

ConocoPhillips

3d-039-29652

ConocoPhillips

Field: Rio Arriba County, NM
Site: San Juan 31-6 #13H
Well: Well 31-6 #13H
Wellpath: Original Hole
Plan: Plan #2



Azimuths to Grid North
True North -0 16"
Magnetic North 10 19"
Magnetic Field
Strength 51213nT
Dip Angle 63 49"
Date 9/26/2006
Model igr2005

FIELD DETAILS

Rio Arriba County, NM
USA

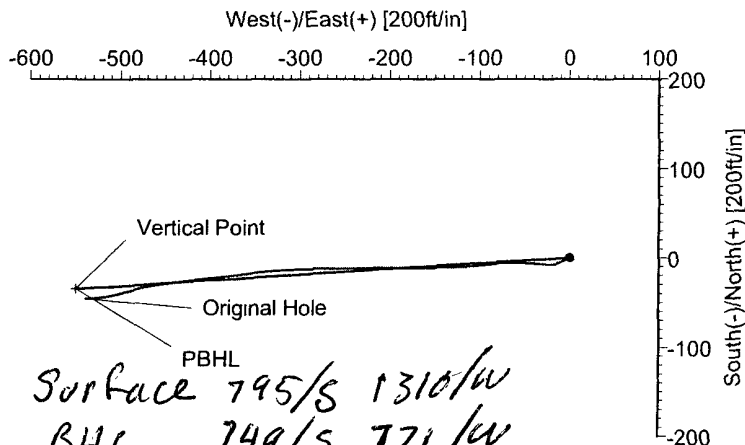
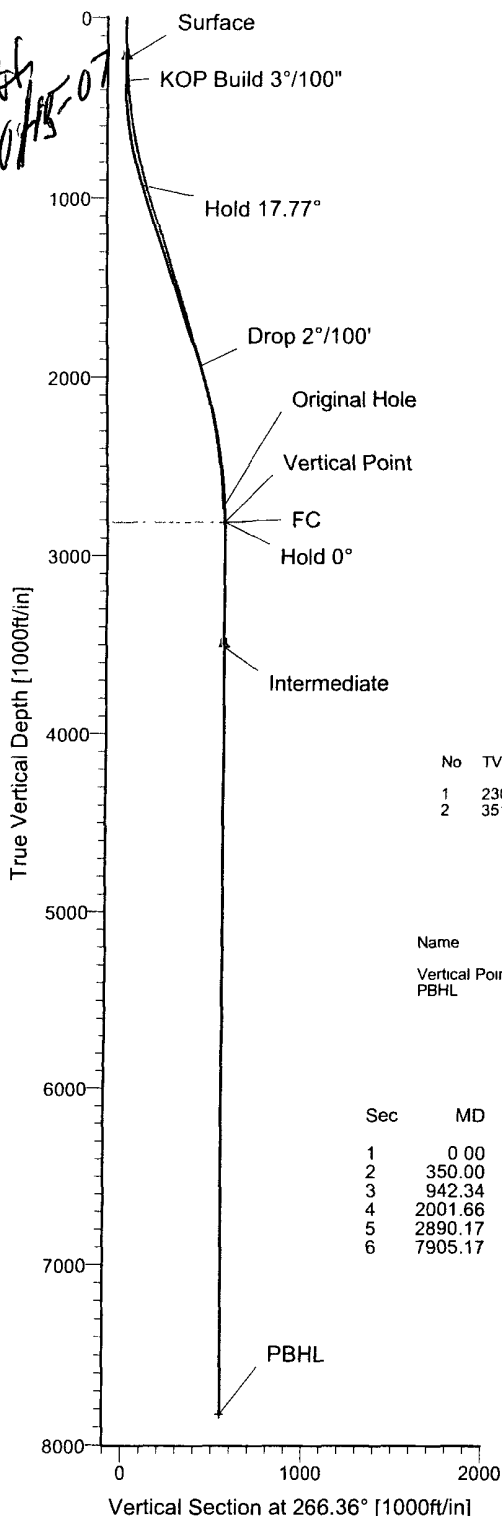
Geodetic System US State Plane Coordinate System 1983
Ellipsoid GRS 1980
Zone New Mexico, Western Zone
Magnetic Model igr2005

