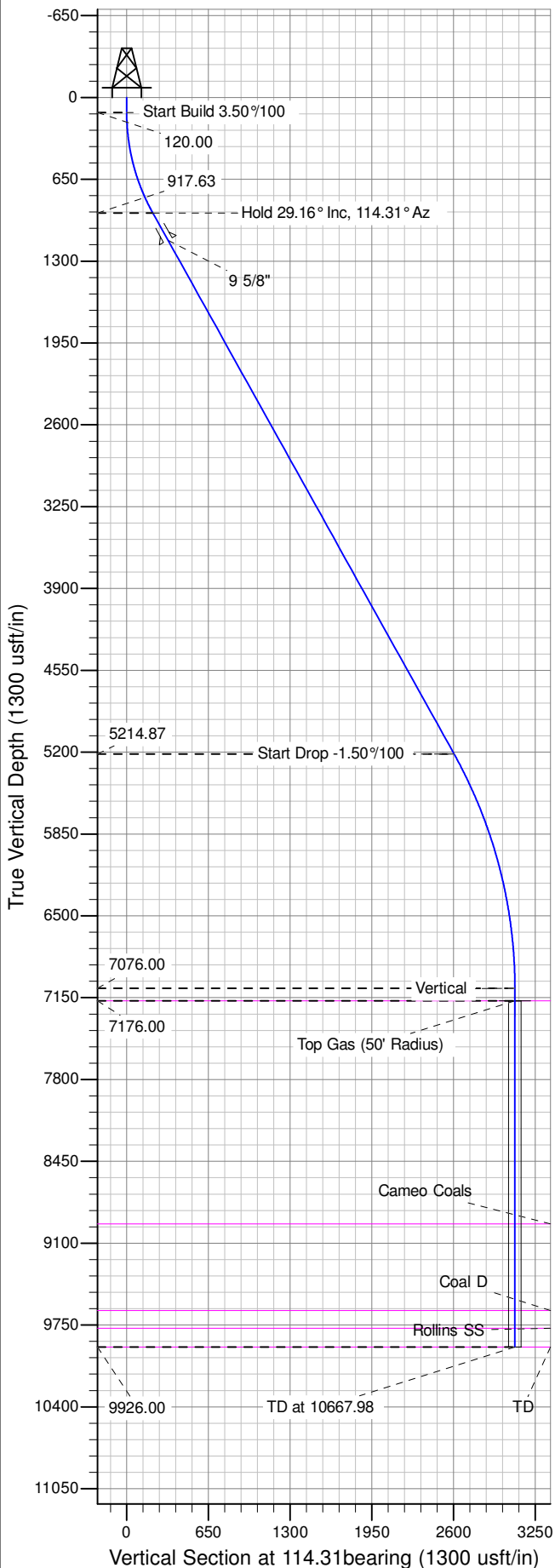
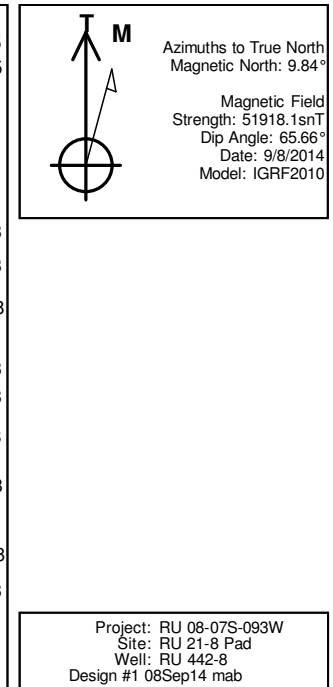
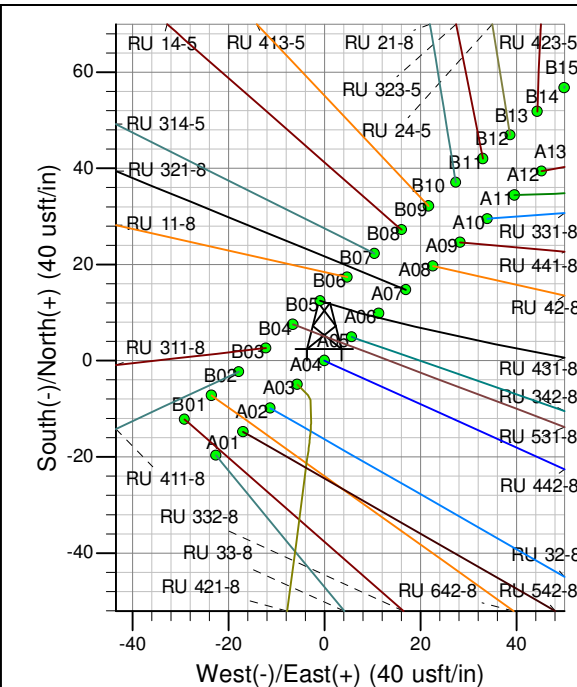
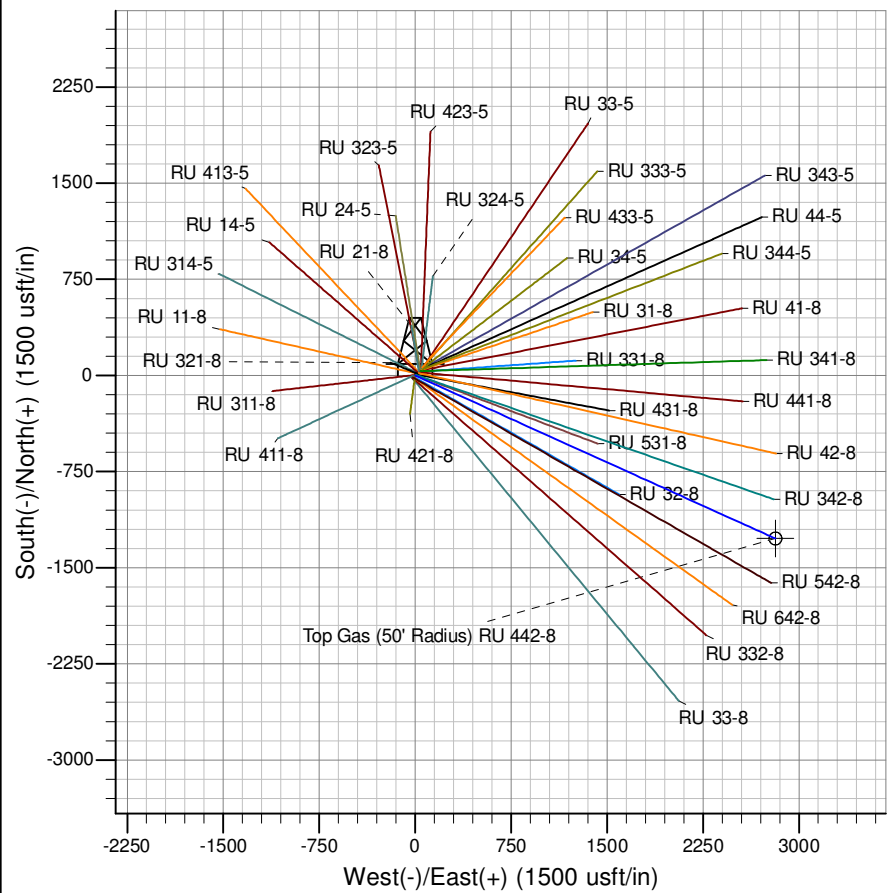




