

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

CAMENISCH 19-2-9F pad

Camenisch 11-2

Camenisch 11-2

Plan: Camenisch 11-2 (wp01)

Standard Planning Report

26 September, 2011

Project: COLORADO NORTHERN ZONE - 83
Site: CAMENISCH 19-2-9F pad
Well: Camenisch 11-2
Wellbore: Camenisch 11-2
Section:
SHL:
Design: Camenisch 11-2 (wp01)
Latitude: 40.075572
Longitude: -104.863678
GL: 5032.00
KB: 15' rkb + 5032' gl @ 5047.00ft

TVDPath	MDPath	Formation
4132.00	4314.74	PK
4592.00	4791.17	SX
7312.00	7514.76	NIO
7622.00	7824.76	CD
7710.00	7912.76	GH
8062.00	8264.76	J

CASING DETAILS

No casing data is available



Azimuths to True North
Magnetic North: 8.85°

Magnetic Field
Strength: 52918.4snT
Dip Angle: 66.76°
Date: 9/26/2011
Model: IGRF2010

WELL DETAILS: Camenisch 11-2

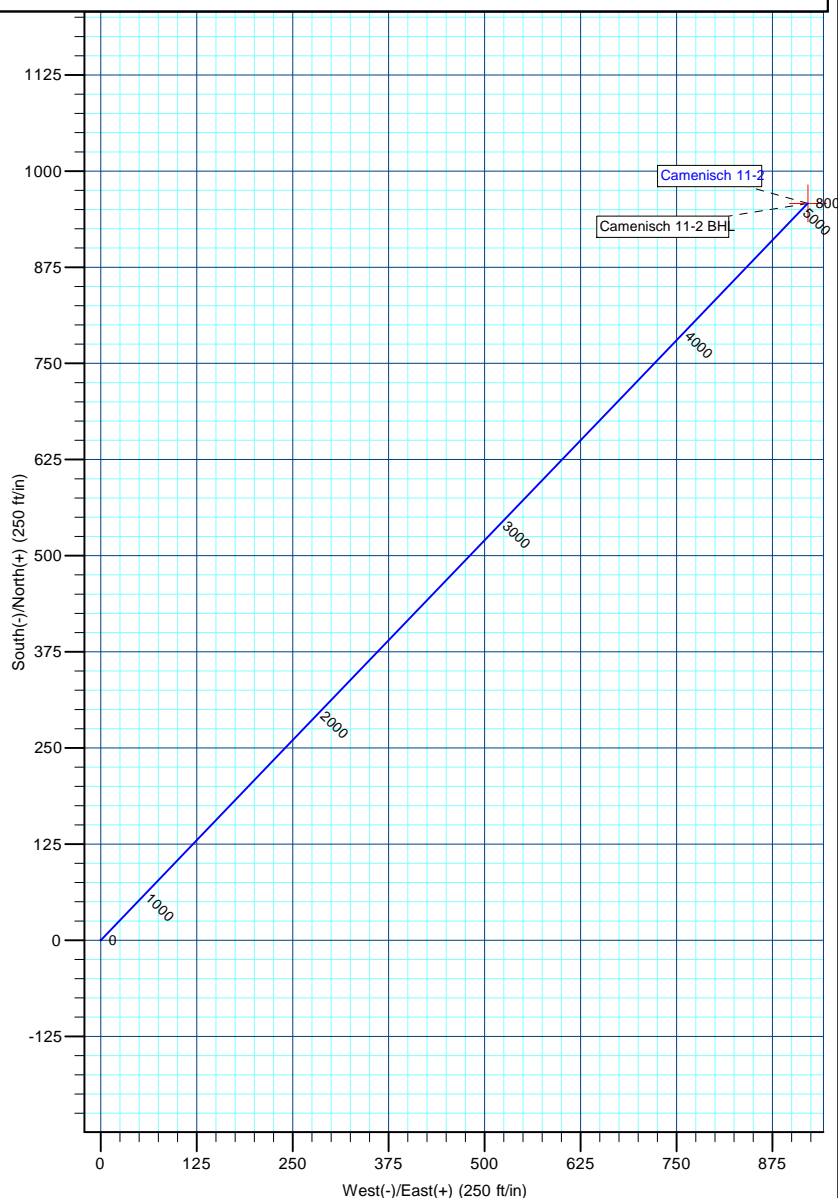
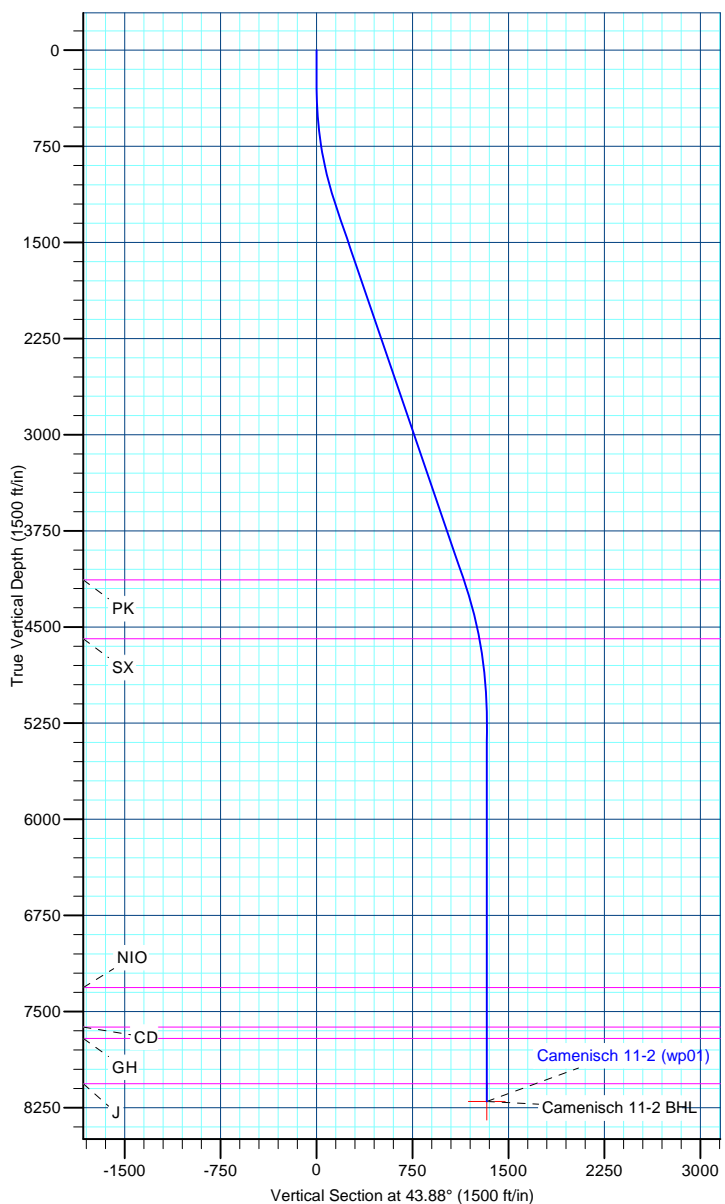
+N/-S	+E/-W	Northing	Ground Level: Easting	5032.00 Latitude	Longitude	Slot
0.00	0.00	1271014.74	3178068.82	40.075572	-104.863678	

