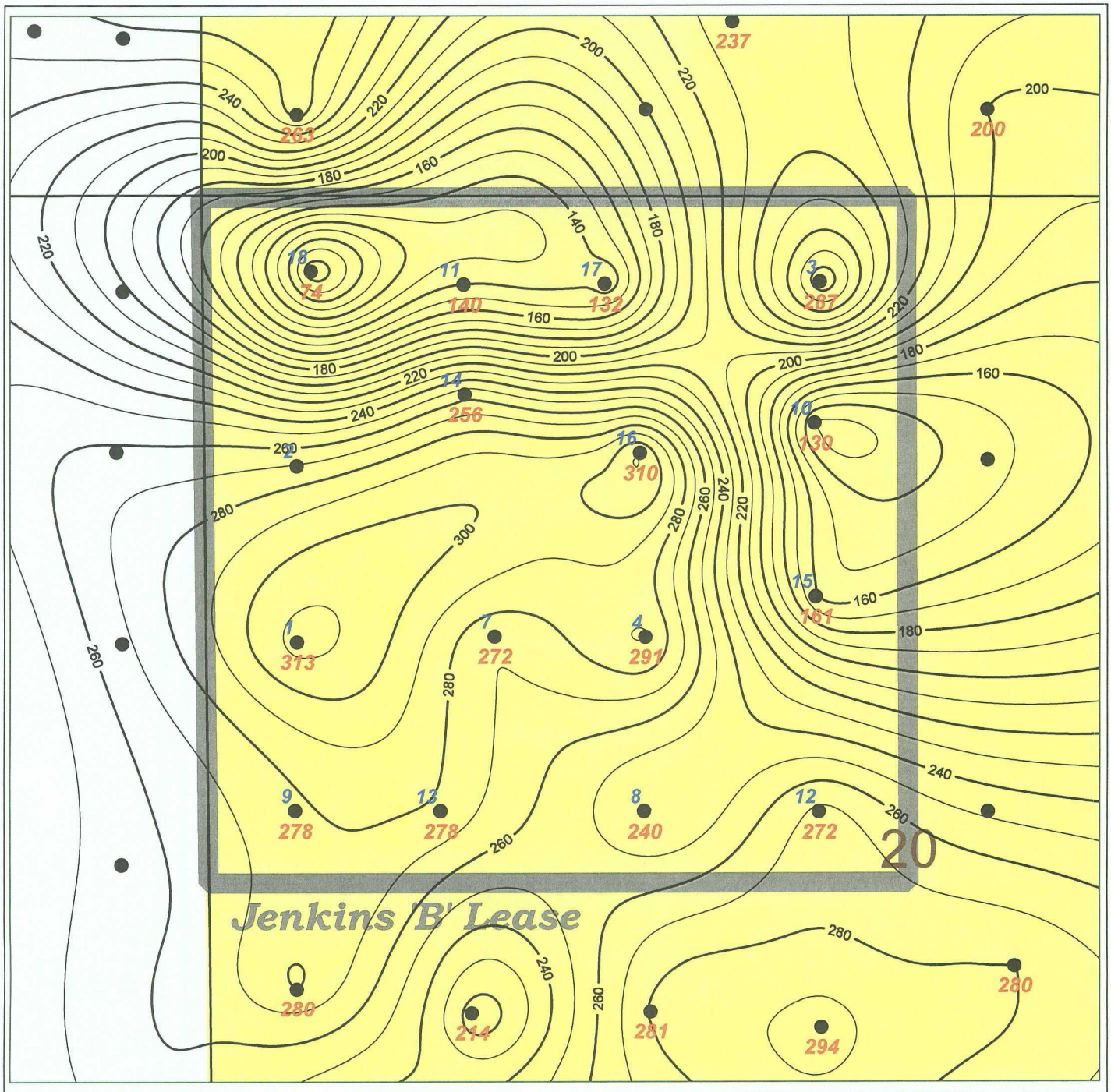
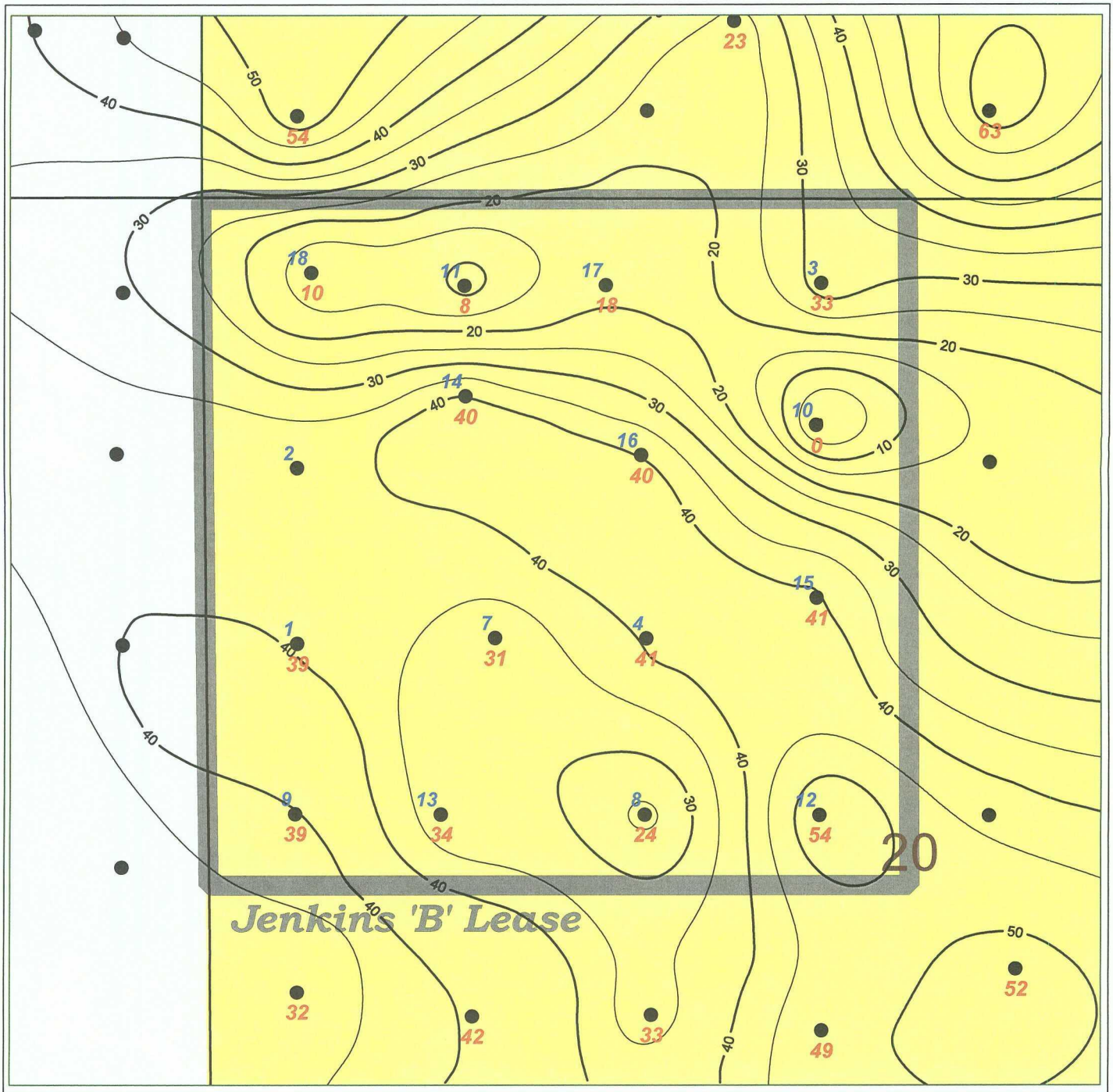
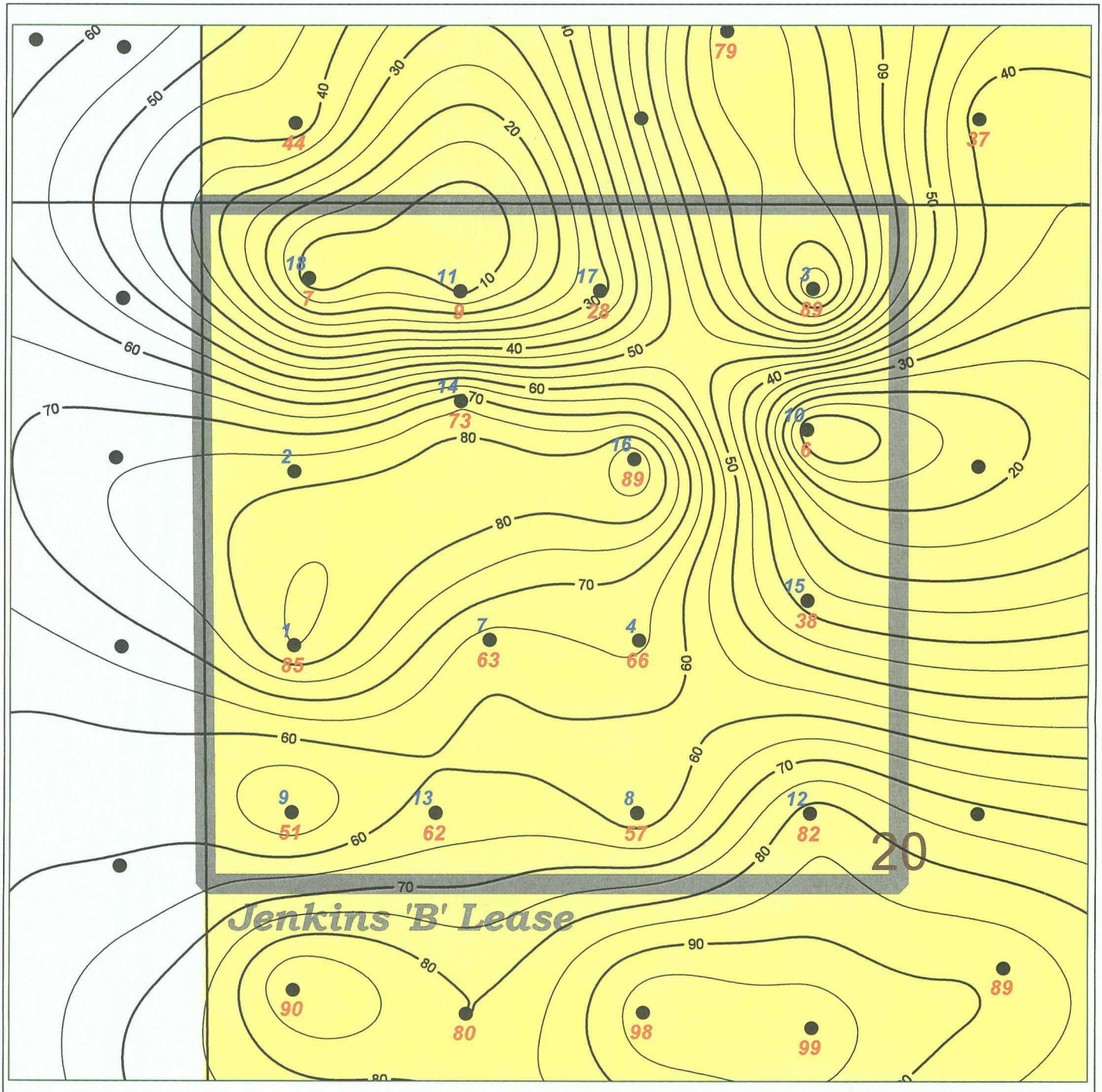
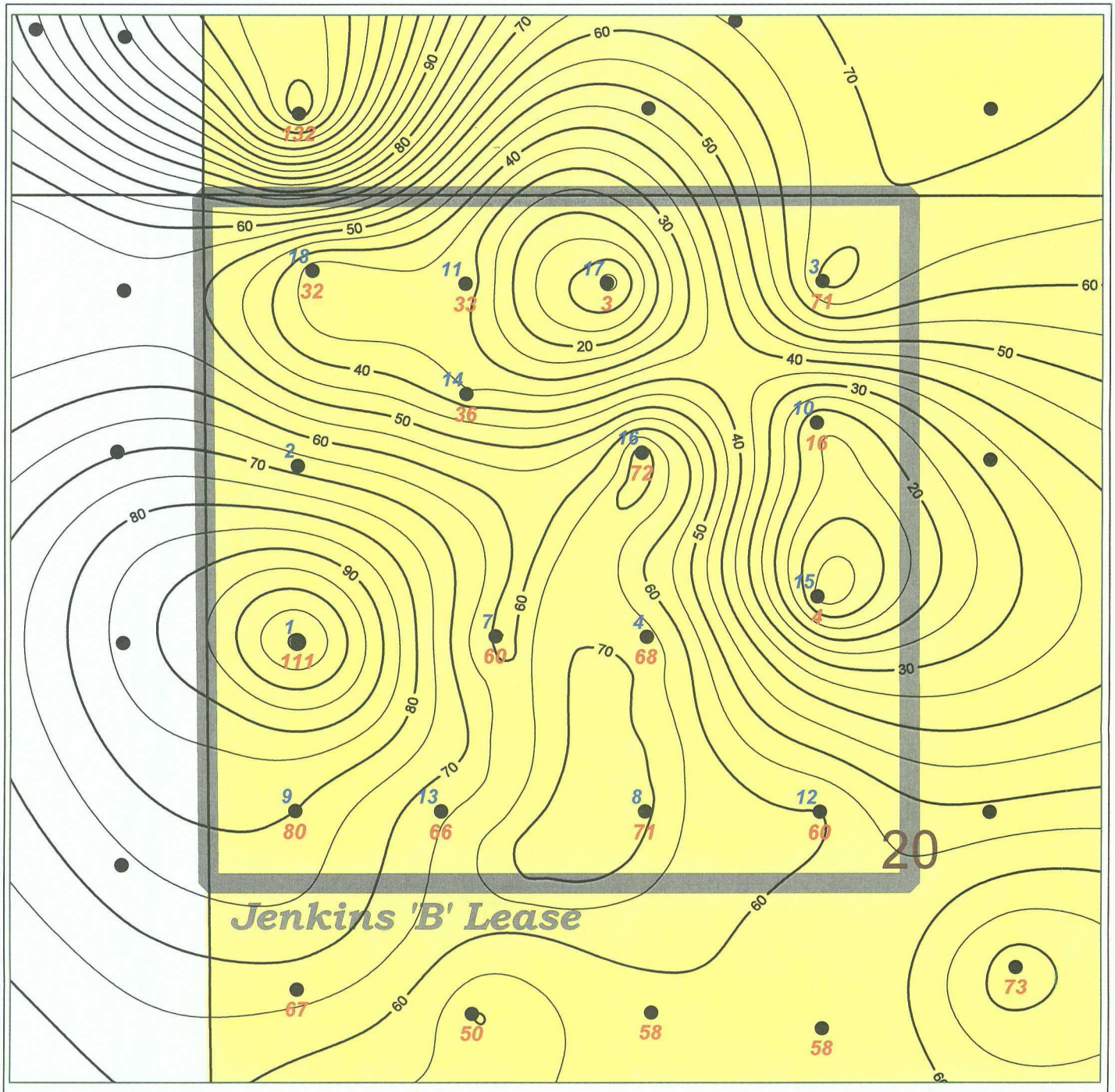
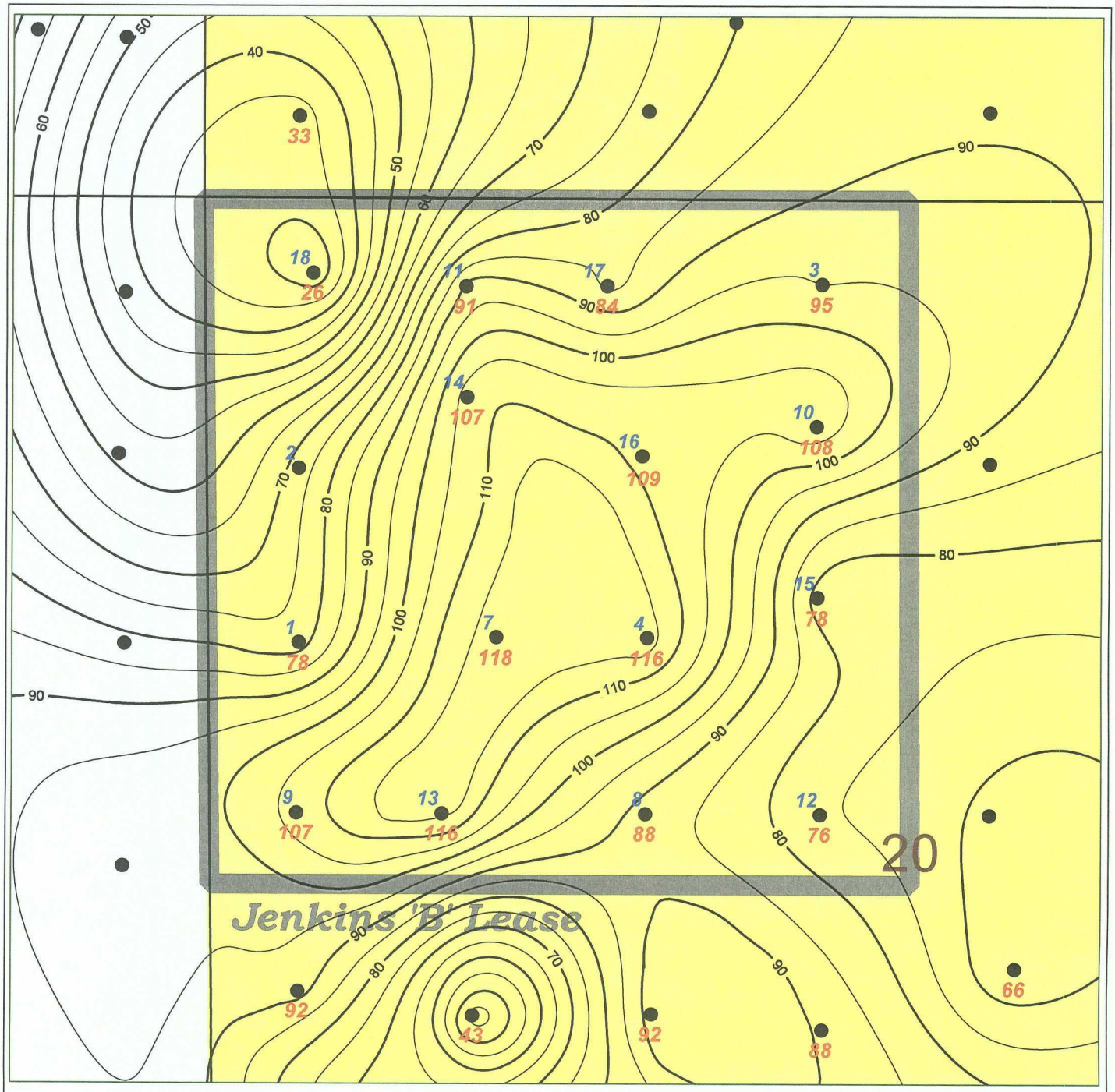


