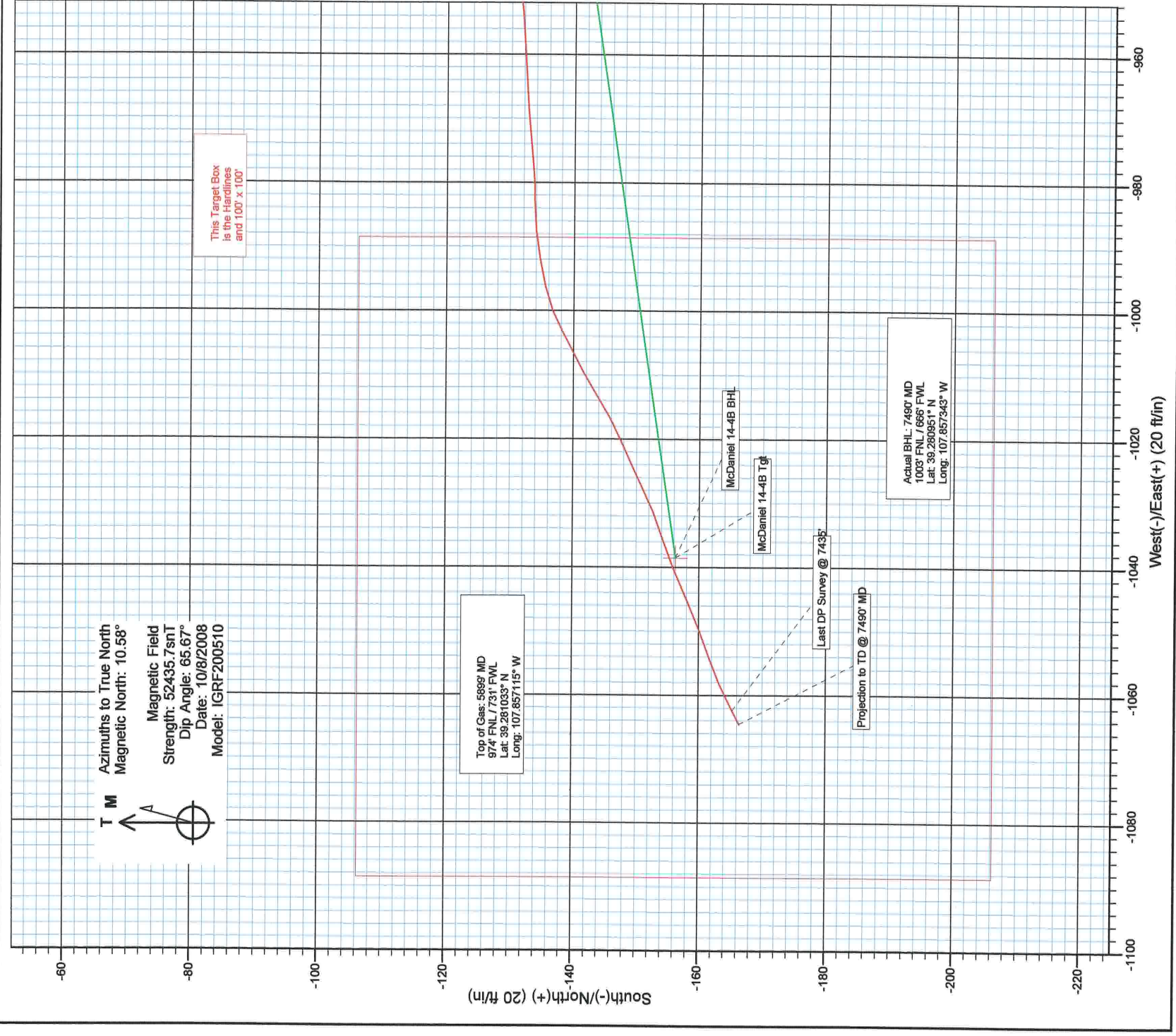


Azimuths to True North  
Magnetic North: 10.58°  
Magnetic Field  
Strength: 52435.7snT  
Dip Angle: 65.67°  
Date: 10/8/2008  
Model: IGRF200510

