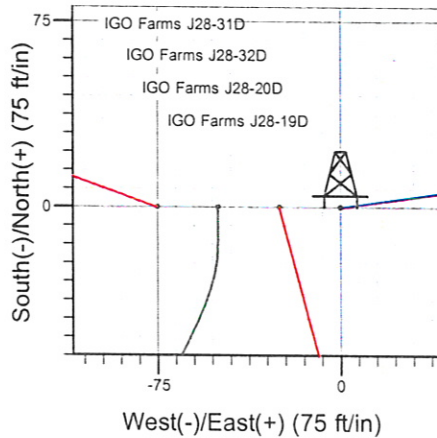
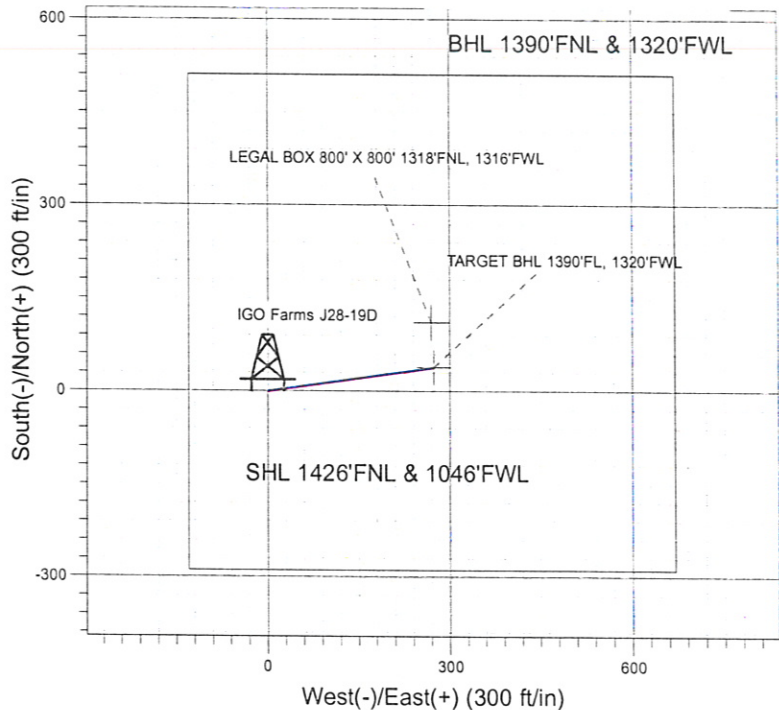
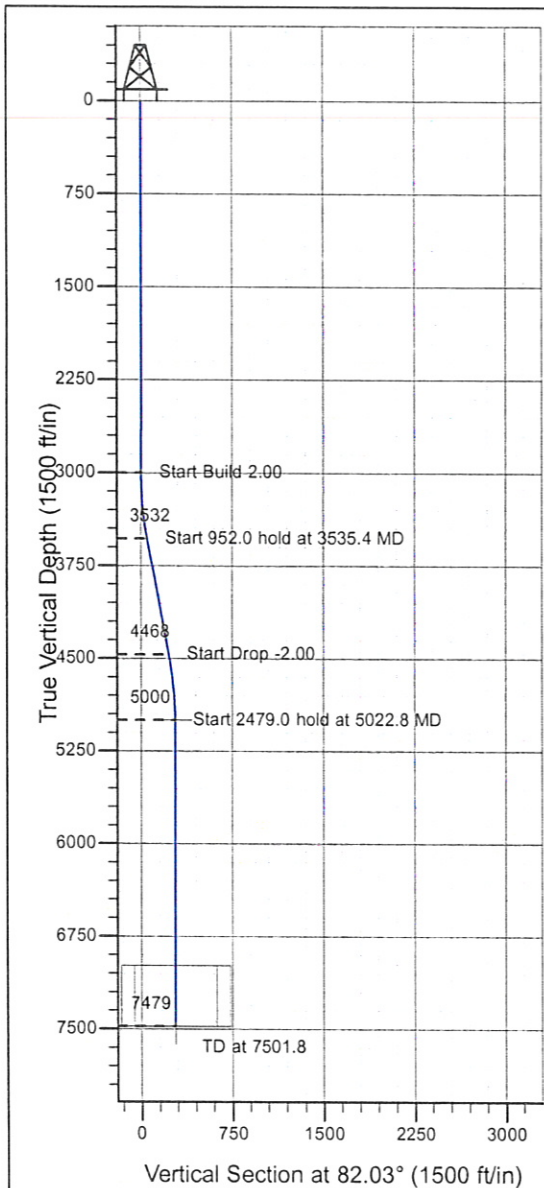


