



Battalion Oil Corporation

WINKLER COUNTY, TEXAS (NAD-27/ TX-C)

UL 21 WAR-WINK 38-47

3H

Wellbore #1

Design: Wellbore #1

Standard Survey Report

29 March, 2023



Company:	Battalion Oil Corporation	Local Co-ordinate Reference:	Well 3H
Project:	WINKLER COUNTY, TEXAS (NAD-27/ TX-C)	TVD Reference:	RKB = 26' @ 2764.90usft (PRECISION 553)
Site:	UL 21 WAR-WINK 38-47	MD Reference:	RKB = 26' @ 2764.90usft (PRECISION 553)
Well:	3H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_2

Project	WINKLER COUNTY, TEXAS (NAD-27/ TX-C)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Texas Central 4203		

Site	UL 21 WAR-WINK 38-47		
Site Position:		Northing:	751,128.30 usft
From:	Map	Easting:	1,114,173.73 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	31.7007480
		Longitude:	-103.1818523
		Grid Convergence:	-1.467 °

Well	3H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Design	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			163.72

Survey Program	Date 03/29/23		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
178.00	21,860.00	Survey #1 (Wellbore #1)	MWD+IFR1+SAG+FDIR
			Description
			OWSG MWD + IFR1 + Sag + FDIR Correction

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
178.00	0.17	141.00	178.00	-0.21	0.17	0.24	0.10	0.10	0.00	
238.00	0.19	140.34	238.00	-0.35	0.29	0.42	0.03	0.03	-1.10	
326.00	0.15	251.47	326.00	-0.50	0.27	0.56	0.32	-0.05	126.28	
418.00	0.18	296.97	418.00	-0.47	0.03	0.46	0.14	0.03	49.46	
509.00	0.39	319.78	509.00	-0.17	-0.30	0.08	0.26	0.23	25.07	
692.00	0.57	323.59	691.99	1.04	-1.24	-1.34	0.10	0.10	2.08	
783.00	0.69	320.20	782.99	1.82	-1.86	-2.27	0.14	0.13	-3.73	
830.00	0.76	326.62	829.98	2.30	-2.22	-2.83	0.23	0.15	13.66	
957.00	0.92	333.45	956.97	3.92	-3.13	-4.64	0.15	0.13	5.38	
1,050.00	0.92	344.60	1,049.96	5.30	-3.67	-6.12	0.19	0.00	11.99	
1,141.00	0.79	342.18	1,140.95	6.60	-4.05	-7.48	0.15	-0.14	-2.66	
1,233.00	1.44	57.23	1,232.93	7.83	-3.27	-8.44	1.58	0.71	81.58	
1,323.00	2.63	76.64	1,322.87	8.92	-0.31	-8.65	1.51	1.32	21.57	
1,412.00	2.52	78.80	1,411.79	9.78	3.59	-8.38	0.16	-0.12	2.43	

