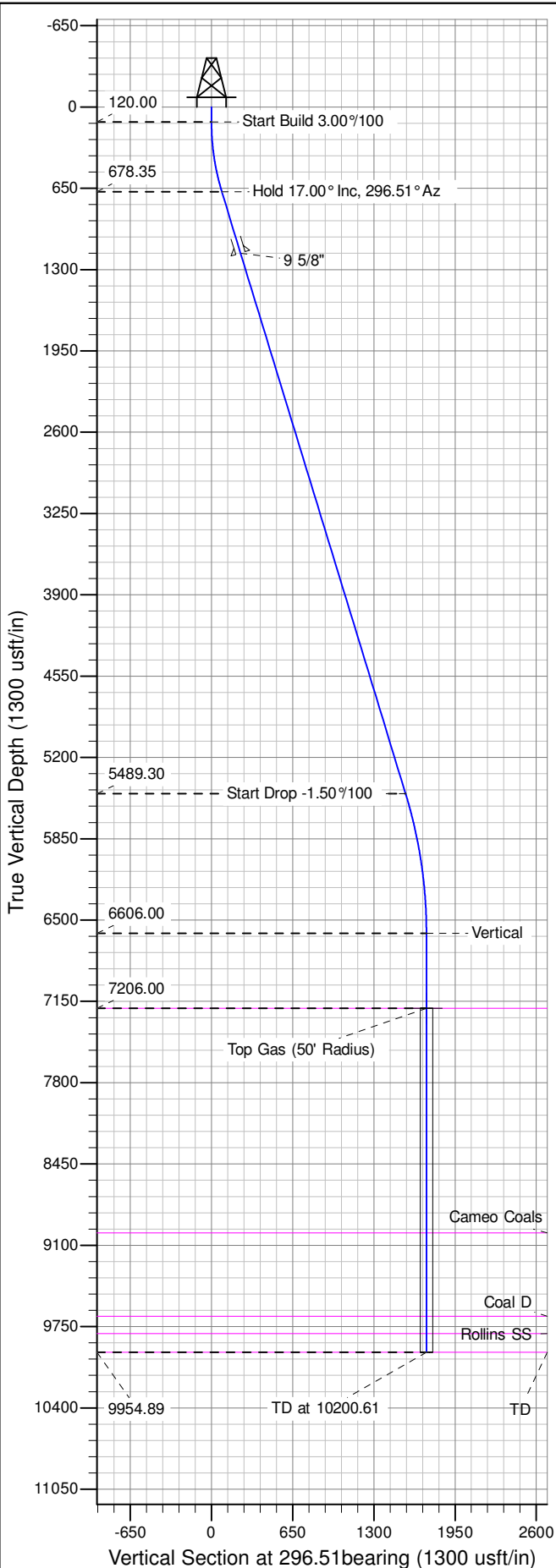
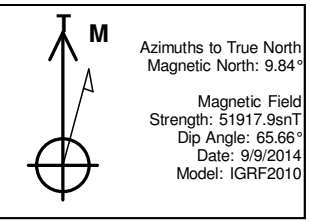
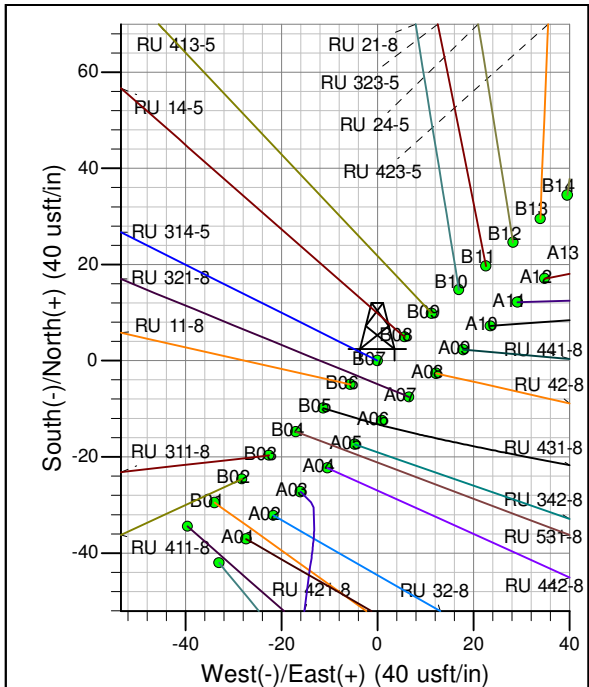
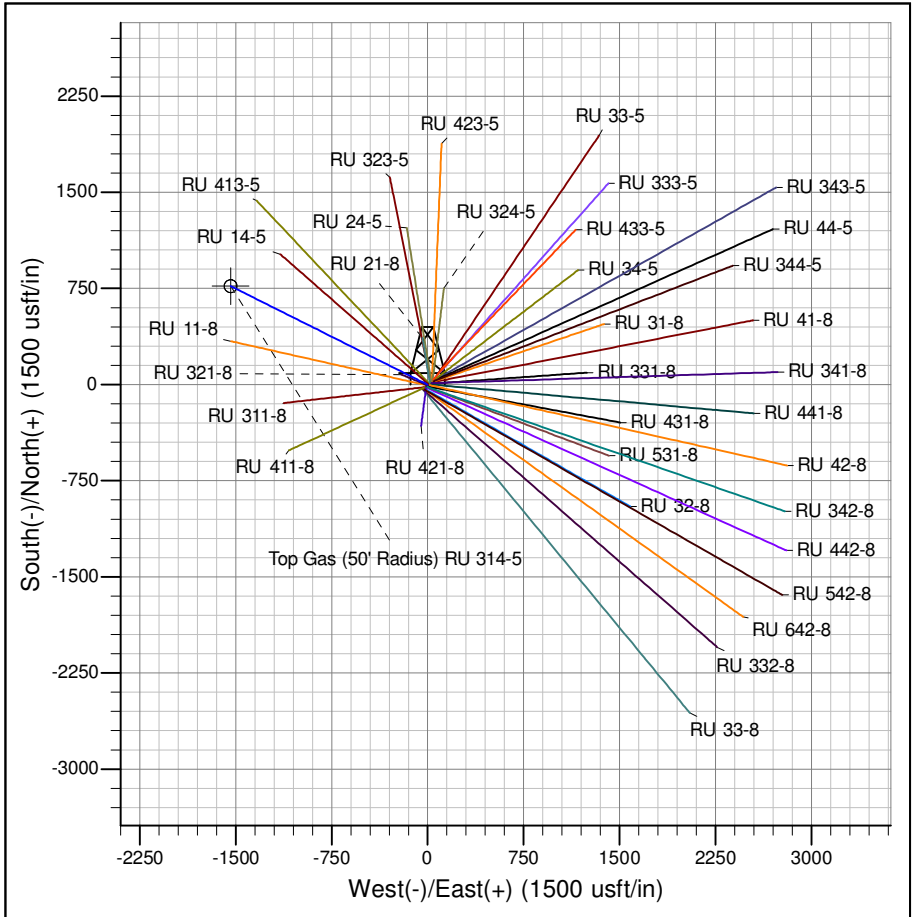




