

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Frank Trust 14-36H**

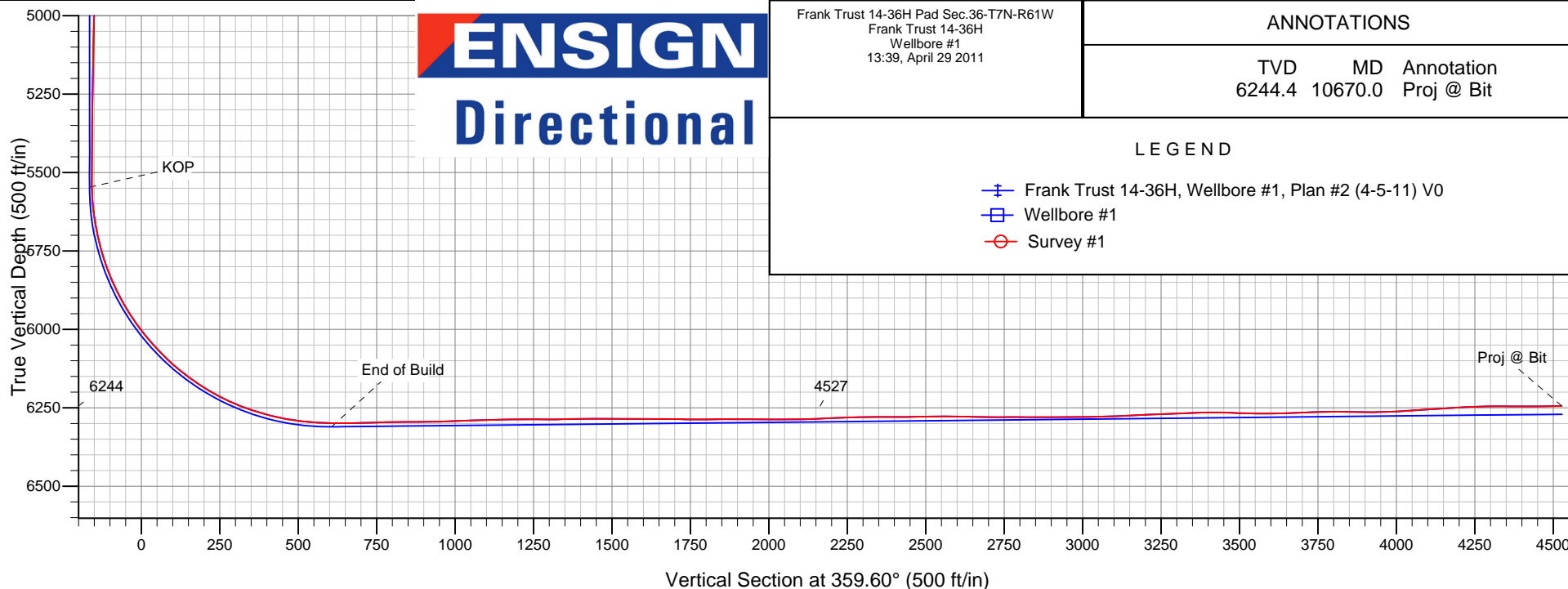
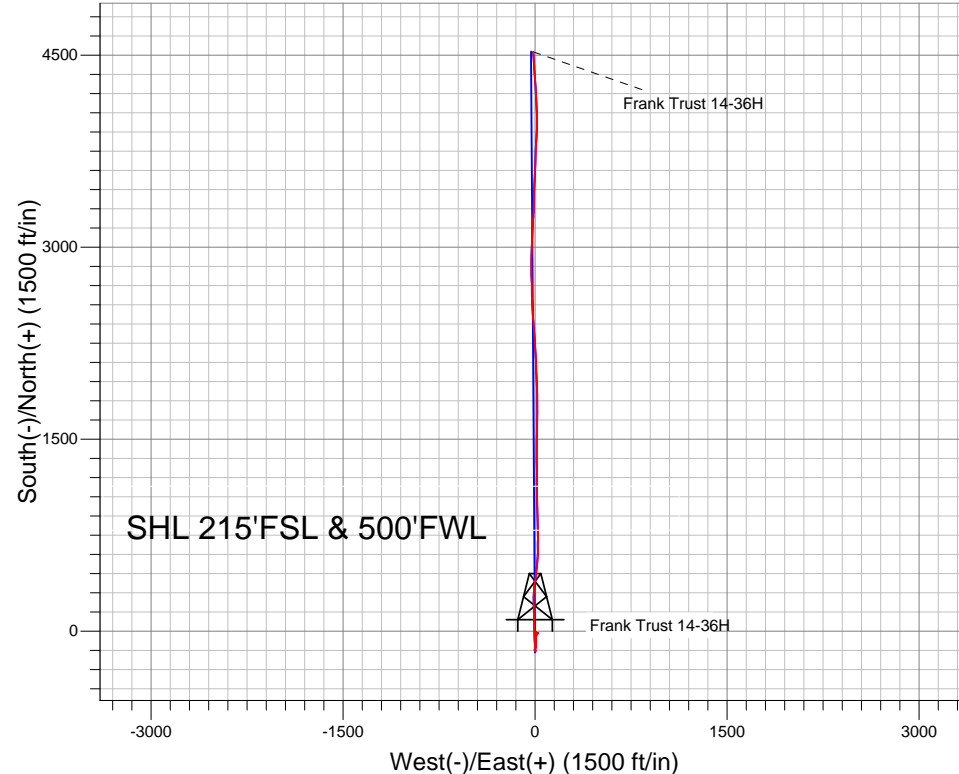
Surface Location: Frank Trust 14-36H Pad Sec.36-T7N-R61W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4797.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1436870.53	3371082.03	40° 31' 29.795 N	104° 9' 54.389 W	
RKB Ensign 32 - 14' WELL @ 4811.0ft (RKB Ensign 32 - 14')						

