

APEX

POCO Brighton Lakes Expansion

Sec 20-T1S-R66W

***Brighton Lakes 20-17-2NAH**

Original Hole

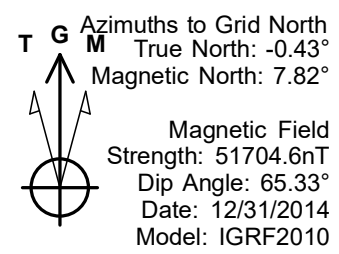
Plan: Plan #1

Survey Report - Geographic

22 September, 2022



Project: POCO Brighton Lakes Expansion
Site: Sec 20-T1S-R66W
Well: *Brighton Lakes 20-17-2NAH
Wellbore: Original Hole
Design: Plan #1



PROJECT DETAILS: POCO Brighton Lakes Expansion

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone

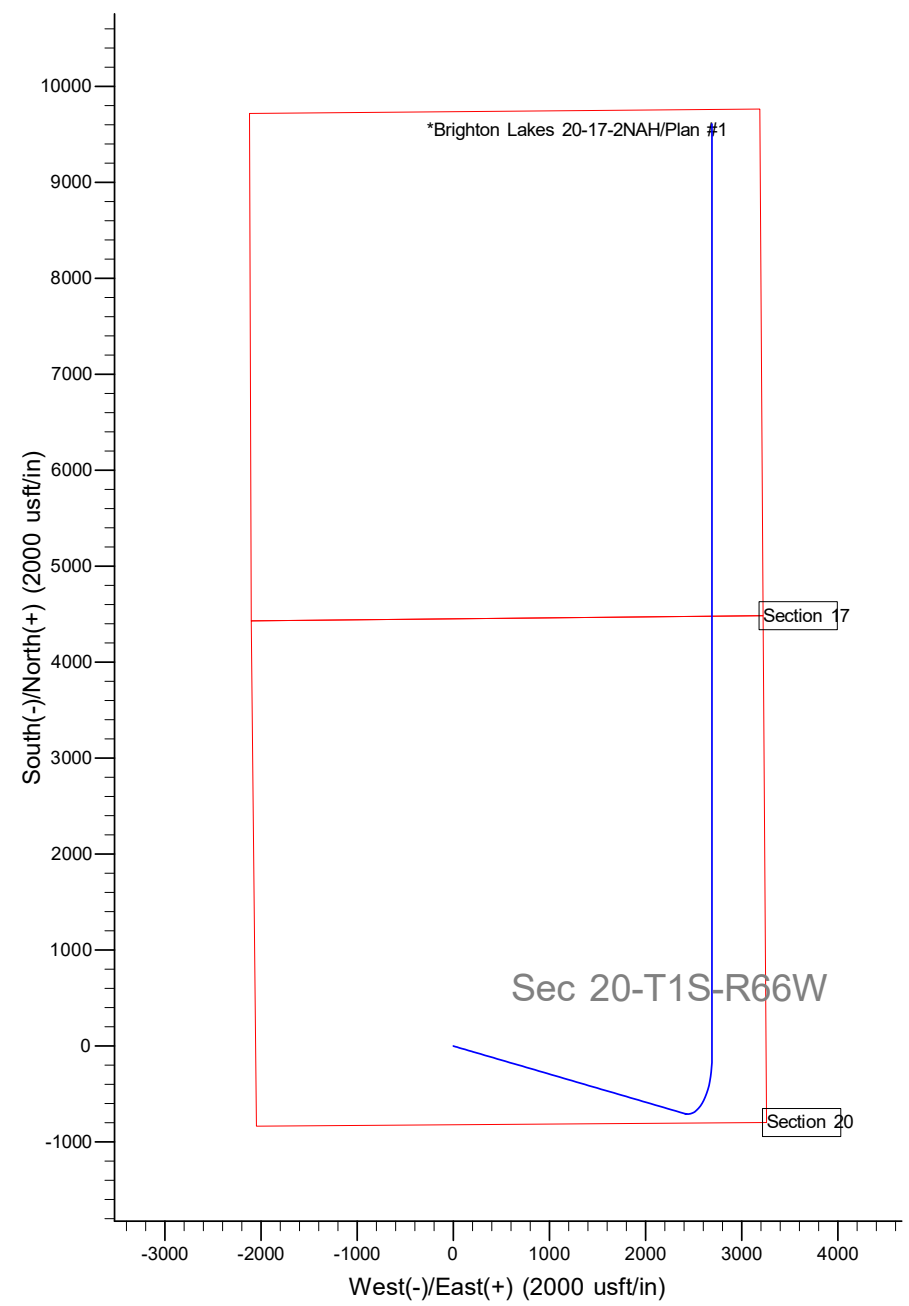
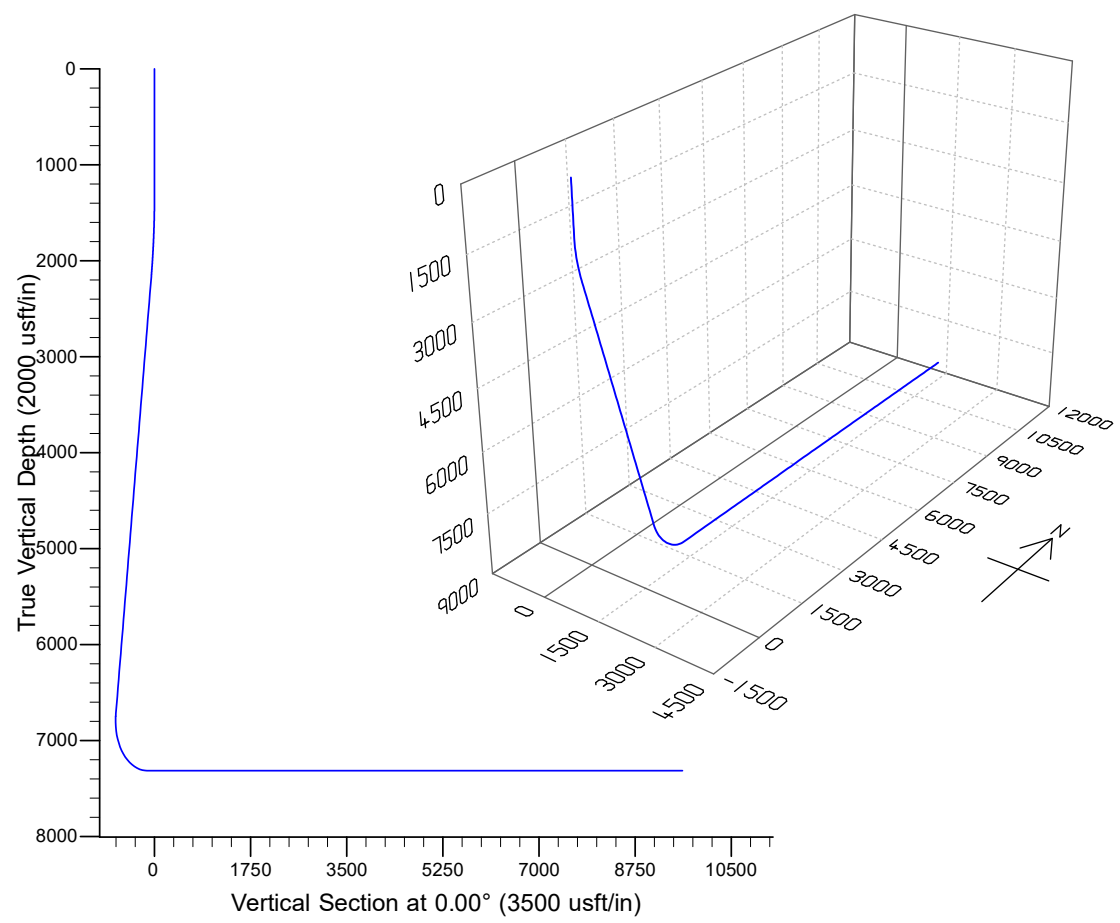
System Datum: Mean Sea Level

