

N.M. Oil Cons. Div-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APR 30 2009

FORM APPROVED
Budget Bureau No 1004-0135
Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1 Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2 Name of Operator

Mack Energy Corporation

3 Address and Telephone No

P.O. Box 960 Artesia, NM 88211-0960 (575)748-1288

4 Location of Well (Footage, Sec, T, R, M or Survey Description)

SL 1650 FSL & 2310 FEL, Sec. 30 T15S R29E
BHL 2310 FSL & 330 FEL, Sec. 30 T15S R29E

5 Lease Designation and Serial No

NMNM-0560397

6 If Indian, Allottee or Tribe Name

7 If Unit or CA, Agreement Designation

8 Well Name and No

Whitehorse Federal #1

9 API Well No

30-005-64096

10 Field and Pool, or Exploratory Area

Round Tank; San Andres (527D)

11 County or Parish, State

Chaves, NM

12 CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Drill horizontal
☒ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form)

13 Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)*

Mack Energy Corporation proposes to change the proposed plan to drill this well horizontal in the San Andres formation. Attached horizontal drilling plan.

Surface casing: No change.

Production casing: Drill a 7 7/8 hole to 5043', run 5 1/2" casing from 0-5043' and cement to surface with 1100sx Class C cement, yield 1.32. Safety Factors: 5 1/2 17# L-80 LT&C C/B/T 2.352/2.723/2.580.

Proposed Round Tank Queen Waterflood Unit: Cement Behind 5-1/2" Casing Must Be Circulated To The Surface.

14 I hereby certify that the foregoing is true and correct

Signed

James W. Sherrill

Title

Production Clerk

Date

4/7/09

(This space for Federal or State office use)

Approved by
Conditions of approval, if any

/S/ DAVID R. GLASS

PETROLEUM ENGINEER

Date

APR 15 2009

DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

MAR 20 2009

Form C-102

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 86210

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 52770	Pool Name Round Tank; San Andres
Property Code 37616	Property Name WHITEHORSE FEDERAL	Well Number 1
OGRID No. 013837	Operator Name MACK ENERGY CORPORATION	Elevation 3737'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	30	15-S	29-E		1650	SOUTH	2310	EAST	CHAVES

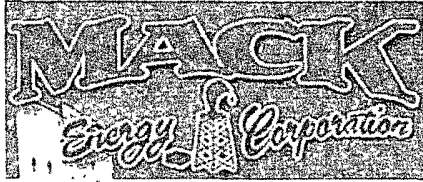
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	30	15-S	29-E		2310	SOUTH	330	EAST	CHAVES

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
80			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=721853.9 N X=581872.4 E LAT.=32.984160° N LONG.=104.066336° W BOTTOM HOLE LOCATION Y=722519.7 N X=583868.2 E DETAIL 3739.1' 3738.6' 600' 3729.1' 3733.9' GRID AZ.=71°33'02" HORIZ. DIST.=2104.5' S.L. SEE DETAIL 2310' 330' B.H. 2310' 1650'	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Jerry W. Sherrell</i> 4/7/09 Signature Date Jerry W. Sherrell Printed Name SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. RONALD J. EIDSON OCTOBER 21 2008 Date Surveyed Signature & Seal of Professional Surveyor <i>Ronald J. Eidson</i> 10/19/09 Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239
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Mack Energy

Chaves County
Whitehorse Federal #1
Whitehorse #1
OH

Plan: Plan #1

Pathfinder X & Y Survey Report

23 March, 2009

PATHFINDER



Pathfinder Energy Services
Pathfinder X & Y Survey Report



Company:	Mack Energy	Local Co-ordinate Reference:	Well Whitehorse #1
Project:	Chaves County	TVD Reference:	WELL @ 3754.00ft (RKB = 17')
Site:	Whitehorse Federal #1	MD Reference:	WELL @ 3754.00ft (RKB = 17')
Well:	Whitehorse #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003:16 Single User Db

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

Site:	Whitehorse Federal #1		
Site Position:		Northing:	721,853.900 ft
From:	Map	Easting:	581,872.400 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 59' 2.977 N
		Longitude:	104° 3' 58.801 W
		Grid Convergence:	0.15 °

