

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

SW SE SEC. 32 T6N R65W 6th P.M.

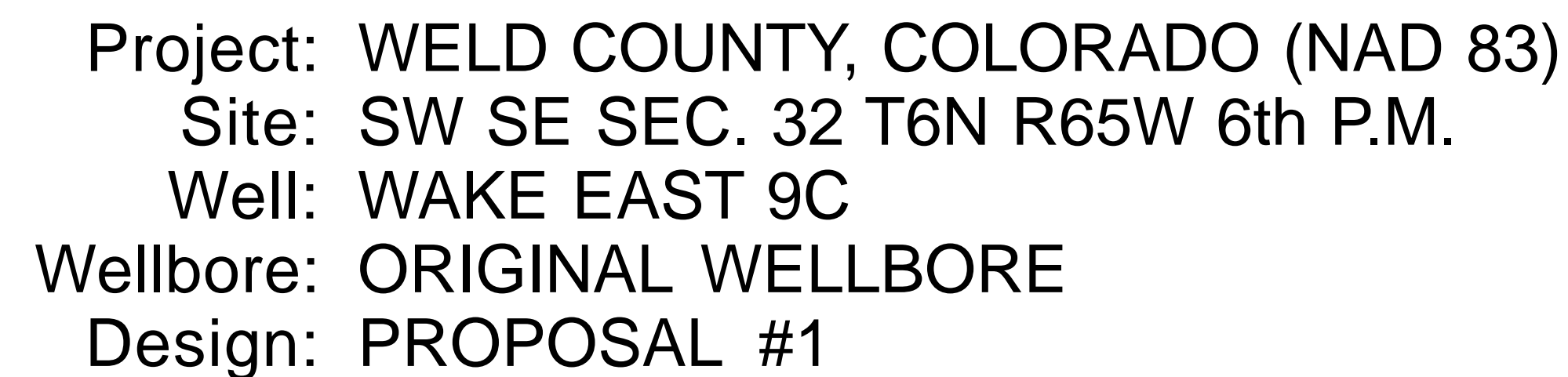
WAKE EAST 9C

ORIGINAL WELLBORE

04 March, 2017

Plan: PROPOSAL #1





PROPOSED LOCAL COORDINATES

SHL: 856ft FSL & 1600ft FEL of Sec 32

LP: 2103ft FNL & 460ft FWL of Sec 33

BHL: 2146ft FNL & 460ft FEL of Sec 34

Azimuths to True North
Magnetic North: 8.20

Magnetic Field
Strength: 52455.3nT
Dip Angle: 66.9°
Date: 04/03/2014
Model: IGR2014

True Vertical Depth (550 usft/in)

Vertical Section at 36.75° (550 usft/in)

START NUDGE #1 (2°/100ft BUR)

SURFACE CASING

START NUDGE #2 (2°/100ft BUR)