WELL DETAILS: *Brighton Lakes 20-17-2NAH

Northing	Ground Elevation	5047.0	Longitude
	Easting	Latitude	
1223797.56	3195843.10	38° 26' 44.889 N	104° 48' 58.354 W

SECTION DETAILS
*Brighton Lakes 20-17-2NAH

MD	Inc	Azi	TVD	+N/-S	Dleg	TFace	Vsect
0.0	0.00	0.00	0.0	0.0	0.00	0.00	0.0
1300.0	0.00	0.00	1300.0	0.0	0.00	0.00	0.0
2191.6	26.75	106.30	2159.6	-57.4	3.00	106.30	-57.4
7314.2	26.75	106.30	6734.0	-704.6	0.00	0.00	-704.6
8286.8	90.00	360.00	7315.0	-136.2	10.00	-104.64	-136.2
18032.3	90.00	360.00	7315.0	9609.3	0.00	0.00	9609.3



Amazon.com
Survey Report - Geographic

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Well:	*Brighton Lakes 20-17-2NAH	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	WC365

Project	POCO Brighton Lakes Expansion, Central Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	Sec 20-T1S-R66W		
Site Position:		Northing:	1,223,371.00 usft
From:	Map	Easting:	3,195,769.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	38° 26' 40.678 N
		Longitude:	104° 48' 59.326 W
		Grid Convergence:	0.43 °

Well	*Brighton Lakes 20-17-2NAH		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	38° 26' 44.889 N
		Longitude:	104° 48' 58.354 W
		Ground Level:	5,047.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/31/2014	8.25	65.33	51,704.64360874

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	0.00	

Survey Tool Program	Date	9/20/2022			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	18,031.9	Plan #1 (Original Hole)	MWD+HRGM+SAG+FDIR	OWSG MWD + HRGM + SAG + FDIR Correction	

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	
100.0	0.00	0.00	100.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	
200.0	0.00	0.00	200.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	
300.0	0.00	0.00	300.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	
400.0	0.00	0.00	400.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	
500.0	0.00	0.00	500.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	
600.0	0.00	0.00	600.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	
700.0	0.00	0.00	700.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	
800.0	0.00	0.00	800.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	
900.0	0.00	0.00	900.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W	

Amazon.com
Survey Report - Geographic

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Well:	*Brighton Lakes 20-17-2NAH	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	WC365