DESIGN DETAILS: DD  
85577: JS

McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)

Target	Azimuth	Origin Type	N/S	E/W	TVD
No Target (Freehand)	261.45	Slot	0.0	0.0	0.0





Survey Report

Company: Plains Exploration & Production Co.				Local Co-ordinate Reference: Well McDaniel 14-4B			
Project: Brush Creek				TVD Reference: McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)			
Site: NENW Sec 14-T9S-R94W				MD Reference: McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)			
Well: McDaniel 14-4B				North Reference: True			
Wellbore: DD				Survey Calculation Method: Minimum Curvature			
Design: DD				Database: EDM 2003.21 US Multi User DB			
Project		Brush Creek		System Datum:		Mean Sea Level	
Map System:		US State Plane 1983					
Geo Datum:		North American Datum 1983					
Map Zone:		Colorado Central Zone					
Site		NENW Sec 14-T9S-R94W					
Site Position:		Northing:		1,536,075.65 ft		Latitude:	
From:		Easting:		2,333,796.71 ft		Longitude:	
Position Uncertainty:		Slot Radius:		"		Grid Convergence:	
		0.0 ft				-1.48 °	
Well		McDaniel 14-4B					
Well Position		+N-S		1,536,015.51 ft		Latitude:	
		+E-W		2,333,867.64 ft		Longitude:	
Position Uncertainty		Wellhead Elevation:		ft		Ground Level:	
						7,286.0 ft	
Wellbore		DD					
Magnetics		Model Name		Sample Date		Declination (°)	
		IGRF200510		10/8/2008		10.58	
						65.67	
						52,436	
Design		DD					
Audit Notes:							
Version:		1.0		Phase:		Tie On Depth:	
				ACTUAL		0.0	
Vertical Section:		Depth From (TVD)		+N-S		+E-W	
		(ft)		(ft)		(ft)	
		0.0		0.0		0.0	
						Direction (°)	
						261.45	
Survey Program		Date		10/23/2008			
From (ft)		To (ft)		Survey (Wellbore)		Tool Name	
						Description	
94.0		7,490.0		Survey #1 (DD)		Geolink MWD	
Survey						Geolink MWD	
Measured Depth (ft)		Inclination (°)		Azimuth (°)		Vertical Depth (ft)	
						+N-S (ft)	
						+E-W (ft)	
						Dogleg Rate (°/100ft)	
						Build Rate (°/100ft)	
						Formations / Comments	
0.0		0.00		0.00		0.00	
94.0		0.40		280.60		94.0	
187.0		2.20		269.50		187.0	
279.0		3.40		257.70		278.9	
371.0		4.40		264.40		370.6	
463.0		5.50		262.50		462.3	
555.0		6.70		259.90		553.8	
647.0		7.70		259.70		645.1	
741.0		8.40		258.30		738.1	
836.0		9.50		258.60		832.0	
932.0		10.70		257.10		926.5	
1,028.0		11.40		259.30		1,020.7	
1,123.0		12.10		262.80		1,113.7	

Survey Report - Geographic

<b>Company:</b> Plains Exploration & Production Co.		<b>Local Co-ordinate Reference:</b>	
<b>Project:</b> Brush Creek		<b>TVD Reference:</b>	Well McDaniel 14-4B
<b>Site:</b> NENW Sec 14-T9S-R94W		<b>MD Reference:</b>	McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)
<b>Well:</b> McDaniel 14-4B		<b>North Reference:</b>	McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)
<b>Wellbore:</b> DD		<b>Survey Calculation Method:</b>	True
<b>Design:</b> DD		<b>Database:</b>	Minimum Curvature
			EDM 2003.21 US Multi User DB

<b>Project</b>	Brush Creek	<b>System Datum:</b>	Mean Sea Level
<b>Map System:</b>	US State Plane 1983		
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

<b>Site</b>	NENW Sec 14-T9S-R94W		
<b>Site Position:</b>		<b>Northings:</b>	1,536,075.65 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,333,796.71 ft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	39.281568
		<b>Longitude:</b>	-107.853838
		<b>Grid Convergence:</b>	-1.48 °

