



Nevis Energy Services, Inc.

11 August 2004

Ms. Allison Newcomb
Black Hills E&P
350 Indiana Street
Suite 400
Golden, Co 80401

Re: Mallon Oil Company
Jicarilla 460-15 #4
Rio Arriba Co., NM
Job #204-141
API No. 300-39-25904



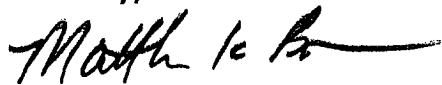
Dear Ms. Newcomb:

Nevis Energy Services has filed the Directional Surveys and lease plat for the above referenced well with the New Mexico Oil Conservation Division via Certified mail. Enclosed is a copy of the filing for your records.

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Jeff Arenas	#4	3,598	6,150	10 Apr 04	25 Apr 04	MWD

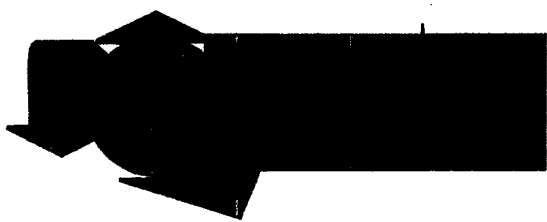
Thank you for the opportunity to be of service. Please contact me if you have any questions or require additional information.

Sincerely,



Matthew K. Brown
Operations Coordinator

Surface : 180/S 330/E
Begin lateral : 181/S 284/E
End lateral : 627/S 2588/W



Nevis Energy Services, Inc.

RE: Mallon Oil Company (Operator)

Jicarilla 460-15 #4 (Well Name & No.)

Section 15 Twp. 30 N Range 3 W

Well File No. 300-39-25904

I, Matthew K. Brown, having personal knowledge of all the facts, hereby certify that the

attached directional surveys for the well run from measured depth of

3,598 feet to a measured depth of 6,150 feet,

respectively, are true and correct as determined from all available records.

Matthew K. Brown
Signature

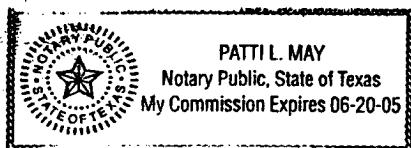
Operations Coord.
Title

Nevis Energy Services, Inc
Company

State of Texas
County of Harris

On this 11 day of August, 2004, before me personally appeared

Matthew K. Brown to me known as the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.



Patti May
Notary Public

06/20/05
My Commission Expires

**NEVIS ENERGY SERVICES INC.
SURVEY DATA CERTIFICATION**

NEVIS JOB NUMBER 204-141

OPERATOR BLACK HILLS E & P

WELL NAME JICARILLA 460-15#4

COUNTY & STATE

RIO ARRIBA, NM

API WELL NUMBER 0

VERT. SECT. DIRECTION 280.56

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
3,598 ft	3,597.6 ft	1.15	37.7	1.4	46.8	GYRO DATA

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
14-Apr-04	3,655 ft	20.5	236.3

SURVEY INSTRUMENT
TYPE
EM

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
25-Apr-04	6,086 ft	90.1	283.9

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED	PROJECTED		
TD SURVEY	TD SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
25-Apr-04	6,150 ft	88.2	284

JEFF ARENAS

PRINT YOUR NAME ABOVE

Jeffrey M. Arenas

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR GRID CONVERGENCE

TOTAL CORRECTION USED	10.71
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4/25/2004

TODAY'S DATE

MWD SUPERVISOR 1

DOUG VINO

DIRECTIONAL DRILLER 1

RETT HERBERT

MWD SUPERVISOR 2

JEFF ARENAS

DIRECTIONAL DRILLER 2

DERECK COLLINS

1724-B Townhurst Dr

Houston, Texas 77043

(713) 827-8302

1724-B Townhurst Dr, Houston, Tx 77043
(713) 827-8302
www.nevisenergy.com

Job Number: 204-141
Company: BHEP / Mallon Oil Co.
Lease/Well: Jicarilla 460-15 # 4
Location: Rio Arriba Co.
Rig Name: Key #44
RKB: 12
G.L. or M.S.L.: API No. 3003925904

State/Country: New Mexico
Declination: 10.71° East
Grid: □
File name: C:\TEMP1~1\BLACKH~1\460-15#4.SVY
Date/Time: 11-Aug-04 / 10:23
Curve Name: Final Surveys