Well		Whitehorse #1				
Well Position	+N/-S	0.00 ft	Northing:	721,853.900 ft	Latitude:	32° 59' 2.977 N
	+E/-W	0.00 ft	Easting:	581,872.400 ft	Longitude:	104° 3' 58.801 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,737.00 ft

Wellbore:	OH
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF200510	3/23/2009	(°)	(°)	(nT)
			8.13	60.87	49,266

Design:	Plan #1
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Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	71.70

Survey Tool Program		Date: 3/23/2009		
From	To	Survey (Wellbore)	Tool Name	Description
(ft)	(ft)			
0.00	5,043.62	Plan #1 (OH)	MWD	MWD - Standard



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Pathfinder X & Y Survey Report



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Well:	Whitehorse #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003.16 Single User.Db

Planned Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)	
0.00	0.00	0.00	0.00	-3,754.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
100.00	0.00	0.00	100.00	-3,654.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
200.00	0.00	0.00	200.00	-3,554.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
300.00	0.00	0.00	300.00	-3,454.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
400.00	0.00	0.00	400.00	-3,354.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
500.00	0.00	0.00	500.00	-3,254.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
600.00	0.00	0.00	600.00	-3,154.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
700.00	0.00	0.00	700.00	-3,054.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
800.00	0.00	0.00	800.00	-2,954.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
900.00	0.00	0.00	900.00	-2,854.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
1,000.00	0.00	0.00	1,000.00	-2,754.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
1,100.00	0.00	0.00	1,100.00	-2,654.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
1,200.00	0.00	0.00	1,200.00	-2,554.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
1,300.00	0.00	0.00	1,300.00	-2,454.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
1,400.00	0.00	0.00	1,400.00	-2,354.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
1,500.00	0.00	0.00	1,500.00	-2,254.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
1,600.00	0.00	0.00	1,600.00	-2,154.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
1,700.00	0.00	0.00	1,700.00	-2,054.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
1,800.00	0.00	0.00	1,800.00	-1,954.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
1,900.00	0.00	0.00	1,900.00	-1,854.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
2,000.00	0.00	0.00	2,000.00	-1,754.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
2,100.00	0.00	0.00	2,100.00	-1,654.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
2,200.00	0.00	0.00	2,200.00	-1,554.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
2,300.00	0.00	0.00	2,300.00	-1,454.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
2,400.00	0.00	0.00	2,400.00	-1,354.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
2,500.00	0.00	0.00	2,500.00	-1,254.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
2,600.00	0.00	0.00	2,600.00	-1,154.00	0.00	0.00	0.00	0.00	721,853.90	581,872.40	



Pathfinder Energy Services
Pathfinder X & Y Survey Report



Company:	Mack Energy	Local Co-ordinate Reference:	Well: Whitehorse #1
Project:	Chaves County	TVD Reference:	WELL @ 3754.00ft (RKB = 17')
Site:	Whitehorse Federal #1	MD Reference:	WELL @ 3754.00ft (RKB = 17')
Well:	Whitehorse #1	North Reference:	Grd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM: 2003.16 Single User Db

