVELO	Local Co-ordinate Reference:	Well PIRATE STATE #302H
Project:	LEA COUNTY, NM (NAD 83 - UTM ZI	TVD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Site:	NE NE SEC 16 T24S R34E	MD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Well:	PIRATE STATE #302H	North Reference:	True
Wellbore:	JOB # 2019-359-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Buidl Rate (°/100usft)	Turn Rate (°/100usft)
10,156.00	34.88	174.36	10,089.49	-6,533.89	105.28	142.81	-99.48	6.50	1.57	-11.13
10,187.00	36.66	172.32	10,114.64	-6,559.04	87.29	144.92	-81.41	6.91	5.74	-6.58
10,218.00	39.12	171.13	10,139.11	-6,583.51	68.45	147.66	-62.48	8.28	7.94	-3.84
10,250.00	41.56	170.05	10,163.50	-6,607.90	48.02	151.05	-41.93	7.93	7.62	-3.37
10,281.00	43.75	171.69	10,186.30	-6,630.70	27.28	154.38	-21.07	7.92	7.06	5.29
10,312.00	45.89	172.28	10,208.28	-6,652.68	5.64	157.42	0.67	7.03	6.90	1.90
10,344.00	48.75	172.56	10,229.97	-6,674.37	-17.67	160.53	24.09	8.96	8.94	0.87
10,375.00	53.08	173.37	10,249.51	-6,693.91	-41.55	163.47	48.06	14.11	13.97	2.61
10,406.00	57.94	173.47	10,267.06	-6,711.46	-66.93	166.39	73.54	15.68	15.68	0.32
10,438.00	62.09	173.21	10,283.05	-6,727.45	-94.45	169.61	101.17	12.99	12.97	-0.81
10,469.00	67.85	172.83	10,296.16	-6,740.56	-122.32	173.02	129.15	18.61	18.58	-1.23
10,500.00	72.54	173.81	10,306.66	-6,751.06	-151.28	176.41	158.22	15.42	15.13	3.16
10,532.00	77.03	175.19	10,315.06	-6,759.46	-182.01	179.36	189.04	14.63	14.03	4.31
10,563.00	82.41	176.57	10,320.59	-6,764.99	-212.42	181.55	219.52	17.90	17.35	4.45
HZ LANDING PT										
10,594.00	87.03	177.14	10,323.44	-6,767.84	-243.23	183.24	250.38	15.02	14.90	1.84
10,626.00	87.72	177.17	10,324.91	-6,769.31	-275.16	184.83	282.34	2.16	2.16	0.09
10,673.00	90.63	176.03	10,325.58	-6,769.98	-322.06	187.62	329.32	6.65	6.19	-2.43
10,720.00	91.05	175.55	10,324.90	-6,769.30	-368.93	191.07	376.29	1.36	0.89	-1.02
10,744.00	91.16	175.88	10,324.43	-6,768.83	-392.86	192.86	400.27	1.45	0.46	1.37
10,838.00	89.76	175.71	10,323.68	-6,768.08	-486.60	199.75	494.21	1.50	-1.49	-0.18
10,932.00	90.01	177.40	10,323.87	-6,768.27	-580.43	205.40	588.19	1.82	0.27	1.80
11,027.00	89.72	179.34	10,324.09	-6,768.49	-675.39	208.10	683.18	2.06	-0.31	2.04
11,121.00	89.90	178.77	10,324.40	-6,768.80	-769.37	209.65	777.15	0.64	0.19	-0.61
11,215.00	89.79	178.83	10,324.66	-6,769.06	-863.35	211.62	871.13	0.13	-0.12	0.06