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,200.0	0.00	0.00	1,200.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	1,223,797.56	3,195,843.10	38° 26' 44.889 N	104° 48' 58.354 W
1,400.0	3.00	106.30	1,400.0	-0.7	2.5	1,223,796.82	3,195,845.61	38° 26' 44.881 N	104° 48' 58.323 W
1,500.0	6.00	106.30	1,499.6	-2.9	10.0	1,223,794.62	3,195,853.14	38° 26' 44.859 N	104° 48' 58.228 W
1,600.0	9.00	106.30	1,598.8	-6.6	22.6	1,223,790.96	3,195,865.67	38° 26' 44.822 N	104° 48' 58.071 W
1,700.0	12.00	106.30	1,697.1	-11.7	40.1	1,223,785.84	3,195,883.16	38° 26' 44.770 N	104° 48' 57.852 W
1,800.0	15.00	106.30	1,794.3	-18.3	62.5	1,223,779.29	3,195,905.56	38° 26' 44.703 N	104° 48' 57.571 W
1,900.0	18.00	106.30	1,890.2	-26.2	89.7	1,223,771.32	3,195,932.82	38° 26' 44.623 N	104° 48' 57.229 W
2,000.0	21.00	106.30	1,984.4	-35.6	121.8	1,223,761.95	3,195,964.85	38° 26' 44.528 N	104° 48' 56.827 W
2,100.0	24.00	106.30	2,076.8	-46.4	158.5	1,223,751.21	3,196,001.58	38° 26' 44.419 N	104° 48' 56.367 W
2,191.6	26.75	106.30	2,159.6	-57.4	196.2	1,223,740.18	3,196,039.26	38° 26' 44.307 N	104° 48' 55.894 W
2,200.0	26.75	106.30	2,167.1	-58.4	199.8	1,223,739.13	3,196,042.88	38° 26' 44.296 N	104° 48' 55.849 W
2,300.0	26.75	106.30	2,256.4	-71.1	243.0	1,223,726.49	3,196,086.08	38° 26' 44.168 N	104° 48' 55.307 W
2,400.0	26.75	106.30	2,345.7	-83.7	286.2	1,223,713.86	3,196,129.27	38° 26' 44.040 N	104° 48' 54.765 W
2,500.0	26.75	106.30	2,435.0	-96.3	329.4	1,223,701.22	3,196,172.47	38° 26' 43.912 N	104° 48' 54.223 W
2,600.0	26.75	106.30	2,524.3	-109.0	372.6	1,223,688.59	3,196,215.67	38° 26' 43.784 N	104° 48' 53.682 W
2,700.0	26.75	106.30	2,613.6	-121.6	415.8	1,223,675.95	3,196,258.87	38° 26' 43.656 N	104° 48' 53.140 W
2,800.0	26.75	106.30	2,702.9	-134.2	459.0	1,223,663.32	3,196,302.06	38° 26' 43.527 N	104° 48' 52.598 W
2,900.0	26.75	106.30	2,792.2	-146.9	502.2	1,223,650.68	3,196,345.26	38° 26' 43.399 N	104° 48' 52.056 W
3,000.0	26.75	106.30	2,881.5	-159.5	545.4	1,223,638.05	3,196,388.46	38° 26' 43.271 N	104° 48' 51.515 W
3,100.0	26.75	106.30	2,970.8	-172.1	588.6	1,223,625.41	3,196,431.66	38° 26' 43.143 N	104° 48' 50.973 W
3,200.0	26.75	106.30	3,060.1	-184.8	631.8	1,223,612.78	3,196,474.86	38° 26' 43.015 N	104° 48' 50.431 W
3,300.0	26.75	106.30	3,149.4	-197.4	675.0	1,223,600.14	3,196,518.05	38° 26' 42.887 N	104° 48' 49.889 W
3,400.0	26.75	106.30	3,238.7	-210.0	718.1	1,223,587.51	3,196,561.25	38° 26' 42.759 N	104° 48' 49.348 W
3,500.0	26.75	106.30	3,328.0	-222.7	761.3	1,223,574.87	3,196,604.45	38° 26' 42.631 N	104° 48' 48.806 W
3,600.0	26.75	106.30	3,417.3	-235.3	804.5	1,223,562.24	3,196,647.65	38° 26' 42.503 N	104° 48' 48.264 W
3,700.0	26.75	106.30	3,506.6	-248.0	847.7	1,223,549.60	3,196,690.84	38° 26' 42.374 N	104° 48' 47.722 W
3,800.0	26.75	106.30	3,595.9	-260.6	890.9	1,223,536.97	3,196,734.04	38° 26' 42.246 N	104° 48' 47.181 W
3,900.0	26.75	106.30	3,685.1	-273.2	934.1	1,223,524.33	3,196,777.24	38° 26' 42.118 N	104° 48' 46.639 W
4,000.0	26.75	106.30	3,774.4	-285.9	977.3	1,223,511.70	3,196,820.44	38° 26' 41.990 N	104° 48' 46.097 W
4,100.0	26.75	106.30	3,863.7	-298.5	1,020.5	1,223,499.06	3,196,863.64	38° 26' 41.862 N	104° 48' 45.555 W
4,200.0	26.75	106.30	3,953.0	-311.1	1,063.7	1,223,486.43	3,196,906.83	38° 26' 41.734 N	104° 48' 45.014 W
4,300.0	26.75	106.30	4,042.3	-323.8	1,106.9	1,223,473.80	3,196,950.03	38° 26' 41.606 N	104° 48' 44.472 W
4,400.0	26.75	106.30	4,131.6	-336.4	1,150.1	1,223,461.16	3,196,993.23	38° 26' 41.478 N	104° 48' 43.930 W
4,500.0	26.75	106.30	4,220.9	-349.0	1,193.3	1,223,448.53	3,197,036.43	38° 26' 41.349 N	104° 48' 43.388 W
4,600.0	26.75	106.30	4,310.2	-361.7	1,236.5	1,223,435.89	3,197,079.62	38° 26' 41.221 N	104° 48' 42.847 W
4,700.0	26.75	106.30	4,399.5	-374.3	1,279.7	1,223,423.26	3,197,122.82	38° 26' 41.093 N	104° 48' 42.305 W
4,800.0	26.75	106.30	4,488.8	-386.9	1,322.9	1,223,410.62	3,197,166.02	38° 26' 40.965 N	104° 48' 41.763 W
4,900.0	26.75	106.30	4,578.1	-399.6	1,366.1	1,223,397.99	3,197,209.22	38° 26' 40.837 N	104° 48' 41.221 W
5,000.0	26.75	106.30	4,667.4	-412.2	1,409.3	1,223,385.35	3,197,252.42	38° 26' 40.709 N	104° 48' 40.680 W
5,100.0	26.75	106.30	4,756.7	-424.8	1,452.5	1,223,372.72	3,197,295.61	38° 26' 40.581 N	104° 48' 40.138 W
5,200.0	26.75	106.30	4,846.0	-437.5	1,495.7	1,223,360.08	3,197,338.81	38° 26' 40.453 N	104° 48' 39.596 W
5,300.0	26.75	106.30	4,935.3	-450.1	1,538.9	1,223,347.45	3,197,382.01	38° 26' 40.324 N	104° 48' 39.054 W
5,400.0	26.75	106.30	5,024.6	-462.7	1,582.1	1,223,334.81	3,197,425.21	38° 26' 40.196 N	104° 48' 38.513 W
5,500.0	26.75	106.30	5,113.9	-475.4	1,625.3	1,223,322.18	3,197,468.40	38° 26' 40.068 N	104° 48' 37.971 W
5,600.0	26.75	106.30	5,203.2	-488.0	1,668.5	1,223,309.54	3,197,511.60	38° 26' 39.940 N	104° 48' 37.429 W
5,700.0	26.75	106.30	5,292.5	-500.6	1,711.7	1,223,296.91	3,197,554.80	38° 26' 39.812 N	104° 48' 36.887 W
5,800.0	26.75	106.30	5,381.8	-513.3	1,754.9	1,223,284.27	3,197,598.00	38° 26' 39.684 N	104° 48' 36.346 W
5,900.0	26.75	106.30	5,471.1	-525.9	1,798.1	1,223,271.64	3,197,641.20	38° 26' 39.556 N	104° 48' 35.804 W
6,000.0	26.75	106.30	5,560.4	-538.6	1,841.3	1,223,259.00	3,197,684.39	38° 26' 39.428 N	104° 48' 35.262 W
6,100.0	26.75	106.30	5,649.7	-551.2	1,884.5	1,223,246.37	3,197,727.59	38° 26' 39.299 N	104° 48' 34.721 W
6,200.0	26.75	106.30	5,739.0	-563.8	1,927.7	1,223,233.73	3,197,770.79	38° 26' 39.171 N	104° 48' 34.179 W
6,300.0	26.75	106.30	5,828.3	-576.5	1,970.9	1,223,221.10	3,197,813.99	38° 26' 39.043 N	104° 48' 33.637 W
6,400.0	26.75	106.30	5,917.6	-589.1	2,014.1	1,223,208.47	3,197,857.19	38° 26' 38.915 N	104° 48' 33.095 W
6,500.0	26.75	106.30	6,006.9	-601.7	2,057.3	1,223,195.83	3,197,900.38	38° 26' 38.787 N	104° 48' 32.554 W

