

Leam Drilling Systems

Survey Report - Geographic

F-35-115-33e

1980/W & 1980/W

30-025-37091

Company: PALADIN OIL & GAS Date: 5/5/2005 Time: 08:36:28 Page: 1
 Field: LEA COUNTY, NEW MEXICO Co-ordinate(NE) Reference: Well: #6, Grid North
 Site: STATE BTC Vertical (TVD) Reference: SITE 0.0
 Well: #6 Section (VS) Reference: Well (0.00N,0.00E,180.00Azi)
 Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Adapti

Field: LEA COUNTY, NEW MEXICO

Map System: US State Plane Coordinate System 1927
 Geo Datum: NAD27 (Clarke 1866)
 Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
 Coordinate System: Well Centre
 Geomagnetic Model: igrf2000

Site: STATE BTC

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

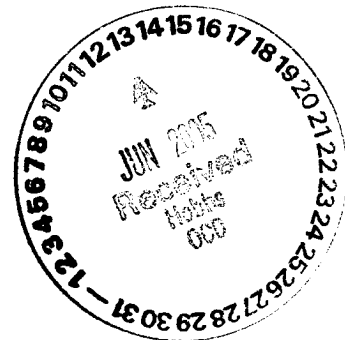
Well: #6 Slot Name:
 Well Position: +N/-S 0.00 ft Northing: ft Latitude:
 +E/-W 0.00 ft Easting: ft Longitude:
 Position Uncertainty: 0.00 ft

Wellpath: 1
 Current Datum: SITE Height 0.00 ft
 Magnetic Data: 5/5/2005
 Field Strength: 0 nT
 Vertical Section: Depth From (TVD) +N/-S ft
 0.00 0.00 0.00 180.00

Survey: Survey #1 Start Date: 5/5/2005
 Company: Leam Drilling Systems Engineer: NORA K. TWOHY
 Tool: Tied-to: From Surface

Survey: Survey #1

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec	← Longitude → Deg Min Sec
0.00	0.00	0.00	0.00	0.00	0.00				
100.00	0.40	100.80	100.00	-0.07	0.34				
200.00	0.42	109.59	200.00	-0.25	1.03				
300.00	0.54	138.46	299.99	-0.73	1.69				
400.00	0.63	142.12	399.99	-1.52	2.34				
500.00	0.76	125.75	499.98	-2.34	3.21				
600.00	0.45	127.55	599.98	-2.96	4.06				
700.00	0.44	190.00	699.97	-3.58	4.31				
800.00	0.47	165.50	799.97	-4.36	4.34				
900.00	0.42	199.46	899.97	-5.10	4.33				
1000.00	0.49	118.98	999.96	-5.65	4.58				
1100.00	0.46	204.40	1099.96	-6.23	4.79				
1200.00	0.49	206.48	1199.96	-6.97	4.43				
1300.00	0.69	186.68	1299.95	-7.95	4.17				
1400.00	0.68	201.94	1399.95	-9.10	3.88				
1500.00	0.60	213.23	1499.94	-10.09	3.37				
1600.00	0.70	204.67	1599.93	-11.08	2.83				
1700.00	0.62	207.75	1699.93	-12.12	2.32				
1800.00	0.49	230.00	1799.92	-12.87	1.74				
1900.00	0.37	206.59	1899.92	-13.44	1.27				
2000.00	0.30	225.90	1999.92	-13.91	0.94				
2100.00	0.41	194.37	2099.92	-14.43	0.66				
2200.00	0.44	194.37	2199.91	-15.15	0.47				



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Company: PALADIN OIL & GAS
 Field: LEA COUNTY, NEW MEXICO
 Site: STATE BTC
 Well: #6
 Wellpath: 1

Date: 5/5/2005 Time: 08:36:28 Page: 2
 Co-ordinate(NE) Reference: Well: #6, Grid North
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,180.00Azi)
 Survey Calculation Method: Minimum Curvature Db: Adapti