Oil Conservation Division
Case No. _____
Exhibit No. 4


Jenkins 'B' Lease
20
Well #
NET RES
CONCHO
Project: SENM / AOI: KP_JENKINS WF AREA
Eddy Co., NM_T17S-R30E
Jenkins Pilot Waterflood
Isopach PDCK to HFS3
C.I. = 5'
Author: K. Perez
Scale: Fit to Page
Date: 10 April, 2007
MAP FILE PATH: SENM\KP_JENKINS WF AREA\
KP ISO PDCK POR GT 3%.gmp


Jenkins 'B' Lease
20
Well #
NET RES
CONCHO
Project: SENM / AOI: KP_JENKINS WF AREA
Eddy Co., NM_T17S-R30E
Jenkins Pilot Waterflood
Isopach HFS3 to HFS2
C.I. = 5'
Author: K. Perez
Scale: Fit to Page
Date: 10 April, 2007
MAP FILE PATH: SENM\KP_JENKINS WF AREA\KP_ISO_HFS3 to HFS2_POR GT 3%.gmp


Jenkins 'B' Lease
20
Well #
NET RES
CONCHO
Project: SENM / AOI: KP_JENKINS WF AREA
Eddy Co., NM_T17S-R30E
Jenkins Pilot Waterflood
Isopach HFS2 to HFS1
C.I. = 5'
Author: K. Perez
Scale: Fit to Page
Date: 10 April, 2007
MAP FILE PATH: SENM\KP_JENKINS WF AREA\KP_ISO_HFS2 to HFS1_POR GT 3%.gmp


Jenkins 'B' Lease
20
Well #
NET RES
CONCHO
Project: SENM / AOI: KP_JENKINS WF AREA
Eddy Co., NM_T17S-R30E
Jenkins Pilot Waterflood
Isopach HFS1 to HFS0
C.I. = 5'
Author: K. Perez
Scale: Fit to Page
Date: 10 April, 2007
MAP FILE PATH: SENM\KP_JENKINS WF AREA\KP_ISO_HFS1 to HFS0_POR GT 3%.gmp

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

EIGHT WELL WATERFLOOD APPLICATION FOR COG OPERATING LLC PADDOCK FORMATION NORTHWEST QUARTER SECTION 20, T. 17 S., R. 30 E. EDDY COUNTY, NEW MEXICO

LEASE NAME: JENKINS B FEDERAL
BLM LEASE NUMBER: NMLC-054988B

Exhibit 7

Prepared by
Permits West, Inc.
Santa Fe, New Mexico
February 16, 2007

SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ABOVE THIS LINE FOR DIVISION USE ONLY

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
NSL NSP SD

COG's
Jenkins B Federal waterflood

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
DHC CTB PLC PC OLS OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
WFX PMX SWD IPI EOR PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or _ Does Not Apply

[A] Working, Royalty or Overriding Royalty Interest Owners

[B] Offset Operators, Leaseholders or Surface Owner

[C] Application is One Which Requires Published Legal Notice

[D] Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

t or Type Name	Signature	Title	Date
BRIAN WOOD	B. Wood	CONSULTANT	2-5-07

(505) 466-8120
FAX 466-9682

e-mail Address
brian@permitswest.com

COG OPERATING LLC
JENKINS B FEDERAL LEASE
EIGHT WELL PADDOCK WATERFLOOD
NW4 SEC. 20, T. 17 S., R. 30 E.
EDDY COUNTY, NEW MEXICO

I. Purpose is to convert eight existing oil wells to water injection wells to increase oil recovery. All eight wells produce from, and all injection will be into, the Paddock member of the Yeso Formation.

II. Operator: COG Operating LLC (OGRID #229137)
Operator phone number: (432) 685-4340
Operator address: 550 West Texas, Suite 1300
Midland, TX 79701
Contact for Application: Brian Wood (Permits West, Inc.)
Phone: (505) 466-8120

III. A. (1) Lease: BLM lease NMLC-054988B (see Exhibit A for history)
Lease Size: 160.00 acres (see Exhibit A for maps)
Lease Area: NW4 Section 20, T. 17 S., R. 30 E.
Well Name & Number, API Number, Location, & Distance to Lease:

Jenkins B Federal	API #	Location (all 20-17s-30e)	Closest Lease Line
#1	30-015-04214	1650 FNL & 330 FWL	330'
#4	30-015-04231	1650 FNL & 1650 FWL	990'
#10	30-015-30668	850 FNL & 2310' FWL	330'
#12	30-015-31559	2310 FNL & 2310 FWL	330'
#13	30-015-31560	2310 FNL & 880 FWL	330'
#14	30-015-32257	745 FNL & 990 FWL	745'
#17R	30-015-34138	330 FNL & 1525 FWL	330'
#18	30-015-34474	330 FNL & 430 FWL	330'

A. (2) Surface casing (8-5/8" and 32# to 13-3/8" and 54#) setting depths range from 417' to 506'. Average depth set is 449'. Cement was circulated to the surface in all eight wells. See attached well bore profiles on Form C-108 and histories for more hole, casing, and cement details.

Intermediate casing (7" and 20# to 8-5/8" and 24#) setting depths range from 1,037' to 3,000'. Average depth set is 1,529'. Cement was circulated to the surface in all eight wells. See attached well bore profiles on Form C-108 and histories for more hole, casing, and cement details.

Production casing (4-1/2" and 11.6# to 5-1/2" and 17#) setting depths range from 4,714' to 6,389'. Average depth set is 4,985'. Cement was circulated to surface in six of the eight wells. The #4 well long string cement top is at 1,624'. The #17R well long string cement top is at 320'. See attached well bore profiles on Form C-108 and histories for more hole, casing, and cement details.

Mechanical integrity of the casing will be assured by hydraulically pressure testing to ≈1,000 psi.

A. (3) Tubing in seven of the wells is 2-7/8" J-55 6.5#. The eighth well (#1) has 2-3/8" J-55 4.7#. All eight tubing strings will be internally plastic coated. Setting depths range from 4,642' to 4,888' with an average setting depth of 4,722'. (Disposal intervals will range from ≈4,249' to ≈4,748'.)

A. (4) Model R injection packers will be set ≈100' above the highest Paddock perforation. Details are:

Well	Proposed Packer	Paddock Perforations	Current Tubing Depth
#1	4,182'	4,282' - 4,737'	4,737'
#4	4,186'	4,286' - 4,637'	4,650'
#10	4,318'	4,418' - 4,667'	4,685'
#12	4,221'	4,321' - 4,748'	4,781'
#13*	4,212'	4,312' - 4,715'	4,741'
	*Also perforated from 3,106' to 3,402'. Will squeeze this San Andres interval.		
#14	4,150'	4,250' - 4,639'	4,642'

Well	Proposed Packer	Perforations	Current Tubing Depth
#17R**	4,168'	4,268' - 4,653'	4,654'

**Also perforated from 3,018' to 4,044'. Will squeeze this San Andres interval.

#18***	4,160'	4,260' - 4,630'	4,888'

***Also perforated from 5,082' to 6,181' in Blinebry. Will set CIBP at ≈4730' & cap with cement.

B. (1) Disposal zone will be the dolomite Paddock member of the Yeso Formation (NMOCD pool code number = 96718 (Loco Hills; Paddock)). Fracture gradient is expected to be ≈0.71 psi per foot.

B. (2) Disposal intervals will be the existing perforated zones from ≈4,250' to ≈4,748'. None are currently open hole. See attached well bore profiles and histories for more perforation information.

