

A BWWC Company

Job Number: 0417509453

Company: Arrington Oil & Gas

Lease/Well: Double Hackle Drake, well #1

Location: Lea County

Rig Name: Patterson #824

RKB: 20'

G.L. or M.S.L.: GL

State/Country: New Mexico/USA

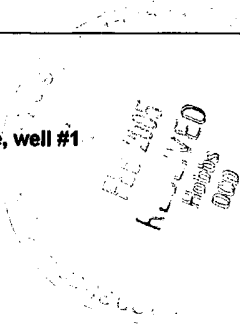
Declination: 8.08°

Grid: East To Grid

File name: E:\2004SU~1\ARRING~1\DRAKE1.SVY

Date/Time: 17-Jun-04 / 10:24

Curve Name: Surface - 6,050' M.D.



We hereby certify that our survey data from
Surface MD to 6,050' MD is, to the best of
our knowledge a true and accurate account of
the well bore.

Multi-Shot

Date

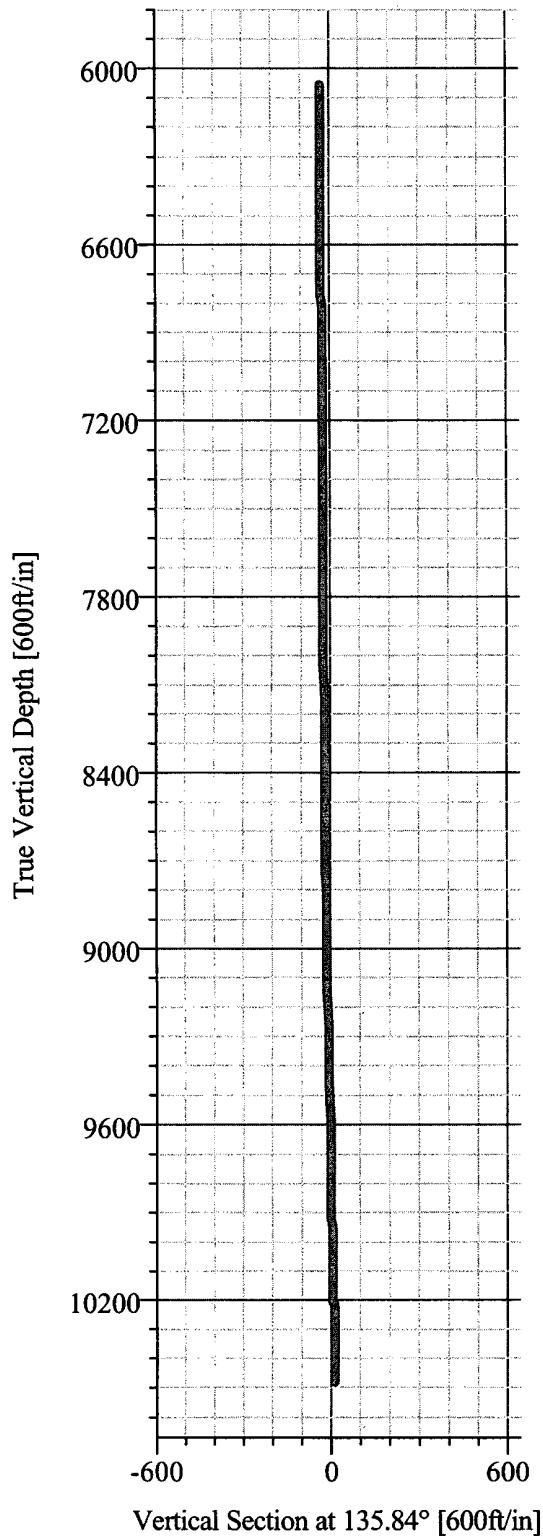
WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane .00
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	.49	249.66	200.00	-.30	-.80	-.30	.86	249.66	.24
400.00	.17	234.01	399.99	-.77	-1.84	-.77	2.00	247.36	.16
600.00	.41	177.32	599.99	-1.66	-2.05	-1.66	2.64	231.04	.17
800.00	.43	267.14	799.99	-2.41	-2.77	-2.41	3.67	228.94	.30
1000.00	.21	301.04	999.98	-2.26	-3.83	-2.26	4.45	239.47	.14
1200.00	.34	292.09	1199.98	-1.85	-4.69	-1.85	5.04	248.53	.07
1400.00	.16	180.93	1399.98	-1.90	-5.25	-1.90	5.58	250.07	.21
1600.00	.48	226.67	1599.98	-2.76	-5.86	-2.76	6.48	244.82	.19
1800.00	.36	283.47	1799.97	-3.19	-7.08	-3.19	7.77	245.79	.21