System Datum Mean Sea Level
Local North Gnd North

SITE DETAILS

San Juan 31-6 #13H
Sec 4, T30N, R6W
Rio Arriba County

Water Depth 0 00
Positional Uncertainty 0 00
Convergence 0 00



Surface 795/S 1310/W
BHL 749/S 771/W
Md 7934 Tvd 7866

CASING DETAILS

No	TVD	MD	Name	Size
1	230 00	230 00	Surface	9 625
2	3516 00	3590 17	Intermediate	7 000

WELLPATH DETAILS

Rig Ref Datum	SITE 0 00ft		
	V Section Angle	Origin +N/-S	Origin +E/-W
	266 36°	0 00	0 00
			Starting From TVD
			0 00

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Vertical Point	2816 00	-35 00	-550 00	Point
PBHL	7831 00	-35 00	-550 00	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0 00	0 00	266 36	0 00	0 00	0 00	0 00	0 00	0 00	
2	350 00	0 00	266 36	350 00	0 00	0 00	0 00	0 00	0 00	
3	942 34	17 77	266 36	932 89	-5 79	-90 94	3 00	266 36	91 12	
4	2001 66	17 77	266 36	1941 66	-26 32	-413 59	0 00	0 00	414 43	
5	2890 17	0 00	266 36	2816 00	-35 00	-550 00	2 00	180 00	551 11	Vertical Point
6	7905 17	0 00	266 36	7831 00	-35 00	-550 00	0 00	266 36	551 11	PBHL

RCVD OCT 4 '07

OIL CONS. DIV.
DIST. 3

Ryan Energy Technology
19510 Oil Center Blvd
Houston TX 77073
Ph 281-443-1414
Fx 281-443-1676



Ryan The leader in
UNDERGROUND INTELLIGENCE™

Plan Plan #2 (Well 31 6 #13H) (Original Hole)
Created By: Alexis Gonzalez Date: 10/2/2006
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____

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Survey Report



Company: ConocoPhillips		Date: 10/2/2006	Time: 15.56 00	Page: 1
Field: Rio Arriba County, NM		Co-ordinate(NE) Reference: Site: San Juan 31-6 #13H, Grid North		
Site: San Juan 31-6 #13H		Vertical (TVD) Reference: SITE 0.0		
Well: Well 31-6 #13H		Section (VS) Reference: Well (0 00N,0 00E,266.36Azi)		
Wellpath: Original Hole		Survey Calculation Method: Minimum Curvature Db: Sybase		

Field: Rio Arriba County, NM	
USA	
Map System: US State Plane Coordinate System 1983	Map Zone: New Mexico, Western Zone
Geo Datum: GRS 1980	Coordinate System: Site Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: igrf2005

Site: San Juan 31-6 #13H Sec. 4, T30N, R6W Rio Arriba County			
Site Position:	Northing:	ft	Latitude:
From: Local Only	Easting:	ft	Longitude:
Position Uncertainty:	0.00 ft		North Reference: Grid
Ground Level:	0.00 ft		Grid Convergence: deg

Well: Well 31-6 #13H		Slot Name:	
Well Position:	+N/-S	ft	Latitude:
	+E/-W	ft	Longitude:
Position Uncertainty:	0.00 ft		

Wellpath: Original Hole		Drilled From: Surface	
		Tie-on Depth: 0.00 ft	
Current Datum: SITE	Height	0.00 ft	Above System Datum: Mean Sea Level
Magnetic Data: 9/26/2006			Declination: 0.00 deg
Field Strength: 0 nT			Mag Dip Angle: 0.00 deg
Vertical Section:	Depth From (TVD)	+N/-S	Direction
	ft	ft	deg
	0.00	0.00	266.36

Survey Program for Definitive Wellpath			
Date: 10/2/2006	Validated: No	Version: 0	
Actual From	To	Survey	Tool Name
ft	ft		
267.00	2750.00	Survey #1 (267.00-2750.00)	MWD
2802.00	2802.00	Survey #2 (2802.00-2802.00)	Projection