Planned Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)	
2,683.50	0.00	0 00	2,683.50	-1,070.50	0.00	0.00	0.00	0.00	721,853.90	581,872.40	
KOP: 0.00°DLS, 2683.50MD', 2683.50TVD, 0.00°INC, 0.00°AZI, 0.00°VS											
2,700.00	1.98	71.55	2,700.00	-1,054.00	0.09	0.27	0.29	12.00	721,853.99	581,872.67	
2,725.00	4.98	71.55	2,724.95	-1,029.05	0.57	1.71	1.80	12.00	721,854.47	581,874.11	
2,750.00	7.98	71.55	2,749.79	-1,004.21	1.46	4.39	4.62	12.00	721,855.36	581,876.79	
2,775.00	10.98	71.55	2,774.44	-979.56	2.77	8.29	8.74	12.00	721,856.67	581,880.69	
2,800.00	13.98	71.55	2,798.85	-955.15	4.48	13.42	14.14	12.00	721,858.38	581,885.82	
2,825.00	16.98	71.55	2,822.94	-931.06	6.59	19.74	20.81	12.00	721,860.49	581,892.14	
2,850.00	19.98	71.55	2,846.65	-907.35	9.09	27.26	28.74	12.00	721,862.99	581,899.66	
2,875.00	22.98	71.55	2,869.91	-884.09	11.99	35.94	37.89	12.00	721,865.89	581,908.34	
2,900.00	25.98	71.55	2,892.66	-861.34	15.27	45.77	48.25	12.00	721,869.17	581,918.17	
2,925.00	28.98	71.55	2,914.83	-839.17	18.92	56.71	59.78	12.00	721,872.82	581,929.11	
2,950.00	31.98	71.55	2,936.38	-817.62	22.93	68.74	72.46	12.00	721,876.83	581,941.14	
2,975.00	34.98	71.55	2,957.23	-796.77	27.30	81.82	86.25	12.00	721,881.20	581,954.22	
3,000.00	37.98	71.55	2,977.33	-776.67	32.00	95.92	101.11	12.00	721,885.90	581,968.32	
3,025.00	40.98	71.55	2,996.62	-757.38	37.03	110.99	117.01	12.00	721,890.93	581,983.39	
3,050.00	43.98	71.55	3,015.06	-738.94	42.37	127.01	133.89	12.00	721,896.27	581,999.41	
3,075.00	46.98	71.55	3,032.58	-721.42	48.01	143.92	151.71	12.00	721,901.91	582,016.32	
3,100.00	49.98	71.55	3,049.15	-704.85	53.94	161.67	170.43	12.00	721,907.84	582,034.07	
3,125.00	52.98	71.55	3,064.72	-689.28	60.13	180.22	189.99	12.00	721,914.03	582,052.62	
3,150.00	55.98	71.55	3,079.24	-674.76	66.56	199.52	210.33	12.00	721,920.46	582,071.92	
3,175.00	58.98	71.55	3,092.68	-661.32	73.23	219.52	231.41	12.00	721,927.13	582,091.92	
3,200.00	61.98	71.55	3,105.00	-649.00	80.12	240.15	253.16	12.00	721,934.02	582,112.55	
3,225.00	64.98	71.55	3,116.16	-637.84	87.20	261.37	275.53	12.00	721,941.10	582,133.77	
3,250.00	67.98	71.55	3,126.14	-627.86	94.45	283.11	298.45	12.00	721,948.35	582,155.51	
3,275.00	70.98	71.55	3,134.90	-619.10	101.86	305.32	321.86	12.00	721,955.76	582,177.72	
3,300.00	73.98	71.55	3,142.42	-611.58	109.40	327.93	345.70	12.00	721,963.30	582,200.33	



Pathfinder Energy Services

Pathfinder X & Y Survey Report



Company:	Mack Energy	Local Co-ordinate Reference:	Well Whitehorse #1
Project:	Chaves County	TVD Reference:	WELL @ 3754.00ft (RKB = 17')
Site:	Whitehorse Federal #1	MD Reference:	WELL @ 3754.00ft (RKB = 17')
Well:	Whitehorse #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003.16 Single User Db