EOB TO 28.71° INC

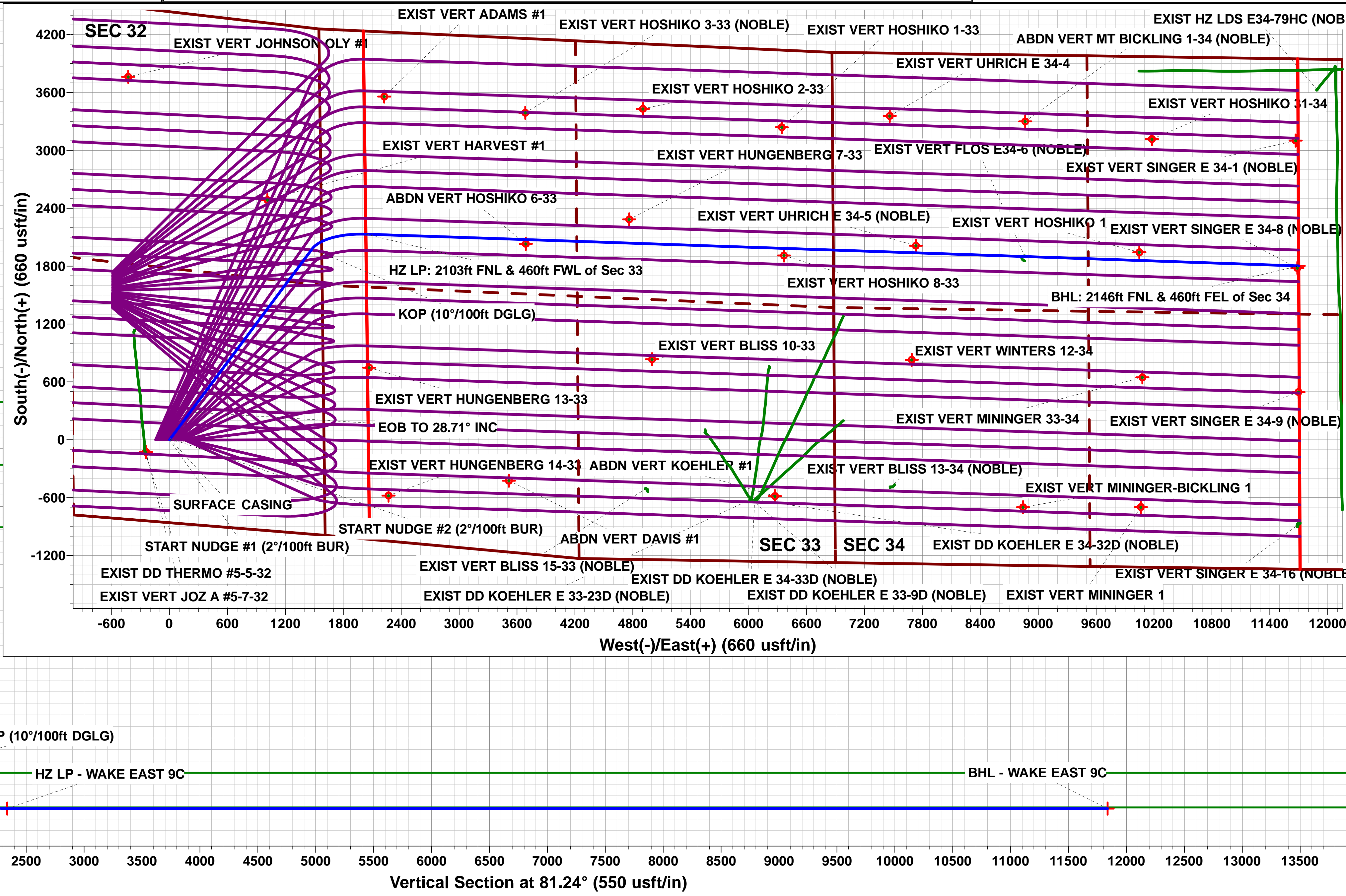