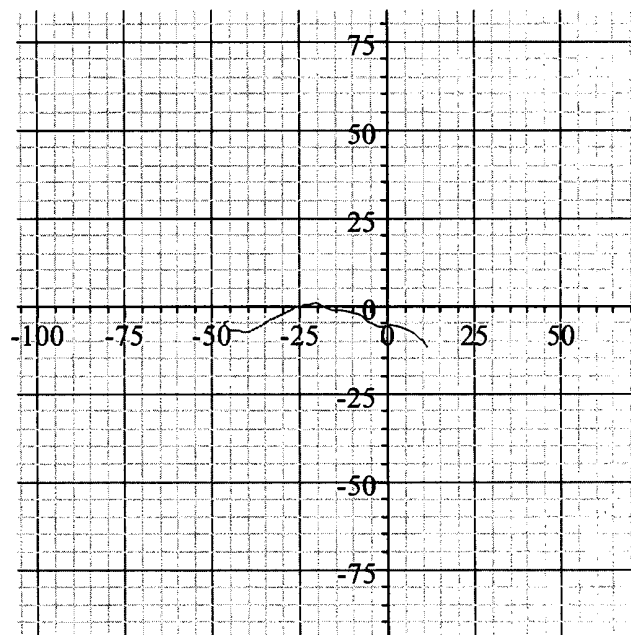
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2000.00	.15	134.51	1999.97	-3.22	-7.51	-3.22	8.17	246.77	.25
2200.00	.50	269.63	2199.97	-3.41	-8.19	-3.41	8.87	247.39	.31
2400.00	1.17	316.65	2399.95	-1.93	-10.47	-1.93	10.64	259.54	.45
2600.00	1.34	309.08	2599.90	1.03	-13.68	1.03	13.72	274.29	.12
2800.00	1.23	308.23	2799.85	3.83	-17.19	3.83	17.61	282.56	.06
3000.00	1.00	308.29	2999.81	6.24	-20.24	6.24	21.18	287.13	.12
3200.00	.97	308.81	3199.78	8.38	-22.93	8.38	24.41	290.08	.02
3400.00	.91	307.96	3399.76	10.42	-25.50	10.42	27.55	292.22	.03
3600.00	.44	342.74	3599.74	12.13	-26.98	12.13	29.58	294.21	.30
3800.00	.20	208.99	3799.74	12.56	-27.38	12.56	30.12	294.64	.30
4000.00	.42	260.65	3999.74	12.13	-28.27	12.13	30.77	293.23	.17
4200.00	.73	253.62	4199.73	11.65	-30.22	11.65	32.39	291.09	.16
4400.00	.61	232.17	4399.72	10.64	-32.28	10.64	33.99	288.25	.14
4600.00	.69	236.58	4599.70	9.33	-34.13	9.33	35.38	285.28	.05
4800.00	.65	203.82	4799.69	7.63	-35.59	7.63	36.40	282.09	.19
5000.00	.77	212.71	4999.67	5.46	-36.77	5.46	37.18	278.44	.08
5200.00	.39	231.11	5199.66	3.90	-38.03	3.90	38.23	275.85	.21
5400.00	.50	218.88	5399.66	2.79	-39.11	2.79	39.21	274.08	.07
5600.00	.73	235.51	5599.65	1.39	-40.71	1.39	40.73	271.96	.14
5800.00	.91	211.40	5799.63	-.69	-42.58	-.69	42.59	269.08	.19
6000.00	1.30	223.78	5999.59	-3.68	-44.98	-3.68	45.13	265.32	.23
Last Survey Depth Recorded									
6058.00	.90	233.84	6057.58	-4.42	-45.80	-4.42	46.02	264.48	.76



ARRINGTON OIL & GAS
Double Hackle Drake #1
Lea County, NM



South(-)/North(+) [50ft/in]



West(-)/East(+) [50ft/in]