<b>Well</b>	McDaniel 14-4B		
<b>Well Position</b>	<b>+N-S</b>	0.0 ft	<b>Latitude:</b>
	<b>+E-W</b>	0.0 ft	<b>Longitude:</b>
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b>
			7,286.0 ft

<b>Wellbore</b>	DD		
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Dip Angle (°)</b>
	IGRF200510	10/8/2008	65.67
			52,436

<b>Design</b>	DD		
<b>Audit Notes:</b>			
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>Tie On Depth:</b>	
	(ft)	<b>+N-S</b>	<b>+E-W</b>
	0.0	(ft)	(ft)
		0.0	0.0
		<b>Direction</b>	<b>(°)</b>
			261.45

<b>Survey Program</b>	<b>Date</b>	10/23/2008	
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Description</b>
94.0	7,490.0	Survey #1 (DD)	Geolink MWD
		Geolink MWD	Geolink MWD



Survey Report

Company: Plains Exploration & Production Co.				Local Co-ordinate Reference:					
Project: Brush Creek				TVD Reference:					
Site: NENW Sec 14-T9S-R94W				MID Reference:					
Well: McDaniel 14-4B				North Reference:					
Wellbore: DD				Survey Calculation Method:					
Design: DD				Database:					
				Well McDaniel 14-4B					
				McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)					
				McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)					
				True					
				Minimum Curvature					
				EDM 2003.21 US Multi User DB					
Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
1,219.0	12.70	262.40	1,207.5	-24.3	-143.3	145.4	0.63	0.62	
1,315.0	13.00	263.60	1,301.1	-26.9	-164.5	166.7	0.42	0.31	
1,410.0	12.90	264.10	1,393.6	-29.2	-185.7	188.0	0.16	-0.11	
1,487.0	12.80	264.40	1,468.7	-30.9	-202.7	205.1	0.16	-0.13	
1,592.0	12.50	261.60	1,571.2	-33.7	-225.5	228.1	0.65	-0.29	
1,688.0	12.30	263.80	1,664.9	-36.3	-246.0	248.7	0.53	-0.21	
1,784.0	12.50	263.40	1,758.7	-38.6	-266.5	269.3	0.23	0.21	
1,879.0	12.70	263.40	1,851.4	-41.0	-287.1	290.0	0.21	0.21	
1,975.0	12.10	262.20	1,945.2	-43.6	-307.5	310.6	0.68	-0.62	
2,071.0	12.10	261.90	2,039.0	-46.4	-327.4	330.7	0.07	0.00	
2,166.0	12.60	259.90	2,131.8	-49.6	-347.5	351.0	0.69	0.53	
2,262.0	12.90	258.10	2,225.5	-53.6	-368.3	372.2	0.52	0.31	
2,358.0	12.30	258.30	2,319.2	-57.9	-388.8	393.1	0.63	-0.62	
2,453.0	12.90	259.20	2,411.9	-62.0	-409.1	413.8	0.66	0.63	
2,549.0	13.60	259.00	2,505.3	-66.1	-430.7	435.8	0.73	0.73	
2,645.0	13.70	258.40	2,598.6	-70.6	-452.9	458.4	0.18	0.10	
2,741.0	13.50	258.90	2,691.9	-75.0	-475.1	480.9	0.24	-0.21	
2,836.0	13.10	259.70	2,784.4	-79.1	-496.5	502.8	0.46	-0.42	
2,932.0	13.10	262.50	2,877.9	-82.4	-518.0	524.5	0.66	0.00	