B. (3) All eight wells were initially drilled (between 1937 and 2006) as oil wells. (The Jenkins B Federal #1 was converted to a salt water disposal well in the San Andres (3,000' - 3,258') from 1978 to 1999. That zone has since been plugged off and the well is now a Loco Hills; Paddock oil well.) All eight wells are now oil wells.

B. (4) The Paddock is the only perforated interval in five of the well bores. Three of the wells (#13, #17R, & #18) have other perforated intervals. The additional perforated intervals in the #13 and #17R are above the Paddock and will be squeezed. The additional perforated interval in the #18 is below the Paddock and a CIBP will be set at ≈4,730' and then capped with ≈20' of cement.

B. (5) Top of the Paddock varies from ≈4,173' (NWNW Section 20) to ≈4,321' (SENW Section 20) in trend with its monoclinal dip from the northwest to the southeast. Oil has been produced from the Paddock in all eight wells. Over 600 oil wells and over 100 injection wells have been drilled into the Paddock in the New Mexico portion of the Permian Basin.

Bottom of the closest overlying productive zone (Grayburg Jackson; SR-Q-G-SA (pool #28509)) is at ≈4,044' (as measured in the Jenkins B Federal #17R). There will be a 224' interval between the lowest San Andres perforation (4,044') and the highest Paddock injection perforation (4,268') in that well. (All San Andres

perforations (3,018' - 4,044') will be squeezed in that well.) There is a water flood (Case 8418, Order R-7900) of the Grayburg Jackson in the adjacent Section 19.

Top of the closest underlying producing zone (Blinebry) is at ≈4,780' as measured in the Jenkins B Federal #18. There is a 150' interval between the lowest injection perforation and the top of the Blinebry as measured in that well. There is a 452' interval between the lowest Paddock perforation and the highest Blinebry perforation in the same well. There are three Blinebry producing wells within the 1/2 mile radius area of review. They are:

COG's Jenkins B Federal #18 (NWNW Section 20)
COG's W D McIntyre C #9 (NENE Section 20)
Cimarex's Loco Hills 20 Federal Com #1 (NENE Section 20)

IV. This is not an expansion of an existing injection project. (The Jenkins B Federal #1 was a salt water disposal well in the San Andres (3,000' - 3,258') from 1978 to 1999. That zone has since been plugged off and the well is now a Loco Hills; Paddock oil well.)

V. A map (Exhibit B) showing all 140 existing wells (4 injectors + 120 producers + 16 P & A) within a half mile radius of the northwest quarter of Section 20 is attached.

A map (Exhibit C) showing all 710 existing wells (580 oil, gas, or injectors + 130 P & A) within a two mile radius of the northwest quarter of Section 20 is attached.

Exhibit D shows all leases (all BLM and all T. 17 S., R. 30 E.) within a one half mile radius of the northwest quarter of Section 20. Details on the leases within a one half mile radius are:

AREA	LEASE #	LESSEE(S)
N2SE4 Sec. 17	NMLC-0 060527	ConocoPhillips
SW4 & S2SE4 Sec. 17	NMNM-086025	BP America
N2SE4 Sec. 18	NMLC- 0 028793C	ConocoPhillips
S2SE4 Sec. 18	NMLC-0 028793A	ConocoPhillips
NE4 & N2SE4 Sec. 19	NMLC-0 028793A	ConocoPhillips
S2SE4 Sec. 19	NMLC- 0 028793C	ConocoPhillips
NW4 Sec. 20	NMLC-0 054988B	COG
W2NE4 Sec. 20	NMLC-0 029342E	ConocoPhillips
E2NE4 Sec. 20	NMLC-0 029342C	BP America
E2SE4 Sec. 20	NMLC-0 054280	BP, EOG, and Read & Stevens
W2SE4 Sec. 20	NMLC-0 057634	EOG and Read & Stevens
W2SW4 Sec. 20	NMLC-0 060999	EOG and Read & Stevens
E2SW4 Sec. 20	NMNM-0 467932	BP America

Exhibit E shows all lessors within a two mile radius of Section 20. There are two lessors within the two mile radius. The NM State Land Office is the lessor of Section 16, T. 17 S., R. 30 E. BLM is the lessor of all other sections.

VI. There are 109 existing wells (106 producing oil wells + 3 plugged wells) which are in, or within a half mile of, the northwest quarter of Section 20 and penetrated the Paddock or were drilled at least 4,173' deep (shallowest top of the Paddock as found in the #14).

Schematics showing the plugging details and histories of the three P & A wells are in Exhibit F. All three wells were cemented to within at least 1,100' of the surface. The three P & A wells and their distances from the northwest quarter of Section 20 are:

OPERATOR	WELL	API 30-015-	SPUD	T. 17 S., R. 30 E.	DISTANCE	TD
ARCO	McIntyre Fed. 8	-23265	1980	NESW Sec. 17	1,650'	11,244'
Mack	McIntyre A 10	-23382	1980	SWSE Sec. 20	1,686'	4,700'
Mack	McIntyre A 4	-04222	1961	NESE Sec. 20	2,439'	6,857'

There are two proposed approved wells (both Cimarex) within a half mile

of the northwest quarter of Section 20 which will penetrate the Paddock.

Tabulated data (sorted from lowest API number to highest) for each of the 111 existing or proposed wells are in Exhibit G.

VII. 1. Average injection rate will be ≈500 bwpd per well.
Maximum injection rate will be ≈500 bwpd per well.

2. System will be closed (COG will lay 2" - 4" fiberglass pipelines). New facilities will include a 1,000 barrel skim tank, two 750 barrel suction tanks, 2 horizontal pumps, and 1 centrifugal pump.

3. Average surface injection pressure will be ≈1,500 psi
Maximum surface injection pressure will be ≈2,500 psi

4. Water source will be existing and future COG Grayburg San Andres, Paddock, and Blinebry wells in the northwest quarter of Section 20. A summary of an analysis from the tank battery follows. The complete analysis is in Exhibit H. The analyzed water was a sample from the commingled water produced from the Grayburg San Andres (≈15% of the total battery water), Paddock (≈80%), and Blinebry (≈5%).

Anion/Cation Ratio	1.0
Bicarbonate	105.1 mg/l
Calcium	5,467.0 mg/l
Chloride	106,917.0 mg/l
Conductivity	332,500.0 micro-ohms/cm
Density	1.124 g/cm^3
Hydrogen Sulfide	42.0 meq/l
Iron	1.2 mg/l
Magnesium	976.0 mg/l
Manganese	0.4 mg/l
pH	7.0
Resistivity	0.0301 ohm meter
Sodium	62,520.5 mg/l
Sulfate	2,650.0 mg/l
Total Dissolved Solids	178,637.2 mg/l

5. The Paddock currently produces in the northwest quarter of Section 20 and all surrounding quarter sections (see Exhibit I). It is the goal of the project to increase production from the Paddock. According to NMOCD records, at least 769 wells have targeted or will target the Paddock in New Mexico.

VIII. The Paddock member of the Yeso formation is an anhydritic dolomite. The top of the Paddock is a defined by the silty Glorieta dolomite. The base of the Paddock is defined by siltstones at the top of the Blinebry member of the Yeso Formation.

The Glorieta is ≈70' thick and is composed of interbedded dolomite and siltstone. The siltstones occur in ≈2' to ≈8' thick beds with low (≤5%) porosity and low permeability. The siltstone beds are separated by ≈2' to ≈10' thick beds of dolomite. The dolomite beds usually do not exceed 3% porosity and also have low permeability. The Glorieta is not productive within the 1/2 mile radius area of review. Within the Paddock, the siltstones are considered flow unit boundaries. The base of the Glorieta is a siltstone and is also considered a flow unit boundary. The Glorieta siltstone and dolomite beds will confine the waterflood to the Paddock.

The Paddock is comprised of numerous stacked cycles of fine to medium grained dolomites deposited on a marine shelf. Effective porosity is reduced by secondary anhydrite deposited during a post depositional diagenetic event. There is typically ≈80' to ≈100' of very tight (near zero porosity) dolomite and then ≈150' of 1-2% dolomite between the bottom of the Paddock porosity and the top of the Blinebry porosity. There are no perforations in this ≈250' interval in the 1/2 mile radius area of review.

The Paddock is 530' thick (4,250' to 4,780') in the Jenkins B Federal 18 well (see log (Exhibit J)). Formation tops in the Jenkins B Federal #18 are:

Quaternary = 0'
Salado = 505'
Yates = 1,100'
Seven Rivers = 1,394'
Queen = 2,016'

Grayburg = 2,400'
San Andres = 2,738'
Glorieta = 4,183'
Paddock = 4,250'
Blinebry = 4,780'
Tubb = not recorded
Drinkard = 5,984'
Total Depth: 6,401'
(projected depths)
Abo = 6,600'
Wolfcamp = 8,200'
Atoka = 10,200'
Morrow = 10,800'

There are no water wells within a two mile radius. This conclusion is based on a field inspection, interviews with local workers, and a review of the State Engineer's records. Domestic water used in Loco Hills is piped ≈10 miles from Maljamar.

No existing underground drinking water sources are above or below the Paddock within a two mile radius. There will be >3,500' of vertical separation and ≈500' salt interval between the bottom of the only likely underground water source (Quaternary) and the top of the Paddock.

Produced water has been disposed (COG's Jenkins B Federal #1 in SWNW Section 20) or injected (Marbob's Burch Keely Unit #97 and #98 wells in NESE Section 19) above the Paddock and within a half mile of the northwest quarter of Section 20.

IX. The wells will each be stimulated with ≈5,000 gallons 15% NEFE HCl to clean out scale or fill.

X. The following Schlumberger Platform Express logs have been provided to the NMOCD.

Well	Year Run	Logs
#1	1999	Azimuth Laterolog Micro - CFL/NGT Three Detector Litho-Density Compensated Neutron/NGT
#4	(spudded 1937)	None
#10	1999	Azimuth Laterolog Micro - CFL/NGT Three Detector Litho-Density Compensated Neutron/NGT
#12	2001	Azimuth Laterolog Micro - CFL/NGT Three Detector Litho-Density Compensated Neutron/NGT
#13	2001	Azimuth Laterolog Micro - CFL/NGT Three Detector Litho-Density Compensated Neutron/NGT
#14	2002	Azimuth Laterolog Micro - CFL/NGT Three Detector Litho-Density Compensated Neutron/NGT

Well	Year Run	Logs
#17R	2005 & 2006	Azimuth Laterolog Micro - CFL/HNGS Three Detector Litho-Density Compensated Neutron/HNGS FMI-HALS-HNGS Perforating CBL - Variable Density GR/CAL
#18	2006	Azimuth Laterolog Micro - CFL/HNGS Three Detector Litho-Density Compensated Neutron/HNGS

XI. Based on a field inspection, conversations with local workers, and a review of the State Engineer's records; there are no water wells within a one mile radius of the northwest quarter of Section 20.

XII. COG is not aware of any geologic or engineering data which may indicate the Paddock is in hydrologic connection with any underground sources of water. Indeed, no underground sources have been developed within a two mile radius. Over 100 injection or salt water disposal wells have been drilled into the Paddock in the New Mexico portion of the Permian Basin. Previously approved Paddock waterfloods include:

Case	Order	Date	Township & Range
3467	R-3124	1966	16s-36e et al
3616	R-3273	1967	21s-37e et al
3692	R-3352	1967	16s-36e et al
10549	R-9741	1992	16s-36e et al

XIII. Notice (this application) has been sent (Exhibit K) to the surface owner (BLM), operators of all active wells which have penetrated (COG and Marbob) the Paddock, operators of any approved proposed wells which will penetrate (Cimarex) the Paddock, lessees of record according to BLM (BP, COG, ConocoPhillips, EOG, and Read & Stevens), and lessors (only BLM) within a half mile of the northwest quarter of Section 20.

A legal ad (see Exhibit L) was published on December 19, 2006.