Survey										
MD	Incl	Azim	TVD	+N/-S	+E/-W	VS	DLS	Build	Turn	Tool/Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIE LINE
267.00	3.90	244.60	266.79	-3.90	-8.21	8.44	1.46	1.46	0.00	MWD
330.00	3.90	239.70	329.65	-5.90	-11.99	12.34	0.53	0.00	-7.78	MWD
361.00	4.10	244.70	360.57	-6.90	-13.90	14.31	1.30	0.65	16.13	MWD
392.00	4.00	258.00	391.50	-7.60	-15.96	16.41	3.04	-0.32	42.90	MWD
423.00	4.10	261.90	422.42	-7.98	-18.12	18.59	0.95	0.32	12.58	MWD
454.00	4.40	264.70	453.33	-8.25	-20.40	20.88	1.18	0.97	9.03	MWD
485.00	5.10	273.80	484.23	-8.27	-22.96	23.44	3.31	2.26	29.35	MWD
516.00	6.50	275.90	515.07	-7.99	-26.08	26.53	4.57	4.52	6.77	MWD
548.00	7.70	274.20	546.82	-7.65	-30.02	30.44	3.81	3.75	-5.31	MWD
638.00	10.50	273.80	635.68	-6.67	-44.22	44.55	3.11	3.11	-0.44	MWD
728.00	12.40	271.70	723.89	-5.84	-62.06	62.30	2.16	2.11	-2.33	MWD
818.00	13.00	263.30	811.69	-6.73	-81.77	82.04	2.16	0.67	-9.33	MWD
908.00	15.20	263.60	898.97	-9.23	-103.55	103.93	2.45	2.44	0.33	MWD
998.00	17.00	267.80	985.44	-11.05	-128.43	128.87	2.38	2.00	4.67	MWD
1088.00	18.50	269.30	1071.16	-11.73	-155.86	156.29	1.74	1.67	1.67	MWD
1178.00	18.00	269.20	1156.63	-12.09	-184.04	184.44	0.56	-0.56	-0.11	MWD
1268.00	17.40	270.30	1242.37	-12.22	-211.40	211.75	0.76	-0.67	1.22	MWD
1358.00	16.20	269.20	1328.53	-12.32	-237.41	237.71	1.38	-1.33	-1.22	MWD
1448.00	17.50	269.20	1414.66	-12.69	-263.50	263.77	1.44	1.44	0.00	MWD
1538.00	16.10	269.30	1500.82	-13.03	-289.51	289.75	1.56	-1.56	0.11	MWD
1628.00	16.80	265.40	1587.14	-14.22	-314.95	315.22	1.45	0.78	-4.33	MWD

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Survey Report



Company: ConocoPhillips Field: Rio Arriba County, NM Site: San Juan 31-6 #13H Well: Well 31-6 #13H Wellpath: Original Hole	Date: 10/2/2006 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Survey Calculation Method:	Time: 15:56:00 Site: San Juan 31-6 #13H, Grid North SITE 0.0: Well (0.00N,0.00E,266.36Azi): Minimum Curvature	Page: 2 Db: Sybase
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Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1718.00	16.00	265.40	1673.47	-16.26	-340.28	340.62	0.89	-0.89	0.00	MWD
1808.00	14.80	261.50	1760.24	-18.96	-364.01	364.48	1.76	-1.33	-4.33	MWD
1898.00	16.40	264.00	1846.93	-21.98	-388.02	388.63	1.93	1.78	2.78	MWD
1988.00	16.10	264.00	1933.33	-24.62	-413.07	413.79	0.33	-0.33	0.00	MWD
2078.00	14.90	262.20	2020.06	-27.49	-436.94	437.80	1.44	-1.33	-2.00	MWD
2168.00	14.20	261.90	2107.17	-30.62	-459.33	460.35	0.78	-0.78	-0.33	MWD
2259.00	11.70	255.90	2195.85	-34.44	-479.34	480.56	3.12	-2.75	-6.59	MWD
2349.00	10.60	254.50	2284.15	-38.87	-496.16	497.63	1.26	-1.22	-1.56	MWD
2439.00	8.80	257.00	2372.86	-42.63	-510.85	512.53	2.05	-2.00	2.78	MWD
2529.00	6.50	263.60	2462.06	-44.75	-522.62	524.41	2.73	-2.56	7.33	MWD
2619.00	4.50	265.40	2551.64	-45.60	-531.21	533.03	2.23	-2.22	2.00	MWD
2664.00	3.30	266.50	2596.53	-45.82	-534.26	536.09	2.67	-2.67	2.44	MWD
2709.00	2.40	260.50	2641.48	-46.06	-536.48	538.32	2.10	-2.00	-13.33	MWD
2750.00	1.40	267.50	2682.45	-46.22	-537.83	539.68	2.50	-2.44	17.07	MWD
2802.00	0.70	267.50	2734.44	-46.26	-538.78	540.63	1.35	-1.35	0.00	PROJECTED to TD