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_2

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
1,502.00	3.75	80.96	1,501.65	10.62	8.44	-7.83	1.37	1.37	2.40	
1,591.00	5.40	85.97	1,590.36	11.37	15.49	-6.57	1.91	1.85	5.63	
1,681.00	5.42	85.41	1,679.96	12.01	23.95	-4.82	0.06	0.02	-0.62	
1,770.00	5.25	84.83	1,768.58	12.71	32.20	-3.18	0.20	-0.19	-0.65	
1,860.00	6.13	82.65	1,858.13	13.70	41.06	-1.64	1.01	0.98	-2.42	
1,950.00	7.82	85.04	1,947.46	14.84	51.93	0.31	1.90	1.88	2.66	
2,039.00	8.48	87.10	2,035.56	15.70	64.52	3.02	0.81	0.74	2.31	
2,129.00	8.74	88.12	2,124.55	16.26	77.98	6.25	0.34	0.29	1.13	
2,218.00	8.96	90.02	2,212.49	16.48	91.67	9.88	0.41	0.25	2.13	
2,308.00	8.71	91.70	2,301.42	16.27	105.49	13.95	0.40	-0.28	1.87	
2,397.00	8.31	91.52	2,389.44	15.90	118.65	18.00	0.45	-0.45	-0.20	
2,487.00	8.09	91.23	2,478.52	15.60	131.49	21.89	0.25	-0.24	-0.32	
2,577.00	8.12	90.30	2,567.62	15.43	144.17	25.61	0.15	0.03	-1.03	
2,666.00	8.04	88.52	2,655.74	15.55	156.68	28.99	0.30	-0.09	-2.00	
2,756.00	8.02	87.11	2,744.86	16.03	169.24	32.05	0.22	-0.02	-1.57	
2,845.00	7.67	87.62	2,833.02	16.59	181.38	34.92	0.40	-0.39	0.57	
2,935.00	7.52	87.31	2,922.23	17.12	193.26	37.74	0.17	-0.17	-0.34	
3,025.00	6.93	86.85	3,011.52	17.69	204.57	40.36	0.66	-0.66	-0.51	
3,114.00	6.30	87.27	3,099.93	18.22	214.80	42.73	0.71	-0.71	0.47	
3,204.00	6.09	86.81	3,189.40	18.72	224.50	44.96	0.24	-0.23	-0.51	
3,294.00	5.54	85.79	3,278.94	19.31	233.60	46.95	0.62	-0.61	-1.13	
3,383.00	5.10	85.71	3,367.55	19.92	241.83	48.67	0.49	-0.49	-0.09	
3,473.00	4.70	84.92	3,457.22	20.54	249.49	50.22	0.45	-0.44	-0.88	
3,562.00	4.34	83.96	3,545.95	21.22	256.47	51.53	0.41	-0.40	-1.08	
3,652.00	3.96	84.01	3,635.71	21.90	262.95	52.69	0.42	-0.42	0.06	
3,742.00	3.55	86.24	3,725.52	22.41	268.82	53.85	0.48	-0.46	2.48	
3,831.00	4.20	77.56	3,814.32	23.29	274.75	54.66	0.98	0.73	-9.75	
3,921.00	5.66	71.36	3,903.98	25.42	282.18	54.70	1.72	1.62	-6.89	
4,010.00	5.58	72.03	3,992.55	28.16	290.45	54.39	0.12	-0.09	0.75	
4,100.00	5.29	73.53	4,082.15	30.69	298.59	54.25	0.36	-0.32	1.67	
4,190.00	5.16	73.78	4,171.77	32.99	306.46	54.24	0.15	-0.14	0.28	
4,279.00	5.06	73.04	4,260.42	35.26	314.06	54.20	0.13	-0.11	-0.83	
4,368.00	4.72	72.30	4,349.10	37.51	321.30	54.06	0.39	-0.38	-0.83	
4,458.00	4.16	72.12	4,438.83	39.64	327.93	53.88	0.62	-0.62	-0.20	
4,548.00	3.64	66.87	4,528.62	41.77	333.67	53.45	0.70	-0.58	-5.83	
4,637.00	3.39	67.65	4,617.45	43.88	338.70	52.83	0.29	-0.28	0.88	
4,727.00	3.18	68.16	4,707.30	45.82	343.48	52.31	0.24	-0.23	0.57	
4,817.00	2.91	69.54	4,797.17	47.54	347.93	51.90	0.31	-0.30	1.53	
4,886.00	2.60	69.28	4,866.09	48.71	351.04	51.65	0.45	-0.45	-0.38	
5,050.00	2.28	70.65	5,029.95	51.11	357.60	51.19	0.20	-0.20	0.84	
5,145.00	4.13	81.77	5,124.79	52.22	362.77	51.57	2.05	1.95	11.71	
5,241.00	4.81	81.21	5,220.50	53.33	370.16	52.57	0.71	0.71	-0.58	
5,336.00	4.51	83.70	5,315.19	54.35	377.81	53.74	0.38	-0.32	2.62	
5,432.00	6.03	92.47	5,410.78	54.55	386.60	56.02	1.79	1.58	9.14	