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 280.56
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E Distance FT	Direction Deg	Dogleg Severity Deg/100
Tie in to Gyrodata Survey									
3598.00	1.15	37.71	3597.57	-45.78	1.40	46.83	46.85	88.29	.00
First Nevis MWD Survey									
3625.00	3.00	236.00	3624.56	-45.40	1.22	46.41	46.43	88.50	15.21
3655.00	20.50	236.30	3653.82	-41.04	-2.16	41.35	41.41	92.99	58.33
3661.00	24.60	236.70	3659.36	-39.39	-3.43	39.43	39.58	94.97	68.38
3666.00	27.30	235.20	3663.85	-37.83	-4.66	37.62	37.91	97.06	55.57
3676.00	33.00	231.10	3672.50	-34.45	-7.68	33.61	34.48	102.87	60.58
3687.00	39.90	228.70	3681.34	-30.32	-11.89	28.62	31.00	112.56	64.04
3697.00	45.60	228.90	3688.68	-26.12	-16.36	23.52	28.65	124.82	57.02
3707.00	51.70	229.10	3695.28	-21.45	-21.28	17.86	27.78	140.00	61.02
3719.00	58.80	231.00	3702.12	-15.18	-27.60	10.30	29.46	159.54	60.58
3730.00	64.30	234.40	3707.36	-8.69	-33.46	2.60	33.56	175.55	56.90
3741.00	69.30	239.00	3711.69	-1.40	-39.00	-5.84	39.43	188.52	59.51
3748.00	71.50	241.50	3714.04	3.63	-42.27	-11.57	43.82	195.31	46.04
3779.00	77.20	247.00	3722.41	27.67	-55.21	-38.44	67.27	214.85	25.09
3811.00	80.60	250.30	3728.57	54.32	-66.63	-67.68	94.98	225.45	14.67
3843.00	85.30	250.70	3732.50	81.80	-77.23	-97.61	124.47	231.65	14.74
3874.00	89.20	251.40	3733.98	108.74	-87.28	-126.89	154.01	235.48	12.78
3906.00	91.70	256.50	3733.73	137.34	-96.13	-157.63	184.63	238.62	17.75
3937.00	93.10	261.90	3732.43	166.18	-101.93	-188.04	213.89	241.54	17.98
3969.00	95.09	267.10	3730.15	196.84	-104.99	-219.80	243.59	244.47	17.36
4000.00	96.60	272.40	3726.99	227.12	-105.12	-250.63	271.78	247.24	17.69

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
4031.00	98.20	277.00	3722.99	257.69	-102.61	-281.25	299.39	249.96	15.59
4063.00	98.30	278.20	3718.40	289.31	-98.42	-312.64	327.77	252.53	3.72
4094.00	98.00	277.90	3714.00	319.97	-94.12	-343.03	355.71	254.66	1.36
4125.00	99.20	282.10	3709.37	350.61	-88.80	-373.21	383.63	256.62	13.94
4156.00	99.50	283.50	3704.33	381.18	-82.03	-403.04	411.30	258.50	4.56
4187.00	99.60	282.80	3699.19	411.72	-75.07	-432.80	439.27	260.16	2.25
4219.00	99.60	285.10	3693.85	443.21	-67.47	-463.42	468.31	261.72	7.09
4250.00	99.40	286.30	3688.73	473.66	-59.19	-492.86	496.40	263.15	3.87
4282.00	98.90	286.50	3683.64	505.09	-50.27	-523.16	525.57	264.51	1.68
4313.00	98.40	286.50	3678.98	535.57	-41.57	-552.55	554.11	265.70	1.61
4343.00	98.20	286.50	3674.65	565.10	-33.14	-581.01	581.96	266.74	.67
4374.00	98.00	286.30	3670.28	595.63	-24.47	-610.45	610.94	267.70	.91
4406.00	98.70	286.40	3665.64	627.13	-15.56	-640.83	641.02	268.61	2.21
4437.00	99.30	286.10	3660.79	657.60	-6.99	-670.23	670.27	269.40	2.16
4469.00	97.80	286.90	3656.03	689.07	2.00	-700.57	700.57	270.16	5.30
4500.00	97.50	286.40	3651.90	719.62	10.80	-730.01	730.08	270.85	1.87
4532.00	94.40	286.40	3648.59	751.28	19.78	-760.53	760.79	271.49	9.69
4563.00	92.80	287.20	3646.64	782.03	28.73	-790.15	790.67	272.08	5.77
4595.00	89.70	287.60	3645.94	813.79	38.29	-820.68	821.57	272.67	9.77
4626.00	88.90	287.30	3646.32	844.57	47.59	-850.25	851.58	273.20	2.76
4657.00	89.30	287.50	3646.81	875.34	56.86	-879.82	881.66	273.70	1.44
4688.00	90.20	288.60	3646.94	906.08	66.46	-909.30	911.72	274.18	4.58
4720.00	90.30	287.90	3646.80	937.79	76.48	-939.69	942.79	274.65	2.21
4752.00	89.30	287.30	3646.92	969.55	86.16	-970.19	974.01	275.07	3.64
4783.00	90.00	287.90	3647.10	1000.31	95.53	-999.74	1004.29	275.46	2.97
4814.00	89.00	287.90	3647.37	1031.06	105.06	-1029.23	1034.58	275.83	3.23
4846.00	88.50	286.40	3648.07	1062.84	114.49	-1059.80	1065.97	276.17	4.94
4877.00	88.80	287.20	3648.80	1093.64	123.45	-1089.47	1096.44	276.46	2.76
4908.00	89.20	286.90	3649.34	1124.44	132.54	-1119.11	1126.93	276.75	1.61
4939.00	88.60	285.40	3649.94	1155.29	141.16	-1148.88	1157.51	277.00	5.21
4971.00	89.00	285.80	3650.61	1187.16	149.76	-1179.69	1189.16	277.24	1.77
5002.00	88.70	285.50	3651.23	1218.03	158.12	-1209.53	1219.83	277.45	1.37
5035.00	88.70	285.20	3651.98	1250.90	166.86	-1241.35	1252.51	277.66	.91
5067.00	89.00	284.50	3652.62	1282.81	175.06	-1272.27	1284.26	277.83	2.38
5098.00	89.40	283.40	3653.06	1313.75	182.53	-1302.36	1315.08	277.98	3.78
5129.00	88.80	284.40	3653.54	1344.69	189.98	-1332.44	1345.92	278.11	3.76
5161.00	87.60	284.00	3654.55	1376.61	197.82	-1363.45	1377.73	278.26	3.95
5192.00	86.60	282.70	3656.12	1407.53	204.97	-1393.57	1408.57	278.37	5.29
5223.00	88.40	283.40	3657.47	1438.47	211.96	-1423.74	1439.43	278.47	6.23
5257.00	88.60	282.50	3658.36	1472.43	219.58	-1456.87	1473.32	278.57	2.71
5288.00	85.80	282.00	3659.87	1503.38	226.15	-1487.12	1504.22	278.65	9.17
5319.00	85.10	281.70	3662.33	1534.27	232.49	-1517.36	1535.07	278.71	2.46
5350.00	85.40	282.50	3664.90	1565.16	238.97	-1547.57	1565.91	278.78	2.75

