



# **Petrox Resources**

**San Juan Basin (CO)**

**SEC 15-T33N-R5W**

**Tierra Piedra 33-5 #15-1**

**Lateral #1**

**Design: As Drilled**

## **Standard Survey Report**

**27 January, 2009**



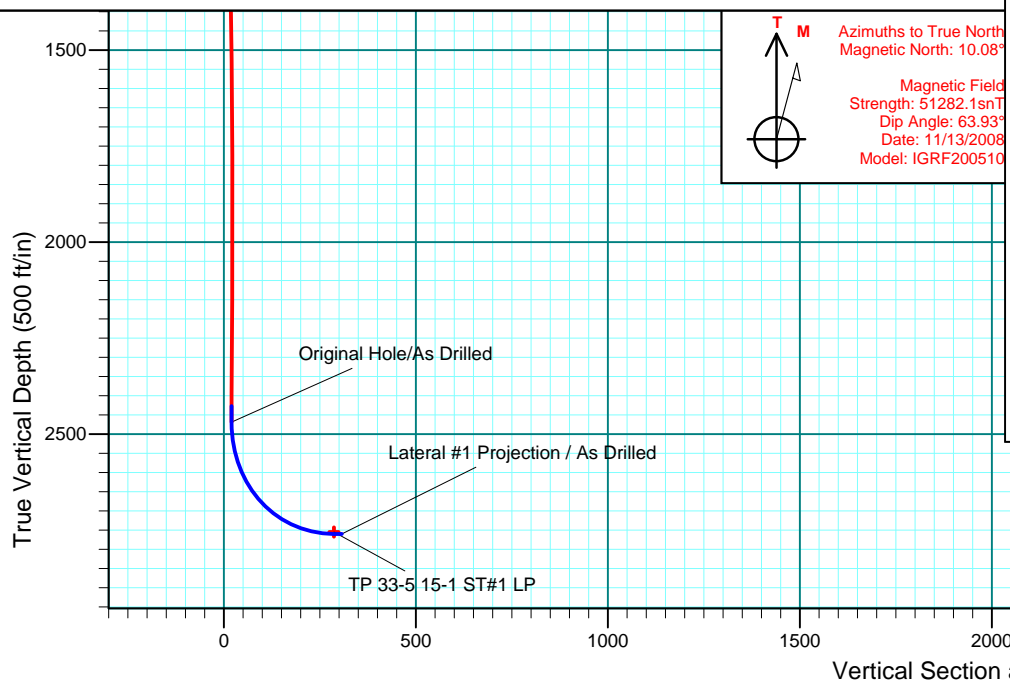
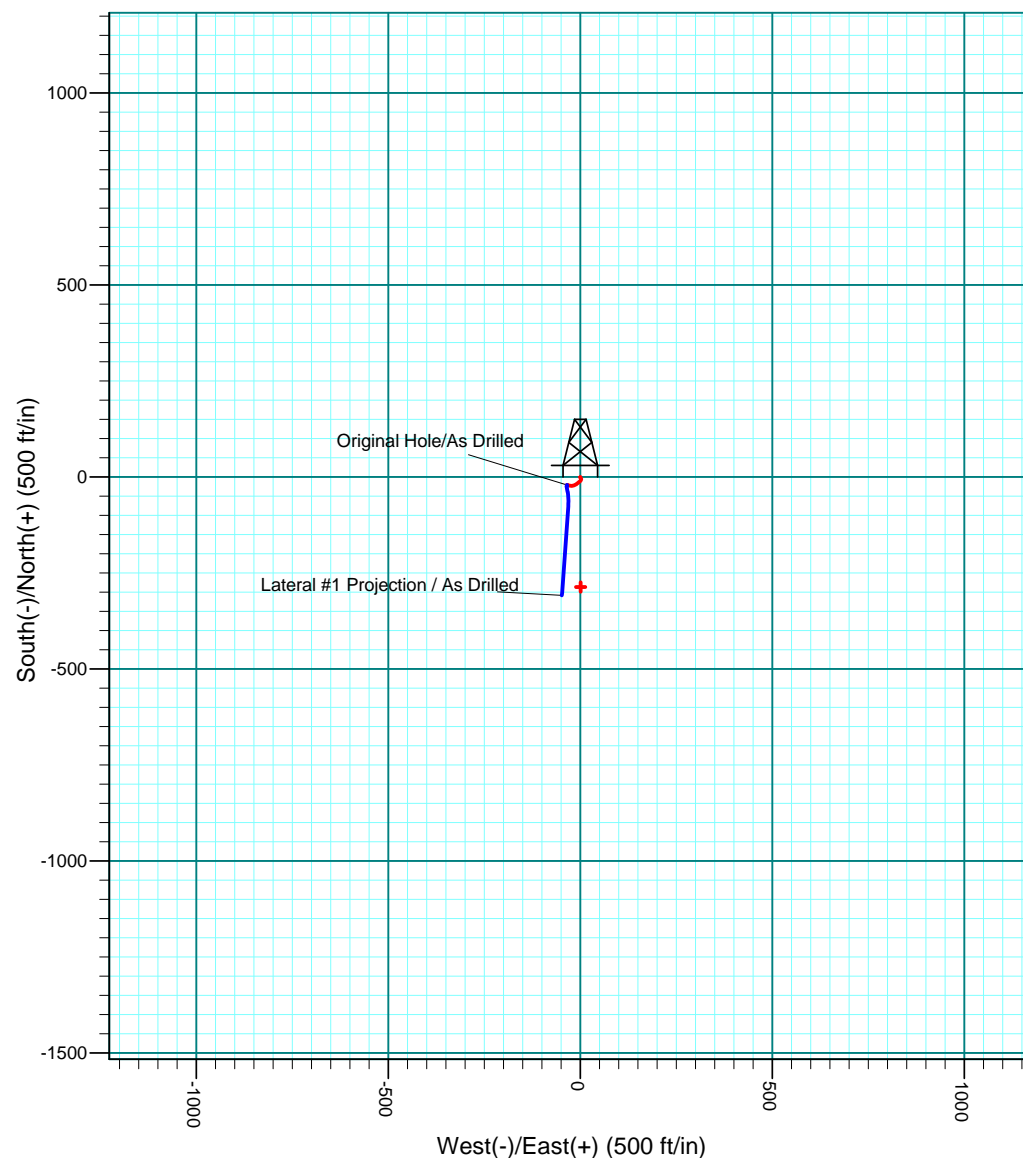
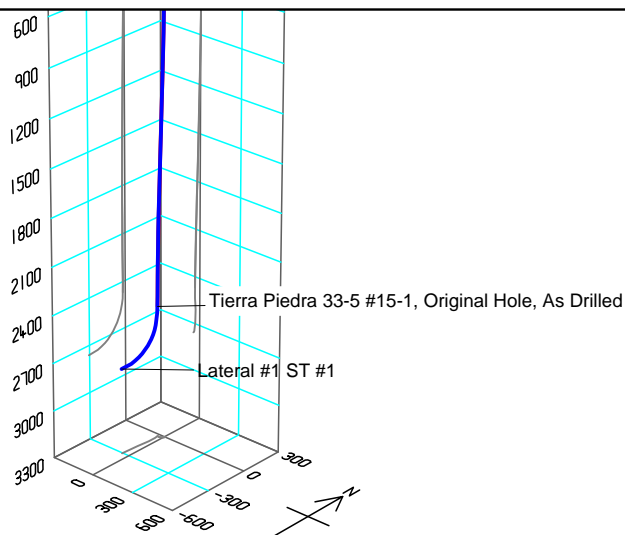
**PETROX RESOURCES INC.**