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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,527.00	6.51	93.55	5,505.21	54.00	396.96	59.45	0.52	0.51	1.14
5,622.00	6.12	96.88	5,599.64	53.06	407.37	63.26	0.56	-0.41	3.51
5,718.00	6.05	96.85	5,695.09	51.84	417.47	67.26	0.07	-0.07	-0.03
5,813.00	5.66	97.59	5,789.60	50.63	427.08	71.13	0.42	-0.41	0.78
5,908.00	5.44	102.15	5,884.15	49.06	436.13	75.17	0.52	-0.23	4.80
6,004.00	5.52	102.72	5,979.72	47.09	445.08	79.57	0.10	0.08	0.59
6,099.00	5.27	100.13	6,074.29	45.31	453.83	83.73	0.37	-0.26	-2.73
6,194.00	6.51	95.06	6,168.79	44.07	463.49	87.63	1.41	1.31	-5.34
6,289.00	7.40	91.47	6,263.09	43.44	474.97	91.45	1.04	0.94	-3.78
6,384.00	7.38	93.97	6,357.30	42.86	487.18	95.43	0.34	-0.02	2.63
6,480.00	6.85	94.88	6,452.56	41.95	499.03	99.63	0.56	-0.55	0.95
6,575.00	6.68	80.49	6,546.91	42.38	510.13	102.33	1.79	-0.18	-15.15
6,670.00	6.06	76.10	6,641.32	44.49	520.44	103.19	0.83	-0.65	-4.62
6,765.00	5.63	77.35	6,735.83	46.72	529.86	103.69	0.47	-0.45	1.32
6,861.00	5.49	82.60	6,831.38	48.34	539.01	104.70	0.55	-0.15	5.47
6,956.00	6.24	87.97	6,925.88	49.11	548.67	106.67	0.98	0.79	5.65
7,051.00	6.69	89.39	7,020.28	49.35	559.37	109.43	0.50	0.47	1.49
7,147.00	6.64	94.16	7,115.63	49.01	570.49	112.88	0.58	-0.05	4.97
7,241.00	5.95	98.30	7,209.06	47.91	580.74	116.81	0.88	-0.73	4.40
7,337.00	5.33	83.85	7,304.60	47.67	590.09	119.66	1.61	-0.65	-15.05
7,432.00	4.69	89.79	7,399.24	48.16	598.36	121.51	0.87	-0.67	6.25
7,527.00	5.11	95.08	7,493.89	47.80	606.46	124.13	0.65	0.44	5.57
7,623.00	5.59	81.76	7,589.48	48.09	615.35	126.34	1.38	0.50	-13.87
7,718.00	5.32	78.92	7,684.05	49.60	624.25	127.39	0.40	-0.28	-2.99
7,813.00	5.35	84.32	7,778.64	50.88	632.98	128.60	0.53	0.03	5.68
7,909.00	6.21	87.08	7,874.15	51.59	642.62	130.62	0.94	0.90	2.87
8,004.00	7.50	76.42	7,968.47	53.31	653.78	132.10	1.90	1.36	-11.22
8,099.00	7.28	76.35	8,062.68	56.18	665.65	132.67	0.23	-0.23	-0.07
8,195.00	6.79	79.23	8,157.96	58.68	677.14	133.50	0.63	-0.51	3.00
8,291.00	6.49	79.14	8,253.31	60.76	688.04	134.55	0.31	-0.31	-0.09
8,387.00	6.27	82.56	8,348.72	62.46	698.57	135.87	0.46	-0.23	3.56
8,482.00	5.78	79.99	8,443.19	63.97	708.42	137.19	0.59	-0.52	-2.71
8,578.00	6.99	79.11	8,538.60	65.91	718.92	138.27	1.26	1.26	-0.92
8,674.00	7.19	82.46	8,633.86	67.80	730.61	139.73	0.48	0.21	3.49
8,770.00	6.75	83.42	8,729.15	69.24	742.17	141.59	0.47	-0.46	1.00
8,865.00	6.46	81.48	8,823.52	70.67	753.01	143.25	0.39	-0.31	-2.04
8,961.00	6.08	82.48	8,918.95	72.14	763.39	144.76	0.41	-0.40	1.04
9,057.00	5.68	86.78	9,014.44	73.07	773.17	146.61	0.62	-0.42	4.48
9,152.00	6.47	84.10	9,108.91	73.88	783.19	148.63	0.88	0.83	-2.82
9,247.00	7.09	91.30	9,203.25	74.30	794.37	151.37	1.11	0.65	7.58
9,343.00	5.88	94.26	9,298.63	73.80	805.20	154.88	1.31	-1.26	3.08
9,438.00	4.82	95.66	9,393.22	73.04	814.03	158.08	1.12	-1.12	1.47
9,534.00	4.67	102.04	9,488.89	71.83	821.86	161.44	0.57	-0.16	6.65