11,309.00	89.82	178.66	10,324.98	-6,769.38	-957.33	213.68	965.12	0.18	0.03	-0.18
11,403.00	89.90	178.91	10,325.21	-6,769.61	-1,051.31	215.67	1,059.10	0.28	0.09	0.27
11,497.00	90.07	179.23	10,325.23	-6,769.63	-1,145.29	217.20	1,153.07	0.39	0.18	0.34
11,591.00	89.89	178.84	10,325.26	-6,769.66	-1,239.28	218.78	1,247.05	0.46	-0.19	-0.41
11,685.00	89.93	179.35	10,325.41	-6,769.81	-1,333.27	220.27	1,341.02	0.54	0.04	0.54
11,779.00	89.76	179.93	10,325.67	-6,770.07	-1,427.26	220.86	1,434.97	0.64	-0.18	0.62
11,874.00	89.81	180.65	10,326.02	-6,770.42	-1,522.26	220.38	1,529.87	0.76	0.05	0.76
11,968.00	89.83	181.20	10,326.32	-6,770.72	-1,616.25	218.86	1,623.72	0.59	0.02	0.59
12,062.00	90.00	180.04	10,326.46	-6,770.86	-1,710.24	217.84	1,717.60	1.25	0.18	-1.23
12,156.00	90.18	179.79	10,326.31	-6,770.71	-1,804.24	217.98	1,811.52	0.33	0.19	-0.27
12,250.00	89.86	180.97	10,326.28	-6,770.68	-1,898.24	217.36	1,905.42	1.30	-0.34	1.26
12,343.00	89.82	180.85	10,326.54	-6,770.94	-1,991.23	215.88	1,998.27	0.14	-0.04	-0.13
12,438.00	89.76	180.21	10,326.88	-6,771.28	-2,086.22	215.00	2,093.16	0.68	-0.06	-0.67
12,531.00	88.96	180.58	10,327.92	-6,772.32	-2,179.21	214.36	2,186.05	0.95	-0.86	0.40
12,626.00	89.02	180.46	10,329.60	-6,774.00	-2,274.19	213.50	2,280.92	0.14	0.06	-0.13
12,720.00	88.84	180.27	10,331.35	-6,775.75	-2,368.17	212.90	2,374.80	0.28	-0.19	-0.20
12,814.00	88.70	180.57	10,333.37	-6,777.77	-2,462.15	212.21	2,468.67	0.35	-0.15	0.32
12,908.00	88.89	180.19	10,335.35	-6,779.75	-2,556.13	211.59	2,562.55	0.45	0.20	-0.40
13,002.00	88.80	180.14	10,337.24	-6,781.64	-2,650.11	211.32	2,656.45	0.11	-0.10	-0.05
13,096.00	88.98	180.23	10,339.06	-6,783.46	-2,744.09	211.02	2,750.34	0.21	0.19	0.10
13,190.00	89.09	180.08	10,340.65	-6,785.05	-2,838.08	210.76	2,844.24	0.20	0.12	-0.16
13,284.00	88.89	180.02	10,342.30	-6,786.70	-2,932.06	210.68	2,938.15	0.22	-0.21	-0.06
13,378.00	88.71	179.57	10,344.27	-6,788.67	-3,026.04	211.02	3,032.06	0.52	-0.19	-0.48
13,473.00	89.08	179.98	10,346.10	-6,790.50	-3,121.02	211.39	3,126.98	0.58	0.39	0.43
13,567.00	89.71	179.99	10,347.10	-6,791.50	-3,215.02	211.41	3,220.90	0.67	0.67	0.01
13,661.00	89.93	179.72	10,347.39	-6,791.79	-3,309.01	211.65	3,314.84	0.37	0.23	-0.29
13,755.00	90.59	179.12	10,346.97	-6,791.37	-3,403.01	212.60	3,408.79	0.95	0.70	-0.64
13,849.00	89.79	178.88	10,346.65	-6,791.05	-3,496.99	214.24	3,502.77	0.89	-0.85	-0.26