Side 1

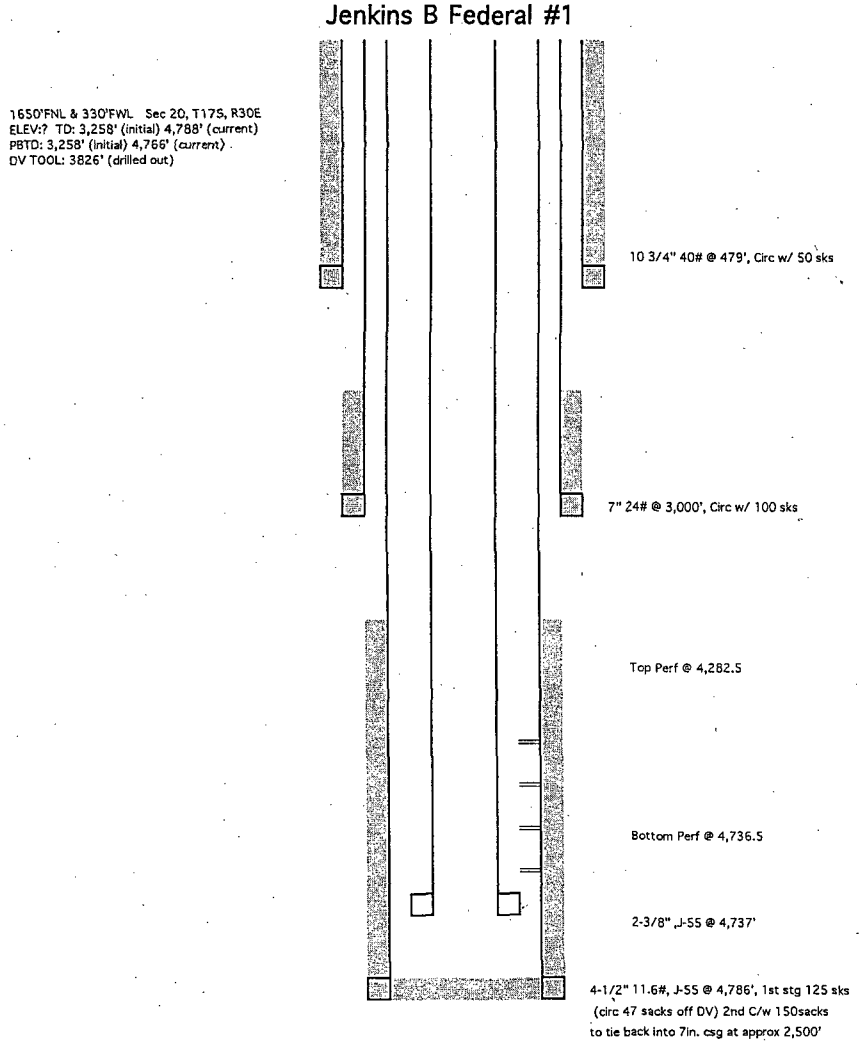
INJECTION WELL DATA SHEET

OPERATOR: COG OPERATING LLC

WELL NAME & NUMBER: JENKINS B FEDERAL #1

WELL LOCATION: 1650'FNL & 330'FWL (FOOTAGE LOCATION) | E (UNIT LETTER) | 20 (SECTION) | 17 S (TOWNSHIP) | 30 E (RANGE)

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4" Casing Size: 10-3/4"

Cemented with: 50 sx *or* _____ ft³

Top of Cement: Method Determined:

Intermediate Casing

Hole Size: 8-1/2" Casing Size: 7"

Cemented with: 100 sx *or* _____ ft³

Top of Cement: 1,200' Method Determined: Logged

Production Casing

Hole Size: 6-1/4" Casing Size: 4-1/2"

Cemented with: 275 sx *or* _____ ft³

Top of Cement: Surface Method Determined: Calculated

Total Depth: 4786'

Injection Interval

4282 feet to 4736.5 feet

(Perforated)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" Lining Material: PLASTIC

Type of Packer: MODEL R INJECTION PACKER

Packer Setting Depth: APPROXIMATELY 100' ABOVE HIGHEST PERFORATION

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes **X** No

   If no, for what purpose was the well originally drilled? OIL PRODUCTION

   _____

2. Name of the Injection Formation: PADDOCK MEMBER OF THE YESO FORMATION

3. Name of Field or Pool (if applicable): LOCO HILLS; PADDOCK (#96718)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. YES

   QUEEN/SAN ANDRES (OPEN HOLE 3000' – 3258'); LATER CEMENTED ACROSS WHEN WELL DEEPENED

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   OVER: GRAYBURG JACKSON; SR-Q-SA-G-SA (BOTTOM @ 4,044' IN JENKINS B FEDERAL #17)
   UNDER: BLINEBRY (TOP @ 4,780' IN JENKINS B FEDERAL #18)

Well: Jenkins B Federal # 1

1650'FNL & 330'FWL Sec 20, T17S, R30E
ELEV:? **TD: 3,258' (initial) 4,788' (current)**
DF: ? **PBTD: 3,258' (initial) 4,766' (current)**
KB: ?
DV TOOL: 3826' (drilled out)
Pumping Unit: Lufkin 228

Casing

TYPE	SIZE, in	WEIGHT, lbs/ft	GRADE	TOP	BOTTOM	CEMENT
SURFACE	10-3/4	40#	?	SURFACE	479'	Circ w/ 50 sks
INTERMEDIATE	7	24#	?	SURFACE	3,000'	Circ w/ 100 sks
PROD. LINER	4-1/2	11.6#	J-55	SURFACE	4,786'	1st stage 125 sks (circ 47 sacks off DV) 2nd C/w 150sacks to tie back into 7in. csg at approx 2,500'
PROD. LINER	2-3/8		J-55	SURFACE	4,737'	
RODS	3/4			SURFACE	188 rods & 2' pony	

PERFS: OPEN HOLE 3000-3258
4282.5,84,86,88,93,95,4300,05,13.5,15,19,28,35,37,39,43,45,48,53.5,58,61.5,63.5,65.5,69,71,73,75,80,83,85,4408,10,16,27.5,44,48,50,70.5,72,75,78,81,83,85,90,91,4502,04,05.5,08,10,12,14,15.5,17,18.5,21,23,24.5,26.5,27.5,30,31.5,35,36,37,39,41,44,46,49.5,53,55,58,60,62,65,75.5,77.5,85,87.5,90,4602.5,04,06,08,11,13,24,26,28,30,34,36,40,44,46,49,58,61.5,64.5,83,84.5,90,92,95,4701.5,04,06.5,11,13,30.5,36.5

02/25/1936- Acidized open hole w/3000 gals acid. 75 BOPD before and 200 BOPD After.

05/31/1956- Frac open hole from 3000-3258 w/19000 gals oil and 290sx sand.

04/14/1978- 1" Down backside of 8 5/8" csg w/22sx Class C cmt. No details on 8-5/8 caisning

04/1978- Production ends on the Queens/San Andres totaling 69,768 bbls oil & 16,973 MCF gas

04/19/1978- Ran in hole w/2 3/8" Salta lined tbg and guiberson shorty tension pkr. Landed pkr at 2881'. Put well on Injection.

12/15/1986- Rigged up. Pulled out hole w/tbg and pkr. Ran in hole w/RBP and tested csg to 200#. Ran Cmt bond log and found TOC at 1200'. Perfed csg at 1160'. Squeezed perfs

w/200sx Class C Cmt. Perfed csg at 450'. Squeezed Perfs w/225sx Class C. Drilled out cmt and Tested csg to 700# Held ok. Ran in hole w/2-3/8" salta lined tbg and landed tbg at 2910'. Tested csg to 250# Held OK. Put well back on Injection.

04/07/1995- Tested tubing for holes, replaced 1 joint

07/30/1999- RIH w/ 6-1/4 tooth bit, cleaned out hole and drilled to new TD of 4,788'

08/13/1999-RU Schlumberger & log &perf. 4282.4-4736.5 113 holes. RD Schlumberger.

08/16/1999-RIH w/5 1/2" PPI tool & acidize w/2500 gals 15% NEFE Breakdown @ 1535# Avg. Rate 6.6 bpm Avg. Psi 1675# ISIP 812# 5 min. 465# 10 min. 208# 15 min. 119#. Balled off 5000#. Rev. out & PPI perfs. POH w/PPI Tool & RIH w/5 1/2" RTTS.

08/17/1999-Pump hot acid job. 32,000 gals heated 20% HCL & 54,000 gals heated 40# gel in 25 & 41 bbl stages. Dropped 1000# block & 120 balls in 10 stages. Avg. Rate9 bpm Avg. Psi 1775# ISIP 950# 5 min. 777# 10 min. 739# 15 min. 700#. Pump 5000 gals cold 15% HCL @ 2 bpm @ 758#. Flush w/90 bbls FWf @ 2 bpm @ 545#/ ISIP 485# 5 min. 441# 10 min. 403# 15 min. 365#.

08/18/1999-RIH clean out to PBTD @ 4766'. POH lay down workstring. RIH w/new 2 3/8" J-55 tbg. Land SN @ 4737' w/159 jts & 8' sub on top. TA @ 4110 w/138 jts. RIH w/2x1 1/2x16/ RHBC HVR PAP BNC pump. Start in hole w/use type 97 WCN rods.

08/19/1999-Finish running rods. 188-3/4" rods & 2' pony. space out, clean up move off, Rig up Lufkin 228 pumping unit, put to pumping to pit in afternoon.

9/99- Production begins on the Paddock

02/2006- Production totals of the Paddock 66,001 bbls oil & 201,987 MCF gas

Form 3160-4
(October 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

N.M. Oil Cons. Division
811 S. 1st St.
Artesia, NM 88210-2834

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31,1991

dsf

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other	6. LEASE DESIGNATION AND SERIAL NO. LC-054988B
b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEPEN ☒ PLUG BACK ☐ DIFF. RESVR. ☐ Other	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
	7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR: Mack Energy Corporation	8. FARM OR LEASE NAME, WELL NO. Jenkins B Federal #1
3. ADDRESS AND TELEPHONE NO. P.O. Box 960, Artesia, NM 88211-0960 (505)748-1288	9. API WELL NO. 30-015-04214 S2
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface: 1650 FNL 330 FWL	10. FIELD AND POOL, OR WILDCAT Loco Hills Paddock
At top prod. interval reported below: 1650 FNL 330 FWL	11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
At total depth: 1650 FNL 330 FWL	Sec 20 T17S R30E

RECEIVED SEP 1999 OCD - ARTESIA

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
		Eddy	NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASING HEAD
7/31/99	8/5/99	8/19/99	3651' DF	3651

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
4788'	4766'		→	Yes	

24. PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*: 4282.5' - 4736.5', Paddock

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Gamma Ray, Neutron, Density, Lateralog, Spectral Gamma Ray

27. WAS WELL CORED:

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

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
10 3/4"	40	479'	12 1/4	50sx	None
7"	24	3000'	8 1/2	100sx	None
4 1/2"	11.6	4786'	6 1/4	275sx	None

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8	4737	

ACCEPTED FOR RECORD
SEP 23 1999

31. PERFORATION RECORD (Interval, size and number)

4282.5' - 4736.5', 113

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4282.5' - 4736.5'	2500 gals 15% NEFE
4282.5' - 4736.5'	32,000 gals 20% HCL

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump)	WELL STATUS (Producing or shut-in)
9/3/1999	2 x 1 1/2 x 16' RHBC HVR PAP BNC	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL-BBL.	GAS-MCF.	WATER-BBL.	GAS-OIL RATIO
9/19/1999	24			99	195	405	1969

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL-BBL.	GAS-MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
			99	195	405	38

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): Sold

35. LIST OF ATTACHMENTS

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

SIGNED Melissa D. Carter TITLE Production Analyst DATE 9/21/99

*(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.

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.
Loco Hills Paddock	4272	4667	

38. GEOLOGIC MARKERS

NAME	TOP MEAS.DEPTH	TOP TRUE VERT.DEPTH
Queen		
San Andres		
Glorietta	4190	

Form 9-330

...get Bureau No. 42-R355.2.
...pproval expires 12-31-42.

U. S. Land Office Las Cruces
Serial Number 054988 D
Lease or Permit to Prospect Jenkins

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company Flint Production Company, Inc. Address Artesia, New Mexico
Lessor or Tract Jenkins Field Grayburg State New Mexico
Well No. 1-B Sec. 20 T. 17 R. 30 Meridian NMPM County Eddy
Location 1650 ft. {N./S.} of N Line and 330 ft. {E./W.} of W Line of Section 20 Elevation 3631 (Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed
Date February 29, 1936 Title

The summary on this page is for the condition of the well at above date.

Commenced drilling Dec. 18th, 19 35 Finished drilling February 23rd, 19 36

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 1550 to 1555 Gas Show
No. 2, from 1615 to 1620 Gas Show
No. 3, from 2605 to 2610 Oil Show
No. 4, from 2750 to 2758 Oil Show
No. 5, from 2875 to 2880 Oil Show
No. 6, from 3035 to 3040 Gas Show
3120 to 3126 Oil

IMPORTANT WATER SANDS

No. 1, from to
No. 2, from to
No. 3, from to
No. 4, from to

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
10 3/4"	40#	8rd	Chester	479'	Reg.				
7"	24#	8rd	Chester	3000'	Reg.				

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10 3/4"	479'	50	Halliburton	Heavy	Top to bottom
7"	3000'	100	Halliburton	Heavy	Top to bottom

FOLD | MARK

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set
Adapters—Material Size

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
	Used 3000 gallons acid. Well made 75 bbls before treatment and 200 bbls after treatment.		Treated 2/25/36	and 2/27/36.		

TOOLS USED

Rotary tools were used from feet to feet, and from feet to feet
Cable tools were used from Top feet to 3258 feet, and from feet to feet

DATES

, 19 Put to producing February 28th, 19 36

The production for the first 24 hours was 75 barrels of fluid of which 100 % was oil; % emulsion; % water; and % sediment. Gravity, °Bé.

If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in.