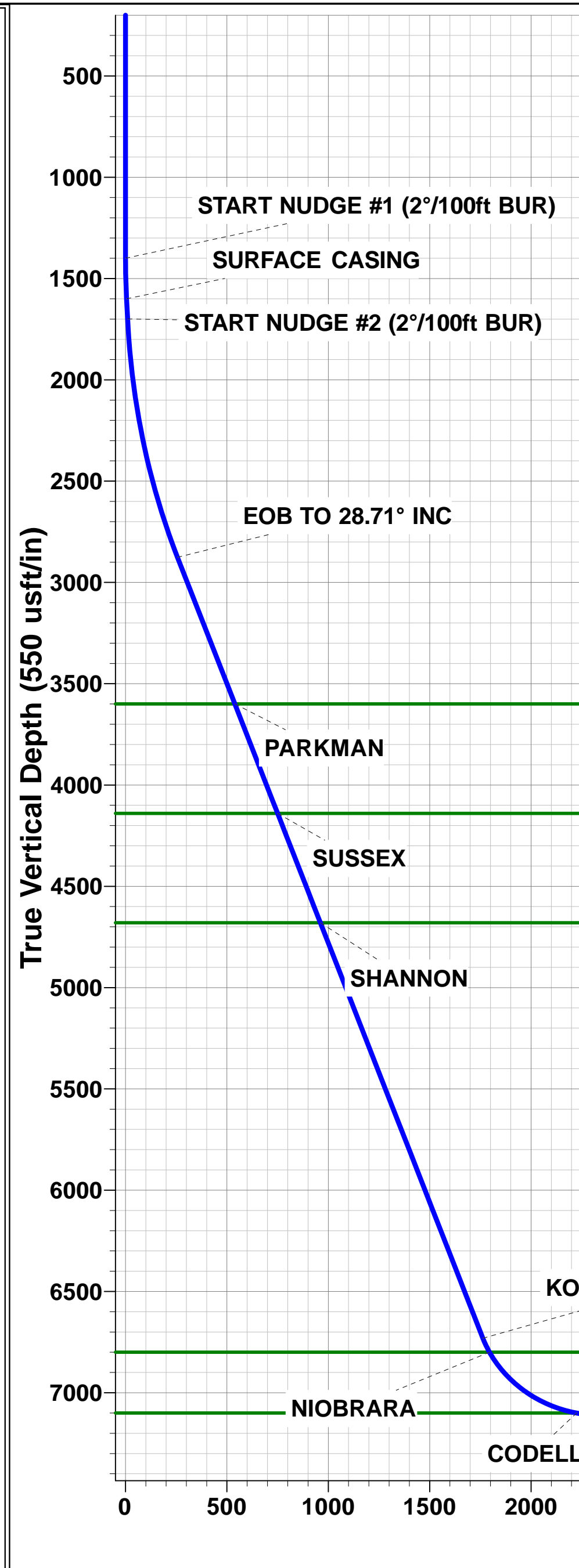
PARKMAN