Amazon.com
Survey Report - Geographic

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Well:	*Brighton Lakes 20-17-2NAH	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	WC365

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,600.0	26.75	106.30	6,096.2	-614.4	2,100.5	1,223,183.20	3,197,943.58	38° 26' 38.659 N	104° 48' 32.012 W
6,700.0	26.75	106.30	6,185.5	-627.0	2,143.7	1,223,170.56	3,197,986.78	38° 26' 38.531 N	104° 48' 31.470 W
6,800.0	26.75	106.30	6,274.8	-639.6	2,186.9	1,223,157.93	3,198,029.98	38° 26' 38.402 N	104° 48' 30.928 W
6,900.0	26.75	106.30	6,364.1	-652.3	2,230.1	1,223,145.29	3,198,073.17	38° 26' 38.274 N	104° 48' 30.387 W
7,000.0	26.75	106.30	6,453.4	-664.9	2,273.3	1,223,132.66	3,198,116.37	38° 26' 38.146 N	104° 48' 29.845 W
7,100.0	26.75	106.30	6,542.7	-677.5	2,316.5	1,223,120.02	3,198,159.57	38° 26' 38.018 N	104° 48' 29.303 W
7,200.0	26.75	106.30	6,632.0	-690.2	2,359.7	1,223,107.39	3,198,202.77	38° 26' 37.890 N	104° 48' 28.761 W
7,300.0	26.75	106.30	6,721.3	-702.8	2,402.9	1,223,094.75	3,198,245.97	38° 26' 37.762 N	104° 48' 28.220 W
7,314.2	26.75	106.30	6,734.0	-704.6	2,409.0	1,223,092.96	3,198,252.10	38° 26' 37.743 N	104° 48' 28.143 W
7,400.0	25.85	86.97	6,811.1	-709.0	2,446.3	1,223,088.52	3,198,289.38	38° 26' 37.697 N	104° 48' 27.675 W
7,500.0	28.03	65.31	6,900.4	-698.0	2,489.5	1,223,099.51	3,198,332.60	38° 26' 37.802 N	104° 48' 27.130 W
7,600.0	33.01	48.13	6,986.7	-670.0	2,531.2	1,223,127.58	3,198,374.34	38° 26' 38.077 N	104° 48' 26.603 W
7,700.0	39.73	35.59	7,067.3	-625.7	2,570.2	1,223,171.86	3,198,413.32	38° 26' 38.511 N	104° 48' 26.109 W
7,800.0	47.46	26.35	7,139.7	-566.5	2,605.3	1,223,231.02	3,198,448.36	38° 26' 39.093 N	104° 48' 25.663 W
7,900.0	55.76	19.22	7,201.8	-494.3	2,635.3	1,223,303.25	3,198,478.39	38° 26' 39.805 N	104° 48' 25.279 W
8,000.0	64.40	13.40	7,251.7	-411.2	2,659.4	1,223,386.36	3,198,502.50	38° 26' 40.625 N	104° 48' 24.967 W
8,100.0	73.24	8.37	7,287.8	-319.7	2,676.9	1,223,477.82	3,198,519.97	38° 26' 41.528 N	104° 48' 24.739 W
8,200.0	82.19	3.80	7,309.1	-222.7	2,687.1	1,223,574.86	3,198,530.25	38° 26' 42.486 N	104° 48' 24.601 W
8,286.8	90.00	360.00	7,315.0	-136.2	2,690.0	1,223,661.34	3,198,533.10	38° 26' 43.341 N	104° 48' 24.557 W
8,300.0	90.00	360.00	7,315.0	-123.0	2,690.0	1,223,674.53	3,198,533.10	38° 26' 43.471 N	104° 48' 24.555 W
8,400.0	90.00	360.00	7,315.0	-23.0	2,690.0	1,223,774.53	3,198,533.09	38° 26' 44.459 N	104° 48' 24.546 W
8,500.0	90.00	360.00	7,315.0	77.0	2,690.0	1,223,874.53	3,198,533.09	38° 26' 45.448 N	104° 48' 24.536 W
8,600.0	90.00	360.00	7,315.0	177.0	2,690.0	1,223,974.53	3,198,533.08	38° 26' 46.436 N	104° 48' 24.527 W
8,700.0	90.00	360.00	7,315.0	277.0	2,690.0	1,224,074.53	3,198,533.08	38° 26' 47.425 N	104° 48' 24.517 W
8,800.0	90.00	360.00	7,315.0	377.0	2,690.0	1,224,174.53	3,198,533.07	38° 26' 48.413 N	104° 48' 24.508 W
8,900.0	90.00	360.00	7,315.0	477.0	2,690.0	1,224,274.53	3,198,533.07	38° 26' 49.402 N	104° 48' 24.498 W
9,000.0	90.00	360.00	7,315.0	577.0	2,690.0	1,224,374.53	3,198,533.06	38° 26' 50.390 N	104° 48' 24.489 W