EMPLOYEES

W. H. Berry, Driller
P. F. Johnson, Driller
Tom Jemes, Driller
J. R. Everts, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	25	25	Gyp
25	35	10	Red bed
35	85	50	Gyp and red sand
85	155	70	Red bed and sand
155	170	15	Red bed
170	175	5	Red sand
175	185	10	Red bed
185	195	10	Gyp
195	208	13	Red sand
208	217	9	Gyp
217	250	33	Red clay
250	260	10	Red sand
260	280	20	Red bed
280	350	70	Gyp
350	390	40	Gyp and red bed
390	410	20	Gyp
410	420	10	Gyp and red bed
420	470	50	Red bed
470	479	9	Gyp
479	495	16	Red bed
495	505	10	Salt
505	515	10	Anhydrite and Salt
515	750	235	Salt
750	760	10	Gyp
760	925	165	Salt
925	1005	80	Anhydrite

(OVER)

FROM—	TO—	TOTAL FEET	FORMATION
1005	1015	10	Salt
1015	1110	95	Anhydrite
1110	1140	30	Anhydrite and red shale
1140	1350	210	Anhydrite
1350	1375	25	Anhydrite, red and blue shale
1375	1470	95	Anhydrite
1470	1482	12	Lime
1482	1490	8	Anhydrite
1490	1495	5	Lime
1495	1775	280	Anhydrite
1775	1810	35	Anhydrite and red shale
1810	2030	220	Anhydrite
2030	2035	5	Brown Sand
2035	2075	40	Anhydrite
2075	2100	25	Anhydrite and brown shale
2100	2180	80	Anhydrite
2180	2240	60	Anhydrite and brown shale
2240	2260	20	Lime and Anhydrite
2260	2265	5	Anhydrite
2265	2290	25	RED SAND
2290	2315	25	Anhydrite and brown shale
2315	2325	10	Anhydrite
2325	2335	10	Gray Lime
2335	2360	25	Anhydrite
2360	2380	20	Red sandy lime
2380	2675	295	Gray Lime
2675	2690	25	White Lime
2690	2700	10	Gray Lime
2700	2710	10	White Lime
2710	2735	25	Gray Lime
2735	2835	100	White Lime
2835	2847	12	Gray Lime
2847	2857	10	Brown and White Lime
2857	2865	8	Pink and Gray Lime
2865	2880	15	Dark Gray Lime - Oil Show 2875
2880	2931	51	Gray Lime
2931	2942	11	White Lime
2942	2950	8	Gray Lime
2950	3022	72	White Lime
3022	3126	104	Gray Lime - Oil 3125
3126	3146	20	Dark Gray Lime
3146	3168	22	Gray Lime
3168	3176	8	Dark Gray Lime
3176	3258	82	Gray Lime T.D.

16—43094-1 U. S. GOVERNMENT PRINTING OFFICE

HISTORY OF OIL OR GAS WELL.

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT – JENKINS B FEDERAL #4 (API# 30-015-04231)

PURPOSE: X Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes X No

II. OPERATOR: COG OPERATING LLC

ADDRESS: 550 WEST TEXAS AVE., SUITE 1300, MIDLAND, TX 79701

CONTACT PARTY: GAYLE BURLESON PHONE: (432) 685-4340

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes X No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE: _____ DATE: FEB. 5, 2007

E-MAIL ADDRESS: brian@permitswest.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

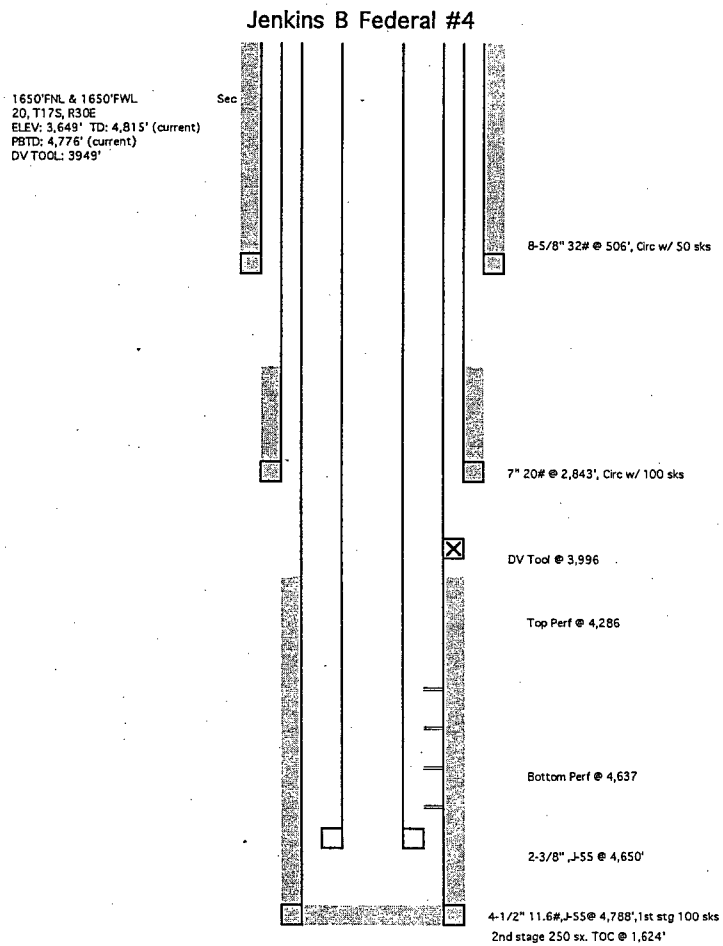
INJECTION WELL DATA SHEET

OPERATOR: COG OPERATING LLC

WELL NAME & NUMBER: JENKINS B FEDERAL #4

WELL LOCATION: 1650' FNL & 1650' FWL (FOOTAGE LOCATION) | F (UNIT LETTER) | 20 (SECTION) | 17 S (TOWNSHIP) | 30 E (RANGE)

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"

Cemented with: 50 sx *or* _____ ft^3

Top of Cement: Method Determined:

Intermediate Casing

Hole Size: 7-7/8" Casing Size: 7"

Cemented with: 100 sx *or* _____ ft^3

Top of Cement: Method Determined:

Production Casing

Hole Size: 6-1/8" Casing Size: 4-1/2"

Cemented with: 350 sx *or* _____ ft^3

Top of Cement: 1,624' Method Determined: Logged

Total Depth: 4788'

Injection Interval

4286 feet to 4637 feet

(Perforated)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" Lining Material: PLASTIC

Type of Packer: MODEL R INJECTION PACKER

Packer Setting Depth: APPROXIMATELY 100' ABOVE HIGHEST PERFORATION

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____ Yes **X** No

   If no, for what purpose was the well originally drilled? OIL PRODUCTION

   _____

2. Name of the Injection Formation: PADDOCK MEMBER OF THE YESO FORMATION

3. Name of Field or Pool (if applicable): LOCO HILLS; PADDOCK (#96718)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. YES

   QUEEN/SAN ANDRES (OPEN HOLE 2843' – 3253'); LATER CEMENTED WHEN WELL DEEPENED

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   OVER: GRAYBURG JACKSON; SR-Q-SA-G-SA (BOTTOM @ 4,044' IN JENKINS B FEDERAL #17)
   UNDER: BLINEBRY (TOP @ 4,780' IN JENKINS B FEDERAL #18)

Well: Jenkins B Federal # 4

1650'FNL & 1650'FWL Sec 20, T17S, R30E
ELEV: 3,649' TD: 4,815' (current)
DF: ? PBTD: 4,776' (current)
KB: ?
DV TOOL: 3949'
Pumping Unit: ?

Casing

TYPE	SIZE, in	WEIGHT, lbs/ft	GRADE	TOP	BOTTOM	CEMENT
SURFACE	8-5/8	32#	?	SURFACE	506'	Circ w/ 50 sks
INTERMEDIATE	7	20#	?	SURFACE	2,843'	Circ w/ 100 sks
PROD. LINER	4-1/2	11.6#	J-55	SURFACE	4,788'	circ/w 1st stage 100sx circ. 2nd stage 250 sx. TOC @ 1,624'
PROD. LINER	2-7/8		J-55	SURFACE	4,650'	

PERFS: OPEN HOLE 2843-3253
4286,90,93,99,4370,87,89,4406,14,47,51,56,59,81,89,94,4514,30,34,39,48
,54,62,72,73,80,88,92,96,4607,12,16,26,
4629,4637

5/14/37- Acidized w/1000 gals acid. Pumped 150 BOPD.

11/29/55- Frac open hole w/10000 gals oil and 250sx sand. Well pumped 135 BOPD

01/97- Production ends in the Queen/San Andres totaling, 85,875 bbls oil & 74,431 MCF gas

01/22/1997- Drill out DV tool @ 3993' in 20 min. RIH & tag bottom @ 4767'. POH & laydown drill collars. RU HLS & run bond & correlation log. TOC @ 1624'. Perforate 4286-4637'.

01/23/1997- RIH w/ 4 1/2" RTTS & acidize w/2000 gals 15% NEFE acid. Breakdown @ 2400-2100#. Avg. rate 6.3 bpm Max 6.6 bpm Avg. psi 2180# Max 2700# ISIP 1200#. 5 min. 900# 10 min. 810# 15 min. 750#. Balled off to 5500#. RU & pull 13 swab runs. 12th run tagged @ 2300' & pulled from 4000' w/20% oil cut. Frac balls floating & couldn't get down w/swab. RIH & wash balls. Reset Pkr. & prep for Hot acit job.

01/24/1997- RU BJ & pump big hot acid job. 54,000 gals heatedf 40# gel, 32,000 gals heated 20% HCL acid, 5000 gals cold 15% HCL & 5000 gals fresh water flush. Block #1 50# 3 balls 41# inc. #2 50# 3 balls 30# inc. #3 50# 3 balls 30# inc. #4 50# 3 balls 30# inc. #5 50# 3 balls 30# inc. #6 50# 3 balls 50# inc. Avg. rate 6bpm Avg. psi 1839# ISIP

1085# 5 min. 1056 10 min. 1027 15 min. 1007#. 5000 gals 15% cold acid Avg. rate 2 bpm Avg. psi 1100# ISIP 1007# 5 min. 1007# 10 min. 998 a5 min. 978.

01/27/1997- RIH & wash block & balls off bottom. POH & laydown workstring. PU 148 jts. new 2 7/8" J-55 tbg. & land SN @ 4650'. RIH w/2 1/2x2x20' PAP HVR pump, 128 7/8" used rods & 58 1" used rods.

10/28/1997- PPI perfs w/5000 gals 15% Pentafax 2. All perfs were broke down. Release PPI Tool & laydown workstring.

10/29/1997- RIH w/same prod. tbg. Reland SN @ 4650' w/148 jts 2 7/8" J-55 tbg. RIH w/128-7/8" & 58-1" used rods. 2 1/2x2x20' PAP trash pump.

01/12/1998- Downsize rod string. Laydown 1" & 7/8" rods. Stand back 59 7/8" rods. RIH w/2 1/2x2x20' Brass Ni Carb pump. 59- 7/8 & 125 3/4" new type 97 WCN rods.

09/02/2003- MIRU well has hole in tubing, POH pump and rods, POH with tubing, 12' up from SN had hole caused by bacteria will put chemical in well, replace btm jt. run back in hole 148jts 2 7/8" tubing, run 2 1/2 x 1 1/2 x 16' Brass Nicarb pump, 124-3/4" rods, 59-7/8" rods space out with 4' pony x 7/8" load tubing put well back to btry, clean up rig down.

01/11/2005- Rig up unit 93 and pull pump out of hole. PTOH, found hole on bottom jt.. Replace with ceramic lined jt. and RTIH. Land SN in same place with 148 jts. 2 7/8. Ran in hole with 2 1/2"x1 1/2"x16' RHBC, 2'x3/4" pony, 125-3/4" rods, 59-7/8" rods, 6',4',4' ponies. Hang on and rig down.

2/97- Production begins in the Paddock

02/06- Production totals of the Paddock 105,460 bbls oil & 229,051 MCF gas

Form 3160-4
(October 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

FOR APPROVED OMB NO. 1004-0137 Expires: December 31,1991

5. LEASE DESIGNATION AND SERIAL NO.: LC-054988B

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEPEN ☒ PLUG BACK ☐ DIFF. RESVR. ☐ Other

7. UNIT AGREEMENT NAME:

N.M. Oil Cons. Division
811 S. First
Artesia, NM 88210-2834
RECEIVED
FEB 24 1997
OIL CON. DIV.
DIST. 2

2. NAME OF OPERATOR: Mack Energy Corporation

8. FARM OR LEASE NAME, WELL NO.: JENKINS B FEDERAL #4

3. ADDRESS AND TELEPHONE NO.: P.O. Box 960, Artesia, NM 88211-0960 (505) 748-1288

9. API WELL NO.: 30-015-04231

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

10. FIELD AND POOL, OR WILDCAT: Grayburg Paddock

At surface: 1650 FNL 1650 FWL

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

At top prod. interval reported below: 1650 FNL 1650 FWL

At total depth: 1650 FNL 1650 FWL

Sec 20 T17S R30E

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
		Eddy	NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASING HEAD
1/10/97	1/16/97	1/27/97		

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
4815	4776		→	Yes	

24. PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*: 4286-4637 Paddock

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: SDL,DSN,CSNG,DLL,MSFL

27. WAS WELL CORED: No

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

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8 5/8	32	506	12 1/4	50	None
7	20	2843	7 7/8	100	None
4 1/2	11.6	4788	6 1/8	1624, 350sx	None

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	4650	

31. PERFORATION RECORD (Interval, size and number): 4286-4637, 1/2, 35

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4286-4637	2000 gals 15% NE acid
4286-4637	32,000 gals 20% NE acid

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump)	WELL STATUS (Producing or shut-in)
2/4/97	Pumping 2 1/2 x 2 20 PAP HVR	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL-BBL.	GAS-MCF.	WATER-BBL.	GAS-OIL RATIO
2/12/97	24			80	112	540	1400

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL-BBL.	GAS-MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
			80	112	540	38

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): Sold

35. LIST OF ATTACHMENTS: Well Report

ACCEPTED FOR RECORD
(ORIG. SGD.) DAVID R. GLASS
FEB 20 1997

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

SIGNED Cristi D. Carter TITLE Production Clerk DATE 2/18/97

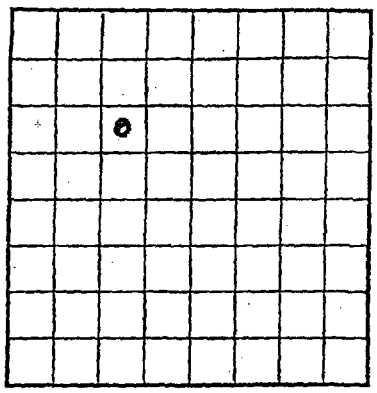
*(See Instructions and spaces for Additional Data on Reverse Side)

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.

et Bureau No. 42-R355.2.
oval expires 12-31-52.