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COMPLETION REPORT



Company: ConocoPhillips		Date: 10/2/2006		Time: 15.53.30		Page: 1	
Field: Rio Arriba County, NM		Co-ordinate(NE) Reference:		Site: San Juan 31-6 #13H, Grid North			
Site: San Juan 31-6 #13H		Vertical (TVD) Reference:		SITE 0.0			
Well: Well 31-6 #13H		Section (VS) Reference:		Well (0.00N,0.00E,266.36Azi)			
Wellpath: Original Hole		Survey Calculation Method:		Minimum Curvature		Db: Sybase	

Field: Rio Arriba County, NM			
USA			
Map System: US State Plane Coordinate System 1983		Map Zone: New Mexico, Western Zone	
Geo Datum: GRS 1980		Coordinate System: Site Centre	
Sys Datum: Mean Sea Level		Geomagnetic Model: igrf2005	

Site: San Juan 31-6 #13H Sec. 4, T30N, R6W Rio Arriba County			
Site Position:	Northing:	ft	Latitude:
From: Local Only	Easting:	ft	Longitude:
Position Uncertainty:	0.00 ft		North Reference: Grid
Ground Level:	0.00 ft		Grid Convergence: deg

Well: Well 31-6 #13H		Slot Name:	
Well Position:	+N/-S 0.00 ft	Northing:	ft
	+E/-W 0.00 ft	Easting :	ft
Position Uncertainty:	0.00 ft		Longitude:

Wellpath: Original Hole		Drilled From: Surface	
		Tie-on Depth: 0.00 ft	
Current Datum: SITE	Height 0.00 ft	Above System Datum: Mean Sea Level	
Magnetic Data: 9/26/2006		Declination: 0.00 deg	
Field Strength: 0 nT		Mag Dip Angle: 0.00 deg	
Vertical Section:	Depth From (TVD)	+N/-S	Direction
	ft	ft	deg
0.00		0.00	266.36

Survey Program for Definitive Wellpath					
Date: 10/2/2006		Validated: No		Version: 0	
Actual From	To	Survey	Toolcode	Tool Name	
ft	ft				
267.00	2750.00	Survey #1 (267.00-2750.00)	MWD	Standard MWD	
2802.00	2802.00	Survey #2 (2802.00-2802.00)	Projection	Projection	