3,028.0	12.50	264.50	2,971.5	-84.9	-539.2	545.8	0.78	-0.62	
3,123.0	11.90	262.80	3,064.3	-87.1	-559.1	565.8	0.74	-0.63	
3,219.0	12.40	262.80	3,158.2	-89.6	-579.2	586.0	0.52	0.52	
3,315.0	11.90	264.90	3,252.0	-91.8	-599.2	606.2	0.70	-0.52	
3,410.0	12.10	263.60	3,345.0	-93.8	-618.9	626.0	0.35	0.21	
3,506.0	12.60	264.40	3,438.7	-95.9	-639.3	646.5	0.55	0.52	
3,602.0	11.90	264.90	3,532.5	-97.8	-659.6	666.8	0.74	-0.73	
3,697.0	11.90	265.20	3,625.5	-99.5	-679.1	686.4	0.07	0.00	
3,793.0	11.80	263.10	3,719.5	-101.5	-698.7	706.0	0.46	-0.10	
3,889.0	12.00	263.80	3,813.4	-103.8	-718.4	725.8	0.26	0.21	
3,985.0	12.20	264.10	3,907.3	-105.9	-738.4	745.9	0.22	0.21	
4,080.0	12.00	261.70	4,000.1	-108.3	-758.2	765.8	0.57	-0.21	
4,176.0	12.20	263.20	4,094.0	-111.0	-778.1	786.0	0.39	0.21	
4,272.0	12.30	262.30	4,187.8	-113.5	-798.3	806.3	0.22	0.10	
4,368.0	11.70	264.10	4,281.7	-115.9	-818.1	826.3	0.74	-0.63	
4,463.0	11.20	262.90	4,374.8	-118.0	-836.9	845.1	0.58	-0.53	
4,559.0	11.30	264.10	4,469.0	-120.2	-855.5	863.8	0.27	0.10	
4,655.0	10.90	262.80	4,563.2	-122.3	-873.8	882.3	0.49	-0.42	
4,750.0	10.20	261.20	4,656.6	-124.7	-891.1	899.7	0.80	-0.74	
4,846.0	9.50	261.90	4,751.2	-127.1	-907.3	916.1	0.74	-0.73	
4,942.0	8.40	266.10	4,846.0	-128.7	-922.1	931.0	1.33	-1.15	
5,038.0	7.50	264.00	4,941.1	-129.8	-935.4	944.3	0.98	-0.94	
5,133.0	7.30	263.40	5,035.3	-131.2	-947.5	956.5	0.23	-0.21	
5,229.0	6.40	267.30	5,130.6	-132.1	-958.9	967.9	1.05	-0.94	
5,325.0	5.50	265.40	5,226.1	-132.7	-968.9	977.8	0.96	-0.94	
5,420.0	4.30	264.60	5,320.7	-133.4	-976.9	985.9	1.27	-1.26	
5,516.0	2.80	270.40	5,416.6	-133.8	-982.9	991.8	1.60	-1.56	
5,612.0	2.70	263.80	5,512.5	-134.0	-987.5	996.4	0.35	-0.10	
5,707.0	2.70	260.00	5,607.3	-134.6	-991.9	1,000.9	0.19	0.00	
5,803.0	2.50	256.80	5,703.2	-135.5	-996.2	1,005.2	0.26	-0.21	
5,899.0	2.30	248.60	5,799.2	-136.7	-1,000.0	1,009.2	0.41	-0.21	
5,995.0	2.10	241.10	5,895.1	-138.2	-1,003.3	1,012.7	0.36	-0.21	
6,090.0	2.20	243.10	5,990.0	-139.9	-1,006.5	1,016.1	0.13	0.11	
6,186.0	2.20	241.60	6,086.0	-141.6	-1,009.7	1,019.6	0.06	0.00	

Survey Report

<b>Company:</b> Plains Exploration & Production Co.	<b>Local Co-ordinate Reference:</b> Well McDaniel 14-4B
<b>Project:</b> Brush Creek	McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)
<b>Site:</b> NENW Sec 14-T9S-R94W	McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)
<b>Well:</b> McDaniel 14-4B	True
<b>Wellbore:</b> DD	Minimum Curvature
<b>Design:</b> DD	EDM 2003.21 US Multi User DB