ENSIGN**Directional****Well Name: IGO Farms J28-19D**

Surface Location: IGO Farms Pad Sec.28-T5N-R66W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4876.0

+N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.01379821.81 3197749.68 40° 22' 25.824 N 104° 47' 24.864 W
 Original Well Elev WELL @ 4889.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO

IGO Farms Pad Sec.28-T5N-R66W
 IGO Farms J28-19D
 Plan #1 (07-06-09)
 14:40, July 07 2009



Azimuths to True North
 Magnetic North: 9.10°

Magnetic Field
 Strength: 53337.7snT
 Dip Angle: 67.10°
 Date: 7/6/2009
 Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1390'FL, 1320'FWL	5000.0	38.3	274.0	40° 22' 26.203 N	104° 47' 21.324 W	Point
LEGAL BOX 800' X 800' 1318'FNL, 1316'FWL	7479.0	110.3	270.0	40° 22' 26.914 N	104° 47' 21.375 W	Rectangle (Sides: L800.0 W800.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3535.4	10.71	82.03	3532.3	6.9	49.4	2.00	82.03	49.9	
4	4487.4	10.71	82.03	4467.7	31.4	224.6	0.00	0.00	226.8	
5	5022.8	0.00	0.00	5000.0	38.3	274.0	2.00	180.00	276.7	TARGET BHL 1390'FL, 1320'FWL
6	7501.8	0.00	0.00	7479.0	38.3	274.0	0.00	0.00	276.7	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.28-T5N-R66W

IGO Farms Pad Sec.28-T5N-R66W

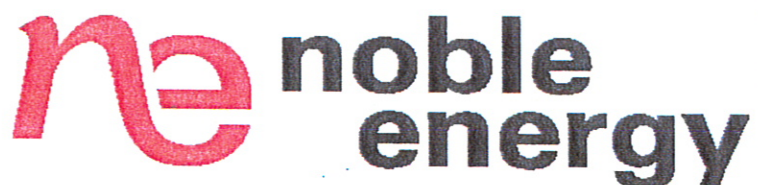
IGO Farms J28-19D

Wellbore #1

Plan: Plan #1 (07-06-09)

Standard Planning Report

07 July, 2009



Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.28-T5N-R66W
 Site: IGO Farms Pad Sec.28-T5N-R66W
 Well: IGO Farms J28-19D
 Wellbore: Wellbore #1
 Design: Plan #1 (07-06-09)

Local Co-ordinate Reference: Well IGO Farms J28-19D
 TVD Reference: WELL @ 4889.0ft (Original Well Elev)
 MD Reference: WELL @ 4889.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Project	SEC.28-T5N-R66W, 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	IGO Farms Pad Sec.28-T5N-R66W		
Site Position:		Northing:	1,379,821.42 ft
From:	Lat/Long	Easting:	3,197,699.53 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40° 22' 25.824 N
		Longitude:	104° 47' 25.512 W
		Grid Convergence:	0.46 °