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
5382.00	85.90	284.40	3667.33	1597.02	246.39	-1578.60	1597.71	278.87	6.12
5414.00	85.90	283.70	3669.61	1628.88	254.14	-1609.56	1629.50	278.97	2.18
5445.00	87.00	283.70	3671.53	1659.77	261.47	-1639.62	1660.34	279.06	3.55
5477.00	87.10	285.10	3673.18	1691.66	269.42	-1670.58	1692.16	279.16	4.38
5509.00	89.10	285.10	3674.24	1723.54	277.75	-1701.45	1723.97	279.27	6.25
5540.00	89.40	285.50	3674.65	1754.43	285.93	-1731.35	1754.80	279.38	1.61
5572.00	88.90	285.90	3675.12	1786.30	294.58	-1762.16	1786.61	279.49	2.00
5603.00	88.40	285.00	3675.85	1817.18	302.84	-1792.03	1817.44	279.59	3.32
5635.00	89.20	285.40	3676.52	1849.06	311.23	-1822.90	1849.28	279.69	2.79
5666.00	89.20	285.50	3676.96	1879.95	319.49	-1852.78	1880.12	279.78	.32
5698.00	90.20	286.60	3677.12	1911.80	328.33	-1883.53	1911.93	279.89	4.65
5730.00	90.00	285.30	3677.07	1943.66	337.13	-1914.30	1943.75	279.99	4.11
5761.00	90.30	286.00	3676.99	1974.53	345.49	-1944.15	1974.60	280.08	2.46
5793.00	90.30	287.10	3676.82	2006.36	354.60	-1974.82	2006.40	280.18	3.44
5824.00	89.90	287.10	3676.76	2037.16	363.72	-2004.45	2037.18	280.28	1.29
5855.00	89.30	286.60	3676.98	2067.97	372.70	-2034.12	2067.98	280.38	2.52
5886.00	88.50	285.70	3677.58	2098.82	381.33	-2063.89	2098.82	280.47	3.88
5918.00	88.20	284.80	3678.50	2130.70	389.74	-2094.75	2130.70	280.54	2.96
5949.00	90.40	284.30	3678.88	2161.62	397.53	-2124.75	2161.62	280.60	7.28
5980.00	91.20	284.80	3678.44	2192.54	405.31	-2154.75	2192.54	280.65	3.04
6012.00	91.10	282.90	3677.80	2224.48	412.97	-2185.81	2224.48	280.70	5.94
6055.00	90.10	284.70	3677.35	2267.40	423.23	-2227.57	2267.42	280.76	4.79
Last Nevis MWD Survey									
6086.00	90.10	283.90	3677.30	2298.34	430.88	-2257.61	2298.36	280.81	2.58
Projection to bit									
6150.00	88.20	283.00	3678.25	2362.24	445.77	-2319.84	2362.28	280.88	3.28