FINAL SURVEY

Projected Bottom Hole Location
10670' MD 6244' TVD 4527' N & 14' W of
SHL
91.3 degree Incl @ 356.7 degree AZM



ENSIGN
Directional

Frank Trust 14-36H Pad Sec.36-T7N-R61W
Frank Trust 14-36H
Wellbore #1
13:39, April 29 2011

ANNOTATIONS

TVD	MD	Annotation
6244.4	10670.0	Proj @ Bit

LEGEND

- Frank Trust 14-36H, Wellbore #1, Plan #2 (4-5-11) V0
- Wellbore #1
- Survey #1



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.36-T7N-R61W

Frank Trust 14-36H Pad Sec.36-T7N-R61W

Frank Trust 14-36H

Wellbore #1

Survey: Survey #1

Standard Survey Report

29 April, 2011

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Frank Trust 14-36H
Project:	SEC.36-T7N-R61W	TVD Reference:	WELL @ 4811.0ft (RKB Ensign 32 - 14')
Site:	Frank Trust 14-36H Pad Sec.36-T7N-R61W	MD Reference:	WELL @ 4811.0ft (RKB Ensign 32 - 14')
Well:	Frank Trust 14-36H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.36-T7N-R61W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		Frank Trust 14-36H Pad Sec.36-T7N-R61W			
Site Position:		Northing:	1,436,870.54ft	Latitude:	40° 31' 29.795 N
From:	Lat/Long	Easting:	3,371,082.03ft	Longitude:	104° 9' 54.389 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.86 °

Well	Frank Trust 14-36H					
Well Position	+N-S	0.0 ft	Northing:	1,436,870.53 ft	Latitude:	40° 31' 29.795 N
	+E-W	0.0 ft	Easting:	3,371,082.03 ft	Longitude:	104° 9' 54.389 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,797.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/19/2011	8.60	67.26	53,303

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	359.60	

Survey Program	Date	4/29/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
946.0	10,670.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
HARDLINE BHL 460'FNL - HARDLINE SHL 460'FSL - 500' Circle									
946.0	0.80	133.20	946.0	-4.5	4.8	-4.6	0.08	0.08	0.00
1,038.0	0.80	144.90	1,038.0	-5.5	5.7	-5.5	0.18	0.00	12.72
1,131.0	0.90	140.90	1,131.0	-6.6	6.5	-6.6	0.12	0.11	-4.30
1,223.0	0.80	147.60	1,222.9	-7.7	7.3	-7.7	0.15	-0.11	7.28
1,316.0	1.10	130.70	1,315.9	-8.8	8.3	-8.9	0.44	0.32	-18.17
1,409.0	1.00	149.20	1,408.9	-10.1	9.4	-10.2	0.38	-0.11	19.89
1,502.0	1.00	138.90	1,501.9	-11.4	10.4	-11.5	0.19	0.00	-11.08
1,594.0	1.20	177.50	1,593.9	-13.0	10.9	-13.0	0.82	0.22	41.96
1,687.0	1.20	127.70	1,686.9	-14.5	11.7	-14.6	1.09	0.00	-53.55
1,780.0	1.20	109.10	1,779.8	-15.5	13.4	-15.5	0.42	0.00	-20.00