Form 9-330

U. S. LAND OFFICE Las Cruces
SERIAL NUMBER 05/988 B
LEASE OR PERMIT TO PROSPECT Jenkins



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Flint Production Company, Inc. Address Artesia, New Mexico

Lessor or Tract Jenkins Field Grayburg State New Mexico

Well No. 4-B Sec. 20 T. 17 R. 30 Meridian NMPM County Eddy

Location 1650 ft. {N. / S.} of N Line and 1650 ft. {E. / W.} of W Line of Section 20 Elevation _____ (Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed _____

Date May 18, 1937 Title _____

The summary on this page is for the condition of the well at above date.

Commenced drilling March 9, 19 37 Finished drilling May 10, 19 37

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 1555 to 1557 G. S. No. 4, from 2632 to 2636 G. S.

No. 2, from 1570 to 1575 G. S. No. 5, from 2712 to 2716 G. S.

No. 3, from 2590 2510 to 2595 2515 G. S. No. 6, from 2905 3098 to 2912 3127 Oil G. S. 3222 3229 Oil

IMPORTANT WATER SANDS

No. 1, from 485 to 492 No. 3, from _____ to _____

No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
8 5/8	32#	8	National	506	Regular				
7"	20#	8	Reading	2815	Flint				

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8 5/8	506	50	Halliburton	Heavy	Top to Bottom
			Halliburton	Heavy	Top to Bottom

FOLD | MARK

7" OD	2843	100				

PLUGS AND ADAPTERS

Heaving plug—Material ..... Length ..... Depth set .....

Adapters—Material ..... Size .....

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

Cable tools were used from Top feet to 3253 feet, and from ..... feet to ..... feet

DATES

....., 19.... Put to producing May 14, 19 37

The production for the first 24 hours was 150 barrels of fluid of which 100 % was oil; ..... % emulsion; ..... % water; and ..... % sediment. Gravity, °Bé. .....

If gas well, cu. ft. per 24 hours ..... Gallons gasoline per 1,000 cu. ft. of gas .....

Rock pressure, lbs. per sq. in. .....

EMPLOYEES

Harold Hancock, Driller — Oscar Burch, Driller

W. H. Berry, Driller — ....., Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	120	120	Red Bed and Gyp
120	250	130	Red Sandy Shale
250	290	40	Sand
290	295	5	Dry Gravel Caya
295	370	75	Gyp
370	385	15	Red Shale
385	455	70	Red Bed and Gyp
455	485	30	Red Bed
485	492	7	Gyp
492	503	11	Sand
503	540	37	Gyp and Salt
540	945	405	Salt
945	1135	190	Anhydrite
1135	1145	10	Red Bed
1145	1280	135	Anhydrite and Brown Shale
1280	1340	60	Anhydrite
1340	1410	70	Anhydrite and Brown Shale
1410	1490	80	Anhydrite
1490	1525	35	Brown Lime
1525	1624	99	Anhydrite - Gas at 1557, 1570 to 75
1624	1647	23	Anhydrite and Brown Lime
1647	1727	80	Anhydrite
1727	1757	30	Anhydrite and Brown Shale
1757	1787	30	Anhydrite
1787	1817	30	Anhydrite and Brown Shale
1817	2043	226	Anhydrite

(OVER)

FORMATION RECORD—CONTINUED

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT – JENKINS B FEDERAL #10 (API# 30-015-30668)

PURPOSE: X Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes X No

II. OPERATOR: COG OPERATING LLC

ADDRESS: 550 WEST TEXAS AVE., SUITE 1300, MIDLAND, TX 79701

CONTACT PARTY: GAYLE BURLESON PHONE: (432) 685-4340

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes X No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE: _____ DATE: FEB. 5, 2007

E-MAIL ADDRESS: brian@permitswest.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

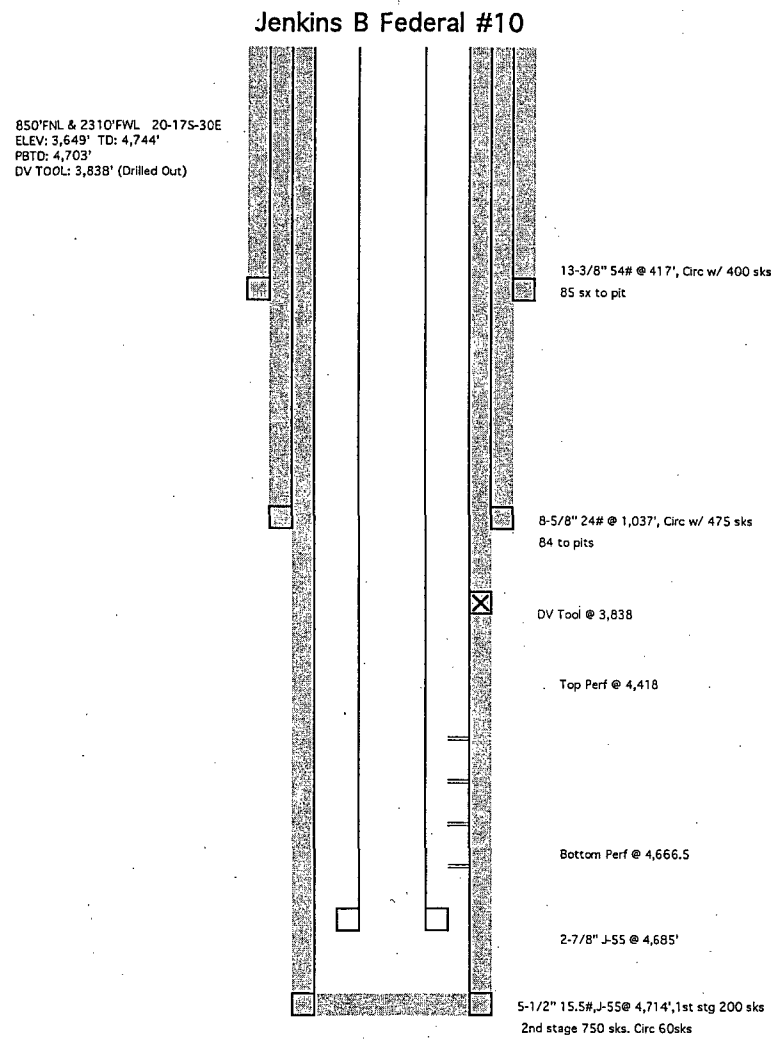
INJECTION WELL DATA SHEET

OPERATOR: COG OPERATING LLC

WELL NAME & NUMBER: JENKINS B FEDERAL #10

WELL LOCATION: 850'FNL & 2310'FWL (FOOTAGE LOCATION) | C (UNIT LETTER) | 20 (SECTION) | 17 S (TOWNSHIP) | 30 E (RANGE)

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8"

Cemented with: 400 sx *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"

Cemented with: 475 sx *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2"

Cemented with: 1000 sx *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Total Depth: 4714'

Injection Interval

4418 feet to 4666.5 feet

(Perforated)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" Lining Material: PLASTIC

Type of Packer: MODEL R INJECTION PACKER

Packer Setting Depth: APPROXIMATELY 100' ABOVE HIGHEST PERFORATION

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes **X** No

   If no, for what purpose was the well originally drilled? OIL PRODUCTION

   _____

2. Name of the Injection Formation: PADDOCK MEMBER OF THE YESO FORMATION

3. Name of Field or Pool (if applicable): LOCO HILLS; PADDOCK (#96718)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO

   _____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   OVER: GRAYBURG JACKSON; SR-Q-SA-G-SA (BOTTOM @ 4,044' IN JENKINS B FEDERAL #17)
   UNDER: BLINEBRY (TOP @ 4,780' IN JENKINS B FEDERAL #18)

Well: Jenkins B Federal # 10

850'FNL & 2310'FWL Sec 20, T17S, R30E
ELEV: 3,649' TD: 4,744'
DF: ? PBTD: 4,703'
KB: ?
DV TOOL: 3,838' (Drilled Out)
Pumping Unit: Lufkin 228

Casing

TYPE	SIZE, in	WEIGHT, lbs/ft	GRADE	TOP	BOTTOM	CEMENT
SURFACE	13-3/8	54#	K-55	SURFACE	417'	Circ w/ 400 sks, 85 sks to pit
INTERMEDIATE	8-5/8	24#	J-55	SURFACE	1,037'	Circ w/ 475 sks, 84 sks to pit
INTERMEDIATE	5-1/2	15.5#	J-55	SURFACE	4,714'	200 Circ. 85 sx . 2nd stage c/w 550 & 250 sx Circ. 60 sx.
PROD. LINER	2-7/8		J-55	SURFACE	4,685'	

PERFS:
4418.5,37,55.5,57.5,63,64.5,68,70.5,72.5,75,77.5,79.5,87.5,91.5,93,96.5,98.5,4500.5,02.5 ,04.5,08,12,13.5,15.5,17,19.5,20.5,22,23.5,26.5,29.5,32,33.5,36.5,39,40.5,42.5,44,45.5,47 ,50,51.5,54.5,57.5,61,63.5,75.5,77.5,81,82.5,85,87.5,90.5,94.5,96.5,98.5,4602,08.5,14.5,1 8.5,25,26,31,34.5,36.5,38.5,44.5,48,50.5,55.5,60,63.5,66.5

08/03/1999- Spud Date

08/15/1999- POH & RU Schlumberger. Finish running FMI. RD Schlumberger & RIH w/drill pipe POH laying down. RU RIH w/117 jts new 5 1/2" 15.5# J-55 LT&C landed @ 4714' PBTD @ 4703' Mk. Jt. @ 4370' & DV Tool @ 3838'. RU BJ & cmt. 1st stage w/200 sx 50-50-2 .5% FL-25 5# salt. Open hydraulic DV Tool & circ. 85 sx. Circ. 6 hrs. Cmt 2nd stage w/550 sx 35-65-6 1/4# CF 3# salt & 250 sx 50-50-2 .5% FL-25 5# salt. Circ. 60 sx. Plug down @ 5:30 AM 8/16/1999

08/24/1999- RU Schlumberger & log & perf. 4418.5-4666.5' 73 holes. RD Schlumberger & RIH w/5 1/2" PPI Tool leave above perfs overnight.

08/25/1999- RU BJ & acidize w/2500 gals 15% NEFE acid & 219 balls. Breakdown 1470# @ 2.9 bpm. Avg. rate 5.7 bpm Avg. Psi 2100#. ISIP 560# 5 min. 202# 10 min. 70# 15 min. 0 Balled off 5000# w/130 balls.RU & pull 6 swab runs. 6th run tagged @ 2100' pulled from 3800' 1700' fluid w/13% oil cut. Ready for hot acid job.

08/26/1999- RU BJ & pump hot acid job 32,000 gals heated 20% HCL & 54,000 gals heated 40# gel in 25 & 41 bbl stages. Dropped 75 balls & 1000# block in 10 stages. Avg. Rate 9 bpm Avg. Psi 1800#. ISIP 850# 5 min. 783# 10 min. 738# 15 min. 693#. Pump 5000 gals 15% HCL cold acid @ 2 bpm @ 610# Flush w/90 bbls FW @ 2 bpm @ 460#. ISIP 394# 5 min. 306# 10 min. 264# 15 min. 220#. Well flowed back approx. 15 min. Release RTTS & RIH clean out to PBTD. POH w/RTTS. 08/27/1999- RIH w/prod. tbg.

land SN @ 4685' w/158 jts. TA @ 4208' w/142 jts. RIH w/2 1/2x2x20' RHBC HVR PAP BNC pump. 58-1" & 126-7/8" 2'x7/8" & 10'x1" ponies.

12/29/1999- MIRU unit 85, POH lay down all 1" rods, stand up 60-7/8" rods, laydown rest of 7/8" rods, RIH with 2 1/2 x 2 x 16' HVR PAP pump, 2ft pony, 127-3/4"New type 97 WCN rods, 59-7/8" rod, polish rod and liner, hang well back on, replace puming unit Lufkin 228, put back on production. clean up rig down.