Well Name: RU 442-8
Surface Location: RU 21-8 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 7736.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1602645.55 2350480.47 39.46545 -107.80087 A05
KELLY BUSHING @ 7762.00usft (Nabors 576 (26' 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 3.50°/100	
917.63	953.13	29.16	114.31	-85.41	189.07	207.46	207.46	Hold 29.16° Inc, 114.31° Az	
5214.87	5874.01	29.16	114.31	-1072.48	2374.13	2605.13	2605.13	Start Drop -1.50°/100	
7076.00	7817.98	0.00	0.00	-1271.76	2815.29	3089.21	3089.21	Vertical	
7176.00	7917.98	0.00	0.00	-1271.76	2815.29	3089.21	3089.21	Top Gas	
9926.00	10667.98	0.00	0.00	-1271.76	2815.29	3089.21	3089.21	TD at 10667.98	



PICEANCE VLY NAD 83

RU 08-07S-093W

RU 21-8 Pad

RU 442-8 - Slot A05

Wellbore #1

Plan: Design #1 08Sep14 mab

Standard Planning Report - Geographic

04 November, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 442-8 - Slot A05
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 442-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Sep14 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 442-8 - Slot A05			
Well Position	+N/-S	0.00 usft	Northing:	1,602,645.55137 usft
	+E/-W	0.00 usft	Easting:	2,350,480.47478 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	9/8/2014	9.84	65.66	51,918

Design	Design #1 08Sep14 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	114.31