9,100.0	90.00	360.00	7,315.0	677.0	2,690.0	1,224,474.53	3,198,533.05	38° 26' 51.379 N	104° 48' 24.479 W
9,200.0	90.00	360.00	7,315.0	777.0	2,689.9	1,224,574.53	3,198,533.05	38° 26' 52.367 N	104° 48' 24.470 W
9,300.0	90.00	360.00	7,315.0	877.0	2,689.9	1,224,674.53	3,198,533.04	38° 26' 53.356 N	104° 48' 24.460 W
9,400.0	90.00	360.00	7,315.0	977.0	2,689.9	1,224,774.53	3,198,533.04	38° 26' 54.344 N	104° 48' 24.451 W
9,500.0	90.00	360.00	7,315.0	1,077.0	2,689.9	1,224,874.53	3,198,533.03	38° 26' 55.333 N	104° 48' 24.441 W
9,600.0	90.00	360.00	7,315.0	1,177.0	2,689.9	1,224,974.53	3,198,533.03	38° 26' 56.321 N	104° 48' 24.432 W
9,700.0	90.00	360.00	7,315.0	1,277.0	2,689.9	1,225,074.53	3,198,533.02	38° 26' 57.310 N	104° 48' 24.422 W
9,800.0	90.00	360.00	7,315.0	1,377.0	2,689.9	1,225,174.53	3,198,533.01	38° 26' 58.298 N	104° 48' 24.412 W
9,900.0	90.00	360.00	7,315.0	1,477.0	2,689.9	1,225,274.53	3,198,533.01	38° 26' 59.287 N	104° 48' 24.403 W
10,000.0	90.00	360.00	7,315.0	1,577.0	2,689.9	1,225,374.53	3,198,533.00	38° 27' 0.275 N	104° 48' 24.393 W
10,100.0	90.00	360.00	7,315.0	1,677.0	2,689.9	1,225,474.53	3,198,533.00	38° 27' 1.263 N	104° 48' 24.384 W
10,200.0	90.00	360.00	7,315.0	1,777.0	2,689.9	1,225,574.53	3,198,532.99	38° 27' 2.252 N	104° 48' 24.374 W
10,300.0	90.00	360.00	7,315.0	1,877.0	2,689.9	1,225,674.53	3,198,532.99	38° 27' 3.240 N	104° 48' 24.365 W
10,400.0	90.00	360.00	7,315.0	1,977.0	2,689.9	1,225,774.53	3,198,532.98	38° 27' 4.229 N	104° 48' 24.355 W
10,500.0	90.00	360.00	7,315.0	2,077.0	2,689.9	1,225,874.53	3,198,532.98	38° 27' 5.217 N	104° 48' 24.346 W
10,600.0	90.00	360.00	7,315.0	2,177.0	2,689.9	1,225,974.53	3,198,532.97	38° 27' 6.206 N	104° 48' 24.336 W
10,700.0	90.00	360.00	7,315.0	2,277.0	2,689.9	1,226,074.53	3,198,532.96	38° 27' 7.194 N	104° 48' 24.327 W
10,800.0	90.00	360.00	7,315.0	2,377.0	2,689.9	1,226,174.53	3,198,532.96	38° 27' 8.183 N	104° 48' 24.317 W
10,900.0	90.00	360.00	7,315.0	2,477.0	2,689.9	1,226,274.53	3,198,532.95	38° 27' 9.171 N	104° 48' 24.308 W
11,000.0	90.00	360.00	7,315.0	2,577.0	2,689.8	1,226,374.53	3,198,532.95	38° 27' 10.160 N	104° 48' 24.298 W
11,100.0	90.00	360.00	7,315.0	2,677.0	2,689.8	1,226,474.53	3,198,532.94	38° 27' 11.148 N	104° 48' 24.289 W
11,200.0	90.00	360.00	7,315.0	2,777.0	2,689.8	1,226,574.53	3,198,532.94	38° 27' 12.137 N	104° 48' 24.279 W
11,300.0	90.00	360.00	7,315.0	2,877.0	2,689.8	1,226,674.53	3,198,532.93	38° 27' 13.125 N	104° 48' 24.270 W
11,400.0	90.00	360.00	7,315.0	2,977.0	2,689.8	1,226,774.53	3,198,532.92	38° 27' 14.114 N	104° 48' 24.260 W
11,500.0	90.00	360.00	7,315.0	3,077.0	2,689.8	1,226,874.53	3,198,532.92	38° 27' 15.102 N	104° 48' 24.251 W
11,600.0	90.00	360.00	7,315.0	3,177.0	2,689.8	1,226,974.53	3,198,532.91	38° 27' 16.091 N	104° 48' 24.241 W
11,700.0	90.00	360.00	7,315.0	3,277.0	2,689.8	1,227,074.53	3,198,532.91	38° 27' 17.079 N	104° 48' 24.232 W
11,800.0	90.00	360.00	7,315.0	3,377.0	2,689.8	1,227,174.53	3,198,532.90	38° 27' 18.067 N	104° 48' 24.222 W