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
6,282.0	2.50	237.00	6,181.9	-143.6	-1,013.1	1,023.2	0.37	0.31	
6,378.0	2.40	241.10	6,277.8	-145.7	-1,016.6	1,027.0	0.21	-0.10	
6,473.0	2.30	246.60	6,372.7	-147.4	-1,020.1	1,030.7	0.26	-0.11	
6,569.0	2.40	244.00	6,468.6	-149.1	-1,023.7	1,034.5	0.15	0.10	
6,665.0	2.50	245.70	6,564.5	-150.8	-1,027.4	1,038.4	0.13	0.10	
6,760.0	2.80	245.70	6,659.4	-152.6	-1,031.4	1,042.6	0.32	0.32	
6,856.0	2.50	255.30	6,755.3	-154.1	-1,035.6	1,047.0	0.56	-0.31	
6,952.0	3.30	245.00	6,851.2	-155.8	-1,040.1	1,051.7	0.99	0.83	
7,048.0	3.30	248.10	6,947.1	-158.0	-1,045.2	1,057.1	0.19	0.00	
7,143.0	2.90	246.90	7,041.9	-160.0	-1,049.9	1,062.0	0.43	-0.42	
7,239.0	2.60	251.90	7,137.8	-161.6	-1,054.2	1,066.5	0.40	-0.31	
7,335.0	2.70	245.00	7,233.7	-163.3	-1,058.3	1,070.9	0.35	0.10	
7,435.0	2.50	242.50	7,333.6	-165.3	-1,062.4	1,075.2	0.23	-0.20	Last DP Survey @ 7435'
7,490.0	2.50	242.50	7,388.5	-166.4	-1,064.5	1,077.4	0.00	0.00	Projection to TD @ 7490' MD

Target Name	- hit/miss target	- Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N-S (ft)	+E-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
McDaniel 14-4B BHL			0.00	0.00	7,345.0	-156.2	-1,038.6	1,535,886.24	2,332,825.39	39.280979	-107.857251
- survey misses target center by 27.9ft at 7435.0ft MD (7333.6 TVD, -165.3 N, -1062.4 E)											
- Rectangle (sides W100.0 H100.0 D0.0)											
McDaniel 14-4B Tgt			0.00	0.00	5,759.0	-156.2	-1,038.6	1,535,886.24	2,332,825.39	39.280979	-107.857251
- survey misses target center by 44.8ft at 5860.7ft MD (5760.8 TVD, -136.1 N, -998.5 E)											
- Point											

Survey Annotations	Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates	Comment
	7,435.0	7,333.6	+N-S (ft)	+E-W (ft)
	7,490.0	7,388.5	-165.3	-1,062.4
			-166.4	-1,064.5
Last DP Survey @ 7435'				
Projection to TD @ 7490' MD				

