



PHOENIX
TECHNOLOGY SERVICES

HOBBS March 26, 2015

MAR 30 2015

RECEIVED

Oil Conservation Division
State of New Mexico
1625 N. French Drive
Hobbs, New Mexico 88240

Dear District 1 - Hobbs

Re: Matador Resources
Cimarron 16-19S-34E #134H
Lea County, New Mexico
API #30-025-42352
Job No. 1512985

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

Name & Title of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Eric Neel	134H	5,946	15,359	02/19/15	03/06/15	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Claudia Carreon

Claudia Carreon
Operations Administrator

Certified mail receipt number: 7014 2120 0004 3423 7309

Phoenix Technology Services
SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER

1512985

ENERGY COMPANY

Matador Resources

WELL NAME

Cimarron 16-19S-34E 134H

COUNTY & STATE

Lea, NM

API WELL NUMBER

30-025-42352

PROPOSED DIRECTION

179.49°

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
5,800. ft	5,799.58 ft	1.32°	347.28°	13.01 ft	3.78 ft	Matador MWD

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
19-Feb-15	5,946.00 ft	1.9°	356.2°

SURVEY INSTRUMENT
TYPE

Phoenix MWD

HOBBS OGD
MAR 30 2015
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LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
6-Mar-15	15,359.00 ft	92.7°	179.1°

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
6-Mar-15	15,464.00 ft	92.7°	179.1°

Eric Neel

PRINT YOUR NAME ABOVE

Eric Neel

SIGN YOUR NAME ABOVE

3/6/2015

TODAY'S DATE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	6.87
DECLINATION OR GRID	GRID

MWD SUPERVISOR 1

Eric Neel

DIRECTIONAL DRILLER 1

Van Johnson

MWD SUPERVISOR 2

Steven Poer

DIRECTIONAL DRILLER 2

Aaron Kinney

12329 Cutten Rd., Houston, Texas 777066 (713)337-0600 (Voice), (713)337-0599 (Fax)



Matador Resources

Lea County, NM (NAD 27)

Cimarron 16-19S-34E

#134H

Wellbore #1 Job #1512985

Survey: Phoenix MWD Surveys

Standard Survey Report

09 March, 2015

HOBBS OCD

MAR 30 2015

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PHOENIX
TECHNOLOGY SERVICES



Phoenix Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #134H
Project:	Lea County, NM (NAD 27)	TVD Reference:	GL3825+KB22.5 @ 3847.50usft (Patterson 262)
Site:	Cimarron 16-19S-34E	MD Reference:	GL3825+KB22.5 @ 3847.50usft (Patterson 262)
Well:	#134H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1512985	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 262)	Database:	Compass 5000 GCR

Project	Lea County, NM (NAD 27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Cimarron 16-19S-34E				
Site Position:		Northing:	607,129.00 usft	Latitude:	32° 40' 0.16131 N
From:	Map	Easting:	738,164.00 usft	Longitude:	103° 33' 33.86441 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.42 °

Well	#134H					
Well Position	+N/-S	0.00 usft	Northing:	607,129.00 usft	Latitude:	32° 40' 0.16131 N
	+E/-W	0.00 usft	Easting:	738,164.00 usft	Longitude:	103° 33' 33.86441 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,825.00 usft

Wellbore	Wellbore #1 Job #1512985				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	2/12/2015	7.29	60.49	48,481

Design	Surveys (Patterson 262)				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	179.49	

Survey Program	Date 3/9/2015				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
141.00	5,793.00	Matador Field MWD (Wellbore #1 Job #15	MWD	MWD - Standard	
5,946.00	15,464.00	Phoenix MWD Surveys (Wellbore #1 Job #	PHX+MWD+BGGM	PHX+MWD+BGGM v3:standard declination	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,800.00	1.32	347.28	5,799.58	13.01	3.78	-12.98	0.00	0.00	0.00	
5,946.00	1.90	356.20	5,945.52	17.07	3.25	-17.04	0.43	0.40	6.11	
First Phoenix MWD Survey										
6,040.00	2.10	70.60	6,039.48	19.19	4.77	-19.15	2.58	0.21	79.15	
6,134.00	3.20	75.30	6,133.38	20.43	8.93	-20.35	1.19	1.17	5.00	
6,228.00	3.50	90.00	6,227.22	21.10	14.34	-20.97	0.96	0.32	15.64	
6,322.00	5.50	88.70	6,320.92	21.20	21.71	-21.00	2.13	2.13	-1.38	
6,416.00	6.50	89.10	6,414.41	21.38	31.54	-21.10	1.06	1.06	0.43	
6,511.00	8.30	86.70	6,508.61	21.86	43.76	-21.47	1.92	1.89	-2.53	
6,605.00	9.70	83.30	6,601.45	23.18	58.40	-22.66	1.59	1.49	-3.62	