WELL DETAILS: Tierra Piedra 33-5 #15-1

RKB RKB @ 6238.0ft (Key)

Ground Level: 6226.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1167337.99	2450160.15	37° 6' 39.564 N	107° 23' 8.268 W



<b>Company:</b>	Petrox Resources	<b>Local Co-ordinate Reference:</b>	Well Tierra Piedra 33-5 #15-1
<b>Project:</b>	San Juan Basin (CO)	<b>TVD Reference:</b>	RKB @ 6238.0ft (Key)
<b>Site:</b>	SEC 15-T33N-R5W	<b>MD Reference:</b>	RKB @ 6238.0ft (Key)
<b>Well:</b>	Tierra Piedra 33-5 #15-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	Lateral #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	EDM 2003.21 Single User Db

<b>Project</b>	San Juan Basin (CO), Colorado, Fruitland Coal		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Southern Zone		Using geodetic scale factor

<b>Site</b>	SEC 15-T33N-R5W		
<b>Site Position:</b>		<b>Northing:</b>	1,167,337.99 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,450,160.15 ft
<b>Position Uncertainty:</b>	15.0 ft	<b>Slot Radius:</b>	6-1/8"
		<b>Latitude:</b>	37° 6' 39.564 N
		<b>Longitude:</b>	107° 23' 8.268 W
		<b>Grid Convergence:</b>	-1.16 °

<b>Well</b>	Tierra Piedra 33-5 #15-1, CBM Horizontal Single Lateral		
<b>Well Position</b>	<b>+N-S</b>	0.0 ft	<b>Northing:</b> 1,167,337.99 ft
	<b>+E-W</b>	0.0 ft	<b>Easting:</b> 2,450,160.15 ft
<b>Position Uncertainty</b>	15.0 ft	<b>Wellhead Elevation:</b>	ft
		<b>Latitude:</b>	37° 6' 39.564 N
		<b>Longitude:</b>	107° 23' 8.268 W
		<b>Ground Level:</b>	6,226.0 ft

<b>Wellbore</b>	Lateral #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	11/13/2008	10.08	63.93	51,282

<b>Design</b>	As Drilled				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	2,427.8
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N-S (ft)</b>	<b>+E-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	179.85	

<b>Survey Program</b>	<b>Date</b>	1/27/2009			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.0	2,427.8	SDI Gyro (Original Hole)	Standard Keeper	Standard Wireline Keeper ver 1.0.2	
2,472.0	2,931.0	SDI MWD (Lateral #1)	MWD SDI	MWD - Standard ver 1.0.1	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N-S (ft)</b>	<b>+E-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.56	229.84	100.0	-0.3	-0.4	0.3	0.56	0.56	0.00	
200.0	0.24	205.45	200.0	-0.8	-0.8	0.8	0.36	-0.32	-24.39	
300.0	0.78	122.41	300.0	-1.4	-0.4	1.4	0.79	0.54	-83.04	
400.0	0.95	127.91	400.0	-2.2	0.9	2.2	0.19	0.17	5.50	
500.0	1.03	155.71	500.0	-3.6	1.9	3.6	0.48	0.08	27.80	
600.0	1.06	181.21	600.0	-5.3	2.3	5.3	0.46	0.03	25.50	
700.0	1.21	205.26	699.9	-7.2	1.8	7.2	0.50	0.15	24.05	
800.0	1.29	213.72	799.9	-9.1	0.7	9.1	0.20	0.08	8.46	
900.0	1.28	222.38	899.9	-10.9	-0.7	10.9	0.19	-0.01	8.66	
1,000.0	1.45	237.79	999.9	-12.4	-2.5	12.3	0.40	0.17	15.41	
1,100.0	1.30	232.87	1,099.8	-13.7	-4.5	13.7	0.19	-0.15	-4.92	