Survey Report



Company:	CENTENNIAL RESOURCE DEVELO	Local Co-ordinate Reference:	Well PIRATE STATE #302H
Project:	LEA COUNTY, NM (NAD 83 - UTM Z	TVD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Site:	NE NE SEC 16 T24S R34E	MD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Well:	PIRATE STATE #302H	North Reference:	True
Wellbore:	JOB # 2019-359-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,943.00	90.42	180.53	10,346.48	-6,790.88	-3,590.99	214.73	3,596.71	1.88	0.67	1.76
14,037.00	90.92	180.16	10,345.38	-6,789.78	-3,684.98	214.16	3,690.60	0.66	0.53	-0.39
14,131.00	90.70	180.26	10,344.05	-6,788.45	-3,778.97	213.82	3,784.50	0.26	-0.23	0.11
14,225.00	91.11	181.02	10,342.57	-6,786.97	-3,872.95	212.77	3,878.36	0.92	0.44	0.81
14,320.00	90.94	180.60	10,340.87	-6,785.27	-3,967.92	211.42	3,973.21	0.48	-0.18	-0.44
14,414.00	90.95	181.06	10,339.32	-6,783.72	-4,061.90	210.06	4,067.06	0.49	0.01	0.49
14,508.00	90.91	180.33	10,337.79	-6,782.19	-4,155.88	208.92	4,160.91	0.78	-0.04	-0.78
14,602.00	91.14	180.16	10,336.11	-6,780.51	-4,249.87	208.52	4,254.81	0.30	0.24	-0.18
14,696.00	90.92	180.02	10,334.42	-6,778.82	-4,343.85	208.37	4,348.71	0.28	-0.23	-0.15
14,790.00	90.92	179.78	10,332.91	-6,777.31	-4,437.84	208.54	4,442.63	0.26	0.00	-0.26
14,884.00	90.66	180.59	10,331.62	-6,776.02	-4,531.83	208.23	4,536.53	0.90	-0.28	0.86
14,978.00	90.84	180.47	10,330.39	-6,774.79	-4,625.82	207.36	4,630.41	0.23	0.19	-0.13
15,072.00	90.87	180.27	10,328.98	-6,773.38	-4,719.80	206.76	4,724.30	0.22	0.03	-0.21
LAST SURVEY JUNE 15, 2019										
15,166.00	91.07	180.41	10,327.39	-6,771.79	-4,813.79	206.20	4,818.18	0.26	0.21	0.15
EXTRAPOLATION TO TD										
15,205.00	91.07	180.41	10,326.66	-6,771.06	-4,852.78	205.92	4,857.13	0.00	0.00	0.00