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



Survey Report - Geographic

Company: Project: Site: Well: Wellbore: Design:	Plains Exploration & Production Co.			Local Co-ordinate Reference:					Well McDaniel 14-4B		
	Brush Creek			TVD Reference:					McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)		
	NENW Sec 14-T9S-R94W			MD Reference:					McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)		
	McDaniel 14-4B			North Reference:					True		
	DD			Survey Calculation Method:					Minimum Curvature		
Design: DD			Database:					EDM 2003.21 US Multi User DB			
Survey											
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude		
0.0	0.00	0.00	0.0	0.0	0.0	1,536,015.51	2,333,867.64	39.281408	-107.853582		
94.0	0.40	280.60	94.0	0.1	-0.3	1,536,015.58	2,333,867.32	39.281408	-107.853583		
187.0	2.20	269.50	187.0	0.1	-2.4	1,536,015.68	2,333,865.22	39.281408	-107.853591		
279.0	3.40	257.70	278.9	-0.5	-6.9	1,536,015.20	2,333,860.77	39.281407	-107.853606		
371.0	4.40	264.40	370.6	-1.4	-13.0	1,536,014.43	2,333,854.57	39.281404	-107.853628		
463.0	5.50	262.50	462.3	-2.3	-20.9	1,536,013.72	2,333,846.67	39.281402	-107.853656		
555.0	6.70	259.90	553.8	-3.9	-30.6	1,536,012.45	2,333,836.98	39.281397	-107.853690		
647.0	7.70	259.70	645.1	-5.9	-41.9	1,536,010.70	2,333,825.58	39.281392	-107.853730		
741.0	8.40	258.30	738.1	-8.4	-54.8	1,536,008.52	2,333,812.60	39.281385	-107.853776		
836.0	9.50	258.60	832.0	-11.4	-69.3	1,536,005.94	2,333,798.05	39.281377	-107.853827		
932.0	10.70	257.10	926.5	-14.9	-85.8	1,536,002.81	2,333,781.51	39.281367	-107.853885		
1,028.0	11.40	259.30	1,020.7	-18.7	-103.8	1,535,999.53	2,333,763.41	39.281357	-107.853949		
1,123.0	12.10	262.80	1,113.7	-21.7	-122.9	1,535,997.03	2,333,744.23	39.281348	-107.854016		
1,219.0	12.70	262.40	1,207.5	-24.3	-143.3	1,535,994.90	2,333,723.73	39.281341	-107.854088		
1,315.0	13.00	263.60	1,301.1	-26.9	-164.5	1,535,992.86	2,333,702.48	39.281334	-107.854163		
1,410.0	12.90	264.10	1,393.6	-29.2	-185.7	1,535,991.12	2,333,681.26	39.281328	-107.854238		
1,487.0	12.80	264.40	1,468.7	-30.9	-202.7	1,535,989.85	2,333,664.18	39.281323	-107.854298		
1,592.0	12.50	261.60	1,571.2	-33.7	-225.5	1,535,987.65	2,333,641.30	39.281315	-107.854379		
1,688.0	12.30	263.80	1,664.9	-36.3	-246.0	1,535,985.55	2,333,620.79	39.281308	-107.854451		
1,784.0	12.50	263.40	1,758.7	-38.6	-266.5	1,535,983.79	2,333,600.25	39.281302	-107.854523		
1,879.0	12.70	263.40	1,851.4	-41.0	-287.1	1,535,981.94	2,333,579.61	39.281295	-107.854596		
1,975.0	12.10	262.20	1,945.2	-43.6	-307.5	1,535,979.89	2,333,559.10	39.281288	-107.854668		
2,071.0	12.10	261.90	2,039.0	-46.4	-327.4	1,535,977.63	2,333,539.11	39.281281	-107.854739		
2,166.0	12.60	259.90	2,131.8	-49.6	-347.5	1,535,974.93	2,333,518.97	39.281272	-107.854810		