Phoenix Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #134H
Project:	Lea County, NM (NAD 27)	TVD Reference:	GL3825+KB22.5 @ 3847.50usft (Patterson 262)
Site:	Cimarron 16-19S-34E	MD Reference:	GL3825+KB22.5 @ 3847.50usft (Patterson 262)
Well:	#134H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1512985	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 262)	Database:	Compass 5000 GCR

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,700.00	11.00	81.00	6,694.91	25.53	75.30	-24.86	1.44	1.37	-2.42
6,795.00	12.40	75.90	6,787.93	29.43	94.15	-28.59	1.83	1.47	-5.37
6,889.00	13.30	73.40	6,879.58	34.98	114.30	-33.96	1.13	0.96	-2.66
6,983.00	13.30	75.90	6,971.06	40.70	135.15	-39.50	0.61	0.00	2.66
7,077.00	12.90	77.70	7,062.61	45.57	155.88	-44.18	0.61	-0.43	1.91
7,171.00	12.40	75.80	7,154.33	50.28	175.92	-48.72	0.69	-0.53	-2.02
7,265.00	11.90	72.60	7,246.23	55.66	194.95	-53.92	0.89	-0.53	-3.40
7,359.00	11.20	75.30	7,338.32	60.87	213.03	-58.97	0.94	-0.74	2.87
7,453.00	11.70	70.90	7,430.45	66.31	230.87	-64.25	1.07	0.53	-4.68
7,547.00	11.30	68.20	7,522.57	72.85	248.43	-70.63	0.71	-0.43	-2.87
7,642.00	10.60	69.40	7,615.84	79.38	265.25	-77.01	0.77	-0.74	1.26
7,736.00	11.40	67.30	7,708.11	86.01	281.91	-83.49	0.95	0.85	-2.23
7,830.00	10.30	66.80	7,800.43	92.90	298.21	-90.24	1.17	-1.17	-0.53
7,924.00	10.40	66.30	7,892.90	99.62	313.70	-96.83	0.14	0.11	-0.53
8,019.00	11.50	67.30	7,986.17	106.72	330.29	-103.78	1.17	1.16	1.05
8,113.00	10.40	67.10	8,078.45	113.64	346.75	-110.55	1.17	-1.17	-0.21
8,207.00	8.80	63.80	8,171.14	120.12	361.02	-116.90	1.80	-1.70	-3.51
8,301.00	9.40	59.30	8,263.95	127.21	374.07	-123.88	0.99	0.64	-4.79
8,395.00	11.90	57.20	8,356.33	136.38	388.82	-132.92	2.69	2.66	-2.23
8,489.00	10.40	54.90	8,448.55	146.51	403.91	-142.91	1.66	-1.60	-2.45
8,584.00	8.50	48.10	8,542.26	156.13	416.15	-152.42	2.32	-2.00	-7.16
8,679.00	7.60	42.80	8,636.32	165.43	425.64	-161.63	1.23	-0.95	-5.58
8,773.00	6.50	41.00	8,729.61	174.01	433.36	-170.14	1.19	-1.17	-1.91
8,868.00	4.90	46.60	8,824.14	180.85	439.83	-176.93	1.78	-1.68	5.89
8,957.00	3.80	42.30	8,912.88	185.65	444.58	-181.68	1.29	-1.24	-4.83
9,052.00	3.40	34.20	9,007.70	190.30	448.28	-186.31	0.68	-0.42	-8.53
9,144.00	2.50	30.00	9,099.57	194.30	450.82	-190.28	1.01	-0.98	-4.57
9,239.00	1.90	60.80	9,194.51	196.86	453.23	-192.82	1.37	-0.63	32.42
9,333.00	0.70	76.70	9,288.48	197.75	455.15	-193.69	1.32	-1.28	16.91
9,427.00	0.40	171.00	9,382.48	197.56	455.76	-193.50	0.88	-0.32	100.32
9,521.00	0.10	210.70	9,476.48	197.17	455.77	-193.10	0.35	-0.32	42.23
9,616.00	0.40	285.70	9,571.48	197.19	455.41	-193.12	0.41	0.32	78.95
9,711.00	0.60	307.40	9,666.47	197.58	454.69	-193.52	0.29	0.21	22.84
9,804.00	1.40	303.80	9,759.46	198.51	453.36	-194.46	0.86	0.86	-3.87
9,899.00	2.40	283.50	9,854.40	199.62	450.46	-195.60	1.25	1.05	-21.37
9,993.00	2.50	275.70	9,948.32	200.28	446.51	-196.30	0.37	0.11	-8.30
10,087.00	2.10	256.40	10,042.24	200.08	442.80	-196.13	0.92	-0.43	-20.53
10,118.00	2.40	233.40	10,073.22	199.56	441.72	-195.62	3.04	0.97	-74.19
10,147.00	2.70	213.90	10,102.19	198.63	440.86	-194.70	3.15	1.03	-67.24
10,178.00	3.80	186.10	10,133.14	197.00	440.34	-193.07	6.10	3.55	-89.68
10,210.00	7.20	171.00	10,164.99	193.96	440.54	-190.03	11.46	10.63	-47.19
10,241.00	11.00	169.60	10,195.60	189.13	441.38	-185.20	12.28	12.26	-4.52
10,272.00	14.90	167.90	10,225.80	182.33	442.75	-178.38	12.64	12.58	-5.48