Survey Report



Company:	CENTENNIAL RESOURCE DEVELO	Local Co-ordinate Reference:	Well PIRATE STATE #302H
Project:	LEA COUNTY, NM (NAD 83 - UTM Z	TVD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Site:	NE NE SEC 16 T24S R34E	MD Reference:	KB REV 26.5 @ 3555.60usft (H&P 650)
Well:	PIRATE STATE #302H	North Reference:	True
Wellbore:	JOB # 2019-359-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Targets									
Target Name	- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	
- Shape		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	
KOP: PIRATE STATE		0.00	0.00	9,755.72	797.73	198.60	11,701,177.85	2,114,199.50	32.226086
- survey misses target center by 532.06usft at 9733.00usft MD (9707.49 TVD, 268.78 N, 167.32 E)									-103.467444
- Point									
BHL - PIRATE STATE		0.00	0.00	10,373.10	-4,847.29	194.30	11,695,534.15	2,114,275.69	32.210570
- survey misses target center by 47.77usft at 15198.72usft MD (10326.78 TVD, -4846.50 N, 205.97 E)									-103.467457
- Rectangle (sides W5,077.25 H100.00 D0.00)									
BHL: PIRATE STATE		0.00	0.00	10,373.10	-4,847.29	194.30	11,695,534.15	2,114,275.69	32.210570
- survey misses target center by 47.77usft at 15198.72usft MD (10326.78 TVD, -4846.50 N, 205.97 E)									-103.467457
- Rectangle (sides W5,077.25 H100.00 D0.00)									
PP/FTP: PIRATE STA		0.00	0.00	10,328.66	229.77	198.20	11,700,610.02	2,114,207.20	32.224525
- survey misses target center by 249.94usft at 10254.94usft MD (10167.19 TVD, 44.77 N, 151.61 E)									-103.467445
- Point									
HZ LP - PIRATE STA		0.00	0.00	10,333.62	-338.19	197.81	11,700,042.19	2,114,214.90	32.222964
- survey misses target center by 12.22usft at 10689.71usft MD (10325.38 TVD, -338.73 N, 188.80 E)									-103.467446
- Point									
KOP - PIRATE STATI		0.00	0.00	9,760.68	229.77	198.20	11,700,610.02	2,114,207.20	32.224525
- survey misses target center by 48.82usft at 9789.42usft MD (9763.25 TVD, 262.29 N, 161.88 E)									-103.467445
- Point									

Survey Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S	+E/-W	
		(usft)	(usft)	
1,285.10	1,285.05	1.31	6.07	TIE ON TO SURFACE SURVEYS
1,323.50	1,323.45	1.58	6.35	SURFACE CASING
5,285.00	5,283.57	11.84	50.16	ICP
9,686.00	9,660.66	269.74	170.98	KOP
10,594.00	10,323.44	-243.23	183.24	HZ LANDING PT
15,166.00	10,327.39	-4,813.79	206.20	LAST SURVEY JUNE 15, 2019
15,205.00	10,326.66	-4,852.78	205.92	EXTRAPOLATION TO TD

Checked By: _____	Approved By: _____	Date: _____
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Total Directional
Services, LLC
USA Operations

Final MWD Survey Certification

Lea County, New Mexico

Client: Centennial Resource Development Inc.

Well Name: Pirate State #302H

Total Job No: 2019-359-650

API No: 30-025-45777

Start Date: 6/5/2019

End Date: 6/14/2019

Measured Start Depth: 1,323.5 feet

Measured End Depth: 15,205feet

Vertical Section from well center at TD: 4,857.15feet

I, Dan McClenaghan, certify that; I am employed by Total Directional Services, LLC and we conducted or supervised the taking of these open hole MWD surveys at the request of this client. This data is true, correct, complete and within the limitations of the tool as set forth by Total Directional Services, LLC. I am authorized and qualified to make this report and have reviewed this report and find that it conforms to the principals and procedures as set forth by Total Directional Services, LLC.