Well	IGO Farms J28-19D		
Well Position	+N/-S	0.0 ft	Northing: 1,379,821.81 ft
	+E/-W	50.2 ft	Easting: 3,197,749.68 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40° 22' 25.824 N
		Longitude:	104° 47' 24.864 W
		Ground Level:	4,876.0 ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF200510	7/6/2009	(°)
			9.10
		Dip Angle	(°)
		67.10	
		Field Strength	(nT)
		53,338	

Design	Plan #1 (07-06-09)		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction
			(°)
			82.03

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,535.4	10.71	82.03	3,532.3	6.9	49.4	2.00	2.00	0.00	82.03	
4,487.4	10.71	82.03	4,467.7	31.4	224.6	0.00	0.00	0.00	0.00	
5,022.8	0.00	0.00	5,000.0	38.3	274.0	2.00	-2.00	0.00	180.00	TARGET BHL 139C
7,501.8	0.00	0.00	7,479.0	38.3	274.0	0.00	0.00	0.00	0.00	

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.28-T5N-R66W
 Site: IGO Farms Pad Sec.28-T5N-R66W
 Well: IGO Farms J28-19D
 Wellbore: Wellbore #1
 Design: Plan #1 (07-06-09)

Local Co-ordinate Reference: Well IGO Farms J28-19D
 TVD Reference: WELL @ 4889.0ft (Original Well Elev)
 MD Reference: WELL @ 4889.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned 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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,240.0	0.00	0.00	1,240.0	0.0	0.0	0.0	0.00	0.00	0.00
1,280.0	0.00	0.00	1,280.0	0.0	0.0	0.0	0.00	0.00	0.00
1,320.0	0.00	0.00	1,320.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,440.0	0.00	0.00	1,440.0	0.0	0.0	0.0	0.00	0.00	0.00
1,480.0	0.00	0.00	1,480.0	0.0	0.0	0.0	0.00	0.00	0.00
1,520.0	0.00	0.00	1,520.0	0.0	0.0	0.0	0.00	0.00	0.00
1,560.0	0.00	0.00	1,560.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,640.0	0.00	0.00	1,640.0	0.0	0.0	0.0	0.00	0.00	0.00
1,680.0	0.00	0.00	1,680.0	0.0	0.0	0.0	0.00	0.00	0.00
1,720.0	0.00	0.00	1,720.0	0.0	0.0	0.0	0.00	0.00	0.00
1,760.0	0.00	0.00	1,760.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,840.0	0.00	0.00	1,840.0	0.0	0.0	0.0	0.00	0.00	0.00
1,880.0	0.00	0.00	1,880.0	0.0	0.0	0.0	0.00	0.00	0.00
1,920.0	0.00	0.00	1,920.0	0.0	0.0	0.0	0.00	0.00	0.00
1,960.0	0.00	0.00	1,960.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,040.0	0.00	0.00	2,040.0	0.0	0.0	0.0	0.00	0.00	0.00
2,080.0	0.00	0.00	2,080.0	0.0	0.0	0.0	0.00	0.00	0.00
2,120.0	0.00	0.00	2,120.0	0.0	0.0	0.0	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.28-T5N-R66W
 Site: IGO Farms Pad Sec.28-T5N-R66W
 Well: IGO Farms J28-19D
 Wellbore: Wellbore #1
 Design: Plan #1 (07-06-09)