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Survey Report - Geographic

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Well:	*Brighton Lakes 20-17-2NAH	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	WC365

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,900.0	90.00	360.00	7,315.0	3,477.0	2,689.8	1,227,274.53	3,198,532.90	38° 27' 19.056 N	104° 48' 24.213 W
12,000.0	90.00	360.00	7,315.0	3,577.0	2,689.8	1,227,374.53	3,198,532.89	38° 27' 20.044 N	104° 48' 24.203 W
12,100.0	90.00	360.00	7,315.0	3,677.0	2,689.8	1,227,474.53	3,198,532.89	38° 27' 21.033 N	104° 48' 24.193 W
12,200.0	90.00	360.00	7,315.0	3,777.0	2,689.8	1,227,574.53	3,198,532.88	38° 27' 22.021 N	104° 48' 24.184 W
12,300.0	90.00	360.00	7,315.0	3,877.0	2,689.8	1,227,674.53	3,198,532.87	38° 27' 23.010 N	104° 48' 24.174 W
12,400.0	90.00	360.00	7,315.0	3,977.0	2,689.8	1,227,774.53	3,198,532.87	38° 27' 23.998 N	104° 48' 24.165 W
12,500.0	90.00	360.00	7,315.0	4,077.0	2,689.8	1,227,874.53	3,198,532.86	38° 27' 24.987 N	104° 48' 24.155 W
12,600.0	90.00	360.00	7,315.0	4,177.0	2,689.8	1,227,974.53	3,198,532.86	38° 27' 25.975 N	104° 48' 24.146 W
12,700.0	90.00	360.00	7,315.0	4,277.0	2,689.8	1,228,074.53	3,198,532.85	38° 27' 26.964 N	104° 48' 24.136 W
12,800.0	90.00	360.00	7,315.0	4,377.0	2,689.7	1,228,174.53	3,198,532.85	38° 27' 27.952 N	104° 48' 24.127 W
12,900.0	90.00	360.00	7,315.0	4,477.0	2,689.7	1,228,274.53	3,198,532.84	38° 27' 28.941 N	104° 48' 24.117 W
13,000.0	90.00	360.00	7,315.0	4,577.0	2,689.7	1,228,374.53	3,198,532.83	38° 27' 29.929 N	104° 48' 24.108 W
13,100.0	90.00	360.00	7,315.0	4,677.0	2,689.7	1,228,474.53	3,198,532.83	38° 27' 30.918 N	104° 48' 24.098 W
13,200.0	90.00	360.00	7,315.0	4,777.0	2,689.7	1,228,574.53	3,198,532.82	38° 27' 31.906 N	104° 48' 24.089 W
13,300.0	90.00	360.00	7,315.0	4,877.0	2,689.7	1,228,674.53	3,198,532.82	38° 27' 32.894 N	104° 48' 24.079 W
13,400.0	90.00	360.00	7,315.0	4,977.0	2,689.7	1,228,774.53	3,198,532.81	38° 27' 33.883 N	104° 48' 24.070 W
13,500.0	90.00	360.00	7,315.0	5,077.0	2,689.7	1,228,874.53	3,198,532.81	38° 27' 34.871 N	104° 48' 24.060 W
13,600.0	90.00	360.00	7,315.0	5,177.0	2,689.7	1,228,974.53	3,198,532.80	38° 27' 35.860 N	104° 48' 24.051 W
13,700.0	90.00	360.00	7,315.0	5,277.0	2,689.7	1,229,074.53	3,198,532.80	38° 27' 36.848 N	104° 48' 24.041 W
13,800.0	90.00	360.00	7,315.0	5,377.0	2,689.7	1,229,174.53	3,198,532.79	38° 27' 37.837 N	104° 48' 24.032 W
13,900.0	90.00	360.00	7,315.0	5,477.0	2,689.7	1,229,274.53	3,198,532.78	38° 27' 38.825 N	104° 48' 24.022 W
14,000.0	90.00	360.00	7,315.0	5,577.0	2,689.7	1,229,374.53	3,198,532.78	38° 27' 39.814 N	104° 48' 24.013 W
14,100.0	90.00	360.00	7,315.0	5,677.0	2,689.7	1,229,474.53	3,198,532.77	38° 27' 40.802 N	104° 48' 24.003 W
14,200.0	90.00	360.00	7,315.0	5,777.0	2,689.7	1,229,574.53	3,198,532.77	38° 27' 41.791 N	104° 48' 23.993 W
14,300.0	90.00	360.00	7,315.0	5,877.0	2,689.7	1,229,674.53	3,198,532.76	38° 27' 42.779 N	104° 48' 23.984 W
14,400.0	90.00	360.00	7,315.0	5,977.0	2,689.7	1,229,774.53	3,198,532.76	38° 27' 43.768 N	104° 48' 23.974 W