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Site:	Frank Trust 14-36H Pad Sec.36-T7N-R61W	MD Reference:	WELL @ 4811.0ft (RKB Ensign 32 - 14')
Well:	Frank Trust 14-36H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,873.0	1.10	93.90	1,872.8	-15.8	15.2	-15.9	0.34	-0.11	-16.34
1,966.0	1.50	82.00	1,965.8	-15.7	17.3	-15.8	0.52	0.43	-12.80
2,059.0	1.30	70.50	2,058.8	-15.2	19.5	-15.3	0.37	-0.22	-12.37
2,152.0	0.80	36.10	2,151.8	-14.3	20.9	-14.5	0.84	-0.54	-36.99
2,246.0	0.70	224.80	2,245.8	-14.2	20.9	-14.3	1.59	-0.11	-182.23
2,339.0	1.80	209.20	2,338.7	-15.9	19.8	-16.0	1.23	1.18	-16.77
2,433.0	2.20	210.00	2,432.7	-18.7	18.2	-18.9	0.43	0.43	0.85
2,526.0	2.50	213.70	2,525.6	-22.0	16.1	-22.1	0.36	0.32	3.98
2,619.0	2.90	204.90	2,618.5	-25.8	14.0	-25.9	0.62	0.43	-9.46
2,713.0	3.30	213.20	2,712.4	-30.2	11.5	-30.3	0.64	0.43	8.83
2,806.0	3.60	203.00	2,805.2	-35.1	8.9	-35.2	0.73	0.32	-10.97
2,899.0	3.80	207.50	2,898.0	-40.6	6.4	-40.6	0.38	0.22	4.84
2,992.0	3.20	193.20	2,990.8	-45.8	4.4	-45.8	1.13	-0.65	-15.38
3,086.0	2.80	172.30	3,084.7	-50.6	4.1	-50.7	1.23	-0.43	-22.23
3,179.0	3.50	156.10	3,177.6	-55.5	5.5	-55.5	1.21	0.75	-17.42
3,273.0	3.10	167.90	3,271.4	-60.6	7.2	-60.7	0.84	-0.43	12.55
3,366.0	4.20	185.40	3,364.2	-66.5	7.4	-66.5	1.67	1.18	18.82
3,459.0	4.80	187.30	3,456.9	-73.7	6.6	-73.7	0.66	0.65	2.04
3,553.0	5.50	182.90	3,550.5	-82.1	5.9	-82.1	0.85	0.74	-4.68
3,646.0	6.20	182.30	3,643.1	-91.6	5.4	-91.6	0.76	0.75	-0.65
3,739.0	5.90	178.60	3,735.5	-101.4	5.4	-101.4	0.53	-0.32	-3.98
3,833.0	5.10	179.40	3,829.1	-110.4	5.5	-110.4	0.85	-0.85	0.85
3,926.0	3.70	177.10	3,921.8	-117.5	5.7	-117.5	1.52	-1.51	-2.47
4,019.0	4.40	183.40	4,014.6	-124.1	5.7	-124.1	0.89	0.75	6.77
4,113.0	3.50	203.50	4,108.4	-130.3	4.3	-130.3	1.74	-0.96	21.38
4,206.0	3.50	209.30	4,201.2	-135.4	1.8	-135.4	0.38	0.00	6.24