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9,630.00	5.03	111.82	9,584.55	69.45	829.59	165.89	0.94	0.37	10.19
9,724.00	4.53	113.31	9,678.22	66.45	836.83	170.80	0.55	-0.53	1.59
9,820.00	4.73	112.65	9,773.90	63.43	843.96	175.71	0.22	0.21	-0.69
9,915.00	4.55	112.04	9,868.59	60.50	851.07	180.50	0.20	-0.19	-0.64
10,011.00	4.34	112.87	9,964.30	57.66	857.94	185.16	0.23	-0.22	0.86
10,106.00	4.10	104.01	10,059.05	55.44	864.55	189.14	0.73	-0.25	-9.33
10,201.00	3.38	102.93	10,153.84	54.00	870.58	192.22	0.76	-0.76	-1.14
10,296.00	3.31	102.67	10,248.68	52.77	875.98	194.91	0.08	-0.07	-0.27
10,392.00	3.07	106.20	10,344.53	51.44	881.15	197.64	0.32	-0.25	3.68
10,487.00	2.90	102.87	10,439.41	50.20	885.94	200.17	0.26	-0.18	-3.51
10,583.00	2.70	108.30	10,535.29	48.95	890.45	202.64	0.35	-0.21	5.66
10,671.00	2.79	113.34	10,623.19	47.45	894.39	205.18	0.29	0.10	5.73
10,753.00	2.97	108.89	10,705.09	45.97	898.23	207.68	0.35	0.22	-5.43
10,848.00	3.06	117.77	10,799.96	43.99	902.80	210.86	0.50	0.09	9.35
10,893.00	8.06	142.02	10,844.73	40.94	905.81	214.63	12.04	11.11	53.89
10,944.00	15.24	146.97	10,894.65	32.49	911.67	224.38	14.20	14.08	9.71
10,989.00	20.91	146.03	10,937.41	20.87	919.39	237.70	12.62	12.60	-2.09
11,039.00	25.43	146.69	10,983.37	4.49	930.27	256.48	9.05	9.04	1.32
11,084.00	27.16	152.12	11,023.72	-12.67	940.38	275.78	6.58	3.84	12.07
11,134.00	30.76	155.20	11,067.46	-34.37	951.09	299.62	7.79	7.20	6.16
11,179.00	35.35	155.08	11,105.17	-56.64	961.41	323.88	10.20	10.20	-0.27
11,229.00	40.03	153.33	11,144.72	-84.14	974.73	354.01	9.60	9.36	-3.50
11,274.00	42.34	154.22	11,178.59	-110.72	987.81	383.20	5.30	5.13	1.98
11,324.00	45.78	157.87	11,214.52	-142.50	1,001.89	417.65	8.55	6.88	7.30
11,419.00	57.26	153.18	11,273.55	-209.93	1,032.86	491.06	12.68	12.08	-4.94
11,464.00	64.13	150.92	11,295.57	-244.56	1,051.26	529.46	15.88	15.27	-5.02
11,514.00	70.42	154.70	11,314.88	-285.57	1,072.29	574.72	14.38	12.58	7.56
11,559.00	73.42	157.10	11,328.85	-324.62	1,089.74	617.09	8.38	6.67	5.33
11,609.00	75.25	159.46	11,342.35	-369.34	1,107.55	665.01	5.84	3.66	4.72
11,654.00	79.99	159.63	11,351.99	-410.51	1,122.91	708.83	10.54	10.53	0.38
11,704.00	85.73	160.05	11,358.20	-457.06	1,140.00	758.31	11.51	11.48	0.84
11,799.00	92.87	159.98	11,359.36	-546.28	1,172.45	853.04	7.52	7.52	-0.07
11,894.00	93.34	161.47	11,354.22	-635.82	1,203.76	947.77	1.64	0.49	1.57
11,989.00	94.28	163.34	11,347.91	-726.17	1,232.41	1,042.53	2.20	0.99	1.97
12,084.00	92.06	163.37	11,342.65	-817.04	1,259.58	1,137.38	2.34	-2.34	0.03
12,179.00	90.63	162.91	11,340.42	-907.93	1,287.13	1,232.35	1.58	-1.51	-0.48
12,274.00	91.84	165.37	11,338.37	-999.28	1,313.08	1,327.31	2.89	1.27	2.59
12,370.00	93.94	164.65	11,333.53	-1,091.89	1,337.88	1,423.16	2.31	2.19	-0.75
12,465.00	92.74	167.95	11,328.00	-1,184.02	1,360.33	1,517.89	3.69	-1.26	3.47
12,559.00	92.71	166.41	11,323.53	-1,275.57	1,381.17	1,611.61	1.64	-0.03	-1.64
12,654.00	93.77	165.41	11,318.16	-1,367.56	1,404.26	1,706.38	1.53	1.12	-1.05
12,749.00	88.61	163.39	11,316.19	-1,459.01	1,429.79	1,801.32	5.83	-5.43	-2.13
12,847.00	89.72	162.80	11,317.62	-1,552.76	1,458.28	1,899.30	1.28	1.13	-0.60