02/2006- Production totals of the Paddock 79,006 bbls oil & 208,459 MCF gas

Form 3160-4
(October 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

N.M. Oil Conservation Division
811 S. 1st St.
ARTESIA, NM 88210-2834

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31, 1991

5. LEASE DESIGNATION AND SERIAL NO.: LC-054988B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME, WELL NO.: Jenkins B Federal #10

2. NAME OF OPERATOR: Mack Energy Corporation

9. API WELL NO.: 30-015-30668 SI

3. ADDRESS AND TELEPHONE NO.: P.O. Box 960, Artesia, NM 88211-0960 (505) 748-1288

10. FIELD AND POOL, OR WILDCAT: Loco Hills Paddock

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At surface: 850 FNL 2310 FWL
At top prod. interval reported below: 850 FNL 2310 FWL
At total depth: 850 FNL 2310 FWL

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec 20 T17S R30E

RECEIVED SEP 1999 OCD ARTESIA

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
		Eddy	NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASING HEAD
8/3/1999	8/13/1999	8/27/1999	3661 RKB	3649 GR

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
4744	4703		→	Yes	

24. PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*: 4418.5-4666.5, Paddock

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Gamma Ray, Neutron, Density, Lateralog, Spectral Gamma Ray

27. WAS WELL CORED: No

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

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8	54	417	17 1/2	400sx	None
8 5/8	24	1037	12 1/4	475sx	None
5 1/2	15.5	4714	7 7/8	1000sx	None

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	4685	

ACCEPTED FOR RECORD
SEP 23 1999

31. PERFORATION RECORD (Interval, size and number)
4418.5-4666.5, .41, 73

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4418.5-4666.5	2500 gals 15% NE acid
4418.5-4666.5	32,000 gals 20% NE acid

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump)	WELL STATUS (Producing or shut-in)
9/03/1999	2 1/2 x 2 20 RHBC HVR PAP BNC	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL-BBL.	GAS-MCF.	WATER-BBL.	GAS-OIL RATIO
9/14/1999	24			143	235	625	1643

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL-BBL.	GAS-MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
			143	235	625	38

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): Sold

35. LIST OF ATTACHMENTS

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

SIGNED Tessa D. Carter TITLE Production Analyst DATE 9/21/1999

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

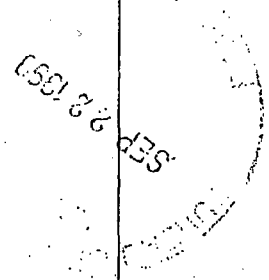
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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.
Loco Hills Paddock	4298	4653	

38. GEOLOGIC MARKERS

NAME	TOP MEAS.DEPTH	TOP TRUE VERT.DEPTH
Queen	2042	
San Andres	2766	
Glorietta	4193	



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT – JENKINS B FEDERAL #12 (API# 30-015-31559)

PURPOSE: X Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes X No

II. OPERATOR: COG OPERATING LLC

ADDRESS: 550 WEST TEXAS AVE., SUITE 1300, MIDLAND, TX 79701

CONTACT PARTY: GAYLE BURLESON PHONE: (432) 685-4340

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes X No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE:  DATE: FEB. 5, 2007

E-MAIL ADDRESS: brian@permitswest.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

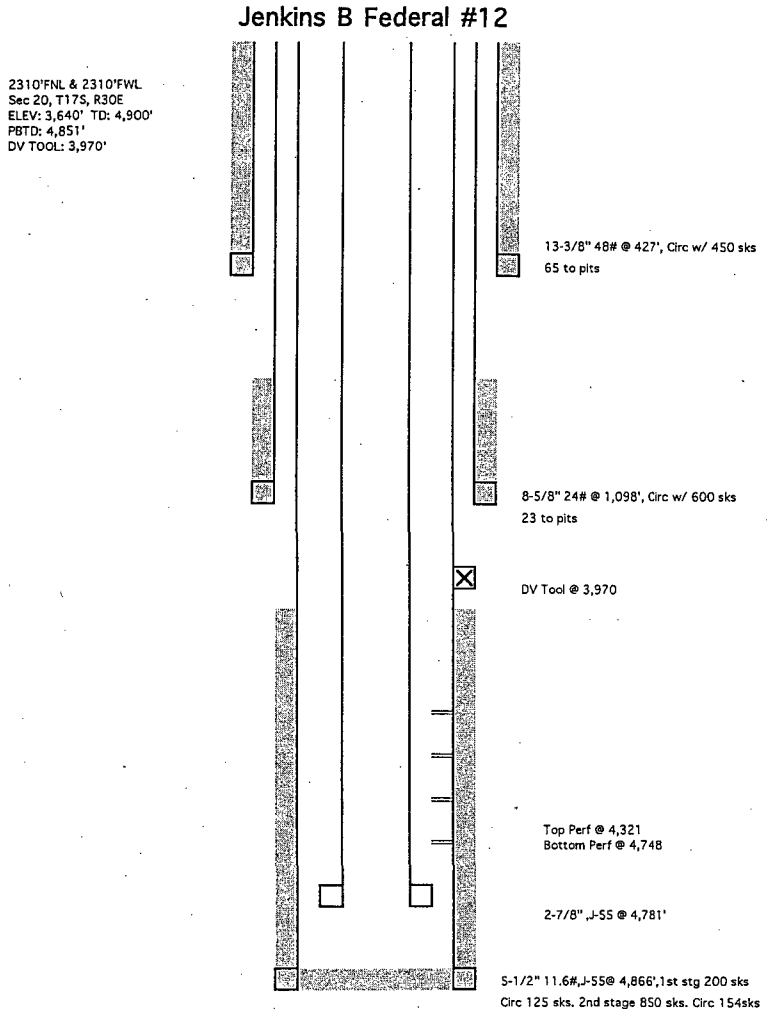
INJECTION WELL DATA SHEET

OPERATOR: COG OPERATING LLC

WELL NAME & NUMBER: JENKINS B FEDERAL #12

WELL LOCATION: 2310'FNL & 2310'FWL FOOTAGE LOCATION | F UNIT LETTER | 20 SECTION | 17 S TOWNSHIP | 30 E RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2"

Casing Size: 13-3/8"

Cemented with: 450 sx *or* _____ ft^3

Top of Cement: Surface

Method Determined: Circulated

Intermediate Casing

Hole Size: 12-1/4"

Casing Size: 8-5/8"

Cemented with: 600 sx *or* _____ ft^3

Top of Cement: Surface

Method Determined: Circulated

Production Casing

Hole Size: 7-7/8"

Casing Size: 5-1/2"

Cemented with: 1050 sx *or* _____ ft^3

Top of Cement: Surface

Method Determined: Circulated

Total Depth: 4866'

Injection Interval

4321 feet to 4748 feet

(Perforated)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" Lining Material: PLASTIC

Type of Packer: MODEL R INJECTION PACKER

Packer Setting Depth: APPROXIMATELY 100' ABOVE HIGHEST PERFORATION

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____ Yes **X** No

   If no, for what purpose was the well originally drilled? OIL PRODUCTION

   _____

2. Name of the Injection Formation: PADDOCK MEMBER OF THE YESO FORMATION

3. Name of Field or Pool (if applicable): LOCO HILLS; PADDOCK (#96718)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   OVER: GRAYBURG JACKSON; SR-Q-SA-G-SA (BOTTOM @ 4,044' IN JENKINS B FEDERAL #17)
   UNDER: BLINEBRY (TOP @ 4,780' IN JENKINS B FEDERAL #18)

Well: Jenkins B Federal # 12

2310'FNL & 2310'FWL Sec 20, T17S, R30E
ELEV: 3,640' TD: 4,900'
DF: ? PBTD: 4,851'
KB: ?
DV TOOL: 3,970'
Pumping Unit: ?

Casing

TYPE	SIZE, in	WEIGHT, lbs/ft	GRADE	TOP	BOTTOM	CEMENT
SURFACE	13-3/8	48#	J-55	SURFACE	427'	Circ w/ 450 sks, 65 sks to pit
INTERMEDIATE	8-5/8	24#	J-55	SURFACE	1,098'	Circ w/ 600 sks, circ 23
INTERMEDIATE	5-1/2	15.5#	J-55	SURFACE	4,866'	200 sks Circ. 125 sx . 2nd stage c/w 650 & 200 sx Circ. 154 sx.
PROD. LINER	2-7/8		J-55	SURFACE	4,781'	

PERFS:4321,22.5,24,29,37.5,43,46,48,50,54,56,66.5,81,85.5,91,92.5,97,98.5,4401.5,04,06,08,10,13,17.5,32.5,36,45,50,57,63.5,4518,20.5,24,27,29,30.5,32,38,41,45,49.5,52.5,55,57,59.5,63,64.5,66,74,76,78.5,89.5,91,92.5,94,96.5,98,99.5,4603,06.5,08,10,12,14,15.5,19,21,23,25.5,27.5,29,32,33.5,49,51,53,60,69,71,74,76,80,84.5,86,89,93.5,4713,17,22,26,34,35.5,43.5,45,48

2/21/2001- Spud Date

03/09/2001- RU Schlumberger & perf. 4321-4748' 96 holes. RIH w/5 1/2" PPI Tool.

03/12/2001- RU BJ & acidize w/2500 gals 15% NEFE acid & 288 balls. Breakdown @ 1616# @ 2.3 bpm. Avg. Rate 6.5 Avg. Psi 2226 ISIP 1051# 5 min. 691# 10 min. 633# 15 min. 545#. Balled off w/245 balls. Rev. out &PPI perfs. RU pull 8 swab runs final fluid level 1700' w/10% oil cut. Trip Pkr.

03/13/2001- RU BJ & pump hot acid job 32,000 gals heated 20% HCL & 54,000 gals heated 40# gel in 25 & 41 bbl stages. Dropped 1000# block & 100 balls in 10 stages. Avg. Rate 6 Avg. Psi 1609# ISIP 1118# 5 min. 943# 10 min. 895# 15 min. 875#. Pump 5000 gals cold 15% HCL @ 2 bpm @ 1000# Flush w/90 bbls FW @ 2 bpm @ 846# ISIP 924# 5 min. 826# 10 min. 817# 15 min. 797#.

03/14/2001- RIH clean out to PBTD @ 4814'. POH laydown pkr. RIH w/152 jts 2 7/8" J-55 Prod. tbg. landed @ 4781' TA @ 4155' w/132 jts. RIH w/2 1/2x2x16' RHBC HVR PAP BNC pump. 189 type 97 wcn new 3/4" rods. 2'-2'-6'-8'x3/4" ponies.

02/2006- Production totals of the Paddock 40,914 bbls oil & 128,810 MCF gas

Form 3160-4
(October 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

N.M. Oil Cons. Division
811 S. 1st Street
Artesia, NM 88210-2834

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31,1991

c1sp

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other	5. LEASE DESIGNATION AND SERIAL NO. LC-054988B
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
	7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR: Mack Energy Corporation	8. FARM OR LEASE NAME, WELL NO. Jenkins B Federal #12
3. ADDRESS AND TELEPHONE NO. P.O. Box 960, Artesia, NM 88211-0960 (505) 748-1288	9. API WELL NO. 30-015-31559
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface: 2310 FNL & 2310 FWL	10. FIELD AND POOL, OR WILDCAT Loco Hills Paddock
At top prod. interval reported below	11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec 20-T17S-R30E
At total depth	

RECEIVED OCD - ARTESIA

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
		Eddy	NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASING HEAD
2/21/01	3/1/01	3/14/01	3652 RKB	3640

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
4900	4851		→	Yes	

24. PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*: 4321-4748 Paddock

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Gamma Ray, Neutron, Density, Lateralog, Spectral Gamma Ray

27. WAS WELL CORED: No

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

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8 J-55	48	427	17 1/2	450 sx	None
8 5/8 J-55	24	1098	12 1/4	600 sx	None
5 1/2 J-55	17	4866	7 7/8	1050 sx	None

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	4781	

31. PERFORATION RECORD (Interval, size and number): 4321-4748, .41, 96

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4321-4748	2500 gals 15% NE Acid
4321-4748	32000 gals 20% NE Acid
4321-4748	54000 gals 40# gel
4321-4748	5000 cold 15% HCL Acid

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump)	WELL STATUS (Producing or shut-in)
3/18/01	2 1/2 x 2 x 16' RHBC HVR PAP BNC	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL-BBL.	GAS-MCF.	WATER-BBL.	GAS-OIL RATIO
3/26/01	24			117	224	455	1916

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL-BBL.	GAS-MCF.	WATER-BBL.	OIL GRAVITY-API (CORR.)
			117	224	455	38

ACCEPTED FOR RECORD
APR 9 2001
LB

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): Sold

35. LIST OF ATTACHMENTS

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

SIGNED Tina D. Cate TITLE Production Analyst DATE 3/27/01

*(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.