Phoenix
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #134H
Project:	Lea County, NM (NAD 27)	TVD Reference:	GL3825+KB22.5 @ 3847.50usft (Patterson 262)
Site:	Cimarron 16-19S-34E	MD Reference:	GL3825+KB22.5 @ 3847.50usft (Patterson 262)
Well:	#134H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1512985	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 262)	Database:	Compass 5000 GCR

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,304.00	19.30	166.00	10,256.38	173.17	444.89	-169.20	13.86	13.75	-5.94
10,336.00	23.70	166.20	10,286.15	161.79	447.71	-157.79	13.75	13.75	0.63
10,367.00	28.10	168.60	10,314.03	148.57	450.64	-144.55	14.59	14.19	7.74
10,398.00	32.20	170.40	10,340.83	133.26	453.46	-129.22	13.54	13.23	5.81
10,430.00	35.50	169.90	10,367.40	115.71	456.51	-111.64	10.35	10.31	-1.56
10,461.00	37.60	168.70	10,392.30	97.57	459.94	-93.47	7.16	6.77	-3.87
10,492.00	39.70	165.90	10,416.51	78.69	464.21	-74.55	8.81	6.77	-9.03
10,524.00	43.40	164.10	10,440.46	58.19	469.71	-54.01	12.15	11.56	-5.63
10,555.00	46.10	163.00	10,462.47	37.27	475.90	-33.03	9.06	8.71	-3.55
10,587.00	48.30	162.20	10,484.21	14.86	482.92	-10.57	7.12	6.88	-2.50
10,618.00	50.40	161.90	10,504.41	-7.51	490.17	11.87	6.81	6.77	-0.97
10,649.00	52.20	162.30	10,523.79	-30.53	497.60	34.96	5.89	5.81	1.29
10,680.00	54.40	161.70	10,542.32	-54.17	505.28	58.66	7.26	7.10	-1.94
10,711.00	56.10	162.40	10,559.98	-78.40	513.13	82.96	5.79	5.48	2.26
10,743.00	57.70	162.90	10,577.46	-103.98	521.13	108.62	5.17	5.00	1.56
10,774.00	59.50	163.70	10,593.61	-129.33	528.73	134.03	6.21	5.81	2.58
10,805.00	60.90	164.60	10,609.02	-155.20	536.07	159.97	5.17	4.52	2.90
10,837.00	62.30	165.90	10,624.24	-182.42	543.24	187.25	5.65	4.38	4.06
10,868.00	63.30	166.70	10,638.41	-209.21	549.77	214.10	3.96	3.23	2.58
10,899.00	65.30	167.00	10,651.85	-236.41	556.12	241.35	6.51	6.45	0.97
10,931.00	67.30	167.40	10,664.71	-264.98	562.61	269.98	6.35	6.25	1.25