Date: 6/14/2019

Signed: *Dan McClenaghan*



Pirate State 302H

Directional Survey Report

Start date: 6/5/2019
End date: 6/14/2019

Company Name: Centennial Resource Development Inc
Well Name: Pirate State 302H
Field: Pirate State
Rig ID: H&P 650
API/UWI: 30-025-45777

State/Prov: New Mexico
County: Lea County
Country: USA
Location: Lot A, Section 16, T24S, R34E; 330' FNL & 528' FEL
Latitude/Longitude: 32.223893 / -103.468806

Survey Company: Total Directional Services, LLC
Job Number: 2019-359-650
Proposed Azimuth: 177.7
Declination: 6.65 KB: 3555.6
North Reference: True

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	CD	CA	DLS	CL
TiIn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	
1	189.10	1.00	85.65	189.09	0.13	1.65	-0.06	1.65	85.65	0.53	189.10
2	277.10	0.10	281.65	277.09	0.20	2.34	-0.11	2.34	85.13	1.25	88.00
3	365.10	0.20	242.65	365.09	0.14	2.12	-0.06	2.13	86.13	0.16	88.00
4	455.10	0.60	141.65	455.08	-0.30	2.28	0.39	2.30	97.45	0.74	90.00
5	549.10	0.60	95.65	549.08	-0.73	3.07	0.86	3.16	103.41	0.50	94.00
6	642.10	0.90	67.65	642.07	-0.50	4.23	0.67	4.26	96.77	0.50	93.00
7	736.10	0.80	81.65	736.06	-0.13	5.56	0.35	5.57	91.30	0.24	94.00
8	828.10	0.60	337.65	828.06	0.41	6.02	-0.17	6.03	86.08	1.21	92.00
9	922.10	0.30	289.65	922.05	0.95	5.60	-0.72	5.68	80.37	0.49	94.00
10	1,015.10	0.20	301.65	1,015.05	1.12	5.23	-0.91	5.35	77.94	0.12	93.00
11	1,108.10	0.50	44.65	1,108.05	1.49	5.38	-1.27	5.58	74.50	0.62	93.00
12	1,200.10	0.50	173.65	1,200.05	1.38	5.70	-1.15	5.87	76.42	0.98	92.00
13	1,285.10	0.60	46.65	1,285.05	1.31	6.07	-1.07	6.21	77.78	1.16	85.00
14	1,430.00	0.45	53.30	1,429.94	2.18	7.08	-1.89	7.40	72.91	0.11	144.90
15	1,524.00	0.74	27.90	1,523.94	2.93	7.66	-2.62	8.20	69.04	0.41	94.00
16	1,619.00	0.60	22.51	1,618.93	3.93	8.13	-3.60	9.04	64.19	0.16	95.00
17	1,712.00	0.72	21.53	1,711.93	4.93	8.53	-4.58	9.86	60.00	0.13	93.00
18	1,806.00	0.79	24.34	1,805.92	6.07	9.02	-5.70	10.87	56.07	0.08	94.00
19	1,900.00	0.70	24.94	1,899.91	7.18	9.53	-6.79	11.93	53.00	0.10	94.00
20	1,994.00	0.76	20.28	1,993.90	8.28	9.99	-7.88	12.97	50.32	0.09	94.00
21	2,088.00	0.66	12.83	2,087.89	9.40	10.32	-8.97	13.96	47.69	0.14	94.00
22	2,182.00	0.73	15.54	2,181.89	10.50	10.60	-10.07	14.92	45.28	0.08	94.00
23	2,276.00	0.90	12.25	2,275.88	11.80	10.92	-11.35	16.08	42.78	0.19	94.00
24	2,370.00	0.98	17.30	2,369.87	13.29	11.32	-12.82	17.45	40.42	0.12	94.00
25	2,464.00	1.19	20.25	2,463.85	14.97	11.89	-14.48	19.12	38.46	0.23	94.00
26	2,559.00	0.26	28.98	2,558.84	16.09	12.34	-15.58	20.27	37.49	0.98	95.00
27	2,653.00	0.51	200.00	2,652.84	15.88	12.30	-15.37	20.09	37.76	0.82	94.00
28	2,747.00	0.51	206.04	2,746.84	15.11	11.97	-14.62	19.28	38.39	0.06	94.00
29	2,841.00	0.43	202.58	2,840.83	14.41	11.65	-13.93	18.53	38.96	0.09	94.00
30	2,935.00	0.17	185.02	2,934.83	13.94	11.51	-13.47	18.08	39.53	0.29	94.00
31	3,029.00	0.03	349.99	3,028.83	13.83	11.49	-13.36	17.98	39.72	0.21	94.00
32	3,123.00	0.16	12.56	3,122.83	13.98	11.51	-13.51	18.11	39.47	0.14	94.00
33	3,217.00	0.50	16.09	3,216.83	14.50	11.66	-14.02	18.61	38.78	0.36	94.00