Well Name: RU 314-5
Surface Location: RU 21-8 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 7736.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1602667.60 2350491.44 39.46551 -107.80084 B08
KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
120.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00%/100	
678.35	678.35	17.00	296.51	37.25	-74.67	83.44	83.44	Hold 17.00° Inc, 296.51° Az	
5489.30	5717.37	17.00	296.51	693.75	-1390.75	1554.18	1554.18	Start Drop -1.50%/100	
6606.00	6850.61	0.00	0.00	768.24	-1540.08	1721.06	1721.06	Vertical	
7206.00	7450.61	0.00	0.00	768.24	-1540.08	1721.06	1721.06	Top Gas	
9954.89	10199.50	0.00	0.00	768.24	-1540.08	1721.06	1721.06	TD at 10200.61	



Project: RU 08-07S-093W
Site: RU 21-8 Pad
Well: RU 314-5
Design #1 09Sep14 mab

PICEANCE VLY NAD 83

RU 08-07S-093W

RU 21-8 Pad

RU 314-5 - Slot B08

Wellbore #1

Plan: Design #1 09Sep14 mab

Standard Planning Report - Geographic

04 November, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 314-5 - Slot B08
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 314-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09Sep14 mab		

Project	RU 08-07S-093W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	RU 21-8 Pad			
Site Position:		Northing:	1,602,707.70000 usft	Latitude: 39.46563
From: Map		Easting:	2,350,555.60000 usft	Longitude: -107.80061
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.45 °

Well	RU 314-5 - Slot B08			
Well Position	+N/-S	0.00 usft	Northing:	1,602,667.59849 usft
	+E/-W	0.00 usft	Easting:	2,350,491.43717 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	7,736.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/9/2014	9.84	65.66	51,918