Local Co-ordinate Reference: Well IGO Farms J28-19D
 TVD Reference: WELL @ 4889.0ft (Original Well Elev)
 MD Reference: WELL @ 4889.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned 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)
2,160.0	0.00	0.00	2,160.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,240.0	0.00	0.00	2,240.0	0.0	0.0	0.0	0.00	0.00	0.00
2,280.0	0.00	0.00	2,280.0	0.0	0.0	0.0	0.00	0.00	0.00
2,320.0	0.00	0.00	2,320.0	0.0	0.0	0.0	0.00	0.00	0.00
2,360.0	0.00	0.00	2,360.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,440.0	0.00	0.00	2,440.0	0.0	0.0	0.0	0.00	0.00	0.00
2,480.0	0.00	0.00	2,480.0	0.0	0.0	0.0	0.00	0.00	0.00
2,520.0	0.00	0.00	2,520.0	0.0	0.0	0.0	0.00	0.00	0.00
2,560.0	0.00	0.00	2,560.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,640.0	0.00	0.00	2,640.0	0.0	0.0	0.0	0.00	0.00	0.00
2,680.0	0.00	0.00	2,680.0	0.0	0.0	0.0	0.00	0.00	0.00
2,720.0	0.00	0.00	2,720.0	0.0	0.0	0.0	0.00	0.00	0.00
2,760.0	0.00	0.00	2,760.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,840.0	0.00	0.00	2,840.0	0.0	0.0	0.0	0.00	0.00	0.00
2,880.0	0.00	0.00	2,880.0	0.0	0.0	0.0	0.00	0.00	0.00
2,920.0	0.00	0.00	2,920.0	0.0	0.0	0.0	0.00	0.00	0.00
2,960.0	0.00	0.00	2,960.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,040.0	0.80	82.03	3,040.0	0.0	0.3	0.3	2.00	2.00	0.00
3,080.0	1.60	82.03	3,080.0	0.2	1.1	1.1	2.00	2.00	0.00
3,120.0	2.40	82.03	3,120.0	0.3	2.5	2.5	2.00	2.00	0.00
3,160.0	3.20	82.03	3,159.9	0.6	4.4	4.5	2.00	2.00	0.00
3,200.0	4.00	82.03	3,199.8	1.0	6.9	7.0	2.00	2.00	0.00
3,240.0	4.80	82.03	3,239.7	1.4	10.0	10.0	2.00	2.00	0.00
3,280.0	5.60	82.03	3,279.6	1.9	13.5	13.7	2.00	2.00	0.00
3,320.0	6.40	82.03	3,319.3	2.5	17.7	17.9	2.00	2.00	0.00
3,360.0	7.20	82.03	3,359.1	3.1	22.4	22.6	2.00	2.00	0.00
3,400.0	8.00	82.03	3,398.7	3.9	27.6	27.9	2.00	2.00	0.00
3,440.0	8.80	82.03	3,438.3	4.7	33.4	33.7	2.00	2.00	0.00
3,480.0	9.60	82.03	3,477.8	5.6	39.7	40.1	2.00	2.00	0.00
3,520.0	10.40	82.03	3,517.1	6.5	46.6	47.1	2.00	2.00	0.00
3,535.4	10.71	82.03	3,532.3	6.9	49.4	49.9	2.00	2.00	0.00
3,560.0	10.71	82.03	3,556.5	7.5	53.9	54.5	0.00	0.00	0.00
3,600.0	10.71	82.03	3,595.8	8.6	61.3	61.9	0.00	0.00	0.00
3,640.0	10.71	82.03	3,635.1	9.6	68.7	69.3	0.00	0.00	0.00
3,680.0	10.71	82.03	3,674.4	10.6	76.0	76.8	0.00	0.00	0.00
3,720.0	10.71	82.03	3,713.7	11.7	83.4	84.2	0.00	0.00	0.00
3,760.0	10.71	82.03	3,753.0	12.7	90.7	91.6	0.00	0.00	0.00
3,800.0	10.71	82.03	3,792.3	13.7	98.1	99.0	0.00	0.00	0.00
3,840.0	10.71	82.03	3,831.6	14.8	105.5	106.5	0.00	0.00	0.00
3,880.0	10.71	82.03	3,870.9	15.8	112.8	113.9	0.00	0.00	0.00
3,920.0	10.71	82.03	3,910.2	16.8	120.2	121.3	0.00	0.00	0.00
3,960.0	10.71	82.03	3,949.5	17.8	127.5	128.8	0.00	0.00	0.00
4,000.0	10.71	82.03	3,988.8	18.9	134.9	136.2	0.00	0.00	0.00
4,040.0	10.71	82.03	4,028.1	19.9	142.3	143.6	0.00	0.00	0.00
4,080.0	10.71	82.03	4,067.4	20.9	149.6	151.1	0.00	0.00	0.00
4,120.0	10.71	82.03	4,106.7	22.0	157.0	158.5	0.00	0.00	0.00
4,160.0	10.71	82.03	4,146.0	23.0	164.3	165.9	0.00	0.00	0.00
4,200.0	10.71	82.03	4,185.3	24.0	171.7	173.4	0.00	0.00	0.00
4,240.0	10.71	82.03	4,224.6	25.1	179.1	180.8	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.28-T5N-R66W
 Site: IGO Farms Pad Sec.28-T5N-R66W
 Well: IGO Farms J28-19D
 Wellbore: Wellbore #1
 Design: Plan #1 (07-06-09)