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	CD	CA	DLS	CL
34	3,312.00	0.74	16.68	3,311.82	15.49	11.95	-15.00	19.56	37.64	0.25	95.00
35	3,406.00	0.91	17.17	3,405.81	16.78	12.34	-16.28	20.83	36.32	0.18	94.00
36	3,500.00	1.21	24.17	3,499.80	18.40	12.97	-17.87	22.51	35.17	0.35	94.00
37	3,594.00	1.42	19.28	3,593.77	20.41	13.76	-19.84	24.61	33.99	0.25	94.00
38	3,688.00	1.47	17.40	3,687.74	22.66	14.50	-22.06	26.90	32.62	0.07	94.00
39	3,782.00	1.56	18.44	3,781.71	25.02	15.27	-24.39	29.31	31.39	0.10	94.00
40	3,876.00	1.82	19.08	3,875.67	27.65	16.16	-26.98	32.02	30.31	0.28	94.00
41	3,970.00	1.60	39.30	3,969.63	30.07	17.48	-29.35	34.78	30.17	0.68	94.00
42	4,064.00	0.58	187.72	4,063.62	30.62	18.25	-29.86	35.64	30.80	2.25	94.00
43	4,158.00	1.65	191.14	4,157.60	28.82	17.92	-28.08	33.94	31.88	1.14	94.00
44	4,252.00	1.91	184.42	4,251.55	25.93	17.54	-25.20	31.30	34.08	0.35	94.00
45	4,346.00	1.71	174.78	4,345.51	22.97	17.55	-22.25	28.91	37.38	0.39	94.00
46	4,441.00	1.38	146.85	4,440.47	20.60	18.30	-19.85	27.56	41.62	0.85	95.00
47	4,535.00	2.36	102.24	4,534.43	19.24	20.81	-18.39	28.34	47.24	1.79	94.00
48	4,629.00	2.50	113.85	4,628.34	18.00	24.58	-17.00	30.47	53.78	0.54	94.00
49	4,723.00	1.27	136.95	4,722.29	16.41	27.17	-15.31	31.74	58.86	1.51	94.00
50	4,817.00	0.81	164.86	4,816.28	15.01	28.05	-13.87	31.81	61.85	0.71	94.00
51	4,911.00	1.91	140.84	4,910.25	13.15	29.21	-11.97	32.04	65.76	1.29	94.00
52	5,005.00	2.88	110.82	5,004.17	11.10	32.41	-9.79	34.26	71.09	1.65	94.00
53	5,099.00	4.20	96.48	5,097.99	9.87	38.04	-8.34	39.30	75.45	1.68	94.00
54	5,193.00	3.98	78.14	5,191.75	10.15	44.65	-8.35	45.79	77.19	1.40	94.00
55	5,285.00	3.24	66.62	5,283.57	11.84	50.16	-9.82	51.54	76.72	1.12	92.00
56	5,358.00	2.85	61.97	5,356.47	13.51	53.66	-11.35	55.33	75.86	0.63	73.00
57	5,452.00	3.30	43.22	5,450.34	16.58	57.57	-14.26	59.91	73.93	1.17	94.00
58	5,546.00	4.73	33.85	5,544.10	21.77	61.58	-19.29	65.32	70.53	1.67	94.00
59	5,640.00	6.30	30.01	5,637.67	29.46	66.32	-26.77	72.57	66.05	1.71	94.00
60	5,734.00	7.34	26.46	5,731.00	39.30	71.58	-36.40	81.66	61.23	1.19	94.00
61	5,828.00	8.35	25.10	5,824.12	50.86	77.15	-47.72	92.40	56.61	1.09	94.00
62	5,922.00	9.58	27.52	5,916.97	63.98	83.66	-60.57	105.32	52.59	1.37	94.00
63	6,016.00	10.81	27.38	6,009.48	78.74	91.33	-75.01	120.59	49.23	1.31	94.00
64	6,110.00	11.54	26.54	6,101.70	94.98	99.58	-90.91	137.62	46.35	0.80	94.00
65	6,204.00	11.17	24.99	6,193.86	111.64	107.63	-107.24	155.08	43.95	0.51	94.00
66	6,298.00	11.24	29.41	6,286.07	127.88	115.98	-123.12	172.64	42.21	0.92	94.00
67	6,392.00	11.39	32.96	6,378.24	143.65	125.52	-138.49	190.76	41.15	0.76	94.00
68	6,486.00	11.49	38.16	6,470.38	158.80	136.36	-153.20	209.31	40.65	1.10	94.00
69	6,580.00	11.52	39.21	6,562.49	173.43	148.08	-167.35	228.05	40.49	0.23	94.00
70	6,674.00	10.75	41.45	6,654.72	187.28	159.81	-180.71	246.20	40.48	0.94	94.00
71	6,768.00	10.18	42.71	6,747.16	199.95	171.25	-192.92	263.26	40.58	0.65	94.00
72	6,862.00	9.28	44.19	6,839.80	211.49	182.17	-204.01	279.13	40.74	0.99	94.00
73	6,957.00	8.15	43.84	6,933.71	221.84	192.17	-213.95	293.50	40.90	1.19	95.00
74	7,004.00	6.96	45.11	6,980.30	226.25	196.50	-218.18	299.67	40.97	2.56	47.00
75	7,051.00	5.83	46.71	7,027.00	229.90	200.25	-221.68	304.88	41.06	2.43	47.00
76	7,098.00	4.33	52.89	7,073.82	232.61	203.41	-224.25	309.00	41.17	3.39	47.00
77	7,145.00	3.03	61.58	7,120.72	234.27	205.91	-225.81	311.90	41.31	3.00	47.00
78	7,239.00	1.82	67.43	7,214.63	236.02	209.48	-227.43	315.57	41.59	1.31	94.00
79	7,333.00	0.57	30.73	7,308.61	237.00	211.09	-228.33	317.38	41.69	1.49	94.00
80	7,427.00	0.60	24.69	7,402.61	237.85	211.54	-229.17	318.31	41.65	0.07	94.00
81	7,521.00	0.67	33.75	7,496.60	238.75	212.05	-230.05	319.32	41.61	0.13	94.00