SUSSEX

SHANNON

KOP (10°/100ft DGLG)

NIOBRARA



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WAKE EAST 9C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4660.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4660.0usft (Original Well Elev)
Site:	SW SE SEC. 32 T6N R65W 6th P.M.	North Reference:	True
Well:	WAKE EAST 9C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Project	WELD COUNTY, COLORADO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	SW SE SEC. 32 T6N R65W 6th P.M.		
Site Position:		Northing:	1,403,754.85 usft
From:	Lat/Long	Easting:	3,227,136.61 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.438840
		Longitude:	-104.683980
		Grid Convergence:	0.53 °

Well	WAKE EAST 9C		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	144.7 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	40.438840
		Longitude:	-104.683460
		Ground Level:	4,644.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	04/03/2017	8.20	66.91	52,455

Design	PROPOSAL #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	7,110.0	0.0	0.0	81.24

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100usf)	Turn Rate (°/100usf)	TFO (°)	Target
0.0	0.00	0.00	0.0	-4,660.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	-3,260.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,600.2	4.00	36.75	1,600.0	-3,060.0	5.6	4.2	2.00	2.00	0.00	36.75	
1,700.2	4.00	36.75	1,699.8	-2,960.2	11.2	8.4	0.00	0.00	0.00	0.00	
2,935.5	28.71	36.75	2,876.0	-1,784.0	287.8	214.9	2.00	2.00	0.00	0.00	
7,330.7	28.71	36.75	6,730.7	2,070.7	1,979.6	1,478.2	0.00	0.00	0.00	0.00	
8,071.5	90.00	91.95	7,110.0	2,450.0	2,131.3	2,034.6	10.00	8.27	7.45	58.63	HZ LP - WAKE EAST
17,741.2	90.00	91.95	7,110.0	2,450.0	1,802.5	11,698.7	0.00	0.00	0.00	0.00	BHL - WAKE EAST

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Site:	SW SE SEC. 32 T6N R65W 6th P.M.	North Reference:	True
Well:	WAKE EAST 9C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
856ft FSL & 1600ft FEL of Sec 32										
0.0	0.00	0.00	0.0	4,660.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,560.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,460.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,360.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,260.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,160.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,060.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	3,960.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	3,860.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,760.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	3,660.00	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	3,560.00	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	3,460.00	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	3,360.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE #1 (2°/100ft BUR)										
1,400.0	0.00	0.00	1,400.0	3,260.00	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	2.00	36.75	1,500.0	3,160.02	1.4	1.0	1.2	2.00	2.00	0.00
1,600.0	4.00	36.75	1,599.8	3,060.16	5.6	4.2	5.0	2.00	2.00	0.00
SURFACE CASING										
1,600.2	4.00	36.75	1,600.0	3,060.00	5.6	4.2	5.0	2.00	2.00	0.00
1,700.0	4.00	36.75	1,699.6	2,960.41	11.2	8.4	10.0	0.00	0.00	0.00
START NUDGE #2 (2°/100ft BUR)										
1,700.2	4.00	36.75	1,699.8	2,960.24	11.2	8.4	10.0	0.00	0.00	0.00
1,800.0	6.00	36.75	1,799.2	2,860.79	18.2	13.6	16.2	2.00	2.00	0.00
1,900.0	8.00	36.75	1,898.5	2,761.54	27.9	20.9	24.9	2.00	2.00	0.00
2,000.0	10.00	36.75	1,997.2	2,662.78	40.5	30.2	36.0	2.00	2.00	0.00
2,100.0	12.00	36.75	2,095.4	2,564.62	55.8	41.6	49.6	2.00	2.00	0.00
2,200.0	14.00	36.75	2,192.8	2,467.19	73.8	55.1	65.7	2.00	2.00	0.00
2,300.0	16.00	36.75	2,289.4	2,370.60	94.5	70.6	84.1	2.00	2.00	0.00
2,400.0	18.00	36.75	2,385.0	2,274.98	117.9	88.1	105.0	2.00	2.00	0.00
2,500.0	20.00	36.75	2,479.6	2,180.43	144.0	107.5	128.2	2.00	2.00	0.00
2,600.0	22.00	36.75	2,572.9	2,087.08	172.7	129.0	153.8	2.00	2.00	0.00
2,700.0	24.00	36.75	2,665.0	1,995.03	204.0	152.4	181.7	2.00	2.00	0.00
2,800.0	26.00	36.75	2,755.6	1,904.40	237.9	177.6	211.8	2.00	2.00	0.00
2,900.0	28.00	36.75	2,844.7	1,815.31	274.3	204.8	244.2	2.00	2.00	0.00
EOB TO 28.71° INC										
2,935.5	28.71	36.75	2,876.0	1,784.03	287.8	214.9	256.2	2.00	2.00	0.00
3,000.0	28.71	36.75	2,932.5	1,727.50	312.6	233.4	278.3	0.00	0.00	0.00
3,100.0	28.71	36.75	3,020.2	1,639.79	351.1	262.2	312.6	0.00	0.00	0.00
3,200.0	28.71	36.75	3,107.9	1,552.09	389.6	290.9	346.9	0.00	0.00	0.00
3,300.0	28.71	36.75	3,195.6	1,464.38	428.1	319.7	381.1	0.00	0.00	0.00
3,400.0	28.71	36.75	3,283.3	1,376.67	466.6	348.4	415.4	0.00	0.00	0.00
3,500.0	28.71	36.75	3,371.0	1,288.97	505.1	377.1	449.7	0.00	0.00	0.00
3,600.0	28.71	36.75	3,458.7	1,201.26	543.6	405.9	483.9	0.00	0.00	0.00
3,700.0	28.71	36.75	3,546.4	1,113.56	582.1	434.6	518.2	0.00	0.00	0.00
PARKMAN										
3,761.1	28.71	36.75	3,600.0	1,060.00	605.6	452.2	539.1	0.00	0.00	0.00
3,800.0	28.71	36.75	3,634.1	1,025.85	620.6	463.4	552.5	0.00	0.00	0.00
3,900.0	28.71	36.75	3,721.9	938.15	659.0	492.1	586.7	0.00	0.00	0.00
4,000.0	28.71	36.75	3,809.6	850.44	697.5	520.9	621.0	0.00	0.00	0.00
4,100.0	28.71	36.75	3,897.3	762.74	736.0	549.6	655.3	0.00	0.00	0.00
4,200.0	28.71	36.75	3,985.0	675.03	774.5	578.3	689.5	0.00	0.00	0.00