Planned Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)	
3,325.00	76.98	71.55	3,148.69	-605.31	117.06	350.88	369.89	12.00	721,970.96	582,223.28	
3,350.00	79.98	71.55	3,153.68	-600.32	124.81	374.12	394.39	12.00	721,978.71	582,246.52	
3,375.00	82.98	71.55	3,157.39	-596.61	132.64	397.57	419.11	12.00	721,986.54	582,269.97	
3,400.00	85.98	71.55	3,159.79	-594.21	140.51	421.17	443.99	12.00	721,994.41	582,293.57	
3,425.00	88.98	71.55	3,160.89	-593.11	148.41	444.86	468.96	12.00	722,002.31	582,317.26	
3,430.73	89.67	71.55	3,160.96	-593.04	150.23	450.30	474.70	12.00	722,004.13	582,322.70	
EOC @ 3430.73'MD, 3160.96'TVD, 89.67°INC, 71.55°AZI, 474.69°VS											
3,456.04	89.67	71.55	3,161.10	-592.90	158.24	474.30	500.00	0.00	722,012.14	582,346.70	
TGT 1 (WH #1)											
3,500.00	89.67	71.55	3,161.36	-592.64	172.15	516.01	543.96	0.00	722,026.05	582,388.41	
3,600.00	89.67	71.55	3,161.94	-592.06	203.80	610.86	643.96	0.00	722,057.70	582,483.26	
3,700.00	89.67	71.55	3,162.52	-591.48	235.44	705.72	743.96	0.00	722,089.34	582,578.12	
3,800.00	89.67	71.55	3,163.10	-590.90	267.09	800.58	843.96	0.00	722,120.99	582,672.98	
3,900.00	89.67	71.55	3,163.68	-590.32	298.73	895.44	943.95	0.00	722,152.63	582,767.84	
3,956.04	89.67	71.55	3,164.00	-590.00	316.47	948.60	999.99	0.00	722,170.37	582,821.00	
TGT 2 (WH #2)											
3,956.64	89.66	71.55	3,164.00	-590.00	316.66	949.16	1,000.59	2.00	722,170.56	582,821.56	
4,000.00	89.66	71.55	3,164.26	-589.74	330.38	990.30	1,043.95	0.00	722,184.28	582,862.70	
4,100.00	89.66	71.55	3,164.86	-589.14	362.03	1,085.16	1,143.95	0.00	722,215.93	582,957.56	
4,200.00	89.66	71.55	3,165.46	-588.54	393.67	1,180.02	1,243.95	0.00	722,247.57	583,052.42	
4,300.00	89.66	71.55	3,166.06	-587.94	425.32	1,274.88	1,343.95	0.00	722,279.22	583,147.28	
4,400.00	89.66	71.55	3,166.66	-587.34	456.96	1,369.73	1,443.94	0.00	722,310.86	583,242.13	
4,456.06	89.66	71.55	3,167.00	-587.00	474.70	1,422.91	1,500.00	0.00	722,328.60	583,295.31	
TGT 3 (WH #3)											
4,486.41	89.91	72.10	3,167.12	-586.88	484.17	1,451.75	1,530.35	2.00	722,338.07	583,324.15	
4,500.00	89.91	72.10	3,167.14	-586.86	488.34	1,464.68	1,543.94	0.00	722,342.24	583,337.08	
4,600.00	89.91	72.10	3,167.30	-586.70	519.07	1,559.84	1,643.94	0.00	722,372.97	583,432.24	



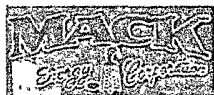
Pathfinder Energy Services Pathfinder X & Y Survey Report



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Planned Survey										
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
4,700.00	89.91	72.10	3,167.45	-586.55	549.80	1,655.00	1,743.94	0.00	722,403.70	583,527.40
4,800.00	89.91	72.10	3,167.61	-586.39	580.53	1,750.16	1,843.93	0.00	722,434.43	583,622.56
4,900.00	89.91	72.10	3,167.77	-586.23	611.26	1,845.32	1,943.93	0.00	722,465.16	583,717.72
5,000.00	89.91	72.10	3,167.93	-586.07	641.99	1,940.49	2,043.93	0.00	722,495.89	583,812.89
5,043.62	89.91	72.10	3,168.00	-586.00	655.40	1,982.00	2,087.55	0.00	722,509.30	583,854.40

TD @5043.62'MD, 3168.00'TVD, 89.91°INC, 72.10°AZI, 2087.55'VS - PBHL (Whitehorse #1)



Pathfinder Energy Services

Pathfinder X & Y Survey Report



Company:	Mack Energy	Local Co-ordinate Reference:	Well Whitehorse #1
Project:	Chaves County	TVD Reference:	WELL @ 3754.00ft (RKB = 17')
Site:	Whitehorse Federal #1	MD Reference:	WELL @ 3754.00ft (RKB = 17')
Well:	Whitehorse #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003.16 Single User Db

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)		
TGT 1 (WH #1)		0.00	0.00	3,161.00	158.24	474.30	722,012.140	582,346.700	32° 59' 4.531 N	104° 3' 53.228 W
- plan hits target										
- Point										
TGT 3 (WH # 3)		0.00	0.00	3,167.00	474.70	1,422.91	722,328.600	583,295.310	32° 59' 7.638 N	104° 3' 42.081 W
- plan hits target										
- Point										
PBHL (Whitehorse #1)		0.00	0.00	3,168.00	655.40	1,982.00	722,509.300	583,854.400	32° 59' 9.412 N	104° 3' 35.512 W
- plan hits target										
- Point										
TGT 2 (WH #2)		0.00	0.00	3,164.00	316.47	948.60	722,170.370	582,821.000	32° 59' 6.084 N	104° 3' 47.655 W
- plan hits target										
- Point										