4,299.0	3.00	207.20	4,294.1	-140.0	-0.7	-140.0	0.55	-0.54	-2.26
4,393.0	2.10	211.50	4,388.0	-143.7	-2.7	-143.6	0.98	-0.96	4.57
4,486.0	1.20	210.40	4,480.9	-146.0	-4.1	-145.9	0.97	-0.97	-1.18
4,579.0	0.70	112.40	4,573.9	-147.0	-4.1	-147.0	1.58	-0.54	-105.38
4,672.0	1.30	87.30	4,666.9	-147.2	-2.5	-147.2	0.78	0.65	-26.99
4,765.0	1.10	106.70	4,759.9	-147.4	-0.6	-147.4	0.48	-0.22	20.86
4,858.0	1.10	133.20	4,852.9	-148.3	0.9	-148.3	0.54	0.00	28.49
4,951.0	1.10	151.10	4,945.9	-149.7	2.0	-149.7	0.37	0.00	19.25
5,044.0	1.30	171.70	5,038.8	-151.5	2.6	-151.5	0.51	0.22	22.15
5,137.0	1.10	189.50	5,131.8	-153.4	2.6	-153.4	0.45	-0.22	19.14
5,231.0	0.90	212.30	5,225.8	-154.9	2.0	-154.9	0.47	-0.21	24.26
5,324.0	0.80	169.00	5,318.8	-156.2	1.8	-156.2	0.68	-0.11	-46.56
5,389.0	0.40	170.80	5,383.8	-156.8	1.9	-156.9	0.62	-0.62	2.77
5,419.0	0.40	177.40	5,413.8	-157.1	1.9	-157.1	0.15	0.00	22.00
5,450.0	0.30	131.40	5,444.8	-157.2	2.0	-157.2	0.93	-0.32	-148.39
5,481.0	0.60	168.70	5,475.8	-157.4	2.1	-157.4	1.30	0.97	120.32
5,512.0	0.40	155.10	5,506.8	-157.7	2.1	-157.7	0.75	-0.65	-43.87
5,543.0	0.80	27.50	5,537.8	-157.6	2.3	-157.6	3.52	1.29	-411.61
5,574.0	2.50	358.10	5,568.8	-156.7	2.4	-156.7	5.95	5.48	-94.84
5,605.0	5.10	350.80	5,599.7	-154.7	2.1	-154.7	8.51	8.39	-23.55
5,636.0	7.80	351.60	5,630.5	-151.2	1.6	-151.3	8.71	8.71	2.58
5,667.0	9.80	355.90	5,661.1	-146.5	1.1	-146.5	6.79	6.45	13.87
5,698.0	11.50	356.70	5,691.6	-140.8	0.7	-140.8	5.50	5.48	2.58
5,729.0	13.50	356.00	5,721.9	-134.1	0.3	-134.1	6.47	6.45	-2.26
5,760.0	15.60	355.70	5,751.9	-126.4	-0.3	-126.3	6.78	6.77	-0.97
5,791.0	18.40	355.40	5,781.5	-117.3	-1.0	-117.3	9.04	9.03	-0.97
5,822.0	20.90	356.40	5,810.7	-106.9	-1.7	-106.9	8.14	8.06	3.23
5,854.0	23.50	357.50	5,840.3	-94.8	-2.3	-94.8	8.23	8.13	3.44