Local Co-ordinate Reference: Well IGO Farms J28-19D
 TVD Reference: WELL @ 4889.0ft (Original Well Elev)
 MD Reference: WELL @ 4889.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned 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)
4,280.0	10.71	82.03	4,263.9	26.1	186.4	188.2	0.00	0.00	0.00
4,320.0	10.71	82.03	4,303.2	27.1	193.8	195.7	0.00	0.00	0.00
4,360.0	10.71	82.03	4,342.5	28.1	201.1	203.1	0.00	0.00	0.00
4,400.0	10.71	82.03	4,381.8	29.2	208.5	210.5	0.00	0.00	0.00
4,440.0	10.71	82.03	4,421.1	30.2	215.9	218.0	0.00	0.00	0.00
4,480.0	10.71	82.03	4,460.4	31.2	223.2	225.4	0.00	0.00	0.00
4,487.4	10.71	82.03	4,467.7	31.4	224.6	226.8	0.00	0.00	0.00
4,520.0	10.06	82.03	4,499.8	32.2	230.4	232.6	2.00	-2.00	0.00
4,560.0	9.26	82.03	4,539.2	33.2	237.0	239.4	2.00	-2.00	0.00
4,600.0	8.46	82.03	4,578.7	34.0	243.1	245.5	2.00	-2.00	0.00
4,640.0	7.66	82.03	4,618.3	34.8	248.7	251.1	2.00	-2.00	0.00
4,680.0	6.86	82.03	4,658.0	35.5	253.7	256.2	2.00	-2.00	0.00
4,720.0	6.06	82.03	4,697.8	36.1	258.2	260.7	2.00	-2.00	0.00
4,760.0	5.26	82.03	4,737.6	36.7	262.1	264.6	2.00	-2.00	0.00
4,800.0	4.46	82.03	4,777.4	37.1	265.4	268.0	2.00	-2.00	0.00
4,840.0	3.66	82.03	4,817.3	37.5	268.2	270.8	2.00	-2.00	0.00
4,880.0	2.86	82.03	4,857.3	37.8	270.5	273.1	2.00	-2.00	0.00
4,920.0	2.06	82.03	4,897.2	38.1	272.2	274.8	2.00	-2.00	0.00
4,960.0	1.26	82.03	4,937.2	38.2	273.3	276.0	2.00	-2.00	0.00
5,000.0	0.46	82.03	4,977.2	38.3	273.9	276.6	2.00	-2.00	0.00
5,022.8	0.00	0.00	5,000.0	38.3	274.0	276.7	2.00	-2.00	0.00
TARGET BHL 1390'FL, 1320'FWL									
5,040.0	0.00	0.00	5,017.2	38.3	274.0	276.7	0.00	0.00	0.00
5,080.0	0.00	0.00	5,057.2	38.3	274.0	276.7	0.00	0.00	0.00
5,120.0	0.00	0.00	5,097.2	38.3	274.0	276.7	0.00	0.00	0.00
5,160.0	0.00	0.00	5,137.2	38.3	274.0	276.7	0.00	0.00	0.00