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	CD	CA	DLS	CL
82	7,615.00	0.62	23.90	7,590.60	239.67	212.56	-230.95	320.35	41.57	0.13	94.00
83	7,709.00	0.38	28.77	7,684.59	240.41	212.92	-231.67	321.14	41.53	0.26	94.00
84	7,804.00	0.34	6.83	7,779.59	240.97	213.10	-232.22	321.68	41.49	0.15	95.00
85	7,898.00	0.41	14.27	7,873.59	241.57	213.22	-232.82	322.21	41.43	0.09	94.00
86	7,992.00	0.42	352.21	7,967.59	242.24	213.26	-233.48	322.73	41.36	0.17	94.00
87	8,086.00	0.50	324.53	8,061.58	242.91	212.97	-234.17	323.05	41.24	0.25	94.00
88	8,180.00	0.69	329.02	8,155.58	243.73	212.44	-235.01	323.32	41.08	0.21	94.00
89	8,274.00	0.86	323.74	8,249.57	244.79	211.73	-236.09	323.65	40.86	0.20	94.00
90	8,368.00	1.06	317.30	8,343.56	245.99	210.73	-237.34	323.91	40.58	0.24	94.00
91	8,462.00	1.16	312.37	8,437.54	247.27	209.43	-238.67	324.05	40.26	0.15	94.00
92	8,556.00	1.28	306.58	8,531.52	248.54	207.89	-240.00	324.02	39.91	0.18	94.00
93	8,650.00	1.46	302.02	8,625.49	249.80	206.03	-241.33	323.80	39.51	0.22	94.00
94	8,744.00	1.57	301.57	8,719.46	251.11	203.92	-242.72	323.48	39.08	0.12	94.00
95	8,839.00	1.72	298.85	8,814.42	252.48	201.56	-244.19	323.07	38.60	0.18	95.00
96	8,933.00	1.85	297.84	8,908.37	253.87	198.98	-245.68	322.56	38.09	0.14	94.00
97	9,027.00	2.04	299.43	9,002.32	255.40	196.18	-247.32	322.05	37.53	0.21	94.00
98	9,121.00	2.29	302.77	9,096.25	257.24	193.15	-249.28	321.68	36.90	0.30	94.00
99	9,215.00	2.44	301.20	9,190.17	259.29	189.86	-251.46	321.37	36.21	0.17	94.00
100	9,309.00	3.00	304.55	9,284.07	261.72	186.12	-254.04	321.15	35.42	0.62	94.00
101	9,403.00	2.09	305.10	9,377.97	264.10	182.69	-256.56	321.13	34.67	0.97	94.00
102	9,497.00	2.14	297.78	9,471.91	265.91	179.73	-258.48	320.95	34.06	0.29	94.00
103	9,591.00	2.90	293.81	9,565.82	267.68	176.01	-260.41	320.36	33.33	0.83	94.00
104	9,686.00	3.66	290.94	9,660.66	269.74	170.98	-262.66	319.36	32.37	0.82	95.00
105	9,733.00	6.61	236.50	9,707.49	268.78	167.32	-261.85	316.60	31.90	11.44	47.00
106	9,780.00	10.20	212.76	9,753.99	263.79	162.81	-257.04	309.98	31.68	10.47	47.00
107	9,827.00	15.65	205.74	9,799.79	254.57	157.80	-248.03	299.51	31.79	12.05	47.00
108	9,874.00	19.46	200.97	9,844.59	241.54	152.24	-235.24	285.52	32.22	8.66	47.00
109	9,921.00	23.27	194.83	9,888.36	225.25	147.06	-219.17	269.00	33.14	9.39	47.00
110	9,968.00	26.28	188.60	9,931.04	205.98	143.12	-200.07	250.82	34.79	8.47	47.00
111	10,015.00	30.85	180.87	9,972.32	183.62	141.38	-177.80	231.75	37.60	12.49	47.00
112	10,062.00	34.36	179.79	10,011.90	158.30	141.25	-152.50	212.16	41.74	7.57	47.00
113	10,109.00	34.14	179.59	10,050.75	131.85	141.39	-126.07	193.33	47.00	0.53	47.00
114	10,156.00	34.88	174.36	10,089.49	105.28	142.81	-99.47	177.42	53.60	6.50	47.00
115	10,187.00	36.66	172.32	10,114.64	87.29	144.92	-81.40	169.17	58.94	6.91	31.00
116	10,218.00	39.12	171.13	10,139.11	68.45	147.66	-62.47	162.76	65.13	8.28	31.00
117	10,250.00	41.56	170.05	10,163.50	48.02	151.05	-41.92	158.50	72.37	7.93	32.00
118	10,281.00	43.75	171.69	10,186.30	27.28	154.38	-21.06	156.77	79.98	7.92	31.00
119	10,312.00	45.89	172.28	10,208.28	5.64	157.42	0.68	157.52	87.95	7.03	31.00
120	10,344.00	48.75	172.56	10,229.97	-17.67	160.53	24.10	161.50	96.28	8.96	32.00
121	10,375.00	53.08	173.37	10,249.51	-41.55	163.47	48.08	168.66	104.26	14.11	31.00
122	10,406.00	57.94	173.47	10,267.06	-66.93	166.39	73.55	179.35	111.91	15.68	31.00
123	10,438.00	62.09	173.21	10,283.05	-94.45	169.61	101.18	194.13	119.11	12.99	32.00
124	10,469.00	67.85	172.83	10,296.16	-122.32	173.02	129.16	211.89	125.26	18.61	31.00
125	10,500.00	72.54	173.81	10,306.66	-151.28	176.41	158.24	232.39	130.61	15.42	31.00
126	10,532.00	77.03	175.19	10,315.06	-182.01	179.36	189.06	255.53	135.42	14.63	32.00
127	10,563.00	82.41	176.57	10,320.59	-212.42	181.55	219.53	279.43	139.48	17.90	31.00
128	10,594.00	87.03	177.14	10,323.44	-243.23	183.24	250.39	304.53	143.01	15.02	31.00
129	10,626.00	87.72	177.17	10,324.91	-275.16	184.83	282.35	331.47	146.11	2.16	32.00