10,962.00	70.60	167.40	10,675.84	-293.21	568.92	298.27	10.65	10.65	0.00
10,994.00	73.10	167.80	10,685.81	-322.91	575.45	328.02	7.90	7.81	1.25
11,025.00	75.40	168.60	10,694.23	-352.11	581.55	357.28	7.82	7.42	2.58
11,057.00	77.60	169.40	10,701.70	-382.66	587.48	387.87	7.29	6.88	2.50
11,088.00	79.70	170.40	10,707.80	-412.58	592.81	417.84	7.48	6.77	3.23
11,119.00	81.60	171.10	10,712.83	-442.77	597.73	448.07	6.52	6.13	2.26
11,151.00	83.80	171.80	10,716.90	-474.15	602.45	479.49	7.21	6.88	2.19
11,182.00	86.20	173.20	10,719.60	-504.77	606.48	510.14	8.95	7.74	4.52
11,241.00	87.10	173.90	10,723.05	-563.29	613.09	568.73	1.93	1.53	1.19
11,308.00	89.90	176.30	10,724.80	-630.01	618.81	635.50	5.50	4.18	3.58
11,402.00	89.80	178.20	10,725.05	-723.90	623.32	729.42	2.02	-0.11	2.02
11,496.00	89.80	179.80	10,725.38	-817.88	624.96	823.41	1.70	0.00	1.70
11,591.00	89.80	180.00	10,725.71	-912.88	625.13	918.41	0.21	0.00	0.21
11,685.00	89.80	179.50	10,726.04	-1,006.88	625.54	1,012.41	0.53	0.00	-0.53
11,779.00	90.50	180.90	10,725.79	-1,100.87	625.21	1,106.40	1.67	0.74	1.49
11,873.00	91.30	180.60	10,724.31	-1,194.85	623.98	1,200.36	0.91	0.85	-0.32
11,966.00	92.00	180.40	10,721.64	-1,287.81	623.17	1,293.31	0.78	0.75	-0.22
12,060.00	92.10	180.40	10,718.27	-1,381.75	622.51	1,387.24	0.11	0.11	0.00
12,155.00	91.30	181.10	10,715.45	-1,476.70	621.27	1,482.17	1.12	-0.84	0.74
12,248.00	91.70	180.70	10,713.02	-1,569.65	619.81	1,575.11	0.61	0.43	-0.43
12,343.00	90.50	181.60	10,711.20	-1,664.61	617.90	1,670.05	1.58	-1.26	0.95
12,437.00	90.10	181.70	10,710.70	-1,758.57	615.20	1,763.98	0.44	-0.43	0.11



Phoenix Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #134H
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Site:	Cimarron 16-19S-34E	MD Reference:	GL3825+KB22.5 @ 3847.50usft (Patterson 262)
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Wellbore:	Wellbore #1 Job #1512985	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 262)	Database:	Compass 5000 GCR