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape Point
Camenisch 11-2 BHL	8202.00	958.08	921.21	1271979.40	3178983.13	40.078202	-104.860386	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00
1245.55	18.91	43.88	1228.47	111.46	107.17	2.00	43.88	154.63
4324.13	18.91	43.88	4140.89	830.69	798.72	0.00	0.00	1152.39
5404.76	0.00	0.00	5202.00	958.08	921.21	1.75	180.00	1329.11
8404.76	0.00	0.00	8202.00	958.08	921.21	0.00	0.00	1329.11



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Camenisch 11-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	15' rkb + 5032' gl @ 5047.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	15' rkb + 5032' gl @ 5047.00ft
Site:	CAMENISCH 19-2-9F pad	North Reference:	True
Well:	Camenisch 11-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Camenisch 11-2		
Design:	Camenisch 11-2 (wp01)		

Project	COLORADO NORTHERN ZONE - 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	CAMENISCH 19-2-9F pad			
Site Position:		Northing:	1,271,059.92 usft	Latitude: 40.075696
From:	Lat/Long	Easting:	3,178,068.22 usft	Longitude: -104.863679
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.41 °

Well	Camenisch 11-2			
Well Position	+N/-S	-45.18 ft	Northing:	1,271,014.74 usft
	+E/-W	0.28 ft	Easting:	3,178,068.82 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Ground Level: 5,032.00 ft