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Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,300.0	28.71	36.75	4,072.7	587.33	813.0	607.1	723.8	0.00	0.00	0.00
SUSSEX										
4,376.8	28.71	36.75	4,140.0	520.00	842.6	629.1	750.1	0.00	0.00	0.00
4,400.0	28.71	36.75	4,160.4	499.62	851.5	635.8	758.1	0.00	0.00	0.00
4,500.0	28.71	36.75	4,248.1	411.91	890.0	664.6	792.3	0.00	0.00	0.00
4,600.0	28.71	36.75	4,335.8	324.21	928.5	693.3	826.6	0.00	0.00	0.00
4,700.0	28.71	36.75	4,423.5	236.50	967.0	722.1	860.9	0.00	0.00	0.00
4,800.0	28.71	36.75	4,511.2	148.80	1,005.5	750.8	895.2	0.00	0.00	0.00
4,900.0	28.71	36.75	4,598.9	61.09	1,044.0	779.5	929.4	0.00	0.00	0.00
SHANNON										
4,992.5	28.71	36.75	4,680.0	-20.00	1,079.6	806.1	961.1	0.00	0.00	0.00
5,000.0	28.71	36.75	4,686.6	-26.61	1,082.5	808.3	963.7	0.00	0.00	0.00
5,100.0	28.71	36.75	4,774.3	-114.32	1,121.0	837.0	998.0	0.00	0.00	0.00
5,200.0	28.71	36.75	4,862.0	-202.02	1,159.4	865.8	1,032.2	0.00	0.00	0.00
5,300.0	28.71	36.75	4,949.7	-289.73	1,197.9	894.5	1,066.5	0.00	0.00	0.00
5,400.0	28.71	36.75	5,037.4	-377.43	1,236.4	923.2	1,100.8	0.00	0.00	0.00
5,500.0	28.71	36.75	5,125.1	-465.14	1,274.9	952.0	1,135.0	0.00	0.00	0.00
5,600.0	28.71	36.75	5,212.8	-552.85	1,313.4	980.7	1,169.3	0.00	0.00	0.00
5,700.0	28.71	36.75	5,300.6	-640.55	1,351.9	1,009.5	1,203.6	0.00	0.00	0.00
5,800.0	28.71	36.75	5,388.3	-728.26	1,390.4	1,038.2	1,237.8	0.00	0.00	0.00
5,900.0	28.71	36.75	5,476.0	-815.96	1,428.9	1,067.0	1,272.1	0.00	0.00	0.00
6,000.0	28.71	36.75	5,563.7	-903.67	1,467.4	1,095.7	1,306.4	0.00	0.00	0.00
6,100.0	28.71	36.75	5,651.4	-991.37	1,505.9	1,124.4	1,340.6	0.00	0.00	0.00
6,200.0	28.71	36.75	5,739.1	-1,079.08	1,544.4	1,153.2	1,374.9	0.00	0.00	0.00
6,300.0	28.71	36.75	5,826.8	-1,166.78	1,582.9	1,181.9	1,409.2	0.00	0.00	0.00
6,400.0	28.71	36.75	5,914.5	-1,254.49	1,621.4	1,210.7	1,443.4	0.00	0.00	0.00
6,500.0	28.71	36.75	6,002.2	-1,342.19	1,659.8	1,239.4	1,477.7	0.00	0.00	0.00
6,600.0	28.71	36.75	6,089.9	-1,429.90	1,698.3	1,268.2	1,512.0	0.00	0.00	0.00
6,700.0	28.71	36.75	6,177.6	-1,517.61	1,736.8	1,296.9	1,546.3	0.00	0.00	0.00
6,800.0	28.71	36.75	6,265.3	-1,605.31	1,775.3	1,325.6	1,580.5	0.00	0.00	0.00
6,900.0	28.71	36.75	6,353.0	-1,693.02	1,813.8	1,354.4	1,614.8	0.00	0.00	0.00
7,000.0	28.71	36.75	6,440.7	-1,780.72	1,852.3	1,383.1	1,649.1	0.00	0.00	0.00
7,100.0	28.71	36.75	6,528.4	-1,868.43	1,890.8	1,411.9	1,683.3	0.00	0.00	0.00
7,200.0	28.71	36.75	6,616.1	-1,956.13	1,929.3	1,440.6	1,717.6	0.00	0.00	0.00
7,300.0	28.71	36.75	6,703.8	-2,043.84	1,967.8	1,469.3	1,751.9	0.00	0.00	0.00
KOP (10°/100ft DGLG)										
7,330.7	28.71	36.75	6,730.7	-2,070.72	1,979.6	1,478.2	1,762.4	0.00	0.00	0.00
7,400.0	32.81	47.72	6,790.3	-2,130.35	2,005.6	1,502.1	1,789.9	10.00	5.91	15.82
NIORARA										
7,411.5	33.58	49.29	6,800.0	-2,140.00	2,009.8	1,506.8	1,795.3	10.00	6.62	13.69
7,500.0	39.99	59.52	6,870.9	-2,210.88	2,040.2	1,549.9	1,842.5	10.00	7.25	11.56
7,600.0	48.04	68.09	6,942.8	-2,282.81	2,070.5	1,612.3	1,908.7	10.00	8.05	8.57
7,700.0	56.58	74.68	7,003.9	-2,343.94	2,095.4	1,687.2	1,986.6	10.00	8.54	6.59
7,800.0	65.40	80.07	7,052.4	-2,392.41	2,114.3	1,772.4	2,073.7	10.00	8.83	5.39
7,900.0	74.40	84.73	7,086.8	-2,426.76	2,126.6	1,865.4	2,167.5	10.00	8.99	4.67
CODELL										
7,959.3	79.77	87.29	7,100.0	-2,440.00	2,130.6	1,923.0	2,225.0	10.00	9.07	4.32
8,000.0	83.48	89.00	7,105.9	-2,445.93	2,131.9	1,963.3	2,265.0	10.00	9.10	4.19
HZ LP: 2103ft FNL & 460ft FWL of Sec 33										
8,071.5	90.00	91.95	7,110.0	-2,450.00	2,131.3	2,034.6	2,335.5	10.00	9.12	4.12
8,100.0	90.00	91.95	7,110.0	-2,450.00	2,130.4	2,063.1	2,363.4	0.00	0.00	0.00
8,200.0	90.00	91.95	7,110.0	-2,450.00	2,127.0	2,163.0	2,461.7	0.00	0.00	0.00
8,300.0	90.00	91.95	7,110.0	-2,450.00	2,123.6	2,263.0	2,560.0	0.00	0.00	0.00