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	CD	CA	DLS	CL
130	10,673.00	90.63	176.03	10,325.58	-322.06	187.62	329.33	372.73	149.78	6.65	47.00
131	10,720.00	91.05	175.55	10,324.90	-368.93	191.07	376.30	415.47	152.62	1.36	47.00
132	10,744.00	91.16	175.88	10,324.43	-392.86	192.86	400.28	437.65	153.85	1.45	24.00
133	10,838.00	89.76	175.71	10,323.68	-486.60	199.75	494.23	526.01	157.68	1.50	94.00
134	10,932.00	90.01	177.40	10,323.87	-580.43	205.40	588.20	615.70	160.51	1.82	94.00
135	11,027.00	89.72	179.34	10,324.09	-675.39	208.10	683.19	706.72	162.87	2.06	95.00
136	11,121.00	89.90	178.77	10,324.40	-769.37	209.65	777.17	797.43	164.76	0.64	94.00
137	11,215.00	89.79	178.83	10,324.66	-863.35	211.62	871.15	888.91	166.23	0.13	94.00
138	11,309.00	89.82	178.66	10,324.98	-957.33	213.68	965.13	980.89	167.42	0.18	94.00
139	11,403.00	89.90	178.91	10,325.21	-1,051.31	215.67	1,059.11	1,073.20	168.41	0.28	94.00
140	11,497.00	90.07	179.23	10,325.23	-1,145.29	217.20	1,153.09	1,165.71	169.26	0.39	94.00
141	11,591.00	89.89	178.84	10,325.26	-1,239.28	218.78	1,247.06	1,258.44	169.99	0.46	94.00
142	11,685.00	89.93	179.35	10,325.41	-1,333.27	220.27	1,341.03	1,351.34	170.62	0.54	94.00
143	11,779.00	89.76	179.93	10,325.67	-1,427.26	220.86	1,434.98	1,444.25	171.20	0.64	94.00
144	11,874.00	89.81	180.65	10,326.02	-1,522.26	220.38	1,529.88	1,538.13	171.76	0.76	95.00
145	11,968.00	89.83	181.20	10,326.32	-1,616.25	218.86	1,623.73	1,631.00	172.29	0.59	94.00
146	12,062.00	90.00	180.04	10,326.46	-1,710.24	217.84	1,717.61	1,724.06	172.74	1.25	94.00
147	12,156.00	90.18	179.79	10,326.31	-1,804.24	217.98	1,811.54	1,817.36	173.11	0.33	94.00
148	12,250.00	89.86	180.97	10,326.28	-1,898.24	217.36	1,905.43	1,910.64	173.47	1.30	94.00
149	12,343.00	89.82	180.85	10,326.54	-1,991.23	215.88	1,998.29	2,002.89	173.81	0.14	93.00
150	12,438.00	89.76	180.21	10,326.88	-2,086.22	215.00	2,093.17	2,097.27	174.12	0.68	95.00
151	12,531.00	88.96	180.58	10,327.92	-2,179.21	214.36	2,186.06	2,189.73	174.38	0.95	93.00
152	12,626.00	89.02	180.46	10,329.60	-2,274.19	213.50	2,280.93	2,284.19	174.64	0.14	95.00
153	12,720.00	88.84	180.27	10,331.35	-2,368.17	212.90	2,374.81	2,377.73	174.86	0.28	94.00
154	12,814.00	88.70	180.57	10,333.37	-2,462.15	212.21	2,468.68	2,471.28	175.07	0.35	94.00
155	12,908.00	88.89	180.19	10,335.35	-2,556.13	211.59	2,562.56	2,564.87	175.27	0.45	94.00
156	13,002.00	88.80	180.14	10,337.24	-2,650.11	211.32	2,656.45	2,658.52	175.44	0.11	94.00
157	13,096.00	88.98	180.23	10,339.06	-2,744.09	211.02	2,750.35	2,752.19	175.60	0.21	94.00
158	13,190.00	89.09	180.08	10,340.65	-2,838.08	210.76	2,844.25	2,845.89	175.75	0.20	94.00
159	13,284.00	88.89	180.02	10,342.30	-2,932.06	210.68	2,938.15	2,939.62	175.89	0.22	94.00
160	13,378.00	88.71	179.57	10,344.27	-3,026.04	211.02	3,032.07	3,033.39	176.01	0.52	94.00
161	13,473.00	89.08	179.98	10,346.10	-3,121.02	211.39	3,126.99	3,128.17	176.13	0.58	95.00
162	13,567.00	89.71	179.99	10,347.10	-3,215.02	211.41	3,220.91	3,221.96	176.24	0.67	94.00
163	13,661.00	89.93	179.72	10,347.39	-3,309.01	211.65	3,314.84	3,315.78	176.34	0.37	94.00
164	13,755.00	90.59	179.12	10,346.97	-3,403.01	212.60	3,408.80	3,409.64	176.43	0.95	94.00
165	13,849.00	89.79	178.88	10,346.65	-3,496.99	214.24	3,502.77	3,503.55	176.49	0.89	94.00
166	13,943.00	90.42	180.53	10,346.48	-3,590.99	214.73	3,596.71	3,597.40	176.58	1.88	94.00
167	14,037.00	90.92	180.16	10,345.38	-3,684.98	214.16	3,690.60	3,691.20	176.67	0.66	94.00
168	14,131.00	90.70	180.26	10,344.05	-3,778.97	213.82	3,784.50	3,785.01	176.76	0.26	94.00
169	14,225.00	91.11	181.02	10,342.57	-3,872.95	212.77	3,878.37	3,878.79	176.86	0.92	94.00
170	14,320.00	90.94	180.60	10,340.87	-3,967.92	211.42	3,973.21	3,973.55	176.95	0.48	95.00
171	14,414.00	90.95	181.06	10,339.32	-4,061.90	210.06	4,067.06	4,067.33	177.04	0.49	94.00
172	14,508.00	90.91	180.33	10,337.79	-4,155.88	208.92	4,160.92	4,161.13	177.12	0.78	94.00
173	14,602.00	91.14	180.16	10,336.11	-4,249.87	208.52	4,254.81	4,254.98	177.19	0.30	94.00
174	14,696.00	90.92	180.02	10,334.42	-4,343.85	208.37	4,348.71	4,348.85	177.25	0.28	94.00
175	14,790.00	90.92	179.78	10,332.91	-4,437.84	208.54	4,442.63	4,442.74	177.31	0.26	94.00
176	14,884.00	90.66	180.59	10,331.62	-4,531.83	208.23	4,536.53	4,536.61	177.37	0.90	94.00
177	14,978.00	90.84	180.47	10,330.39	-4,625.82	207.36	4,630.41	4,630.46	177.43	0.23	94.00

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	CD	CA	DLS	CL
178	15,072.00	90.87	180.27	10,328.98	-4,719.80	206.76	4,724.30	4,724.33	177.49	0.22	94.00
179	15,166.00	91.07	180.41	10,327.39	-4,813.79	206.20	4,818.19	4,818.20	177.55	0.26	94.00
PTB	15,205.00	91.07	180.41	10,326.66	-4,852.78	205.92	4,857.13	4,857.15	177.57	0.00	39.00