2,262.0	12.90	258.10	2,225.5	-53.6	-368.3	1,535,971.42	2,333,498.08	39.281261	-107.854883		
2,358.0	12.30	258.30	2,319.2	-57.9	-388.8	1,535,967.67	2,333,477.48	39.281249	-107.854956		
2,453.0	12.90	259.20	2,411.9	-62.0	-409.1	1,535,964.16	2,333,457.05	39.281238	-107.855027		
2,549.0	13.60	259.00	2,505.3	-66.1	-430.7	1,535,960.56	2,333,435.35	39.281226	-107.855104		
2,645.0	13.70	258.40	2,598.6	-70.6	-452.9	1,535,956.70	2,333,413.02	39.281214	-107.855182		
2,741.0	13.50	258.90	2,691.9	-75.0	-475.1	1,535,952.83	2,333,390.78	39.281202	-107.855260		
2,836.0	13.10	259.70	2,784.4	-79.1	-496.5	1,535,949.33	2,333,369.21	39.281191	-107.855336		
2,932.0	13.10	262.50	2,877.9	-82.4	-518.0	1,535,946.52	2,333,347.84	39.281182	-107.855412		
3,028.0	12.50	264.50	2,971.5	-84.9	-539.2	1,535,944.65	2,333,326.46	39.281175	-107.855487		
3,123.0	11.90	262.80	3,064.3	-87.1	-559.1	1,535,942.95	2,333,306.46	39.281169	-107.855557		
3,219.0	12.40	262.80	3,158.2	-89.6	-579.2	1,535,940.94	2,333,286.35	39.281162	-107.855628		
3,315.0	11.90	264.90	3,252.0	-91.8	-599.2	1,535,939.29	2,333,266.22	39.281156	-107.855699		
3,410.0	12.10	263.60	3,345.0	-93.8	-618.9	1,535,937.82	2,333,246.52	39.281151	-107.855768		
3,506.0	12.60	264.40	3,438.7	-95.9	-639.3	1,535,936.21	2,333,226.05	39.281145	-107.855841		
3,602.0	11.90	264.90	3,532.5	-97.8	-659.6	1,535,934.83	2,333,205.73	39.281139	-107.855912		
3,697.0	11.90	265.20	3,625.5	-99.5	-679.1	1,535,933.65	2,333,186.18	39.281135	-107.855981		
3,793.0	11.80	263.10	3,719.5	-101.5	-698.7	1,535,932.15	2,333,166.53	39.281129	-107.856050		
3,889.0	12.00	263.80	3,813.4	-103.8	-718.4	1,535,930.40	2,333,146.81	39.281123	-107.856120		
3,985.0	12.20	264.10	3,907.3	-105.9	-738.4	1,535,928.80	2,333,126.75	39.281117	-107.856191		
4,080.0	12.00	261.70	4,000.1	-108.3	-758.2	1,535,926.86	2,333,106.93	39.281111	-107.856260		
4,176.0	12.20	263.20	4,094.0	-111.0	-778.1	1,535,924.73	2,333,086.92	39.281103	-107.856331		
4,272.0	12.30	262.30	4,187.8	-113.5	-798.3	1,535,922.68	2,333,066.66	39.281096	-107.856402		
4,368.0	11.70	264.10	4,281.7	-115.9	-818.1	1,535,920.83	2,333,046.79	39.281090	-107.856472		
4,463.0	11.20	262.90	4,374.8	-118.0	-836.9	1,535,919.18	2,333,028.00	39.281084	-107.856538		
4,559.0	11.30	264.10	4,469.0	-120.2	-855.5	1,535,917.55	2,333,009.35	39.281078	-107.856604		
4,655.0	10.90	262.80	4,563.2	-122.3	-873.8	1,535,915.92	2,332,990.94	39.281072	-107.856669		
4,750.0	10.20	261.20	4,656.6	-124.7	-891.1	1,535,913.95	2,332,973.66	39.281066	-107.856730		
4,846.0	9.50	261.90	4,751.2	-127.1	-907.3	1,535,911.96	2,332,957.36	39.281059	-107.856787		
4,942.0	8.40	266.10	4,846.0	-128.7	-922.1	1,535,910.75	2,332,942.48	39.281055	-107.856840		
5,038.0	7.50	264.00	4,941.1	-129.8	-935.4	1,535,909.96	2,332,929.23	39.281051	-107.856886		
5,133.0	7.30	263.40	5,035.3	-131.2	-947.5	1,535,908.93	2,332,917.04	39.281048	-107.856929		