Wellbore	Camenisch 11-2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/26/2011	8.85	66.76	52,918

Design	Camenisch 11-2 (wp01)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	43.88

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,245.55	18.91	43.88	1,228.47	111.46	107.17	2.00	2.00	0.00	43.88	
4,324.13	18.91	43.88	4,140.89	830.69	798.72	0.00	0.00	0.00	0.00	
5,404.76	0.00	0.00	5,202.00	958.08	921.21	1.75	-1.75	0.00	180.00	
8,404.76	0.00	0.00	8,202.00	958.08	921.21	0.00	0.00	0.00	0.00	Camenisch 11-2 BHL

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Camenisch 11-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	15' rkb + 5032' gl @ 5047.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	15' rkb + 5032' gl @ 5047.00ft
Site:	CAMENISCH 19-2-9F pad	North Reference:	True
Well:	Camenisch 11-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Camenisch 11-2		
Design:	Camenisch 11-2 (wp01)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
400.00	2.00	43.88	399.98	1.26	1.21	1.75	2.00	2.00	0.00
500.00	4.00	43.88	499.84	5.03	4.84	6.98	2.00	2.00	0.00
600.00	6.00	43.88	599.45	11.31	10.88	15.69	2.00	2.00	0.00
700.00	8.00	43.88	698.70	20.10	19.32	27.88	2.00	2.00	0.00
800.00	10.00	43.88	797.47	31.37	30.17	43.52	2.00	2.00	0.00
900.00	12.00	43.88	895.62	45.13	43.39	62.60	2.00	2.00	0.00
1,000.00	14.00	43.88	993.06	61.34	58.98	85.10	2.00	2.00	0.00
1,100.00	16.00	43.88	1,089.64	80.00	76.92	110.98	2.00	2.00	0.00
1,200.00	18.00	43.88	1,185.27	101.07	97.18	140.21	2.00	2.00	0.00
1,245.55	18.91	43.88	1,228.47	111.46	107.17	154.63	2.00	2.00	0.00
Start 3078.59 hold at 1245.55 MD									
1,300.00	18.91	43.88	1,279.99	124.19	119.41	172.28	0.00	0.00	0.00
1,400.00	18.91	43.88	1,374.59	147.55	141.87	204.69	0.00	0.00	0.00
1,500.00	18.91	43.88	1,469.19	170.91	164.33	237.10	0.00	0.00	0.00
1,600.00	18.91	43.88	1,563.79	194.27	186.80	269.51	0.00	0.00	0.00
1,700.00	18.91	43.88	1,658.40	217.63	209.26	301.92	0.00	0.00	0.00
1,800.00	18.91	43.88	1,753.00	241.00	231.72	334.33	0.00	0.00	0.00
1,900.00	18.91	43.88	1,847.60	264.36	254.19	366.74	0.00	0.00	0.00
2,000.00	18.91	43.88	1,942.20	287.72	276.65	399.15	0.00	0.00	0.00
2,100.00	18.91	43.88	2,036.81	311.08	299.11	431.56	0.00	0.00	0.00
2,200.00	18.91	43.88	2,131.41	334.45	321.58	463.97	0.00	0.00	0.00
2,300.00	18.91	43.88	2,226.01	357.81	344.04	496.38	0.00	0.00	0.00
2,400.00	18.91	43.88	2,320.61	381.17	366.50	528.79	0.00	0.00	0.00
2,500.00	18.91	43.88	2,415.21	404.53	388.97	561.20	0.00	0.00	0.00
2,600.00	18.91	43.88	2,509.82	427.90	411.43	593.61	0.00	0.00	0.00
2,700.00	18.91	43.88	2,604.42	451.26	433.89	626.02	0.00	0.00	0.00
2,800.00	18.91	43.88	2,699.02	474.62	456.35	658.43	0.00	0.00	0.00
2,900.00	18.91	43.88	2,793.62	497.98	478.82	690.84	0.00	0.00	0.00
3,000.00	18.91	43.88	2,888.23	521.34	501.28	723.24	0.00	0.00	0.00
3,100.00	18.91	43.88	2,982.83	544.71	523.74	755.65	0.00	0.00	0.00
3,200.00	18.91	43.88	3,077.43	568.07	546.21	788.06	0.00	0.00	0.00
3,300.00	18.91	43.88	3,172.03	591.43	568.67	820.47	0.00	0.00	0.00
3,400.00	18.91	43.88	3,266.64	614.79	591.13	852.88	0.00	0.00	0.00
3,500.00	18.91	43.88	3,361.24	638.16	613.60	885.29	0.00	0.00	0.00
3,600.00	18.91	43.88	3,455.84	661.52	636.06	917.70	0.00	0.00	0.00
3,700.00	18.91	43.88	3,550.44	684.88	658.52	950.11	0.00	0.00	0.00
3,800.00	18.91	43.88	3,645.05	708.24	680.99	982.52	0.00	0.00	0.00
3,900.00	18.91	43.88	3,739.65	731.60	703.45	1,014.93	0.00	0.00	0.00
4,000.00	18.91	43.88	3,834.25	754.97	725.91	1,047.34	0.00	0.00	0.00
4,100.00	18.91	43.88	3,928.85	778.33	748.38	1,079.75	0.00	0.00	0.00
4,200.00	18.91	43.88	4,023.46	801.69	770.84	1,112.16	0.00	0.00	0.00
4,300.00	18.91	43.88	4,118.06	825.05	793.30	1,144.57	0.00	0.00	0.00
4,314.74	18.91	43.88	4,132.00	828.50	796.61	1,149.35	0.00	0.00	0.00
PK									
4,324.13	18.91	43.88	4,140.89	830.69	798.72	1,152.39	0.00	0.00	0.00
Start Drop -1.75									
4,400.00	17.58	43.88	4,212.94	847.82	815.19	1,176.15	1.75	-1.75	0.00
4,500.00	15.83	43.88	4,308.71	868.54	835.11	1,204.90	1.75	-1.75	0.00
4,600.00	14.08	43.88	4,405.32	887.14	853.00	1,230.71	1.75	-1.75	0.00