Company: Arrington Oil & Gas Inc. **Date:** 2/4/2005 **Time:** 13:54:21 **Page:** 1
Field: Wildcat **Co-ordinate(NE) Reference:** Well: No. 1, Grid North
Site: Double Hackle Drake **Vertical (TVD) Reference:** Mean Sea Level 0.0
Well: No. 1 **Section (VS) Reference:** User (0.00N,0.00E,135.84Azi)
Wellpath: 1 **Survey Calculation Method:** Minimum Curvature **Db:** Sybase

Field: Wildcat
 Lea County, NM

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: Double Hackle Drake
 Section 36, T16S, R35E

Site Position: Northing: 686167.00 ft Latitude: 32 52 58.761 N
From: Map Easting: 781616.00 ft Longitude: 103 24 57.584 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 0.00 ft Grid Convergence: 0.50 deg

Well: No. 1

Slot Name:

Well Position: +N/-S 0.00 ft Northing: 686167.00 ft Latitude: 32 52 58.761 N
 +E/-W 0.00 ft Easting: 781616.00 ft Longitude: 103 24 57.584 W
Position Uncertainty: 0.00 ft

Wellpath: 1

Current Datum: Mean Sea Level **Height** 0.00 ft **Drilled From:** Surface
Magnetic Data: 5/19/2004 **Above System Datum:** Mean Sea Level
Field Strength: 49919 nT **Declination:** 8.58 deg
Vertical Section: Depth From (TVD) +N/-S +E/-W Direction
 ft ft ft deg
 0.00 0.00 0.00 135.84

Survey Program for Definitive Wellpath

Date: 2/4/2005 **Validated:** No **Version:** 0
Actual From **To** **Survey** **Toolcode** **Tool Name**
 ft ft

6058.00 10484.00 Survey #1 (6058.00-10484.00)

Survey

MD	Incl	Azim	TVD	+N/-S	+E/-W	Map	Map	← Latitude →			← Longitude →		
ft	deg	deg	ft	ft	ft	Northing	Easting	Deg	Min	Sec	Deg	Min	Sec
6058.00	0.90	233.84	6057.60	-4.40	-45.80	686162.60	781570.20	32	52	58.722 N	103	24	58.122 W
6145.00	0.20	225.90	6144.60	-4.91	-46.46	686162.09	781569.54	32	52	58.717 N	103	24	58.129 W
6207.00	0.10	101.70	6206.60	-5.00	-46.49	686162.00	781569.51	32	52	58.716 N	103	24	58.130 W
6333.00	0.30	181.70	6332.59	-5.35	-46.39	686161.65	781569.61	32	52	58.712 N	103	24	58.129 W
6468.00	0.50	128.30	6467.59	-6.07	-45.94	686160.93	781570.06	32	52	58.705 N	103	24	58.123 W
6584.00	0.60	155.40	6583.59	-6.93	-45.29	686160.07	781570.71	32	52	58.697 N	103	24	58.116 W
6646.00	0.70	82.80	6645.58	-7.18	-44.77	686159.82	781571.23	32	52	58.694 N	103	24	58.110 W
6774.00	0.60	92.10	6773.58	-7.11	-43.33	686159.89	781572.67	32	52	58.695 N	103	24	58.093 W
6898.00	0.40	83.60	6897.57	-7.08	-42.25	686159.92	781573.75	32	52	58.695 N	103	24	58.080 W
7024.00	0.30	130.90	7023.57	-7.25	-41.56	686159.75	781574.44	32	52	58.693 N	103	24	58.072 W
7150.00	0.60	82.60	7149.56	-7.38	-40.66	686159.62	781575.34	32	52	58.692 N	103	24	58.062 W
7212.00	0.50	80.10	7211.56	-7.29	-40.07	686159.71	781575.93	32	52	58.693 N	103	24	58.055 W
7338.00	1.00	65.90	7337.55	-6.75	-38.53	686160.25	781577.47	32	52	58.698 N	103	24	58.037 W
7462.00	1.00	66.20	7461.53	-5.87	-36.55	686161.13	781579.45	32	52	58.706 N	103	24	58.013 W
7525.00	0.90	57.30	7524.52	-5.38	-35.63	686161.62	781580.37	32	52	58.711 N	103	24	58.003 W
7652.00	0.60	62.40	7651.51	-4.53	-34.20	686162.47	781581.80	32	52	58.719 N	103	24	57.986 W
7776.00	0.30	61.50	7775.51	-4.08	-33.34	686162.92	781582.66	32	52	58.724 N	103	24	57.976 W
7838.00	0.80	57.60	7837.51	-3.77	-32.83	686163.23	781583.17	32	52	58.727 N	103	24	57.970 W
7900.00	1.10	62.20	7899.50	-3.26	-31.94	686163.74	781584.06	32	52	58.732 N	103	24	57.959 W
8026.00	1.00	64.00	8025.48	-2.21	-29.88	686164.79	781586.12	32	52	58.742 N	103	24	57.935 W
8152.00	1.00	71.70	8151.46	-1.38	-27.85	686165.62	781588.15	32	52	58.750 N	103	24	57.911 W
8276.00	1.10	59.90	8275.44	-0.45	-25.79	686166.55	781590.21	32	52	58.759 N	103	24	57.887 W