Company:	Battalion Oil Corporation	Local Co-ordinate Reference:	Well 3H
Project:	WINKLER COUNTY, TEXAS (NAD-27/ TX-C)	TVD Reference:	RKB = 26' @ 2764.90usft (PRECISION 553)
Site:	UL 21 WAR-WINK 38-47	MD Reference:	RKB = 26' @ 2764.90usft (PRECISION 553)
Well:	3H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_2

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,943.00	90.33	162.26	11,317.57	-1,644.33	1,487.10	1,995.28	0.85	0.64	-0.56
13,037.00	89.16	162.32	11,317.99	-1,733.87	1,515.70	2,089.25	1.25	-1.24	0.06
13,132.00	89.33	163.64	11,319.24	-1,824.70	1,543.50	2,184.23	1.40	0.18	1.39
13,227.00	90.07	164.53	11,319.74	-1,916.06	1,569.55	2,279.22	1.22	0.78	0.94
13,322.00	91.37	165.11	11,318.55	-2,007.73	1,594.42	2,374.20	1.50	1.37	0.61
13,417.00	91.45	165.14	11,316.21	-2,099.52	1,618.80	2,469.14	0.09	0.08	0.03
13,511.00	92.76	165.90	11,312.76	-2,190.47	1,642.29	2,563.03	1.61	1.39	0.81
13,606.00	94.55	166.43	11,306.70	-2,282.52	1,664.96	2,657.74	1.96	1.88	0.56
13,702.00	94.16	166.84	11,299.41	-2,375.46	1,687.90	2,753.38	0.74	-0.41	-0.61
13,796.00	94.72	167.82	11,292.13	-2,466.71	1,709.25	2,846.96	2.18	0.60	2.11
13,892.00	94.00	168.64	11,284.84	-2,560.41	1,728.78	2,942.38	1.13	-0.75	0.85
13,987.00	89.54	169.43	11,281.90	-2,653.61	1,746.83	3,036.90	4.77	-4.69	0.83
14,081.00	89.92	167.20	11,282.35	-2,745.66	1,765.87	3,130.59	2.41	0.40	-2.37
14,176.00	91.40	167.38	11,281.25	-2,838.32	1,786.77	3,225.40	1.57	1.56	0.19
14,270.00	90.62	164.21	11,279.59	-2,929.42	1,809.83	3,319.31	3.47	-0.83	-3.37
14,365.00	90.73	164.58	11,278.47	-3,020.91	1,835.38	3,414.30	0.41	0.12	0.39
14,461.00	90.77	164.39	11,277.22	-3,113.40	1,861.06	3,510.28	0.20	0.04	-0.20
14,556.00	89.95	163.32	11,276.62	-3,204.65	1,887.47	3,605.28	1.42	-0.86	-1.13
14,652.00	92.43	161.11	11,274.63	-3,296.03	1,916.79	3,701.21	3.46	2.58	-2.30
14,747.00	92.37	158.99	11,270.65	-3,385.25	1,949.17	3,795.92	2.23	-0.06	-2.23
14,842.00	95.03	156.15	11,264.52	-3,472.86	1,985.33	3,890.16	4.09	2.80	-2.99
14,937.00	92.69	161.43	11,258.12	-3,561.19	2,019.60	3,984.56	6.07	-2.46	5.56