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Planning Report

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Company:	US ROCKIES REGION PLANNING	TVD Reference:	15' rkb + 5032' gl @ 5047.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	15' rkb + 5032' gl @ 5047.00ft
Site:	CAMENISCH 19-2-9F pad	North Reference:	True
Well:	Camenisch 11-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Camenisch 11-2		
Design:	Camenisch 11-2 (wp01)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.00	12.33	43.88	4,502.67	903.61	868.84	1,253.56	1.75	-1.75	0.00
4,791.17	10.74	43.88	4,592.00	916.76	881.48	1,271.79	1.75	-1.75	0.00
SX									
4,800.00	10.58	43.88	4,600.67	917.93	882.61	1,273.42	1.75	-1.75	0.00
4,900.00	8.83	43.88	4,699.24	930.09	894.30	1,290.28	1.75	-1.75	0.00
5,000.00	7.08	43.88	4,798.27	940.07	903.89	1,304.13	1.75	-1.75	0.00
5,100.00	5.33	43.88	4,897.68	947.86	911.39	1,314.94	1.75	-1.75	0.00
5,200.00	3.58	43.88	4,997.37	953.47	916.77	1,322.71	1.75	-1.75	0.00
5,300.00	1.83	43.88	5,097.26	956.87	920.05	1,327.44	1.75	-1.75	0.00
5,400.00	0.08	43.88	5,197.24	958.08	921.21	1,329.11	1.75	-1.75	0.00
5,404.76	0.00	0.00	5,202.00	958.08	921.21	1,329.11	1.75	-1.75	0.00
Start 3000.00 hold at 5404.76 MD									
5,500.00	0.00	0.00	5,297.24	958.08	921.21	1,329.11	0.00	0.00	0.00
5,600.00	0.00	0.00	5,397.24	958.08	921.21	1,329.11	0.00	0.00	0.00
5,700.00	0.00	0.00	5,497.24	958.08	921.21	1,329.11	0.00	0.00	0.00
5,800.00	0.00	0.00	5,597.24	958.08	921.21	1,329.11	0.00	0.00	0.00
5,900.00	0.00	0.00	5,697.24	958.08	921.21	1,329.11	0.00	0.00	0.00
6,000.00	0.00	0.00	5,797.24	958.08	921.21	1,329.11	0.00	0.00	0.00
6,100.00	0.00	0.00	5,897.24	958.08	921.21	1,329.11	0.00	0.00	0.00
6,200.00	0.00	0.00	5,997.24	958.08	921.21	1,329.11	0.00	0.00	0.00
6,300.00	0.00	0.00	6,097.24	958.08	921.21	1,329.11	0.00	0.00	0.00
6,400.00	0.00	0.00	6,197.24	958.08	921.21	1,329.11	0.00	0.00	0.00
6,500.00	0.00	0.00	6,297.24	958.08	921.21	1,329.11	0.00	0.00	0.00
6,600.00	0.00	0.00	6,397.24	958.08	921.21	1,329.11	0.00	0.00	0.00
6,700.00	0.00	0.00	6,497.24	958.08	921.21	1,329.11	0.00	0.00	0.00
6,800.00	0.00	0.00	6,597.24	958.08	921.21	1,329.11	0.00	0.00	0.00
6,900.00	0.00	0.00	6,697.24	958.08	921.21	1,329.11	0.00	0.00	0.00
7,000.00	0.00	0.00	6,797.24	958.08	921.21	1,329.11	0.00	0.00	0.00
7,100.00	0.00	0.00	6,897.24	958.08	921.21	1,329.11	0.00	0.00	0.00
7,200.00	0.00	0.00	6,997.24	958.08	921.21	1,329.11	0.00	0.00	0.00
7,300.00	0.00	0.00	7,097.24	958.08	921.21	1,329.11	0.00	0.00	0.00
7,400.00	0.00	0.00	7,197.24	958.08	921.21	1,329.11	0.00	0.00	0.00
7,500.00	0.00	0.00	7,297.24	958.08	921.21	1,329.11	0.00	0.00	0.00
7,514.76	0.00	0.00	7,312.00	958.08	921.21	1,329.11	0.00	0.00	0.00
NIO									
7,600.00	0.00	0.00	7,397.24	958.08	921.21	1,329.11	0.00	0.00	0.00
7,700.00	0.00	0.00	7,497.24	958.08	921.21	1,329.11	0.00	0.00	0.00
7,800.00	0.00	0.00	7,597.24	958.08	921.21	1,329.11	0.00	0.00	0.00
7,824.76	0.00	0.00	7,622.00	958.08	921.21	1,329.11	0.00	0.00	0.00
CD									
7,900.00	0.00	0.00	7,697.24	958.08	921.21	1,329.11	0.00	0.00	0.00
7,912.76	0.00	0.00	7,710.00	958.08	921.21	1,329.11	0.00	0.00	0.00
GH									
8,000.00	0.00	0.00	7,797.24	958.08	921.21	1,329.11	0.00	0.00	0.00
8,100.00	0.00	0.00	7,897.24	958.08	921.21	1,329.11	0.00	0.00	0.00
8,200.00	0.00	0.00	7,997.24	958.08	921.21	1,329.11	0.00	0.00	0.00
8,264.76	0.00	0.00	8,062.00	958.08	921.21	1,329.11	0.00	0.00	0.00
J									
8,300.00	0.00	0.00	8,097.24	958.08	921.21	1,329.11	0.00	0.00	0.00
8,400.00	0.00	0.00	8,197.24	958.08	921.21	1,329.11	0.00	0.00	0.00
8,404.76	0.00	0.00	8,202.00	958.08	921.21	1,329.11	0.00	0.00	0.00
TD at 8404.76 - Camenisch 11-2 BHL									

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Camenisch 11-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	15' rkb + 5032' gl @ 5047.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	15' rkb + 5032' gl @ 5047.00ft
Site:	CAMENISCH 19-2-9F pad	North Reference:	True
Well:	Camenisch 11-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Camenisch 11-2		
Design:	Camenisch 11-2 (wp01)		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
Camenisch 11-2 BHL	0.00	0.00	8,202.00	958.08	921.21	1,271,979.40	3,178,983.13	40.078202	-104.860386
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
4,314.74	4,132.00	PK				
4,791.17	4,592.00	SX				
7,514.76	7,312.00	NIO				
7,824.76	7,622.00	CD				
7,912.76	7,710.00	GH				
8,264.76	8,062.00	J				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
300.00	300.00	0.00	0.00	Start Build 2.00	
1,245.55	1,228.47	111.46	107.17	Start 3078.59 hold at 1245.55 MD	
4,324.13	4,140.89	830.69	798.72	Start Drop -1.75	
5,404.76	5,202.00	958.08	921.21	Start 3000.00 hold at 5404.76 MD	
8,404.76	8,202.00	958.08	921.21	TD at 8404.76	