Survey: Survey #1

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec	← Longitude → Deg Min Sec
2300.00	0.41	69.73	2299.91	-15.40	0.71				
2400.00	0.28	11.95	2399.91	-15.04	1.10				
2500.00	0.54	62.68	2499.91	-14.58	1.57				
2600.00	0.38	48.55	2599.90	-14.15	2.24				
2700.00	0.73	85.48	2699.90	-13.88	3.12				
2800.00	0.84	89.74	2799.89	-13.82	4.49				
2900.00	1.00	94.69	2899.88	-13.89	6.09				
3000.00	1.14	98.99	2999.86	-14.12	7.94				
3100.00	0.81	93.39	3099.85	-14.32	9.63				
3200.00	0.74	83.68	3199.84	-14.29	10.98				
3300.00	0.81	130.19	3299.83	-14.67	12.16				
3400.00	0.66	149.12	3399.82	-15.62	13.00				
3500.00	0.76	122.06	3499.81	-16.47	13.85				
3600.00	0.67	117.01	3599.81	-17.09	14.94				
3700.00	0.78	109.09	3699.80	-17.57	16.10				
3800.00	0.84	154.15	3799.79	-18.46	17.06				
3900.00	0.78	162.21	3899.78	-19.76	17.59				
4000.00	0.64	185.95	3999.77	-20.97	17.74				
4100.00	0.69	197.94	4099.76	-22.10	17.50				
4200.00	0.45	203.02	4199.76	-23.03	17.16				
4300.00	0.47	216.77	4299.76	-23.72	16.76				
4400.00	0.57	180.72	4399.75	-24.55	16.51				
4500.00	0.13	275.76	4499.75	-25.03	16.39				
4600.00	0.37	296.87	4599.75	-24.88	15.99				
4700.00	0.67	308.39	4699.75	-24.37	15.24				
4800.00	0.69	298.57	4799.74	-23.72	14.26				
4900.00	0.67	298.57	4899.73	-23.15	13.21				
5000.00	0.67	298.75	4999.72	-22.59	12.19				
5100.00	0.78	296.32	5099.72	-22.00	11.06				
5200.00	0.89	285.64	5199.71	-21.49	9.71				
5300.00	1.20	249.98	5299.69	-21.64	7.97				
5400.00	1.17	245.10	5399.67	-22.43	6.06				
5500.00	1.26	237.06	5499.65	-23.46	4.22				
5600.00	1.11	232.97	5599.62	-24.64	2.52				
5700.00	1.03	238.91	5699.61	-25.69	0.98				
5800.00	1.10	253.51	5799.59	-26.42	-0.71				
5900.00	1.09	219.33	5899.57	-27.43	-2.24				
6000.00	0.90	230.08	5999.56	-28.67	-3.44				
6100.00	1.09	221.32	6099.54	-29.89	-4.67				
6200.00	1.30	215.71	6199.52	-31.52	-5.96				
6300.00	1.25	211.65	6299.50	-33.37	-7.20				
6400.00	1.18	201.13	6399.47	-35.26	-8.14				
6500.00	0.96	196.72	6499.46	-37.03	-8.75				
6600.00	1.21	221.99	6599.44	-38.61	-9.70				
6700.00	1.34	213.46	6699.41	-40.37	-11.05				
6800.00	1.24	211.72	6799.39	-42.27	-12.26				
6900.00	1.19	216.44	6899.37	-44.02	-13.45				
7000.00	1.35	223.59	6999.34	-45.71	-14.88				
7100.00	1.27	220.83	7099.32	-47.41	-16.42				
7200.00	1.33	212.20	7199.29	-49.23	-17.76				
7300.00	1.52	203.06	7299.26	-51.43	-18.90				
7400.00	1.69	213.85	7399.22	-53.87	-20.24				

Leam Drilling Systems

Survey Report - Geographic

Company: PALADIN OIL & GAS
Field: LEA COUNTY, NEW MEXICO
Site: STATE BTC
Well: #6
Wellpath: 1

Date: 5/5/2005 **Time:** 08:36:28 **Page:** 3
Co-ordinate(NE) Reference: Well: #6, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,180.00Azi)
Survey Calculation Method: Minimum Curvature **Db:** Adapti