15,033.00	92.34	161.70	11,253.91	-3,652.18	2,049.93	4,080.40	0.46	-0.36	0.28
15,129.00	93.71	162.86	11,248.84	-3,743.49	2,079.11	4,176.23	1.87	1.43	1.21
15,221.00	89.40	166.18	11,246.34	-3,832.09	2,103.64	4,268.15	5.91	-4.68	3.61
15,316.00	87.46	166.96	11,248.95	-3,924.45	2,125.70	4,362.99	2.20	-2.04	0.82
15,412.00	88.42	166.03	11,252.40	-4,017.73	2,148.10	4,458.82	1.39	1.00	-0.97
15,506.00	88.47	165.28	11,254.95	-4,108.77	2,171.38	4,552.73	0.80	0.05	-0.80
15,602.00	89.62	163.77	11,256.55	-4,201.27	2,196.99	4,648.70	1.98	1.20	-1.57
15,697.00	88.95	162.56	11,257.73	-4,292.19	2,224.50	4,743.69	1.46	-0.71	-1.27
15,793.00	89.26	160.98	11,259.23	-4,383.36	2,254.53	4,839.62	1.68	0.32	-1.65
15,888.00	89.09	161.43	11,260.60	-4,473.28	2,285.14	4,934.51	0.51	-0.18	0.47
15,983.00	89.85	163.62	11,261.48	-4,563.89	2,313.66	5,029.48	2.44	0.80	2.31
16,079.00	92.06	163.11	11,259.88	-4,655.85	2,341.14	5,125.46	2.36	2.30	-0.53
16,174.00	92.09	162.21	11,256.44	-4,746.47	2,369.43	5,220.38	0.95	0.03	-0.95
16,269.00	90.24	162.23	11,254.51	-4,836.91	2,398.43	5,315.33	1.95	-1.95	0.02
16,364.00	89.82	159.76	11,254.46	-4,926.73	2,429.37	5,410.21	2.64	-0.44	-2.60
16,460.00	89.79	161.60	11,254.78	-5,017.32	2,461.13	5,506.07	1.92	-0.03	1.92
16,556.00	91.22	161.28	11,253.94	-5,108.32	2,491.68	5,601.99	1.53	1.49	-0.33
16,651.00	92.76	161.51	11,250.64	-5,198.30	2,521.97	5,696.85	1.64	1.62	0.24
16,747.00	92.42	160.74	11,246.30	-5,289.04	2,553.00	5,792.65	0.88	-0.35	-0.80
16,842.00	90.55	162.77	11,243.84	-5,379.23	2,582.73	5,887.56	2.90	-1.97	2.14
16,937.00	91.81	163.51	11,241.88	-5,470.12	2,610.27	5,982.53	1.54	1.33	0.78
17,032.00	93.46	163.89	11,237.52	-5,561.20	2,636.91	6,077.42	1.78	1.74	0.40

Company:	Battalion Oil Corporation	Local Co-ordinate Reference:	Well 3H
Project:	WINKLER COUNTY, TEXAS (NAD-27/ TX-C)	TVD Reference:	RKB = 26' @ 2764.90usft (PRECISION 553)
Site:	UL 21 WAR-WINK 38-47	MD Reference:	RKB = 26' @ 2764.90usft (PRECISION 553)
Well:	3H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_2