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S	+E/-W	
		(ft)	(ft)	
2,683.50	2,683.50	0.00	0.00	KOP: 0.00°DLS, 2683.50MD, 2683.50°TVD, 0.00°INC, 0.00°AZI, 0.00°V
3,430.73	3,160.96	150.23	450.30	EOC @ 3430.73°MD, 3160.96°TVD, 89.67°INC, 71.55°AZI, 474.69°VS
5,043.62	3,168.00	655.40	1,982.00	TD @5043.62°MD, 3168.00°TVD, 89.91°INC, 72.10°AZI, 2087.55°VS

Checked By: _____ Approved By: _____ Date: _____



PROJECT DETAILS, Chaves County
 Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level
 Local North: Grid

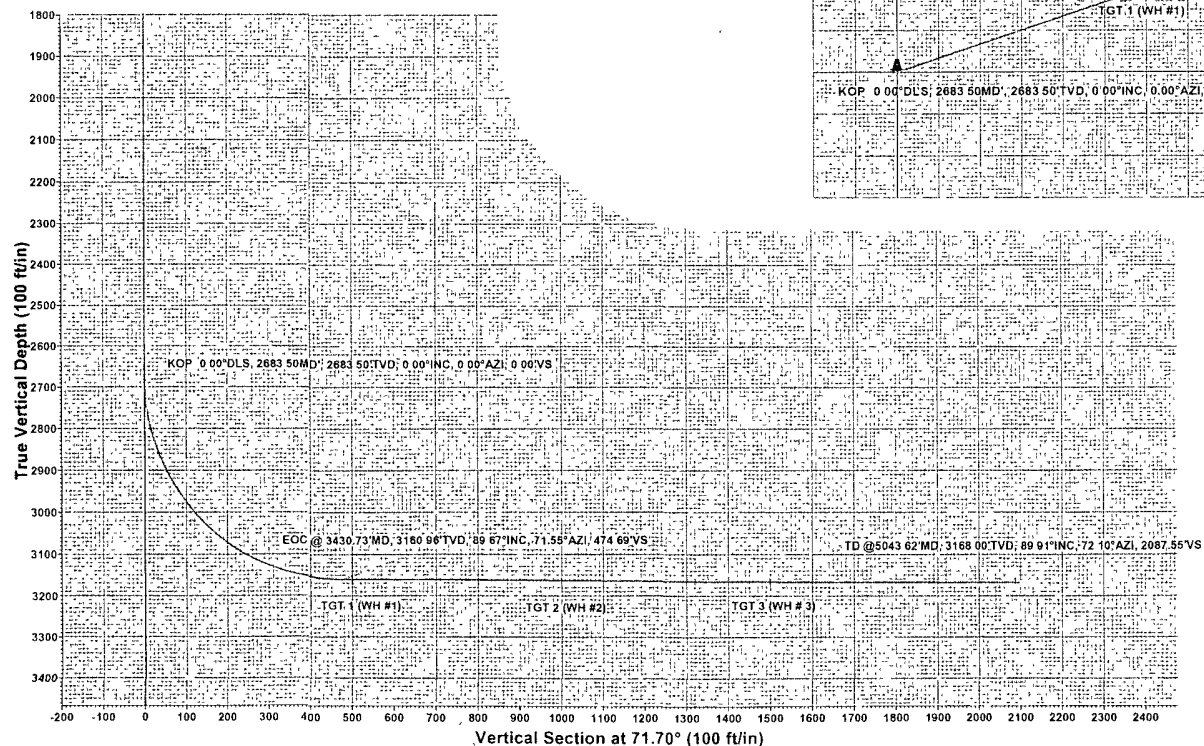
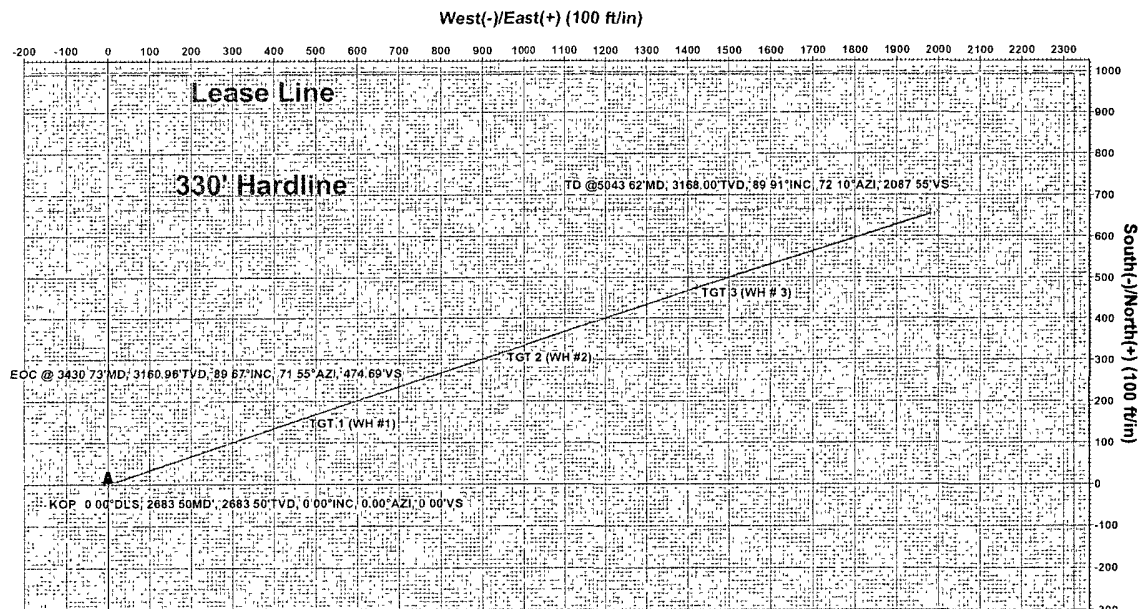