5,200.0	0.00	0.00	5,177.2	38.3	274.0	276.7	0.00	0.00	0.00
5,240.0	0.00	0.00	5,217.2	38.3	274.0	276.7	0.00	0.00	0.00
5,280.0	0.00	0.00	5,257.2	38.3	274.0	276.7	0.00	0.00	0.00
5,320.0	0.00	0.00	5,297.2	38.3	274.0	276.7	0.00	0.00	0.00
5,360.0	0.00	0.00	5,337.2	38.3	274.0	276.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,377.2	38.3	274.0	276.7	0.00	0.00	0.00
5,440.0	0.00	0.00	5,417.2	38.3	274.0	276.7	0.00	0.00	0.00
5,480.0	0.00	0.00	5,457.2	38.3	274.0	276.7	0.00	0.00	0.00
5,520.0	0.00	0.00	5,497.2	38.3	274.0	276.7	0.00	0.00	0.00
5,560.0	0.00	0.00	5,537.2	38.3	274.0	276.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,577.2	38.3	274.0	276.7	0.00	0.00	0.00
5,640.0	0.00	0.00	5,617.2	38.3	274.0	276.7	0.00	0.00	0.00
5,680.0	0.00	0.00	5,657.2	38.3	274.0	276.7	0.00	0.00	0.00
5,720.0	0.00	0.00	5,697.2	38.3	274.0	276.7	0.00	0.00	0.00
5,760.0	0.00	0.00	5,737.2	38.3	274.0	276.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,777.2	38.3	274.0	276.7	0.00	0.00	0.00
5,840.0	0.00	0.00	5,817.2	38.3	274.0	276.7	0.00	0.00	0.00
5,880.0	0.00	0.00	5,857.2	38.3	274.0	276.7	0.00	0.00	0.00
5,920.0	0.00	0.00	5,897.2	38.3	274.0	276.7	0.00	0.00	0.00
5,960.0	0.00	0.00	5,937.2	38.3	274.0	276.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,977.2	38.3	274.0	276.7	0.00	0.00	0.00
6,040.0	0.00	0.00	6,017.2	38.3	274.0	276.7	0.00	0.00	0.00
6,080.0	0.00	0.00	6,057.2	38.3	274.0	276.7	0.00	0.00	0.00
6,120.0	0.00	0.00	6,097.2	38.3	274.0	276.7	0.00	0.00	0.00
6,160.0	0.00	0.00	6,137.2	38.3	274.0	276.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,177.2	38.3	274.0	276.7	0.00	0.00	0.00
6,240.0	0.00	0.00	6,217.2	38.3	274.0	276.7	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.28-T5N-R66W
 Site: IGO Farms Pad Sec.28-T5N-R66W
 Well: IGO Farms J28-19D
 Wellbore: Wellbore #1
 Design: Plan #1 (07-06-09)