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Well:	Frank Trust 14-36H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,884.0	25.20	358.00	5,867.7	-82.5	-2.8	-82.5	5.71	5.67	1.67
5,915.0	27.50	357.80	5,895.4	-68.7	-3.3	-68.7	7.42	7.42	-0.65
5,947.0	29.60	358.10	5,923.5	-53.5	-3.9	-53.4	6.58	6.56	0.94
5,978.0	32.90	358.20	5,950.0	-37.4	-4.4	-37.4	10.65	10.65	0.32
6,009.0	34.90	358.30	5,975.8	-20.1	-4.9	-20.1	6.45	6.45	0.32
6,040.0	37.40	357.70	6,000.8	-1.8	-5.6	-1.8	8.14	8.06	-1.94
6,071.0	39.60	358.70	6,025.1	17.5	-6.2	17.5	7.38	7.10	3.23
6,102.0	42.10	358.50	6,048.5	37.7	-6.7	37.8	8.08	8.06	-0.65
6,133.0	43.60	358.80	6,071.2	58.8	-7.2	58.9	4.88	4.84	0.97
6,164.0	45.90	358.90	6,093.2	80.6	-7.6	80.7	7.42	7.42	0.32
6,195.0	48.80	359.50	6,114.2	103.4	-7.9	103.5	9.46	9.35	1.94
6,226.0	51.80	358.60	6,134.0	127.3	-8.3	127.3	9.93	9.68	-2.90
6,257.0	53.80	358.60	6,152.8	151.9	-8.9	152.0	6.45	6.45	0.00
6,288.0	55.70	357.60	6,170.7	177.2	-9.8	177.3	6.67	6.13	-3.23
6,319.0	57.60	358.20	6,187.7	203.1	-10.7	203.2	6.34	6.13	1.94
6,350.0	60.00	358.80	6,203.8	229.6	-11.4	229.7	7.92	7.74	1.94
6,380.0	63.00	359.60	6,218.1	256.0	-11.8	256.1	10.27	10.00	2.67
6,411.0	66.50	2.60	6,231.3	284.0	-11.2	284.1	14.28	11.29	9.68
6,442.0	69.20	6.10	6,243.0	312.6	-9.0	312.7	13.61	8.71	11.29
6,473.0	70.90	6.70	6,253.6	341.6	-5.8	341.6	5.78	5.48	1.94
6,504.0	72.80	7.30	6,263.2	370.8	-2.2	370.8	6.40	6.13	1.94
6,536.0	75.10	7.60	6,272.1	401.3	1.8	401.3	7.24	7.19	0.94
6,567.0	77.40	7.30	6,279.5	431.2	5.7	431.1	7.48	7.42	-0.97
6,598.0	79.60	6.80	6,285.6	461.3	9.4	461.2	7.27	7.10	-1.61
6,629.0	82.10	6.40	6,290.6	491.7	12.9	491.6	8.16	8.06	-1.29
6,660.0	84.10	5.00	6,294.3	522.3	16.0	522.2	7.86	6.45	-4.52
6,691.0	86.20	3.90	6,296.9	553.1	18.4	553.0	7.64	6.77	-3.55
6,722.0	88.10	1.40	6,298.4	584.1	19.8	583.9	10.12	6.13	-8.06
6,791.0	90.30	359.90	6,299.4	653.0	20.6	652.9	3.86	3.19	-2.17
6,823.0	92.00	2.10	6,298.8	685.0	21.2	684.9	8.69	5.31	6.88
6,855.0	92.10	1.70	6,297.6	717.0	22.2	716.8	1.29	0.31	-1.25
6,887.0	90.70	0.20	6,296.8	749.0	22.8	748.8	6.41	-4.38	-4.69
6,919.0	91.60	359.20	6,296.2	781.0	22.6	780.8	4.20	2.81	-3.13
6,950.0	90.80	357.40	6,295.6	811.9	21.7	811.8	6.35	-2.58	-5.81
6,982.0	90.00	358.80	6,295.3	843.9	20.6	843.8	5.04	-2.50	4.38
7,014.0	90.90	357.40	6,295.1	875.9	19.5	875.7	5.20	2.81	-4.38
7,046.0	90.50	356.50	6,294.7	907.9	17.8	907.7	3.08	-1.25	-2.81
7,078.0	90.50	359.20	6,294.4	939.8	16.6	939.7	8.44	0.00	8.44
7,110.0	92.20	358.60	6,293.7	971.8	16.0	971.7	5.63	5.31	-1.88
7,142.0	92.40	358.20	6,292.4	1,003.8	15.1	1,003.6	1.40	0.63	-1.25
7,174.0	91.70	0.60	6,291.2	1,035.7	14.8	1,035.6	7.81	-2.19	7.50
7,206.0	91.90	0.70	6,290.2	1,067.7	15.2	1,067.6	0.70	0.63	0.31
7,238.0	91.90	0.50	6,289.2	1,099.7	15.5	1,099.6	0.62	0.00	-0.63
7,270.0	91.60	359.70	6,288.2	1,131.7	15.6	1,131.6	2.67	-0.94	-2.50
7,302.0	91.30	0.30	6,287.4	1,163.7	15.6	1,163.5	2.10	-0.94	1.88
7,334.0	90.90	358.70	6,286.8	1,195.7	15.3	1,195.5	5.15	-1.25	-5.00
7,366.0	89.20	0.30	6,286.7	1,227.7	15.0	1,227.5	7.30	-5.31	5.00
7,397.0	89.10	358.30	6,287.2	1,258.7	14.6	1,258.5	6.46	-0.32	-6.45
7,430.0	90.20	358.40	6,287.4	1,291.7	13.7	1,291.5	3.35	3.33	0.30
7,462.0	90.90	358.50	6,287.1	1,323.6	12.8	1,323.5	2.21	2.19	0.31
7,493.0	91.30	0.40	6,286.5	1,354.6	12.5	1,354.5	6.26	1.29	6.13
7,525.0	90.50	358.60	6,286.0	1,386.6	12.2	1,386.5	6.15	-2.50	-5.63
7,558.0	91.00	0.50	6,285.6	1,419.6	12.0	1,419.5	5.95	1.52	5.76