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
17,131.00	93.83	164.63	11,231.22	-5,656.30	2,663.71	6,176.22	0.83	0.37	0.75
17,227.00	91.09	165.22	11,227.10	-5,748.90	2,688.65	6,272.10	2.92	-2.85	0.61
17,323.00	89.93	165.79	11,226.25	-5,841.84	2,712.68	6,368.05	1.35	-1.21	0.59
17,418.00	89.94	165.48	11,226.35	-5,933.87	2,736.25	6,462.99	0.33	0.01	-0.33
17,513.00	89.48	165.32	11,226.84	-6,025.80	2,760.19	6,557.95	0.51	-0.48	-0.17
17,607.00	89.50	165.16	11,227.67	-6,116.69	2,784.14	6,651.91	0.17	0.02	-0.17
17,702.00	89.65	166.82	11,228.38	-6,208.86	2,807.14	6,746.83	1.75	0.16	1.75
17,798.00	90.36	167.15	11,228.37	-6,302.39	2,828.76	6,842.68	0.82	0.74	0.34
17,894.00	90.70	166.33	11,227.48	-6,395.83	2,850.78	6,938.54	0.92	0.35	-0.85
17,989.00	88.08	165.81	11,228.49	-6,488.02	2,873.64	7,033.45	2.81	-2.76	-0.55
18,084.00	87.74	165.47	11,231.96	-6,579.99	2,897.19	7,128.33	0.51	-0.36	-0.36
18,180.00	87.77	164.88	11,235.72	-6,672.72	2,921.73	7,224.22	0.61	0.03	-0.61
18,275.00	87.41	165.27	11,239.71	-6,764.44	2,946.18	7,319.11	0.56	-0.38	0.41
18,369.00	86.76	165.78	11,244.49	-6,855.34	2,969.64	7,412.94	0.88	-0.69	0.54
18,466.00	87.30	164.60	11,249.52	-6,948.99	2,994.40	7,509.78	1.34	0.56	-1.22
18,561.00	89.20	164.58	11,252.42	-7,040.52	3,019.64	7,604.72	2.00	2.00	-0.02
18,656.00	89.05	164.48	11,253.87	-7,132.07	3,044.97	7,699.70	0.19	-0.16	-0.11
18,752.00	88.08	164.00	11,256.27	-7,224.43	3,071.04	7,795.66	1.13	-1.01	-0.50
18,847.00	86.79	163.10	11,260.53	-7,315.45	3,097.91	7,890.57	1.66	-1.36	-0.95
18,942.00	87.49	162.88	11,265.27	-7,406.18	3,125.67	7,985.44	0.77	0.74	-0.23
19,037.00	89.00	163.21	11,268.18	-7,497.00	3,153.36	8,080.38	1.63	1.59	0.35
19,132.00	90.77	164.10	11,268.37	-7,588.16	3,180.09	8,175.38	2.09	1.86	0.94
19,227.00	90.01	164.06	11,267.72	-7,679.51	3,206.15	8,270.37	0.80	-0.80	-0.04
19,323.00	91.05	162.68	11,266.83	-7,771.49	3,233.62	8,366.37	1.80	1.08	-1.44
19,419.00	93.45	162.98	11,263.06	-7,863.13	3,261.94	8,462.27	2.52	2.50	0.31
19,515.00	94.55	163.60	11,256.37	-7,954.86	3,289.47	8,558.03	1.31	1.15	0.65
19,610.00	91.38	163.77	11,251.45	-8,045.90	3,316.12	8,652.89	3.34	-3.34	0.18
19,706.00	90.07	163.07	11,250.24	-8,137.89	3,343.51	8,748.88	1.55	-1.36	-0.73
19,801.00	89.27	162.28	11,250.79	-8,228.58	3,371.80	8,843.86	1.18	-0.84	-0.83
19,897.00	90.77	162.81	11,250.75	-8,320.16	3,400.60	8,939.84	1.66	1.56	0.55
19,993.00	92.92	163.60	11,247.66	-8,412.01	3,428.32	9,035.78	2.39	2.24	0.82
20,088.00	92.31	163.07	11,243.33	-8,502.92	3,455.53	9,130.68	0.85	-0.64	-0.56
20,183.00	91.82	163.69	11,239.90	-8,593.89	3,482.69	9,225.61	0.83	-0.52	0.65
20,278.00	90.42	159.38	11,238.05	-8,683.96	3,512.76	9,320.50	4.77	-1.47	-4.54
20,374.00	88.44	159.29	11,239.00	-8,773.78	3,546.64	9,416.21	2.06	-2.06	-0.09
20,470.00	91.65	161.23	11,238.93	-8,864.12	3,579.06	9,512.02	3.91	3.34	2.02
20,564.00	89.32	163.42	11,238.13	-8,953.67	3,607.59	9,605.98	3.40	-2.48	2.33
20,660.00	89.01	163.60	11,239.53	-9,045.71	3,634.84	9,701.97	0.37	-0.32	0.19
20,755.00	87.30	162.81	11,242.59	-9,136.61	3,662.27	9,796.91	1.98	-1.80	-0.83
20,850.00	87.03	163.51	11,247.29	-9,227.42	3,689.76	9,891.79	0.79	-0.28	0.74
20,945.00	86.86	163.77	11,252.35	-9,318.44	3,716.48	9,986.65	0.33	-0.18	0.27
21,040.00	86.42	163.95	11,257.92	-9,409.54	3,742.85	10,081.49	0.50	-0.46	0.19
21,135.00	86.81	163.77	11,263.53	-9,500.64	3,769.21	10,176.32	0.45	0.41	-0.19