Survey										
MD	Incl	TVD	VS	Azim	N/S	E/W	Clsr Dist	Clsr Azi	Dog Leg	Tool
ft	deg	ft	ft	deg	ft	ft	ft	deg	deg/100ft	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIE LINE
267.00	3.90	266.79	8.44	244.60	-3.90	-8.21	9.08	244.60	1.46	MWD
330.00	3.90	329.65	12.34	239.70	-5.90	-11.99	13.36	243.82	0.53	MWD
361.00	4.10	360.57	14.31	244.70	-6.90	-13.90	15.52	243.60	1.30	MWD
392.00	4.00	391.50	16.41	258.00	-7.60	-15.96	17.68	244.54	3.04	MWD
423.00	4.10	422.42	18.59	261.90	-7.98	-18.12	19.80	246.23	0.95	MWD
454.00	4.40	453.33	20.88	264.70	-8.25	-20.40	22.00	247.99	1.18	MWD
485.00	5.10	484.23	23.44	273.80	-8.27	-22.96	24.40	250.20	3.31	MWD
516.00	6.50	515.07	26.53	275.90	-7.99	-26.08	27.28	252.96	4.57	MWD
548.00	7.70	546.82	30.44	274.20	-7.65	-30.02	30.98	255.70	3.81	MWD
638.00	10.50	635.68	44.55	273.80	-6.67	-44.22	44.72	261.43	3.11	MWD
728.00	12.40	723.89	62.30	271.70	-5.84	-62.06	62.33	264.63	2.16	MWD
818.00	13.00	811.69	82.04	263.30	-6.73	-81.77	82.05	265.30	2.16	MWD
908.00	15.20	898.97	103.93	263.60	-9.23	-103.55	103.97	264.91	2.45	MWD
998.00	17.00	985.44	128.87	267.80	-11.05	-128.43	128.90	265.08	2.38	MWD
1088.00	18.50	1071.16	156.29	269.30	-11.73	-155.86	156.30	265.70	1.74	MWD
1178.00	18.00	1156.63	184.44	269.20	-12.09	-184.04	184.44	266.24	0.56	MWD
1268.00	17.40	1242.37	211.75	270.30	-12.22	-211.40	211.75	266.69	0.76	MWD
1358.00	16.20	1328.53	237.71	269.20	-12.32	-237.41	237.73	267.03	1.38	MWD
1448.00	17.50	1414.66	263.77	269.20	-12.69	-263.50	263.80	267.24	1.44	MWD
1538.00	16.10	1500.82	289.75	269.30	-13.03	-289.51	289.80	267.42	1.56	MWD
1628.00	16.80	1587.14	315.22	265.40	-14.22	-314.95	315.27	267.41	1.45	MWD

Ryan Energy Technologies

COMPLETION REPORT



Company: ConocoPhillips Field: Rio Arriba County, NM Site: San Juan 31-6 #13H Well: Well 31-6 #13H Wellpath: Original Hole	Date: 10/2/2006 Co-ordinate(NE) Reference: Site San Juan 31-6 #13H; Grid North Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0.00N,0.00E,266.36Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Survey

MD ft.	Incl deg	TVD ft	VS ft	Azim deg	N/S ft	E/W ft	Clsr-Dist ft	Clsr Azi deg	Dog Leg deg/100ft	Tool
1718.00	16.00	1673.47	340.62	265.40	-16.26	-340.28	340.67	267.26	0.89	MWD
1808.00	14.80	1760.24	364.48	261.50	-18.96	-364.01	364.51	267.02	1.76	MWD
1898.00	16.40	1846.93	388.63	264.00	-21.98	-388.02	388.64	266.76	1.93	MWD
1988.00	16.10	1933.33	413.79	264.00	-24.62	-413.07	413.80	266.59	0.33	MWD
2078.00	14.90	2020.06	437.80	262.20	-27.49	-436.94	437.81	266.40	1.44	MWD
2168.00	14.20	2107.17	460.35	261.90	-30.62	-459.33	460.35	266.19	0.78	MWD
2259.00	11.70	2195.85	480.56	255.90	-34.44	-479.34	480.57	265.89	3.12	MWD
2349.00	10.60	2284.15	497.63	254.50	-38.87	-496.16	497.69	265.52	1.26	MWD
2439.00	8.80	2372.86	512.53	257.00	-42.63	-510.85	512.63	265.23	2.05	MWD
2529.00	6.50	2462.06	524.41	263.60	-44.75	-522.62	524.54	265.11	2.73	MWD
2619.00	4.50	2551.64	533.03	265.40	-45.60	-531.21	533.16	265.09	2.23	MWD
2664.00	3.30	2596.53	536.09	266.50	-45.82	-534.26	536.22	265.10	2.67	MWD
2709.00	2.40	2641.48	538.32	260.50	-46.06	-536.48	538.45	265.09	2.10	MWD
2750.00	1.40	2682.45	539.68	267.50	-46.22	-537.83	539.81	265.09	2.50	MWD
2802.00	0.70	2734.44	540.63	267.50	-46.26	-538.78	540.76	265.09	1.35	PROJECTED