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7,590.0	90.70	1.00	6,285.1	1,451.6	12.4	1,451.5	1.82	-0.94	1.56
7,622.0	89.80	1.20	6,284.9	1,483.6	13.0	1,483.5	2.88	-2.81	0.63
7,654.0	88.70	1.70	6,285.4	1,515.6	13.8	1,515.5	3.78	-3.44	1.56
7,687.0	89.10	1.10	6,286.0	1,548.6	14.6	1,548.4	2.18	1.21	-1.82
7,719.0	89.80	1.60	6,286.3	1,580.6	15.4	1,580.4	2.69	2.19	1.56
7,751.0	90.40	1.60	6,286.2	1,612.6	16.3	1,612.4	1.88	1.88	0.00
7,783.0	90.70	0.30	6,285.9	1,644.5	16.8	1,644.4	4.17	0.94	-4.06
7,815.0	89.50	359.50	6,285.9	1,676.5	16.7	1,676.4	4.51	-3.75	-2.50
7,847.0	88.80	358.90	6,286.4	1,708.5	16.3	1,708.4	2.88	-2.19	-1.88
7,879.0	88.80	0.30	6,287.0	1,740.5	16.1	1,740.4	4.37	0.00	4.38
7,912.0	89.80	0.50	6,287.4	1,773.5	16.3	1,773.4	3.09	3.03	0.61
7,944.0	90.90	359.60	6,287.2	1,805.5	16.3	1,805.4	4.44	3.44	-2.81
7,975.0	91.00	0.30	6,286.7	1,836.5	16.3	1,836.4	2.28	0.32	2.26
8,007.0	89.80	358.20	6,286.5	1,868.5	15.9	1,868.4	7.56	-3.75	-6.56
8,039.0	89.50	358.10	6,286.7	1,900.5	14.8	1,900.3	0.99	-0.94	-0.31
8,071.0	89.70	358.60	6,286.9	1,932.5	13.9	1,932.3	1.68	0.63	1.56
8,103.0	89.50	357.60	6,287.1	1,964.5	12.9	1,964.3	3.19	-0.63	-3.13
8,135.0	89.60	357.10	6,287.4	1,996.4	11.4	1,996.3	1.59	0.31	-1.56
8,167.0	90.40	357.50	6,287.4	2,028.4	9.9	2,028.3	2.80	2.50	1.25
8,199.0	90.50	358.50	6,287.1	2,060.4	8.8	2,060.3	3.14	0.31	3.13
8,231.0	90.80	357.20	6,286.8	2,092.3	7.6	2,092.2	4.17	0.94	-4.06
8,263.0	91.40	358.20	6,286.2	2,124.3	6.3	2,124.2	3.64	1.88	3.13
8,295.0	92.00	356.60	6,285.2	2,156.3	4.8	2,156.2	5.34	1.88	-5.00
8,327.0	92.90	356.80	6,283.8	2,188.2	3.0	2,188.1	2.88	2.81	0.63
8,359.0	92.30	356.10	6,282.4	2,220.1	1.0	2,220.0	2.88	-1.88	-2.19
8,391.0	92.00	355.20	6,281.2	2,252.0	-1.4	2,251.9	2.96	-0.94	-2.81