Company:	Battalion Oil Corporation	Local Co-ordinate Reference:	Well 3H
Project:	WINKLER COUNTY, TEXAS (NAD-27/ TX-C)	TVD Reference:	RKB = 26' @ 2764.90usft (PRECISION 553)
Site:	UL 21 WAR-WINK 38-47	MD Reference:	RKB = 26' @ 2764.90usft (PRECISION 553)
Well:	3H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_2

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
21,230.00	86.95	164.13	11,268.70	-9,591.80	3,795.43	10,271.18	0.41	0.15	0.38	
21,325.00	87.43	164.04	11,273.35	-9,683.05	3,821.45	10,366.06	0.51	0.51	-0.09	
21,421.00	87.96	163.95	11,277.21	-9,775.25	3,847.90	10,461.98	0.56	0.55	-0.09	
21,516.00	88.31	164.21	11,280.31	-9,866.56	3,873.94	10,556.93	0.46	0.37	0.27	
21,611.00	88.79	164.48	11,282.71	-9,958.01	3,899.57	10,651.90	0.58	0.51	0.28	
21,707.00	88.84	164.48	11,284.70	-10,050.49	3,925.25	10,747.87	0.05	0.05	0.00	
21,803.00	90.11	164.39	11,285.58	-10,142.96	3,951.01	10,843.85	1.33	1.32	-0.09	
21,860.00	90.11	164.39	11,285.47	-10,197.86	3,966.35	10,900.85	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
100' HL Crossing_115	0.00	0.00	11,328.00	-322.01	1,088.64	750,820.34	1,115,310.35	31.6999816	-103.1781735	
- hit/miss target										
- Shape										
- actual wellpath hits target center										
- Point										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
21,860.00	11,285.47	-10,197.86	3,966.35	Final Station Closure Distance= 10942.04 /Direction= 158.75	
21,860.00	11,285.47	-10,197.86	3,966.35	Projection to Bit: 21860.00' MD/ 11285.47' TVD	
21,860.00	11,285.47	-10,197.86	3,966.35	TD: Y= 740944.49 / X= 1118188.06	
21,860.00	11,285.47	-10,197.86	3,966.35	TD: Latitude= 31.6730426 / Longitude= -103.1681148	

Checked By: _____	Approved By: _____	Date: _____
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