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Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,400.0	90.00	91.95	7,110.0	-2,450.00	2,120.2	2,362.9	2,658.2	0.00	0.00	0.00
8,500.0	90.00	91.95	7,110.0	-2,450.00	2,116.8	2,462.9	2,756.5	0.00	0.00	0.00
8,600.0	90.00	91.95	7,110.0	-2,450.00	2,113.4	2,562.8	2,854.7	0.00	0.00	0.00
8,700.0	90.00	91.95	7,110.0	-2,450.00	2,110.0	2,662.7	2,953.0	0.00	0.00	0.00
8,800.0	90.00	91.95	7,110.0	-2,450.00	2,106.6	2,762.7	3,051.3	0.00	0.00	0.00
8,900.0	90.00	91.95	7,110.0	-2,450.00	2,103.2	2,862.6	3,149.5	0.00	0.00	0.00
9,000.0	90.00	91.95	7,110.0	-2,450.00	2,099.8	2,962.6	3,247.8	0.00	0.00	0.00
9,100.0	90.00	91.95	7,110.0	-2,450.00	2,096.4	3,062.5	3,346.0	0.00	0.00	0.00
9,200.0	90.00	91.95	7,110.0	-2,450.00	2,093.0	3,162.5	3,444.3	0.00	0.00	0.00
9,300.0	90.00	91.95	7,110.0	-2,450.00	2,089.6	3,262.4	3,542.6	0.00	0.00	0.00
9,400.0	90.00	91.95	7,110.0	-2,450.00	2,086.2	3,362.3	3,640.8	0.00	0.00	0.00
9,500.0	90.00	91.95	7,110.0	-2,450.00	2,082.8	3,462.3	3,739.1	0.00	0.00	0.00
9,600.0	90.00	91.95	7,110.0	-2,450.00	2,079.4	3,562.2	3,837.3	0.00	0.00	0.00
9,700.0	90.00	91.95	7,110.0	-2,450.00	2,075.9	3,662.2	3,935.6	0.00	0.00	0.00
9,800.0	90.00	91.95	7,110.0	-2,450.00	2,072.5	3,762.1	4,033.8	0.00	0.00	0.00
9,900.0	90.00	91.95	7,110.0	-2,450.00	2,069.1	3,862.1	4,132.1	0.00	0.00	0.00
10,000.0	90.00	91.95	7,110.0	-2,450.00	2,065.7	3,962.0	4,230.4	0.00	0.00	0.00
10,100.0	90.00	91.95	7,110.0	-2,450.00	2,062.3	4,061.9	4,328.6	0.00	0.00	0.00
10,200.0	90.00	91.95	7,110.0	-2,450.00	2,058.9	4,161.9	4,426.9	0.00	0.00	0.00
10,300.0	90.00	91.95	7,110.0	-2,450.00	2,055.5	4,261.8	4,525.1	0.00	0.00	0.00
10,400.0	90.00	91.95	7,110.0	-2,450.00	2,052.1	4,361.8	4,623.4	0.00	0.00	0.00
10,500.0	90.00	91.95	7,110.0	-2,450.00	2,048.7	4,461.7	4,721.7	0.00	0.00	0.00
10,600.0	90.00	91.95	7,110.0	-2,450.00	2,045.3	4,561.7	4,819.9	0.00	0.00	0.00
10,700.0	90.00	91.95	7,110.0	-2,450.00	2,041.9	4,661.6	4,918.2	0.00	0.00	0.00
10,800.0	90.00	91.95	7,110.0	-2,450.00	2,038.5	4,761.5	5,016.4	0.00	0.00	0.00
10,900.0	90.00	91.95	7,110.0	-2,450.00	2,035.1	4,861.5	5,114.7	0.00	0.00	0.00
11,000.0	90.00	91.95	7,110.0	-2,450.00	2,031.7	4,961.4	5,212.9	0.00	0.00	0.00
11,100.0	90.00	91.95	7,110.0	-2,450.00	2,028.3	5,061.4	5,311.2	0.00	0.00	0.00
11,200.0	90.00	91.95	7,110.0	-2,450.00	2,024.9	5,161.3	5,409.5	0.00	0.00	0.00
11,300.0	90.00	91.95	7,110.0	-2,450.00	2,021.5	5,261.2	5,507.7	0.00	0.00	0.00
11,400.0	90.00	91.95	7,110.0	-2,450.00	2,018.1	5,361.2	5,606.0	0.00	0.00	0.00
11,500.0	90.00	91.95	7,110.0	-2,450.00	2,014.7	5,461.1	5,704.2	0.00	0.00	0.00
11,600.0	90.00	91.95	7,110.0	-2,450.00	2,011.3	5,561.1	5,802.5	0.00	0.00	0.00
11,700.0	90.00	91.95	7,110.0	-2,450.00	2,007.9	5,661.0	5,900.8	0.00	0.00	0.00
11,800.0	90.00	91.95	7,110.0	-2,450.00	2,004.5	5,761.0	5,999.0	0.00	0.00	0.00
11,900.0	90.00	91.95	7,110.0	-2,450.00	2,001.1	5,860.9	6,097.3	0.00	0.00	0.00
12,000.0	90.00	91.95	7,110.0	-2,450.00	1,997.7	5,960.8	6,195.5	0.00	0.00	0.00