14,500.0	90.00	360.00	7,315.0	6,077.0	2,689.6	1,229,874.53	3,198,532.75	38° 27' 44.756 N	104° 48' 23.965 W
14,600.0	90.00	360.00	7,315.0	6,177.0	2,689.6	1,229,974.53	3,198,532.74	38° 27' 45.745 N	104° 48' 23.955 W
14,700.0	90.00	360.00	7,315.0	6,277.0	2,689.6	1,230,074.53	3,198,532.74	38° 27' 46.733 N	104° 48' 23.946 W
14,800.0	90.00	360.00	7,315.0	6,377.0	2,689.6	1,230,174.53	3,198,532.73	38° 27' 47.722 N	104° 48' 23.936 W
14,900.0	90.00	360.00	7,315.0	6,477.0	2,689.6	1,230,274.53	3,198,532.73	38° 27' 48.710 N	104° 48' 23.927 W
15,000.0	90.00	360.00	7,315.0	6,577.0	2,689.6	1,230,374.53	3,198,532.72	38° 27' 49.698 N	104° 48' 23.917 W
15,100.0	90.00	360.00	7,315.0	6,677.0	2,689.6	1,230,474.53	3,198,532.72	38° 27' 50.687 N	104° 48' 23.908 W
15,200.0	90.00	360.00	7,315.0	6,777.0	2,689.6	1,230,574.53	3,198,532.71	38° 27' 51.675 N	104° 48' 23.898 W
15,300.0	90.00	360.00	7,315.0	6,877.0	2,689.6	1,230,674.53	3,198,532.71	38° 27' 52.664 N	104° 48' 23.889 W
15,400.0	90.00	360.00	7,315.0	6,977.0	2,689.6	1,230,774.53	3,198,532.70	38° 27' 53.652 N	104° 48' 23.879 W
15,500.0	90.00	360.00	7,315.0	7,077.0	2,689.6	1,230,874.53	3,198,532.69	38° 27' 54.641 N	104° 48' 23.870 W
15,600.0	90.00	360.00	7,315.0	7,177.0	2,689.6	1,230,974.53	3,198,532.69	38° 27' 55.629 N	104° 48' 23.860 W
15,700.0	90.00	360.00	7,315.0	7,277.0	2,689.6	1,231,074.53	3,198,532.68	38° 27' 56.618 N	104° 48' 23.851 W
15,800.0	90.00	360.00	7,315.0	7,377.0	2,689.6	1,231,174.53	3,198,532.68	38° 27' 57.606 N	104° 48' 23.841 W
15,900.0	90.00	360.00	7,315.0	7,477.0	2,689.6	1,231,274.53	3,198,532.67	38° 27' 58.595 N	104° 48' 23.832 W
16,000.0	90.00	360.00	7,315.0	7,577.0	2,689.6	1,231,374.53	3,198,532.67	38° 27' 59.583 N	104° 48' 23.822 W
16,100.0	90.00	360.00	7,315.0	7,677.0	2,689.6	1,231,474.53	3,198,532.66	38° 28' 0.572 N	104° 48' 23.813 W
16,200.0	90.00	360.00	7,315.0	7,777.0	2,689.6	1,231,574.53	3,198,532.65	38° 28' 1.560 N	104° 48' 23.803 W
16,300.0	90.00	360.00	7,315.0	7,877.0	2,689.5	1,231,674.53	3,198,532.65	38° 28' 2.549 N	104° 48' 23.793 W
16,400.0	90.00	360.00	7,315.0	7,977.0	2,689.5	1,231,774.53	3,198,532.64	38° 28' 3.537 N	104° 48' 23.784 W
16,500.0	90.00	360.00	7,315.0	8,077.0	2,689.5	1,231,874.53	3,198,532.64	38° 28' 4.526 N	104° 48' 23.774 W
16,600.0	90.00	360.00	7,315.0	8,177.0	2,689.5	1,231,974.53	3,198,532.63	38° 28' 5.514 N	104° 48' 23.765 W
16,700.0	90.00	360.00	7,315.0	8,277.0	2,689.5	1,232,074.53	3,198,532.63	38° 28' 6.502 N	104° 48' 23.755 W
16,800.0	90.00	360.00	7,315.0	8,377.0	2,689.5	1,232,174.53	3,198,532.62	38° 28' 7.491 N	104° 48' 23.746 W
16,900.0	90.00	360.00	7,315.0	8,477.0	2,689.5	1,232,274.53	3,198,532.62	38° 28' 8.479 N	104° 48' 23.736 W
17,000.0	90.00	360.00	7,315.0	8,577.0	2,689.5	1,232,374.53	3,198,532.61	38° 28' 9.468 N	104° 48' 23.727 W
17,100.0	90.00	360.00	7,315.0	8,677.0	2,689.5	1,232,474.53	3,198,532.60	38° 28' 10.456 N	104° 48' 23.717 W
17,200.0	90.00	360.00	7,315.0	8,777.0	2,689.5	1,232,574.53	3,198,532.60	38° 28' 11.445 N	104° 48' 23.708 W
17,300.0	90.00	360.00	7,315.0	8,877.0	2,689.5	1,232,674.53	3,198,532.59	38° 28' 12.433 N	104° 48' 23.698 W