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,532.00	89.80	181.20	10,710.79	-1,853.54	612.79	1,858.92	0.61	-0.32	-0.53
12,626.00	90.80	179.70	10,710.29	-1,947.54	612.05	1,952.91	1.92	1.06	-1.60
12,720.00	89.40	179.70	10,710.13	-2,041.53	612.55	2,046.90	1.49	-1.49	0.00
12,815.00	90.50	179.80	10,710.21	-2,136.53	612.96	2,141.90	1.16	1.16	0.11
12,909.00	89.10	180.90	10,710.54	-2,230.52	612.39	2,235.89	1.89	-1.49	1.17
13,004.00	88.10	182.00	10,712.86	-2,325.46	609.98	2,330.80	1.56	-1.05	1.16
13,097.00	89.40	181.90	10,714.89	-2,418.38	606.82	2,423.69	1.40	1.40	-0.11
13,191.00	90.90	181.90	10,714.65	-2,512.33	603.70	2,517.60	1.60	1.60	0.00
13,285.00	89.70	180.40	10,714.15	-2,606.30	601.82	2,611.56	2.04	-1.28	-1.60
13,379.00	87.30	179.50	10,716.61	-2,700.26	601.90	2,705.51	2.73	-2.55	-0.96
13,474.00	88.50	179.40	10,720.09	-2,795.19	602.81	2,800.45	1.27	1.26	-0.11
13,568.00	89.70	178.90	10,721.57	-2,889.17	604.20	2,894.43	1.38	1.28	-0.53
13,662.00	91.20	178.50	10,720.83	-2,983.14	606.34	2,988.42	1.65	1.60	-0.43
13,757.00	91.00	180.00	10,719.01	-3,078.11	607.58	3,083.40	1.59	-0.21	1.58
13,851.00	89.50	181.10	10,718.60	-3,172.10	606.68	3,177.38	1.98	-1.60	1.17
13,945.00	88.60	181.70	10,720.16	-3,266.06	604.38	3,271.31	1.15	-0.96	0.64
14,040.00	89.20	181.80	10,721.98	-3,361.00	601.48	3,366.22	0.64	0.63	0.11
14,133.00	89.50	181.40	10,723.04	-3,453.96	598.88	3,459.15	0.54	0.32	-0.43
14,227.00	87.00	179.80	10,725.91	-3,547.90	597.90	3,553.08	3.16	-2.66	-1.70
14,322.00	86.20	178.10	10,731.54	-3,642.71	599.64	3,647.90	1.97	-0.84	-1.79
14,416.00	87.50	177.80	10,736.71	-3,736.50	602.99	3,741.72	1.42	1.38	-0.32
14,511.00	88.70	177.40	10,739.86	-3,831.37	606.97	3,836.62	1.33	1.26	-0.42
14,605.00	89.90	177.00	10,741.00	-3,925.25	611.56	3,930.53	1.35	1.28	-0.43
14,698.00	91.20	176.10	10,740.11	-4,018.07	617.16	4,023.40	1.70	1.40	-0.97
14,793.00	90.60	178.90	10,738.62	-4,112.96	621.30	4,118.33	3.01	-0.63	2.95
14,887.00	89.00	179.40	10,738.95	-4,206.94	622.70	4,212.32	1.78	-1.70	0.53
14,982.00	87.40	180.20	10,741.93	-4,301.89	623.03	4,307.27	1.88	-1.68	0.84
15,076.00	88.80	180.00	10,745.05	-4,395.84	622.86	4,401.21	1.50	1.49	-0.21
15,170.00	90.10	179.80	10,745.95	-4,489.83	623.03	4,495.20	1.40	1.38	-0.21
15,265.00	91.40	179.50	10,744.71	-4,584.82	623.61	4,590.19	1.40	1.37	-0.32
15,359.00	92.70	179.10	10,741.34	-4,678.75	624.75	4,684.13	1.45	1.38	-0.43
Final Phoenix MWD Survey									
15,464.00	92.70	179.10	10,736.40	-4,783.62	626.40	4,789.01	0.00	0.00	0.00
Projection to TD									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,946.00	5,945.52	17.07	3.25	First Phoenix MWD Survey
15,359.00	10,741.34	-4,678.75	624.75	Final Phoenix MWD Survey
15,464.00	10,736.40	-4,783.62	626.40	Projection to TD



Phoenix
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #134H
Project:	Lea County, NM (NAD 27)	TVD Reference:	GL3825+KB22.5 @ 3847.50usft (Patterson 262)
Site:	Cimarron 16-19S-34E	MD Reference:	GL3825+KB22.5 @ 3847.50usft (Patterson 262)
Well:	#134H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1512985	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 262)	Database:	Compass 5000 GCR

Checked By: _____ Approved By: _____ Date: _____