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	
953.13	29.16	114.31	917.63	-85.41	189.07	3.50	3.50	0.00	114.31	
5,874.01	29.16	114.31	5,214.87	-1,072.48	2,374.13	0.00	0.00	0.00	0.00	
7,817.98	0.00	0.00	7,076.00	-1,271.76	2,815.29	1.50	-1.50	0.00	180.00	
7,917.98	0.00	0.00	7,176.00	-1,271.76	2,815.29	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
10,667.98	0.00	0.00	9,926.00	-1,271.76	2,815.29	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 442-8 - Slot A05
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 442-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Sep14 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	1,602,645.55137	2,350,480.47478	39.46545	-107.80087
120.00	0.00	0.00	120.00	0.00	0.00	1,602,645.55137	2,350,480.47478	39.46545	-107.80087
Start Build 3.50°/100									
200.00	2.80	114.31	199.97	-0.80	1.78	1,602,644.70195	2,350,482.23491	39.46545	-107.80087
400.00	9.80	114.31	398.64	-9.83	21.77	1,602,635.16920	2,350,501.98821	39.46543	-107.80080
600.00	16.80	114.31	593.15	-28.76	63.67	1,602,615.18451	2,350,543.39951	39.46537	-107.80065
800.00	23.80	114.31	780.61	-57.31	126.87	1,602,585.04582	2,350,605.85147	39.46530	-107.80043
953.13	29.16	114.31	917.63	-85.41	189.07	1,602,555.38173	2,350,667.31996	39.46522	-107.80021
Hold 29.16° Inc, 114.31° Az									
1,000.00	29.16	114.31	958.56	-94.81	209.88	1,602,545.45571	2,350,687.88817	39.46519	-107.80013
1,200.00	29.16	114.31	1,133.21	-134.93	298.69	1,602,503.10208	2,350,775.65129	39.46508	-107.79982
9 5/8"									
1,400.00	29.16	114.31	1,307.86	-175.05	387.50	1,602,460.74845	2,350,863.41442	39.46497	-107.79950
1,600.00	29.16	114.31	1,482.52	-215.16	476.30	1,602,418.39483	2,350,951.17756	39.46486	-107.79919
1,800.00	29.16	114.31	1,657.17	-255.28	565.11	1,602,376.04120	2,351,038.94069	39.46475	-107.79887
2,000.00	29.16	114.31	1,831.83	-295.40	653.92	1,602,333.68757	2,351,126.70382	39.46464	-107.79856
2,200.00	29.16	114.31	2,006.48	-335.52	742.73	1,602,291.33394	2,351,214.46694	39.46453	-107.79824
2,400.00	29.16	114.31	2,181.13	-375.63	831.53	1,602,248.98031	2,351,302.23008	39.46442	-107.79793
2,600.00	29.16	114.31	2,355.79	-415.75	920.34	1,602,206.62668	2,351,389.99321	39.46431	-107.79761
2,800.00	29.16	114.31	2,530.44	-455.87	1,009.15	1,602,164.27306	2,351,477.75634	39.46420	-107.79730
3,000.00	29.16	114.31	2,705.09	-495.99	1,097.96	1,602,121.91944	2,351,565.51946	39.46409	-107.79699
3,200.00	29.16	114.31	2,879.75	-536.10	1,186.76	1,602,079.56581	2,351,653.28259	39.46398	-107.79667
3,400.00	29.16	114.31	3,054.40	-576.22	1,275.57	1,602,037.21218	2,351,741.04573	39.46387	-107.79636
3,600.00	29.16	114.31	3,229.05	-616.34	1,364.38	1,601,994.85855	2,351,828.80886	39.46376	-107.79604
3,800.00	29.16	114.31	3,403.71	-656.46	1,453.19	1,601,952.50492	2,351,916.57199	39.46365	-107.79573
4,000.00	29.16	114.31	3,578.36	-696.57	1,542.00	1,601,910.15129	2,352,004.33511	39.46354	-107.79541
4,200.00	29.16	114.31	3,753.01	-736.69	1,630.80	1,601,867.79767	2,352,092.09825	39.46343	-107.79510
4,400.00	29.16	114.31	3,927.67	-776.81	1,719.61	1,601,825.44404	2,352,179.86138	39.46332	-107.79478
4,600.00	29.16	114.31	4,102.32	-816.93	1,808.42	1,601,783.09042	2,352,267.62451	39.46321	-107.79447
4,800.00	29.16	114.31	4,276.97	-857.04	1,897.23	1,601,740.73679	2,352,355.38763	39.46310	-107.79415
5,000.00	29.16	114.31	4,451.63	-897.16	1,986.03	1,601,698.38316	2,352,443.15076	39.46299	-107.79384
5,200.00	29.16	114.31	4,626.28	-937.28	2,074.84	1,601,656.02953	2,352,530.91390	39.46288	-107.79353
5,400.00	29.16	114.31	4,800.93	-977.40	2,163.65	1,601,613.67591	2,352,618.67703	39.46277	-107.79321
5,600.00	29.16	114.31	4,975.59	-1,017.51	2,252.46	1,601,571.32228	2,352,706.44016	39.46266	-107.79290
5,800.00	29.16	114.31	5,150.24	-1,057.63	2,341.26	1,601,528.96865	2,352,794.20328	39.46255	-107.79258
5,874.01	29.16	114.31	5,214.87	-1,072.48	2,374.13	1,601,513.29511	2,352,826.68122	39.46251	-107.79247
Start Drop -1.50°/100									