Azimuths to Grid North
 True North: -0.14°
 Magnetic North: 7.98°
 Magnetic Field
 Strength: 49266.1snT
 Dip Angle: 60.87°
 Date: 3/23/2009
 Model: IGRF200510



WELLBORE TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Shape	
TGT 1 (WH #1)	3161.00	158.24	474.30	Point	
TGT 2 (WH #2)	3164.00	316.47	948.60	Point	
TGT 3 (WH #3)	3167.00	474.70	1422.91	Point	
PBHL (Whitehorse #1)	3168.00	655.40	1982.00	Point	

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLog	TFace	VSec	Target	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2683.50	0.00	0.00	2683.50	0.00	0.00	0.00	0.00	0.00		
3	3430.73	89.67	71.55	3160.96	150.23	450.30	12.00	71.55	474.70		
4	3956.04	89.67	71.55	3164.00	316.47	948.60	0.00	0.00	990.99	TGT 2 (WH #2)	
5	3956.64	89.66	71.55	3164.00	316.66	949.16	2.00	175.62	1000.59		
6	4456.06	89.66	71.55	3167.00	474.70	1422.91	0.00	0.00	1500.00	TGT 3 (WH #3)	
7	4486.41	89.91	72.10	3167.12	484.17	1451.75	2.00	65.39	1530.35		
8	5043.62	89.91	72.10	3168.00	655.40	1982.00	0.00	0.00	2087.55	PBHL (Whitehorse #1)	



WELL DETAILS Whitehorse #1						
Ground Elevation	3737.80					
RKB Elevation	WELL @ 3754.00ft (RKB = 17')					
Rig Name	RKB = 17'					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	721853.900	581872.400	32° 59' 2.977 N	104° 3' 58.801 W	

Project: Chaves County
 Site: Whitehorse Federal #1
 Well: Whitehorse #1
 Wellbore: OH
 Plan: Plan #1 (Whitehorse #1/OH)

Plan Plan #1 (Whitehorse #1/OH)	
Created By	Aaron Pullin
Date	13 37, March 23 2009
Checked	_____
Date	_____