<b>Company:</b>	Petrox Resources	<b>Local Co-ordinate Reference:</b>	Well Tierra Piedra 33-5 #15-1
<b>Project:</b>	San Juan Basin (CO)	<b>TVD Reference:</b>	RKB @ 6238.0ft (Key)
<b>Site:</b>	SEC 15-T33N-R5W	<b>MD Reference:</b>	RKB @ 6238.0ft (Key)
<b>Well:</b>	Tierra Piedra 33-5 #15-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	Lateral #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	EDM 2003.21 Single 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)	Turn Rate (°/100ft)	
1,200.0	1.33	230.90	1,199.8	-15.1	-6.3	15.1	0.05	0.03	-1.97	
1,300.0	1.52	229.56	1,299.8	-16.7	-8.2	16.7	0.19	0.19	-1.34	
1,400.0	1.63	231.86	1,399.7	-18.5	-10.3	18.4	0.13	0.11	2.30	
1,500.0	1.54	243.12	1,499.7	-19.9	-12.6	19.9	0.32	-0.09	11.26	
1,600.0	1.54	252.48	1,599.7	-21.0	-15.1	20.9	0.25	0.00	9.36	
1,700.0	1.74	251.22	1,699.6	-21.8	-17.8	21.8	0.20	0.20	-1.26	
1,800.0	2.10	264.45	1,799.6	-22.5	-21.1	22.5	0.57	0.36	13.23	
1,900.0	1.67	275.86	1,899.5	-22.5	-24.4	22.5	0.57	-0.43	11.41	
2,000.0	1.44	277.59	1,999.5	-22.2	-27.1	22.2	0.23	-0.23	1.73	
2,100.0	1.36	285.01	2,099.4	-21.8	-29.5	21.7	0.20	-0.08	7.42	
2,200.0	1.17	280.17	2,199.4	-21.3	-31.6	21.2	0.22	-0.19	-4.84	
2,300.0	0.86	280.61	2,299.4	-20.9	-33.3	20.9	0.31	-0.31	0.44	
2,400.0	0.66	299.90	2,399.4	-20.5	-34.6	20.4	0.32	-0.20	19.29	
2,427.8	0.79	299.12	2,427.2	-20.4	-34.9	20.3	0.47	0.47	-2.81	
2,472.0	0.96	176.03	2,471.4	-20.6	-35.1	20.5	3.49	0.38	-278.48	
2,508.0	6.71	189.56	2,507.3	-22.9	-35.5	22.9	16.06	15.97	37.58	
2,539.0	11.37	170.33	2,537.9	-27.8	-35.2	27.7	17.72	15.03	-62.03	
2,571.0	17.06	166.68	2,568.9	-35.4	-33.6	35.3	17.99	17.78	-11.41	
2,602.0	23.15	173.01	2,598.0	-45.9	-31.8	45.8	20.83	19.65	20.42	
2,634.0	29.82	178.95	2,626.6	-60.1	-30.9	60.1	22.40	20.84	18.56	
2,665.0	36.16	182.86	2,652.6	-77.0	-31.2	76.9	21.56	20.45	12.61	
2,697.0	43.02	183.18	2,677.3	-97.3	-32.3	97.3	21.45	21.44	1.00	
2,729.0	50.01	185.22	2,699.3	-120.5	-34.0	120.4	22.33	21.84	6.38	
2,760.0	57.03	184.89	2,717.7	-145.3	-36.2	145.2	22.66	22.65	-1.06	
2,792.0	63.87	184.31	2,733.5	-173.0	-38.5	172.9	21.43	21.38	-1.81	
2,824.0	70.88	183.27	2,745.8	-202.5	-40.4	202.4	22.11	21.91	-3.25	
2,855.0	77.46	183.81	2,754.2	-232.2	-42.2	232.1	21.29	21.23	1.74	
2,931.0	93.59	185.13	2,760.1	-307.5	-48.1	307.4	21.29	21.22	1.74	

Design Targets										
Target Name										
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
TP 33-5 15-1 ST#1 PI	0.00	0.00	2,755.0	-2,232.0	5.8	1,165,106.30	2,450,120.93		37° 6' 17.496 N	107° 23' 8.196 W
- actual wellpath misses by 1925.2ft at 2931.0ft MD (2760.1 TVD, -307.5 N, -48.1 E)										
- Point										
TP 33-5 15-1 ST#1 LF	0.00	0.00	2,755.0	-286.5	0.7	1,167,051.53	2,450,155.07		37° 6' 36.731 N	107° 23' 8.259 W
- actual wellpath misses by 47.2ft at 2905.8ft MD (2760.5 TVD, -282.4 N, -46.0 E)										
- Point										

Checked By: _____	Approved By: _____	Date: _____
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