Design	Design #1 09Sep14 mab			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)
	0.00	0.00	0.00	296.51

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
686.62	17.00	296.51	678.35	37.25	-74.67	3.00	3.00	0.00	296.51	
5,717.37	17.00	296.51	5,489.30	693.75	-1,390.75	0.00	0.00	0.00	0.00	
6,850.61	0.00	0.00	6,606.00	768.24	-1,540.08	1.50	-1.50	0.00	180.00	
7,450.61	0.00	0.00	7,206.00	768.24	-1,540.08	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
10,200.61	0.00	0.00	9,956.00	768.24	-1,540.08	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 314-5 - Slot B08
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 314-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09Sep14 mab		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,602,667.59849	2,350,491.43717	39.46551	-107.80084	
120.00	0.00	0.00	120.00	0.00	0.00	1,602,667.59849	2,350,491.43717	39.46551	-107.80084	
Start Build 3.00°/100										
200.00	2.40	296.51	199.98	0.75	-1.50	1,602,668.38402	2,350,489.95748	39.46552	-107.80084	
400.00	8.40	296.51	399.00	9.15	-18.33	1,602,677.20541	2,350,473.34079	39.46554	-107.80090	
600.00	14.40	296.51	594.96	26.78	-53.69	1,602,695.73312	2,350,438.44045	39.46559	-107.80103	
686.62	17.00	296.51	678.35	37.25	-74.67	1,602,706.72294	2,350,417.73914	39.46562	-107.80110	
Hold 17.00° Inc, 296.51° Az										
800.00	17.00	296.51	786.77	52.04	-104.33	1,602,722.26476	2,350,388.46329	39.46566	-107.80121	
1,000.00	17.00	296.51	978.03	78.14	-156.65	1,602,749.68120	2,350,336.81944	39.46573	-107.80139	
1,200.00	17.00	296.51	1,169.30	104.24	-208.97	1,602,777.09764	2,350,285.17557	39.46580	-107.80158	
9 5/8"										
1,400.00	17.00	296.51	1,360.56	130.34	-261.29	1,602,804.51409	2,350,233.53170	39.46587	-107.80176	
1,600.00	17.00	296.51	1,551.82	156.44	-313.61	1,602,831.93053	2,350,181.88784	39.46594	-107.80195	
1,800.00	17.00	296.51	1,743.08	182.54	-365.93	1,602,859.34698	2,350,130.24397	39.46601	-107.80213	
2,000.00	17.00	296.51	1,934.34	208.64	-418.25	1,602,886.76342	2,350,078.60011	39.46609	-107.80232	
2,200.00	17.00	296.51	2,125.61	234.74	-470.58	1,602,914.17986	2,350,026.95624	39.46616	-107.80250	
2,400.00	17.00	296.51	2,316.87	260.84	-522.90	1,602,941.59631	2,349,975.31237	39.46623	-107.80269	
2,600.00	17.00	296.51	2,508.13	286.94	-575.22	1,602,969.01275	2,349,923.66852	39.46630	-107.80288	
2,800.00	17.00	296.51	2,699.39	313.04	-627.54	1,602,996.42919	2,349,872.02465	39.46637	-107.80306	
3,000.00	17.00	296.51	2,890.66	339.14	-679.86	1,603,023.84563	2,349,820.38079	39.46644	-107.80325	
3,200.00	17.00	296.51	3,081.92	365.24	-732.18	1,603,051.26207	2,349,768.73692	39.46652	-107.80343	
3,400.00	17.00	296.51	3,273.18	391.34	-784.51	1,603,078.67852	2,349,717.09305	39.46659	-107.80362	
3,600.00	17.00	296.51	3,464.44	417.44	-836.83	1,603,106.09496	2,349,665.44919	39.46666	-107.80380	
3,800.00	17.00	296.51	3,655.70	443.54	-889.15	1,603,133.51141	2,349,613.80532	39.46673	-107.80399	
4,000.00	17.00	296.51	3,846.97	469.64	-941.47	1,603,160.92785	2,349,562.16147	39.46680	-107.80417	
4,200.00	17.00	296.51	4,038.23	495.74	-993.79	1,603,188.34429	2,349,510.51760	39.46687	-107.80436	
4,400.00	17.00	296.51	4,229.49	521.84	-1,046.11	1,603,215.76074	2,349,458.87373	39.46695	-107.80454	
4,600.00	17.00	296.51	4,420.75	547.94	-1,098.44	1,603,243.17718	2,349,407.22987	39.46702	-107.80473	
4,800.00	17.00	296.51	4,612.02	574.04	-1,150.76	1,603,270.59363	2,349,355.58600	39.46709	-107.80491	
5,000.00	17.00	296.51	4,803.28	600.14	-1,203.08	1,603,298.01007	2,349,303.94213	39.46716	-107.80510	
5,200.00	17.00	296.51	4,994.54	626.24	-1,255.40	1,603,325.42651	2,349,252.29827	39.46723	-107.80528	
5,400.00	17.00	296.51	5,185.80	652.34	-1,307.72	1,603,352.84296	2,349,200.65440	39.46730	-107.80547	
5,600.00	17.00	296.51	5,377.06	678.44	-1,360.04	1,603,380.25940	2,349,149.01055	39.46738	-107.80566	
5,717.37	17.00	296.51	5,489.30	693.75	-1,390.75	1,603,396.34825	2,349,118.70425	39.46742	-107.80576	