Local Co-ordinate Reference: Well IGO Farms J28-19D
 TVD Reference: WELL @ 4889.0ft (Original Well Elev)
 MD Reference: WELL @ 4889.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned 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)
6,280.0	0.00	0.00	6,257.2	38.3	274.0	276.7	0.00	0.00	0.00
6,320.0	0.00	0.00	6,297.2	38.3	274.0	276.7	0.00	0.00	0.00
6,360.0	0.00	0.00	6,337.2	38.3	274.0	276.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,377.2	38.3	274.0	276.7	0.00	0.00	0.00
6,440.0	0.00	0.00	6,417.2	38.3	274.0	276.7	0.00	0.00	0.00
6,480.0	0.00	0.00	6,457.2	38.3	274.0	276.7	0.00	0.00	0.00
6,520.0	0.00	0.00	6,497.2	38.3	274.0	276.7	0.00	0.00	0.00
6,560.0	0.00	0.00	6,537.2	38.3	274.0	276.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,577.2	38.3	274.0	276.7	0.00	0.00	0.00
6,640.0	0.00	0.00	6,617.2	38.3	274.0	276.7	0.00	0.00	0.00
6,680.0	0.00	0.00	6,657.2	38.3	274.0	276.7	0.00	0.00	0.00
6,720.0	0.00	0.00	6,697.2	38.3	274.0	276.7	0.00	0.00	0.00
6,760.0	0.00	0.00	6,737.2	38.3	274.0	276.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,777.2	38.3	274.0	276.7	0.00	0.00	0.00
6,840.0	0.00	0.00	6,817.2	38.3	274.0	276.7	0.00	0.00	0.00
6,880.0	0.00	0.00	6,857.2	38.3	274.0	276.7	0.00	0.00	0.00
6,920.0	0.00	0.00	6,897.2	38.3	274.0	276.7	0.00	0.00	0.00
6,960.0	0.00	0.00	6,937.2	38.3	274.0	276.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,977.2	38.3	274.0	276.7	0.00	0.00	0.00
7,011.8	0.00	0.00	6,989.0	38.3	274.0	276.7	0.00	0.00	0.00
NIOBRARA									
7,040.0	0.00	0.00	7,017.2	38.3	274.0	276.7	0.00	0.00	0.00
7,080.0	0.00	0.00	7,057.2	38.3	274.0	276.7	0.00	0.00	0.00
7,120.0	0.00	0.00	7,097.2	38.3	274.0	276.7	0.00	0.00	0.00
7,160.0	0.00	0.00	7,137.2	38.3	274.0	276.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,177.2	38.3	274.0	276.7	0.00	0.00	0.00
7,240.0	0.00	0.00	7,217.2	38.3	274.0	276.7	0.00	0.00	0.00
7,280.0	0.00	0.00	7,257.2	38.3	274.0	276.7	0.00	0.00	0.00
7,320.0	0.00	0.00	7,297.2	38.3	274.0	276.7	0.00	0.00	0.00
7,351.8	0.00	0.00	7,329.0	38.3	274.0	276.7	0.00	0.00	0.00
CODELL									
7,360.0	0.00	0.00	7,337.2	38.3	274.0	276.7	0.00	0.00	0.00
7,400.0	0.00	0.00	7,377.2	38.3	274.0	276.7	0.00	0.00	0.00
7,440.0	0.00	0.00	7,417.2	38.3	274.0	276.7	0.00	0.00	0.00
7,480.0	0.00	0.00	7,457.2	38.3	274.0	276.7	0.00	0.00	0.00
7,501.8	0.00	0.00	7,479.0	38.3	274.0	276.7	0.00	0.00	0.00

LEGAL BOX 800' X 800' 1318'FNL, 1316'FWL

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
LEGAL BOX 800' X 800'	0.00	0.00	7,479.0	110.3	270.0	1,379,934.26	3,198,018.78	40° 22' 26.914 N	104° 47' 21.375 W
- plan misses target center by 72.1ft at 7501.8ft MD (7479.0 TVD, 38.3 N, 274.0 E)									
- Rectangle (sides W800.0 H800.0 D0.0)									
TARGET BHL 1390'F	0.00	0.00	5,000.0	38.3	274.0	1,379,862.34	3,198,023.34	40° 22' 26.203 N	104° 47' 21.324 W
- plan hits target center									
- Point									

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.28-T5N-R66W
Site: IGO Farms Pad Sec.28-T5N-R66W
Well: IGO Farms J28-19D
Wellbore: Wellbore #1
Design: Plan #1 (07-06-09)

Local Co-ordinate Reference: Well IGO Farms J28-19D
TVD Reference: WELL @ 4889.0ft (Original Well Elev)
MD Reference: WELL @ 4889.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,011.8	6,989.0	NIOBRARA		0.00	
7,351.8	7,329.0	CODELL		0.00	