Company: Arrington Oil & Gas Inc.
Field: Wildcat
Site: Double Hackle Drake
Well: No. 1
Wellpath: 1

Date: 2/4/2005 Time: 13:54:21 Page: 2
Co-ordinate(NE) Reference: Well: No. 1, Grid North
Vertical (TVD) Reference: Mean Sea Level 0.0
Section (VS) Reference: User (0.00N,0.00E,135.84Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

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		
8334.00	1.10	70.50	8333.43	0.02	-24.79	686167.02	781591.21	32	52	58.764 N	103	24	57.875 W
8400.00	0.80	78.00	8399.42	0.32	-23.74	686167.32	781592.26	32	52	58.767 N	103	24	57.863 W
8491.00	0.70	79.90	8490.41	0.55	-22.57	686167.55	781593.43	32	52	58.769 N	103	24	57.849 W
8620.00	1.10	93.30	8619.39	0.62	-20.56	686167.62	781595.44	32	52	58.769 N	103	24	57.825 W
8745.00	1.00	119.30	8744.37	0.02	-18.41	686167.02	781597.59	32	52	58.763 N	103	24	57.800 W
8901.00	1.10	104.60	8900.35	-1.03	-15.77	686165.97	781600.23	32	52	58.753 N	103	24	57.769 W
8964.00	1.10	96.70	8963.33	-1.25	-14.59	686165.75	781601.41	32	52	58.750 N	103	24	57.755 W
9027.00	1.20	94.20	9026.32	-1.37	-13.33	686165.63	781602.67	32	52	58.749 N	103	24	57.741 W
9153.00	1.10	96.50	9152.30	-1.60	-10.81	686165.40	781605.19	32	52	58.746 N	103	24	57.711 W
9278.00	1.10	123.00	9277.27	-2.39	-8.61	686164.61	781607.39	32	52	58.738 N	103	24	57.685 W
9340.00	0.90	129.70	9339.26	-3.03	-7.74	686163.97	781608.26	32	52	58.732 N	103	24	57.675 W
9465.00	1.10	116.50	9464.25	-4.19	-5.91	686162.81	781610.09	32	52	58.720 N	103	24	57.654 W
9589.00	1.10	123.40	9588.22	-5.37	-3.85	686161.63	781612.15	32	52	58.709 N	103	24	57.630 W
9651.00	1.20	95.40	9650.21	-5.76	-2.71	686161.24	781613.29	32	52	58.705 N	103	24	57.617 W
9714.00	1.10	80.50	9713.20	-5.73	-1.45	686161.27	781614.55	32	52	58.705 N	103	24	57.602 W
9838.00	1.10	94.20	9837.18	-5.62	0.91	686161.38	781616.91	32	52	58.706 N	103	24	57.574 W
9962.00	1.20	106.50	9961.15	-6.07	3.34	686160.93	781619.34	32	52	58.701 N	103	24	57.546 W
10088.00	1.50	118.40	10087.12	-7.23	6.05	686159.77	781622.05	32	52	58.689 N	103	24	57.514 W
10150.00	1.60	128.10	10149.09	-8.15	7.45	686158.85	781623.45	32	52	58.680 N	103	24	57.498 W
10245.00	0.90	121.60	10244.07	-9.36	9.13	686157.64	781625.13	32	52	58.668 N	103	24	57.478 W
10308.00	0.60	103.70	10307.06	-9.70	9.87	686157.30	781625.87	32	52	58.665 N	103	24	57.469 W
10371.00	0.60	132.50	10370.06	-10.00	10.43	686157.00	781626.43	32	52	58.662 N	103	24	57.463 W
10484.00	1.10	166.60	10483.05	-11.45	11.12	686155.55	781627.12	32	52	58.647 N	103	24	57.455 W