8,423.0	91.60	355.20	6,280.2	2,283.8	-4.1	2,283.8	1.25	-1.25	0.00
8,454.0	90.80	356.70	6,279.5	2,314.8	-6.3	2,314.7	5.48	-2.58	4.84
8,486.0	89.70	355.10	6,279.4	2,346.7	-8.6	2,346.7	6.07	-3.44	-5.00
8,518.0	90.00	355.80	6,279.5	2,378.6	-11.1	2,378.6	2.38	0.94	2.19
8,550.0	90.70	356.60	6,279.3	2,410.5	-13.2	2,410.5	3.32	2.19	2.50
8,581.0	90.20	355.70	6,279.0	2,441.4	-15.3	2,441.5	3.32	-1.61	-2.90
8,614.0	90.90	355.70	6,278.7	2,474.3	-17.8	2,474.4	2.12	2.12	0.00
8,646.0	90.80	357.00	6,278.2	2,506.3	-19.8	2,506.3	4.07	-0.31	4.06
8,678.0	90.10	358.70	6,278.0	2,538.2	-21.0	2,538.3	5.75	-2.19	5.31
8,710.0	89.90	357.90	6,278.0	2,570.2	-22.0	2,570.3	2.58	-0.63	-2.50
8,742.0	89.40	358.80	6,278.2	2,602.2	-22.9	2,602.3	3.22	-1.56	2.81
8,774.0	88.70	358.30	6,278.7	2,634.2	-23.7	2,634.3	2.69	-2.19	-1.56
8,806.0	88.90	357.80	6,279.4	2,666.2	-24.8	2,666.3	1.68	0.63	-1.56
8,838.0	89.40	359.20	6,279.9	2,698.2	-25.6	2,698.3	4.65	1.56	4.38
8,870.0	90.10	357.60	6,280.0	2,730.1	-26.5	2,730.3	5.46	2.19	-5.00
8,902.0	90.20	357.50	6,279.9	2,762.1	-27.9	2,762.2	0.44	0.31	-0.31
8,934.0	90.00	359.90	6,279.9	2,794.1	-28.6	2,794.2	7.53	-0.63	7.50
8,966.0	89.50	359.70	6,280.0	2,826.1	-28.7	2,826.2	1.68	-1.56	-0.63
8,998.0	89.70	359.60	6,280.2	2,858.1	-28.9	2,858.2	0.70	0.63	-0.31
9,030.0	89.90	1.60	6,280.3	2,890.1	-28.6	2,890.2	6.28	0.63	6.25
9,062.0	90.20	0.30	6,280.3	2,922.1	-28.1	2,922.2	4.17	0.94	-4.06
9,093.0	90.80	1.50	6,280.0	2,953.1	-27.6	2,953.2	4.33	1.94	3.87
9,125.0	91.60	0.90	6,279.4	2,985.1	-26.9	2,985.2	3.12	2.50	-1.88
9,158.0	91.10	3.00	6,278.6	3,018.0	-25.8	3,018.1	6.54	-1.52	6.36
9,190.0	90.70	2.40	6,278.1	3,050.0	-24.3	3,050.1	2.25	-1.25	-1.88
9,222.0	90.20	1.80	6,277.8	3,082.0	-23.1	3,082.1	2.44	-1.56	-1.88
9,254.0	92.70	4.40	6,277.0	3,113.9	-21.4	3,114.0	11.27	7.81	8.13