12,100.0	90.00	91.95	7,110.0	-2,450.00	1,994.3	6,060.8	6,293.8	0.00	0.00	0.00
12,200.0	90.00	91.95	7,110.0	-2,450.00	1,990.9	6,160.7	6,392.1	0.00	0.00	0.00
12,300.0	90.00	91.95	7,110.0	-2,450.00	1,987.5	6,260.7	6,490.3	0.00	0.00	0.00
12,400.0	90.00	91.95	7,110.0	-2,450.00	1,984.1	6,360.6	6,588.6	0.00	0.00	0.00
12,500.0	90.00	91.95	7,110.0	-2,450.00	1,980.7	6,460.6	6,686.8	0.00	0.00	0.00
12,600.0	90.00	91.95	7,110.0	-2,450.00	1,977.3	6,560.5	6,785.1	0.00	0.00	0.00
12,700.0	90.00	91.95	7,110.0	-2,450.00	1,973.9	6,660.4	6,883.3	0.00	0.00	0.00
12,800.0	90.00	91.95	7,110.0	-2,450.00	1,970.5	6,760.4	6,981.6	0.00	0.00	0.00
12,900.0	90.00	91.95	7,110.0	-2,450.00	1,967.1	6,860.3	7,079.9	0.00	0.00	0.00
13,000.0	90.00	91.95	7,110.0	-2,450.00	1,963.7	6,960.3	7,178.1	0.00	0.00	0.00
13,100.0	90.00	91.95	7,110.0	-2,450.00	1,960.3	7,060.2	7,276.4	0.00	0.00	0.00
13,200.0	90.00	91.95	7,110.0	-2,450.00	1,956.9	7,160.1	7,374.6	0.00	0.00	0.00
13,300.0	90.00	91.95	7,110.0	-2,450.00	1,953.5	7,260.1	7,472.9	0.00	0.00	0.00
13,400.0	90.00	91.95	7,110.0	-2,450.00	1,950.1	7,360.0	7,571.2	0.00	0.00	0.00
13,500.0	90.00	91.95	7,110.0	-2,450.00	1,946.7	7,460.0	7,669.4	0.00	0.00	0.00
13,600.0	90.00	91.95	7,110.0	-2,450.00	1,943.3	7,559.9	7,767.7	0.00	0.00	0.00
13,700.0	90.00	91.95	7,110.0	-2,450.00	1,939.9	7,659.9	7,865.9	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WAKE EAST 9C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4660.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4660.0usft (Original Well Elev)
Site:	SW SE SEC. 32 T6N R65W 6th P.M.	North Reference:	True
Well:	WAKE EAST 9C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,800.0	90.00	91.95	7,110.0	-2,450.00	1,936.5	7,759.8	7,964.2	0.00	0.00	0.00
13,900.0	90.00	91.95	7,110.0	-2,450.00	1,933.1	7,859.7	8,062.5	0.00	0.00	0.00
14,000.0	90.00	91.95	7,110.0	-2,450.00	1,929.7	7,959.7	8,160.7	0.00	0.00	0.00
14,100.0	90.00	91.95	7,110.0	-2,450.00	1,926.3	8,059.6	8,259.0	0.00	0.00	0.00
14,200.0	90.00	91.95	7,110.0	-2,450.00	1,922.9	8,159.6	8,357.2	0.00	0.00	0.00
14,300.0	90.00	91.95	7,110.0	-2,450.00	1,919.5	8,259.5	8,455.5	0.00	0.00	0.00
14,400.0	90.00	91.95	7,110.0	-2,450.00	1,916.1	8,359.5	8,553.7	0.00	0.00	0.00
14,500.0	90.00	91.95	7,110.0	-2,450.00	1,912.7	8,459.4	8,652.0	0.00	0.00	0.00
14,600.0	90.00	91.95	7,110.0	-2,450.00	1,909.3	8,559.3	8,750.3	0.00	0.00	0.00
14,700.0	90.00	91.95	7,110.0	-2,450.00	1,905.9	8,659.3	8,848.5	0.00	0.00	0.00
14,800.0	90.00	91.95	7,110.0	-2,450.00	1,902.5	8,759.2	8,946.8	0.00	0.00	0.00
14,900.0	90.00	91.95	7,110.0	-2,450.00	1,899.1	8,859.2	9,045.0	0.00	0.00	0.00
15,000.0	90.00	91.95	7,110.0	-2,450.00	1,895.7	8,959.1	9,143.3	0.00	0.00	0.00
15,100.0	90.00	91.95	7,110.0	-2,450.00	1,892.3	9,059.0	9,241.6	0.00	0.00	0.00
15,200.0	90.00	91.95	7,110.0	-2,450.00	1,888.9	9,159.0	9,339.8	0.00	0.00	0.00
15,300.0	90.00	91.95	7,110.0	-2,450.00	1,885.5	9,258.9	9,438.1	0.00	0.00	0.00