Start Drop -1.50°/100										
5,800.00	15.76	296.51	5,568.58	704.15	-1,411.60	1,603,407.27417	2,349,098.12330	39.46745	-107.80584	
6,000.00	12.76	296.51	5,762.40	726.14	-1,455.68	1,603,430.37026	2,349,054.61759	39.46751	-107.80599	
6,200.00	9.76	296.51	5,958.53	743.57	-1,490.61	1,603,448.67843	2,349,020.13083	39.46756	-107.80612	
6,400.00	6.76	296.51	6,156.43	756.39	-1,516.32	1,603,462.14847	2,348,994.75754	39.46759	-107.80621	
6,600.00	3.76	296.51	6,355.57	764.58	-1,532.72	1,603,470.74349	2,348,978.56727	39.46761	-107.80627	
6,800.00	0.76	296.51	6,555.39	768.09	-1,539.78	1,603,474.43991	2,348,971.60439	39.46762	-107.80629	
6,850.61	0.00	0.00	6,606.00	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
Vertical										
7,000.00	0.00	0.00	6,755.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
7,200.00	0.00	0.00	6,955.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
7,400.00	0.00	0.00	7,155.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
7,450.61	0.00	0.00	7,206.00	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
Top Gas - Approx. Top Gas										
7,600.00	0.00	0.00	7,355.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
7,800.00	0.00	0.00	7,555.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
8,000.00	0.00	0.00	7,755.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 314-5 - Slot B08
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 314-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09Sep14 mab		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
8,200.00	0.00	0.00	7,955.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
8,400.00	0.00	0.00	8,155.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
8,600.00	0.00	0.00	8,355.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
8,800.00	0.00	0.00	8,555.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
9,000.00	0.00	0.00	8,755.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
9,200.00	0.00	0.00	8,955.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
9,244.61	0.00	0.00	9,000.00	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
Cameo Coals										
9,400.00	0.00	0.00	9,155.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
9,600.00	0.00	0.00	9,355.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
9,800.00	0.00	0.00	9,555.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
9,912.61	0.00	0.00	9,668.00	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
Coal D										
10,000.00	0.00	0.00	9,755.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
10,050.61	0.00	0.00	9,806.00	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
Rollins SS										
10,200.00	0.00	0.00	9,955.39	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
10,200.61	0.00	0.00	9,956.00	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
TD at 10200.61 - TD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Top Gas (50' Radius) RL	0.00	358.55	7,206.00	768.24	-1,540.08	1,603,474.59715	2,348,971.30820	39.46762	-107.80629	
- plan hits target center										
- Circle (radius 50.00)										

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name			Casing Diameter (in)	Hole Diameter (in)
1,200.00	1,169.30	9 5/8"			9.625	13.500

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
7,450.61	7,206.00	Approx. Top Gas				
9,244.61	9,000.00	Cameo Coals				
9,912.61	9,668.00	Coal D				
10,050.61	9,806.00	Rollins SS				
10,200.61	9,956.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 314-5 - Slot B08
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 314-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09Sep14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.00	120.00	0.00	0.00	Start Build 3.00°/100
686.62	678.35	37.25	-74.67	Hold 17.00° Inc, 296.51° Az
5,717.37	5,489.30	693.75	-1,390.75	Start Drop -1.50°/100
6,850.61	6,606.00	768.24	-1,540.08	Vertical
7,450.61	7,206.00	768.24	-1,540.08	Top Gas
10,200.61	9,956.00	768.24	-1,540.08	TD at 10200.61