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Frank Trust 14-36H
Project:	SEC.36-T7N-R61W	TVD Reference:	WELL @ 4811.0ft (RKB Ensign 32 - 14')
Site:	Frank Trust 14-36H Pad Sec.36-T7N-R61W	MD Reference:	WELL @ 4811.0ft (RKB Ensign 32 - 14')
Well:	Frank Trust 14-36H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,286.0	93.20	4.20	6,275.4	3,145.8	-19.0	3,145.8	1.68	1.56	-0.63
9,318.0	93.20	3.90	6,273.6	3,177.7	-16.7	3,177.7	0.94	0.00	-0.94
9,351.0	92.50	2.10	6,272.0	3,210.6	-15.0	3,210.6	5.85	-2.12	-5.45
9,382.0	91.50	3.30	6,270.9	3,241.5	-13.5	3,241.5	5.04	-3.23	3.87
9,414.0	92.10	2.20	6,269.9	3,273.5	-12.0	3,273.5	3.91	1.88	-3.44
9,446.0	93.20	0.90	6,268.4	3,305.4	-11.1	3,305.4	5.32	3.44	-4.06
9,477.0	92.60	0.70	6,266.8	3,336.4	-10.7	3,336.4	2.04	-1.94	-0.65
9,509.0	92.00	1.70	6,265.5	3,368.3	-10.0	3,368.3	3.64	-1.88	3.13
9,541.0	90.50	2.70	6,264.8	3,400.3	-8.8	3,400.3	5.63	-4.69	3.13
9,573.0	88.30	1.20	6,265.2	3,432.3	-7.7	3,432.3	8.32	-6.88	-4.69
9,605.0	88.10	3.10	6,266.2	3,464.2	-6.5	3,464.2	5.97	-0.63	5.94
9,637.0	88.30	1.10	6,267.2	3,496.2	-5.3	3,496.2	6.28	0.63	-6.25
9,668.0	88.70	3.30	6,268.0	3,527.2	-4.2	3,527.1	7.21	1.29	7.10
9,700.0	89.10	2.70	6,268.6	3,559.1	-2.5	3,559.0	2.25	1.25	-1.88
9,733.0	90.90	3.60	6,268.6	3,592.1	-0.7	3,592.0	6.10	5.45	2.73
9,764.0	91.30	3.70	6,268.0	3,623.0	1.3	3,622.9	1.33	1.29	0.32
9,796.0	92.00	0.40	6,267.1	3,655.0	2.5	3,654.9	10.54	2.19	-10.31
9,827.0	92.00	1.00	6,266.0	3,685.9	2.8	3,685.8	1.93	0.00	1.94
9,859.0	92.20	1.60	6,264.8	3,717.9	3.6	3,717.8	1.98	0.63	1.88
9,891.0	91.60	1.90	6,263.8	3,749.9	4.5	3,749.8	2.10	-1.88	0.94
9,923.0	91.00	3.20	6,263.1	3,781.8	6.0	3,781.7	4.47	-1.88	4.06
9,955.0	89.80	4.00	6,262.8	3,813.8	8.0	3,813.6	4.51	-3.75	2.50
9,987.0	88.90	4.10	6,263.2	3,845.7	10.2	3,845.5	2.83	-2.81	0.31
10,019.0	88.90	4.00	6,263.8	3,877.6	12.5	3,877.4	0.31	0.00	-0.31
10,050.0	89.80	2.80	6,264.2	3,908.5	14.3	3,908.4	4.84	2.90	-3.87
10,082.0	91.10	0.90	6,263.9	3,940.5	15.4	3,940.3	7.19	4.06	-5.94
10,114.0	92.00	359.80	6,263.0	3,972.5	15.6	3,972.3	4.44	2.81	-3.44
10,145.0	92.70	359.40	6,261.8	4,003.5	15.3	4,003.3	2.60	2.26	-1.29
10,177.0	93.10	358.90	6,260.2	4,035.4	14.9	4,035.2	2.00	1.25	-1.56
10,209.0	94.10	357.60	6,258.1	4,067.4	13.9	4,067.2	5.12	3.13	-4.06
10,242.0	94.20	357.40	6,255.8	4,100.2	12.5	4,100.1	0.68	0.30	-0.61
10,274.0	94.80	355.20	6,253.2	4,132.1	10.4	4,131.9	7.11	1.88	-6.88
10,306.0	93.90	356.90	6,250.8	4,163.9	8.2	4,163.7	6.00	-2.81	5.31
10,338.0	93.00	357.40	6,248.9	4,195.8	6.6	4,195.7	3.22	-2.81	1.56
10,374.0	91.60	357.40	6,247.4	4,231.7	5.0	4,231.6	3.89	-3.89	0.00
10,405.0	91.60	356.90	6,246.6	4,262.7	3.4	4,262.6	1.61	0.00	-1.61
10,438.0	90.20	356.60	6,246.1	4,295.6	1.6	4,295.5	4.34	-4.24	-0.91
10,470.0	90.50	354.70	6,245.9	4,327.5	-0.9	4,327.4	6.01	0.94	-5.94
10,502.0	90.00	356.30	6,245.7	4,359.4	-3.4	4,359.4	5.24	-1.56	5.00
10,535.0	90.00	356.30	6,245.7	4,392.4	-5.5	4,392.3	0.00	0.00	0.00
10,567.0	89.60	355.90	6,245.8	4,424.3	-7.7	4,424.2	1.77	-1.25	-1.25
10,599.0	90.40	355.80	6,245.8	4,456.2	-10.0	4,456.2	2.52	2.50	-0.31
10,625.0	91.30	356.70	6,245.5	4,482.2	-11.7	4,482.1	4.90	3.46	3.46
10,670.0	91.30	356.70	6,244.4	4,527.1	-14.3	4,527.1	0.00	0.00	0.00

Proj @ Bit - TARGET BHL 500'FNL, 500'FWL

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10,670.0	6,244.4	4,527.1	-14.3	Proj @ Bit

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Frank Trust 14-36H
Project:	SEC.36-T7N-R61W	TVD Reference:	WELL @ 4811.0ft (RKB Ensign 32 - 14')
Site:	Frank Trust 14-36H Pad Sec.36-T7N-R61W	MD Reference:	WELL @ 4811.0ft (RKB Ensign 32 - 14')
Well:	Frank Trust 14-36H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Checked By: _____	Approved By: _____	Date: _____
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