Survey Report - Geographic

Company: Project: Site: Well: Wellbore: Design:	Plains Exploration & Production Co.			Local Co-ordinate Reference:		
	Brush Creek			TVD Reference:		
	NENW Sec 14-T9S-R94W			MD Reference:		
	McDaniel 14-4B			North Reference:		
	DD			Survey Calculation Method:		
DD			Database:			
Well McDaniel 14-4B				Minimum Curvature		
McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)				EDM 2003.21 US Multi User DB		
McDaniel 14-4B KBE @ 7310.0ft (Grey Wolf 18)						

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
5,229.0	6.40	267.30	5,130.6	-132.1	-958.9	1,535,908.28	2,332,905.61	39.281045	-107.856970
5,325.0	5.50	265.40	5,226.1	-132.7	-968.9	1,535,907.91	2,332,895.67	39.281043	-107.857005
5,420.0	4.30	264.60	5,320.7	-133.4	-976.9	1,535,907.42	2,332,887.57	39.281042	-107.857033
5,516.0	2.80	270.40	5,416.6	-133.8	-982.9	1,535,907.25	2,332,881.63	39.281041	-107.857054
5,612.0	2.70	263.80	5,512.5	-134.0	-987.5	1,535,907.15	2,332,877.04	39.281040	-107.857071
5,707.0	2.70	260.00	5,607.3	-134.6	-991.9	1,535,906.63	2,332,872.59	39.281038	-107.857086
5,803.0	2.50	256.80	5,703.2	-135.5	-996.2	1,535,905.87	2,332,868.31	39.281036	-107.857101
5,899.0	2.30	248.60	5,799.2	-136.7	-1,000.0	1,535,904.79	2,332,864.45	39.281033	-107.857115
5,995.0	2.10	241.10	5,895.1	-138.2	-1,003.3	1,535,903.32	2,332,861.07	39.281028	-107.857127
6,090.0	2.20	243.10	5,990.0	-139.9	-1,006.5	1,535,901.74	2,332,857.88	39.281024	-107.857138
6,186.0	2.20	241.60	6,086.0	-141.6	-1,009.7	1,535,900.11	2,332,854.57	39.281019	-107.857149
6,282.0	2.50	237.00	6,181.9	-143.6	-1,013.1	1,535,898.19	2,332,851.15	39.281014	-107.857161
6,378.0	2.40	241.10	6,277.8	-145.7	-1,016.6	1,535,896.17	2,332,847.58	39.281008	-107.857174
6,473.0	2.30	246.60	6,372.7	-147.4	-1,020.1	1,535,894.54	2,332,844.04	39.281003	-107.857186
6,569.0	2.40	244.00	6,468.6	-149.1	-1,023.7	1,535,892.98	2,332,840.43	39.280999	-107.857199
6,665.0	2.50	245.70	6,564.5	-150.8	-1,027.4	1,535,891.34	2,332,836.67	39.280994	-107.857212
6,760.0	2.80	245.70	6,659.4	-152.6	-1,031.4	1,535,889.64	2,332,832.62	39.280989	-107.857226
6,856.0	2.50	255.30	6,755.3	-154.1	-1,035.6	1,535,888.25	2,332,828.42	39.280985	-107.857240
6,952.0	3.30	245.00	6,851.2	-155.8	-1,040.1	1,535,886.67	2,332,823.85	39.280980	-107.857256
7,048.0	3.30	248.10	6,947.1	-158.0	-1,045.2	1,535,884.60	2,332,818.72	39.280974	-107.857274
7,143.0	2.90	246.90	7,041.9	-160.0	-1,049.9	1,535,882.76	2,332,813.93	39.280969	-107.857291
7,239.0	2.60	251.90	7,137.8	-161.6	-1,054.2	1,535,881.24	2,332,809.58	39.280964	-107.857306
7,335.0	2.70	245.00	7,233.7	-163.3	-1,058.3	1,535,879.72	2,332,805.42	39.280960	-107.857321
7,435.0	2.50	242.50	7,333.6	-165.3	-1,062.4	1,535,877.82	2,332,801.30	39.280954	-107.857335
Last DP Survey @ 7435'									
7,490.0	2.50	242.50	7,388.5	-166.4	-1,064.5	1,535,876.77	2,332,799.15	39.280951	-107.857343
Projection to TD @ 7490' MD									

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N-S (ft)	+E-W (ft)	Northing (ft)	Easting (ft)	Latitude Longitude
McDaniel 14-4B BHL	- survey misses target center by 27.9ft at 7435.0ft MD (7333.6 TVD, -165.3 N, -1062.4 E)	0.00	0.00	7,345.0	-156.2	-1,038.6	1,535,886.24	2,332,825.39	39.280979 -107.857251
- Rectangle (sides W100.0 H100.0 D0.0)									
McDaniel 14-4B Tgt	- survey misses target center by 44.8ft at 5860.7ft MD (5760.8 TVD, -136.1 N, -998.5 E)	0.00	0.00	5,759.0	-156.2	-1,038.6	1,535,886.24	2,332,825.39	39.280979 -107.857251
- Point									

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,435.0	7,333.6	-165.3	-1,062.4	Last DP Survey @ 7435'
7,490.0	7,388.5	-166.4	-1,064.5	Projection to TD @ 7490' MD

Checked By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_