Amazon.com
Survey Report - Geographic

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Well:	*Brighton Lakes 20-17-2NAH	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	WC365

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
17,400.0	90.00	360.00	7,315.0	8,977.0	2,689.5	1,232,774.53	3,198,532.59	38° 28' 13.422 N	104° 48' 23.689 W
17,500.0	90.00	360.00	7,315.0	9,077.0	2,689.5	1,232,874.53	3,198,532.58	38° 28' 14.410 N	104° 48' 23.679 W
17,600.0	90.00	360.00	7,315.0	9,177.0	2,689.5	1,232,974.53	3,198,532.58	38° 28' 15.399 N	104° 48' 23.670 W
17,700.0	90.00	360.00	7,315.0	9,277.0	2,689.5	1,233,074.53	3,198,532.57	38° 28' 16.387 N	104° 48' 23.660 W
17,800.0	90.00	360.00	7,315.0	9,377.0	2,689.5	1,233,174.53	3,198,532.56	38° 28' 17.376 N	104° 48' 23.651 W
17,900.0	90.00	360.00	7,315.0	9,477.0	2,689.5	1,233,274.53	3,198,532.56	38° 28' 18.364 N	104° 48' 23.641 W
18,000.0	90.00	360.00	7,315.0	9,577.0	2,689.5	1,233,374.53	3,198,532.55	38° 28' 19.353 N	104° 48' 23.632 W
18,032.3	90.00	360.00	7,315.0	9,609.3	2,689.4	1,233,406.87	3,198,532.55	38° 28' 19.672 N	104° 48' 23.628 W

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
20-17-2NAH KOP - plan misses target center by 324.7usft at 7519.5usft MD (6917.6 TVD, -693.9 N, 2497.8 E) - Point	0.00	0.00	6,900.0	-944.9	2,702.9	1,222,852.66	3,198,546.04	38° 26' 35.346 N	104° 48' 24.471 W
20-17-2NAH BHL - plan hits target center - Point	0.00	0.01	7,315.0	9,609.3	2,689.4	1,233,406.87	3,198,532.55	38° 28' 19.672 N	104° 48' 23.628 W

Checked By: _____ Approved By: _____ Date: _____