Form 3160-4
(November 1983)
(formerly 9-330)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

RECEIVED
JUN 23 1986
BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

5. LEASE DESIGNATION AND SERIAL NO.: NM - 43757
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Federal
9. WELL NO.: Bearcat #1
10. FIELD AND POOL, OR WILDCAT: Gavilan Mancos
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: O, 22-25N-2W, N.M.P.M.

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other
b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Mesa Grande Resources, Inc.
3. ADDRESS OF OPERATOR: 1200 Philtower Building, Tulsa, OK 74103
4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 880 FSL and 1660 FEL 22-25N-2W, N.M.P.M.
At top prod. interval reported below: same as above
At total depth: same as above

14. PERMIT NO. | DATE ISSUED
12. COUNTY OR PARISH: Rio Arriba | 13. STATE: NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
11/07/85	11/27/85	6/14/86	7218' GR	7218'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
7907'	7885'	na	→	surf--TD	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
Sanostee - 7265'-7373'
Gallup - 6717'-6966'

25. WAS DIRECTIONAL SURVEY MADE: yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: IEL/SFL, FD/CN

27. WAS WELL CORED: no

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9 5/8"	36# K-55	516'	12¼"	265 sx Clss D 2% CC ¼# cello flake (312.7 ft³)	-0-
5½"	17# J-55	7889'	8 5/8"	- see attachment -	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8"	7471'	

31. PERFORATION RECORD (*Interval, size and number*)
Sanostee - 7265'-7373': 42 holes, .38"
Gallup - 6717'-6966': 82 holes, .38"

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
	- see attachment -

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
6/09/86	456 Parkesburg, SL 120", 2½"x1.75"x22' RWBC Pmp.	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
6/16/86	24	AOF		89	92	10	1034:1

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
	38#		89	92		41.5

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): vented, fuel
TEST WITNESSED BY: C. Phillips

35. LIST OF ATTACHMENTS: #28, #32

RECEIVED
JUN 24 1986
BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

ACCEPTED FOR RECORD
JUN 20 1986
FARMINGTON RESOURCE AREA
BY

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Gregory R. Phillips
Gregory R. Phillips
TITLE Vice President
DATE 6/17/86

OIL CON. DIV.
DIST. 3

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCC

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
	3088'	3232'	Ojo Alamo - Water bearing sandstone
	3232'	3269'	Kirkland - Shale
	3269'	3360'	Fruitland - Sandstone, Shale & Coal sequence, contains both water & gas in the sands.
	3360'	3450'	Pictured Cliffs - Gas bearing sandstones
	3450'	5070'	Lewis - Shale sequence
	5070'	5196'	Cliff House - Water wet sandstone
	5196'	5498'	Menefee - Sandstone, shale & coal sequence, sandstones could contain one or any combination of oil, gas or water.
	5498'	5762'	Point Lookout - Sandstone sequence containing oil & gas.
	5762'	6720'	Mancos - Shale
	6720'	7264'	Gallup - Sandstone, siltstone & shale - contains varying amounts of oil & gas
	7264'	7374'	Sanostee - Siltstone - oil & gas bearing
	7374'	7579'	Carlile - Calcareous shale - oil & gas
	7579'	7649'	Greenhorn - Limestone & shale - oil & gas
	7649'	7744'	Graneros - Sandstone & shale - oil & gas bearing
	7744'	TD	Dakota - Sandstone & shale - oil, gas & water

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Ojo Alamo	3088'	3088'
Kirkland	3232'	3232'
Fruitland	3269'	3269'
Pictured Cliffs	3360'	3360'
Lewis	3450'	3450'
Cliff House	5070'	5070'
Menefee	5196'	5196'
Point Lookout	5498'	5498'
Mancos	5762'	5762'
Gallup	6720'	6720'
Sanostee	7264'	7264'
Carlile	7374'	7374'
Greenhorn	7579'	7579'
Graneros	7649'	7649'
Dakota	7744'	7744'

Attachment to Form 3160-4
Well Completion or Recompletion Report for
the BEARCAT #1, Sec. 22-25N-2W
Rio Arriba County, N.M.

#28. Casing Record/Cementing Record

Pumped 1st cement stage w/ 92 ft^3 LW-3 w/ 10% salt and ¼# Flocele per sx.; tailed in w/ 536 ft^3 RFC w/ 10% salt and ¼# Flocele/sx. Had full returns during job. Dropped opening tool for DV tool @ 6214', opend tool and attempted to break circ. Pressured up to 1000# and was unable to break circ.

Squeeze
1st squeeze: Perf'd 4 holes @ 5690'. Could not break circ. Sqz'd w/ 800 sx (1670 ft^3) 65/35 Poz w/ 4.3#/sx salt, 6% gel, 10#/sx kolite. Final sqz press. 2000 psi. Reversed out 2 bbls cmt. TOC 4260' by Bond Log.
2nd squeeze: Perf'd 4 holes @ 3285'. Could not break circ. Sqz'd w/ 150 sx (177 ft^3) Class B neat cmt. Final sqz press. 1050 psi. TOC 2850' by calc.

#31. Perforation Record

Sanostee Perfs: (2 JSPF)
7265', 68, 70, 74, 78, 91, 94,
7303', 09, 15, 18, 21, 26, 33, 43, 47, 51, 54, 61, 64, 73
(21 shot points, 42 holes)

Gallup Perfs: (2 JSPF)
6717', 21, 24, 27, 31, 36, 41, 44, 47, 50, 53, 58, 66, 77,
6781', 84, 87, 95,
6801', 10, 21, 27, 34, 44, 56, 91, 95,
6900', 02, 10, 14, 17, 25, 31, 34, 37, 45, 51, 53, 63, 66
(41 shot points, 82 holes)

#32. Acid, Shot, Fracture, Cement Squeeze, etc.

Sanostee:
1) Breakdown w/ 2% KCl wtr. Broke @ 1000 psi @ 1.5 BPM. Established rate of 8 BPM @ 3130 psi. ISIP 1200 psi. Pumped 10,000 gal 65 Qual foamed 15% HCl w/ additives & 84 ball sealers. ATP 3600 psi. AIR 8 BPM. Balled off to 4500 psi. Surged balls and overdisplaced acid. ISIP 550 psi.
2) 50,000 scf N_2 pad, 500 gal xylene w/ 1000 scf/bbl N_2. 78,000 scf N_2 Flush. 2nd: displaced 500 gal xylene w/ 2% KCl.

Gallup:
1) Breakdown w/ 2% KCl. ISIP 390 psi. 5000 gal 15% DAD w/ 164 7/8" ball sealers. Good ball action. Balled off to 5500 psi. ATP 2000 psi. AIR 7 BPM.
2) 1147 bbls. 2% KCl, 30# x-linked gel. 1.66 MMscf N_2, 13,000# 100 mesh sd., 50,000# 20/40 sd. 100,000# 10/20 sd. AIR 50 BPM. ATP 2400 psi. Formation locked up leaving 19,000±# sand in wellbore. Actual sand in formation 144,000# total.