15,400.0	90.00	91.95	7,110.0	-2,450.00	1,882.1	9,358.9	9,536.3	0.00	0.00	0.00
15,500.0	90.00	91.95	7,110.0	-2,450.00	1,878.7	9,458.8	9,634.6	0.00	0.00	0.00
15,600.0	90.00	91.95	7,110.0	-2,450.00	1,875.3	9,558.8	9,732.8	0.00	0.00	0.00
15,700.0	90.00	91.95	7,110.0	-2,450.00	1,871.9	9,658.7	9,831.1	0.00	0.00	0.00
15,800.0	90.00	91.95	7,110.0	-2,450.00	1,868.5	9,758.6	9,929.4	0.00	0.00	0.00
15,900.0	90.00	91.95	7,110.0	-2,450.00	1,865.1	9,858.6	10,027.6	0.00	0.00	0.00
16,000.0	90.00	91.95	7,110.0	-2,450.00	1,861.7	9,958.5	10,125.9	0.00	0.00	0.00
16,100.0	90.00	91.95	7,110.0	-2,450.00	1,858.3	10,058.5	10,224.1	0.00	0.00	0.00
16,200.0	90.00	91.95	7,110.0	-2,450.00	1,854.9	10,158.4	10,322.4	0.00	0.00	0.00
16,300.0	90.00	91.95	7,110.0	-2,450.00	1,851.5	10,258.4	10,420.7	0.00	0.00	0.00
16,400.0	90.00	91.95	7,110.0	-2,450.00	1,848.1	10,358.3	10,518.9	0.00	0.00	0.00
16,500.0	90.00	91.95	7,110.0	-2,450.00	1,844.7	10,458.2	10,617.2	0.00	0.00	0.00
16,600.0	90.00	91.95	7,110.0	-2,450.00	1,841.3	10,558.2	10,715.4	0.00	0.00	0.00
16,700.0	90.00	91.95	7,110.0	-2,450.00	1,837.9	10,658.1	10,813.7	0.00	0.00	0.00
16,800.0	90.00	91.95	7,110.0	-2,450.00	1,834.5	10,758.1	10,912.0	0.00	0.00	0.00
16,900.0	90.00	91.95	7,110.0	-2,450.00	1,831.1	10,858.0	11,010.2	0.00	0.00	0.00
17,000.0	90.00	91.95	7,110.0	-2,450.00	1,827.7	10,957.9	11,108.5	0.00	0.00	0.00
17,100.0	90.00	91.95	7,110.0	-2,450.00	1,824.3	11,057.9	11,206.7	0.00	0.00	0.00
17,200.0	90.00	91.95	7,110.0	-2,450.00	1,820.9	11,157.8	11,305.0	0.00	0.00	0.00
17,300.0	90.00	91.95	7,110.0	-2,450.00	1,817.5	11,257.8	11,403.2	0.00	0.00	0.00
17,400.0	90.00	91.95	7,110.0	-2,450.00	1,814.1	11,357.7	11,501.5	0.00	0.00	0.00
17,500.0	90.00	91.95	7,110.0	-2,450.00	1,810.7	11,457.7	11,599.8	0.00	0.00	0.00
17,600.0	90.00	91.95	7,110.0	-2,450.00	1,807.3	11,557.6	11,698.0	0.00	0.00	0.00
17,700.0	90.00	91.95	7,110.0	-2,450.00	1,803.9	11,657.5	11,796.3	0.00	0.00	0.00
BHL: 2146ft FNL & 460ft FEL of Sec 34										
17,741.2	90.00	91.95	7,110.0	-2,450.00	1,802.5	11,698.7	11,836.7	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WAKE EAST 9C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4660.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4660.0usft (Original Well Elev)
Site:	SW SE SEC. 32 T6N R65W 6th P.M.	North Reference:	True
Well:	WAKE EAST 9C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,761.1	3,600.0	PARKMAN				
4,376.8	4,140.0	SUSSEX				
4,992.5	4,680.0	SHANNON				
7,411.5	6,800.0	NIOBRARA				
7,959.3	7,100.0	CODELL				

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.0	0.0	0.0	0.0	856ft FSL & 1600ft FEL of Sec 32
1,400.0	1,400.0	0.0	0.0	START NUDGE #1 (2°/100ft BUR)
1,600.2	1,600.0	5.6	4.2	SURFACE CASING
1,700.2	1,699.8	11.2	8.4	START NUDGE #2 (2°/100ft BUR)
2,935.5	2,876.0	287.8	214.9	EOB TO 28.71° INC
7,330.7	6,730.7	1,979.6	1,478.2	KOP (10°/100ft DGLG)
8,071.5	7,110.0	2,131.3	2,034.6	HZ LP: 2103ft FNL & 460ft FWL of Sec 33
17,741.2	7,110.0	1,802.5	11,698.7	BHL: 2146ft FNL & 460ft FEL of Sec 34