Survey: Survey #1

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec	← Longitude → Deg Min Sec
7500.00	1.84	218.85	7499.17	-56.35	-22.07				
7600.00	1.80	220.60	7599.12	-58.79	-24.09				
7700.00	1.61	201.18	7699.08	-61.29	-25.62				
7800.00	1.54	204.71	7799.04	-63.82	-26.69				
7900.00	1.75	201.51	7899.00	-66.47	-27.82				
8000.00	2.06	203.46	7998.94	-69.53	-29.09				
8100.00	2.22	204.83	8098.87	-72.94	-30.62				
8200.00	2.42	201.26	8198.79	-76.67	-32.20				
8300.00	2.53	203.34	8298.70	-80.66	-33.84				
8400.00	2.52	205.46	8398.60	-84.67	-35.66				
8500.00	2.34	213.85	8498.51	-88.35	-37.74				
8600.00	2.19	212.83	8598.43	-91.65	-39.91				
8700.00	1.69	213.68	8698.38	-94.49	-41.77				
8800.00	2.25	209.93	8798.32	-97.41	-43.56				
8900.00	2.59	214.03	8898.23	-100.99	-45.81				
9000.00	2.83	204.73	8998.12	-105.10	-48.10				
9100.00	2.97	205.19	9097.99	-109.69	-50.24				
9200.00	3.09	203.51	9197.85	-114.50	-52.42				
9235.00	2.86	210.15	9232.80	-116.12	-53.23				

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Company: PALADIN OIL & GAS Field: LEA COUNTY, NEW MEXICO Site: STATE BTC Well: #6 Wellpath: 1	Date: 5/5/2005 Co-ordinate(NE) Reference: Well: #6, Grid North Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0.00N,0.00E,180.00Azi) Survey Calculation Method: Minimum Curvature	Time: 08:31:52 Page: 1 Db: Adapti
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Field: LEA COUNTY, NEW MEXICO

Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Well Centre
Geomagnetic Model: igrf2000

Site: STATE BTC

Site Position: From: Local Only Position Uncertainty: 0.00 ft Ground Level: 0.00 ft	Northing: Easting:	ft ft	Latitude: Longitude: North Reference: Grid Grid Convergence: deg
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Well: #6 Well Position: +N/-S 0.00 ft +E/-W 0.00 ft Position Uncertainty: 0.00 ft	Northing: Easting :	ft ft	Slot Name: Latitude: Longitude:
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Wellpath: 1 Current Datum: SITE Magnetic Data: 5/5/2005 Field Strength: 0 nT Vertical Section: Depth From (TVD) ft	Height 0.00 ft +N/-S ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 0.00 deg Mag Dip Angle: 0.00 deg +E/-W ft Direction deg
0.00	0.00	0.00 180.00

Survey: QUANTUM MWD Company: Leam Drilling Systems Tool:	Start Date: 5/5/2005 Engineer: Dwayne Smith Tied-to: From: Survey #1
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Survey: QUANTUM MWD

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude →		← Longitude →	
								Deg	Min	Sec	Deg
9235.00	2.86	210.15	9232.80	-116.12	-53.23						
9317.00	2.80	218.60	9314.70	-119.46	-55.51						
9414.00	3.30	179.90	9411.57	-124.10	-56.98						
9508.00	3.90	125.80	9505.41	-128.68	-54.39						
9604.00	3.50	87.40	9601.23	-130.46	-48.81						
9700.00	3.50	48.80	9697.06	-128.39	-43.68						
9796.00	3.90	23.10	9792.87	-123.46	-40.19						
9892.00	3.70	23.50	9888.66	-117.62	-37.67						
9989.00	3.30	33.30	9985.48	-112.41	-34.89						
10086.00	4.20	31.20	10082.27	-107.04	-31.52						
10181.00	3.70	38.90	10177.04	-101.68	-27.79						
10277.00	3.70	34.70	10272.84	-96.72	-24.08						
10374.00	3.90	36.80	10369.63	-91.51	-20.33						
10470.00	3.20	43.50	10465.45	-86.95	-16.53						
10566.00	2.80	48.40	10561.31	-83.45	-12.93						
10663.00	2.10	54.80	10658.22	-80.85	-9.71						
10759.00	1.20	76.20	10754.18	-79.60	-7.29						
10855.00	1.20	80.10	10850.16	-79.19	-5.33						
10920.00	1.40	74.80	10915.15	-78.86	-3.89						
11080.00	1.40	74.80	11075.10	-77.84	-0.12						