6,000.00	27.27	114.31	5,325.89	-1,097.00	2,428.41	1,601,487.40838	2,352,880.32245	39.46244	-107.79227
6,200.00	24.27	114.31	5,505.97	-1,132.79	2,507.64	1,601,449.62158	2,352,958.62243	39.46234	-107.79199
6,400.00	21.27	114.31	5,690.37	-1,164.65	2,578.17	1,601,415.98297	2,353,028.32671	39.46225	-107.79174
6,600.00	18.27	114.31	5,878.56	-1,192.50	2,639.82	1,601,386.58478	2,353,089.24425	39.46218	-107.79152
6,800.00	15.27	114.31	6,070.03	-1,216.25	2,692.40	1,601,361.50755	2,353,141.20805	39.46211	-107.79134
7,000.00	12.27	114.31	6,264.26	-1,235.85	2,735.78	1,601,340.82003	2,353,184.07572	39.46206	-107.79118
7,200.00	9.27	114.31	6,460.71	-1,251.23	2,769.83	1,601,324.57893	2,353,217.72974	39.46202	-107.79106
7,400.00	6.27	114.31	6,658.86	-1,262.36	2,794.47	1,601,312.82877	2,353,242.07786	39.46199	-107.79098
7,600.00	3.27	114.31	6,858.14	-1,269.20	2,809.62	1,601,305.60173	2,353,257.05337	39.46197	-107.79092
7,800.00	0.27	114.31	7,058.02	-1,271.75	2,815.25	1,601,302.91765	2,353,262.61520	39.46196	-107.79090
7,817.98	0.00	0.00	7,076.00	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
Vertical									
7,917.98	0.00	0.00	7,176.00	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
Top Gas - Approx. Top Gas									
8,000.00	0.00	0.00	7,258.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 442-8 - Slot A05
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 442-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Sep14 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	7,458.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
8,400.00	0.00	0.00	7,658.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
8,600.00	0.00	0.00	7,858.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
8,800.00	0.00	0.00	8,058.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
9,000.00	0.00	0.00	8,258.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
9,200.00	0.00	0.00	8,458.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
9,400.00	0.00	0.00	8,658.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
9,600.00	0.00	0.00	8,858.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
9,687.98	0.00	0.00	8,946.00	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
Cameo Coals									
9,800.00	0.00	0.00	9,058.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
10,000.00	0.00	0.00	9,258.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
10,200.00	0.00	0.00	9,458.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
10,377.98	0.00	0.00	9,636.00	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
Coal D									
10,400.00	0.00	0.00	9,658.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
10,517.98	0.00	0.00	9,776.00	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
Rollins SS									
10,600.00	0.00	0.00	9,858.02	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
10,667.98	0.00	0.00	9,926.00	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090
TD at 10667.98 - TD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Top Gas (50' Radius) RL - plan hits target center - Circle (radius 50.00)	0.00	358.56	7,176.00	-1,271.76	2,815.29	1,601,302.89926	2,353,262.65330	39.46196	-107.79090

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,200.00	1,133.21	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
7,917.98	7,176.00	Approx. Top Gas				
9,687.98	8,946.00	Cameo Coals				
10,377.98	9,636.00	Coal D				
10,517.98	9,776.00	Rollins SS				
10,667.98	9,926.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 442-8 - Slot A05
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 442-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Sep14 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 3.50°/100
953.13	917.63	-85.41	189.07	Hold 29.16° Inc, 114.31° Az
5,874.01	5,214.87	-1,072.48	2,374.13	Start Drop -1.50°/100
7,817.98	7,076.00	-1,271.76	2,815.29	Vertical
7,917.98	7,176.00	-1,271.76	2,815.29	Top Gas
10,667.98	9,926.00	-1,271.76	2,815.29	TD at 10667.98