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.
Loco Hills Paddock	4318	4731	

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS.DEPTH	TRUE VERT.DEPTH
Queen	2070	
San Andreas	2821	
Glorietta	4254	

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT – JENKINS B FEDERAL #13 (API# 30-015-31560)

I. PURPOSE: X Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes X No

II. OPERATOR: COG OPERATING LLC

ADDRESS: 550 WEST TEXAS AVE., SUITE 1300, MIDLAND, TX 79701

CONTACT PARTY: GAYLE BURLESON PHONE: (432) 685-4340

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes X No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE: _____ DATE: FEB. 5, 2007

E-MAIL ADDRESS: brian@permitswest.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

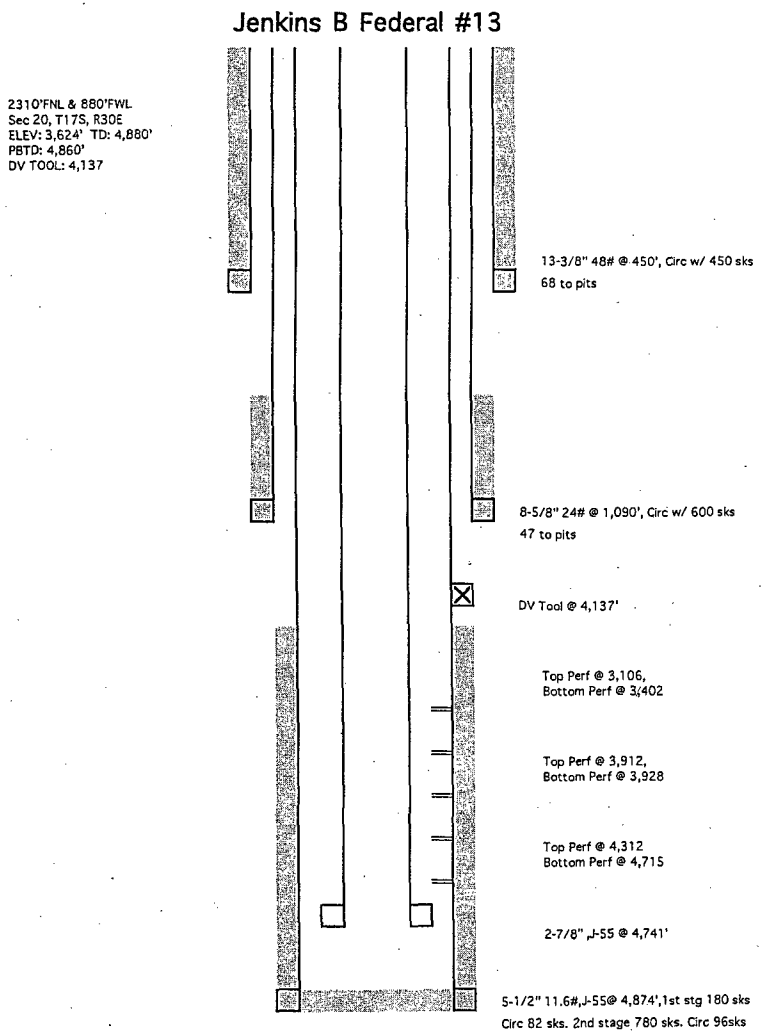
INJECTION WELL DATA SHEET

OPERATOR: COG OPERATING LLC

WELL NAME & NUMBER: JENKINS B FEDERAL #13

WELL LOCATION: 2310' FNL & 880' FWL (FOOTAGE LOCATION) | E (UNIT LETTER) | 20 (SECTION) | 17 S (TOWNSHIP) | 30 E (RANGE)

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8"

Cemented with: 450 sx *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"

Cemented with: 600 sx *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2"

Cemented with: 960 sx *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Total Depth: 4874'

Injection Interval

4312 feet to 4715 feet

(Perforated)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" Lining Material: PLASTIC

Type of Packer: MODEL R INJECTION PACKER

Packer Setting Depth: APPROXIMATELY 100' ABOVE HIGHEST PERFORATION

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____ Yes **X** No

   If no, for what purpose was the well originally drilled? OIL PRODUCTION

   _____

2. Name of the Injection Formation: PADDOCK MEMBER OF THE YESO FORMATION

3. Name of Field or Pool (if applicable): LOCO HILLS; PADDOCK (#96718)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. YES

   DHC WITH SAN ANDRES (3106' – 3928'); WILL SQUEEZE

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   OVER: GRAYBURG JACKSON; SR-Q-SA-G-SA (BOTTOM @ 4,044' IN JENKINS B FEDERAL #17)
   UNDER: BLINEBRY (TOP @ 4,780' IN JENKINS B FEDERAL #18)

Well: Jenkins B Federal # 13

2310'FNL & 880'FWL Sec 20, T17S, R30E
ELEV: 3,624' TD: 4,880'
DF: ? PBTD: 4,860'
KB: ?
DV TOOL: 4,137
Pumping Unit: ?

Casing

TYPE	SIZE, in	WEIGHT, lbs/ft	GRADE	TOP	BOTTOM	CEMENT
SURFACE	13-3/8	48#	K-55	SURFACE	465'	Circ w/ 450 sks, 68 sks to pit
INTERMEDIATE	8-5/8	24#	J-55	SURFACE	1,090'	Circ w/ 600 sks, 47 to pits
INTERMEDIATE	5-1/2	15.5#	J-55	SURFACE	4,874'	180 sks Circ. 82 sx . 2nd stage c/w 530 & 250 sx Circ. 96 sx.
PROD. LINER	2-7/8		J-55	SURFACE	4,741'	

PERFS:

4312.5,15,16.5,18,23,24.5,33.5,57,60.5,63.5,75.5,4408.5,17,22.5,25.5,28.5,31.5,34,38,40.5,82.5,84.5,89,95.5,4503.5,05.5,10.5,17,19.5,21.5,23.5,26.5,28.5,30.5,32.5,36.5,38.5,40.5,42.5,45,47,48.5,53,57,59,61.5,63.5,65.5,67.5,71.5,73.5,75.5,80.5,83.5,86,88,93,95.5,97.5,99.5,4602,05,08,12,14.5,16.5,18.5,21,27,29,31.5,33.5,36,39,46,48.5,50,52.5,54.5,60.5,65.5,67.5,69.5,71.5,73,77.5,82,84,87.5,91.5,94,96,98,4703,06.5,10,15.5
3912'-3928' 2/SPF 33 holes
3402,07.5,11.5,17,25.5,31,33,38,45,48.5,57.5,60.5,68,97,3506,08,16,23,30,32.5,36,46.5,51.5,58,66,75,82,87,91,95.5 2/SPF 60 holes
3106.5,08,14,19.5,27,42,57,64,70.5,74,81,89,94,97.5,3210.5,14,16,21.5,25.5,28.5,35,39,46,48,51,58.5,64.5,71.5,73.5,75,78,85,96 2/SPF 66 holes

2/23/2001- Spud Date

04/17/2001- Drill out DV Tool & RIH tag PBTD @ 4860' circ. hole. POH RU Schlumberger & perf. 4312.5-4715.5 97 holes.

04/18/2001- RU BJ & acidize w/2500 gal 15% NEFE acid & 291 balls. Breakdown @ 1218# @ 2.1 bpm. Avg. Rate 6.5 Avg. Psi 1365#. ISIP 682# 5 min. 166# 10 min. 0. Didn't ball off. Rev. out & PPI perfs. RU & swab. pulled 8 swab runs FFL @ 1800' w/10% oil cut. Trip Pkr.

04/19/2001- RU BJ & pump hot acid job. 32,000 gals 20% heated HCL & 54,000 gals heated 40# gel in 25 & 41 bbl stages. Dropped 100 balls & 1000# block in 10 stages. Avg. Rate 6 bpm Avg. Psi 1249#. ISIP 768# 5 min. 710# 10 min. 690# 15 min. 651# Pump 5000 gals cold 15% HCL @ 2 bpm @ 700#. Flush w/90 bbls FW 2 bpm @ 544# ISIP 515# 5 min. 476# 10 min. 467# 15 min. 418#. Well dead in 1 hr. POH w/Pkr.

04/20/2001- RIH below perfs & POH laydown Pkr. RIH w/151 jts 2 7/8" J-55 Prod. Tbg. SN @ 4741' TA @ 4114' w/131 jts. RIH w/2 1/2x2x16' RHBC HVR PAP BNC pump. 188 new wcn type 97 3/4" rods. & 16' ponies.

09/21/2005- POH with tbg. and rig up Schlumberger. Ran Gamma Ray Collar Log and perforated from 3912' to 3928' 2/SPF 33 holes. Rig wireline down and pick up workstring and RIH with RBP and RTTS. Acidized with 1500 gals. 15% NEFE and 66 ball sealers. Broke @ 3000 psi, balled off to 5000 psi, avg. psi-3000, avg. rate-5.7 BPM. ISIP-2200, 5 min.-2033, 10 min.-1968, 15 min.-1909. Bled off and made 5 swab runs. IFL-surf, FFL-3000', last run had 5% oil and good gas.

09/24/2005- Sand Frac well 21,500# 16/30 Brady brown and 6000# Super LC (total 27,500#) with 35,994gals 40# Linerar Gel, Avg Rate 78 BPM, Avg Press 4138PSI, ISIP 2470PSI, 5m-2200PSI, 10m-1095PSI, 15m-1980PSI. shut well in rig BJ down.

09/26/2005- No psi an well, ND frac valve and NU wellhead and BOP. RIH with overshot and wash 70' sand, unset RBP and POH. Rig up Schlumberger and perforate 3402' to 3595.5' 2/SPF 60 holes. Rig wireline down and RIH with RBP and PPI tool. Did PPI job and ball job with 3000 gals. 15% NEFE and 180 ball sealers. Balled off to 4500 PSI with 132 balls. Avg. psi-2100, avg. rate-6.4 BPM. ISIP-1450, 5 min.-1055, 10 min.-954, 15 min.-912. Bled off and made 5 swab runs. Rec. 500' on last run with 1-2% oil. SDFD

09/27/2005- Made 1 swab run, rec. 1600' fluid, 200' free oil on top and about 10% oil on rest of run. Unset Pkr. and POH. ND wellhead and BOP and NU frac valve. Frac well with 2 tanks 30# gel and 8,000 lbs. Lite Prop 125 14/30 and 3 tanks40# gel and 78,820 lbs. white 16/30 and 16,000 lbs. Super LC 16/30 @ 81 BPM. Min. psi-2285, avg. psi-2329, max psi-2419. ISIP-1609, 5 min.-1432, 10 min.-1355, 15 min.-1300.

09/28/2005- Well was on vacuum, ND frac valve and NU wellhead and BOP. RIH with overshot and wash 60' sand. Unset RBP and POH. Rig up Schlumberger and perforate from 3106.5 to 3296' 2/SPF 66 holes. Rig wireline down and RIH with RBP and PPI tool. Did PPI job and ball job with 4000 gals. 15% NEFE and 200 ball sealers. Did not ball out, min. psi-1850, avg. psi-2000, max psi-3400. ISIP-2042, 5 min.-1302, 10 min.-563, 15 min.-168. Bled off and made 2 swab runs and well flowed acid with 2% oil for 10 mins.

09/30/2005- HYBRID FRAC 5-TANK. Frac well with 2 tanks 30# gel and 8,004 lbs. Lite Prop 125 14/30 and 3 tanks40# gel and 78,050 lbs. white 16/30 and 15,680 lbs. SB exel 16/30 @ 80 BPM. Min. psi-2713, avg. psi-2800, max psi-2841. ISIP-1948, 5 min.-1674, 10 min.-1573, 15 min.-1498.

10/03/05 - ND frac valve and NU wellhead and BOP. RIH w/ notched overshot and 2 7/8" tbg. Tag sand at 3349' w/ 108jts and wash 30' of sand. Unset RBP and POH. Lay down work string. RIH with 2 7/8" J-55 set SN @ 4741' w/ 151jts TAC @ 2914' w/ 93jts (TAC WOULD NOT SET) RIH with pump 2 1/2" x 2" x 20' RHTC Trash pump

ON/OFF with 188-3/4" rods and 2-2' x 3/4" and 8' x 3/4" ponies. Clean up, leave well pumping to battery.

10/05- Production of the Queen/San Andres begins

02/2006- Production totals of the Paddock 59,706 bbls oil & 181,962 MCF gas

02/2006- Production totals of the Queen/San Andres 2,708 bbls oil & 8,865 MCF gas

Form 3160-4
(October 1990)

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31,1991

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: NMLC-054988B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [ ] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other DHC-3519

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME, WELL NO.: Jenkins B Federal #13

2. NAME OF OPERATOR: Mack Energy Corporation

9. API WELL NO.: 30-015-31560 C2

3. ADDRESS AND TELEPHONE NO.: P.O. Box 960, Artesia, NM 88211-0960 (505) 748-1288

10. FIELD AND POOL, OR WILDCAT: Grayburg Jackson SR Q G SA

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 2310 FNL & 880 FWL RECEIVED
At top prod. interval reported below
At total depth
DEC - 7 2005
OCD-ARTESIA

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec 20-T17S-R30E

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
		Eddy	NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASING HEAD
2/23/01	3/5/01	10/3/2005	3637 RKB	3624

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
4880	4860		→	Yes	

24. PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*: 3106.5-3928', San Andres

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Gamma Ray, Neutron, Density, Lateralog, Spectral Gamma Ray

27. WAS WELL CORED: No

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

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8 K-55	48	465	17 1/2	450 sx	None
8 5/8 J-55	24	1090	12 1/4	600 sx	None
5 1/2 J-55	17	4874	7 7/8	960 sx	None

ACCEPTED FOR RECORD
DEC - 1 2005
ALEXIS C. SWOBODA
PETROLEUM ENGINEER

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	4741	

31. PERFORATION RECORD (Interval, size and number)
3106.5-3928', .45, 159

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3106.5-3928'	See 3160-5 for detail

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping - size and type of pump*)	WELL STATUS (*Producing or shut-in*)
10/8/2005	2 1/2 x 2 x 20' pump	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL-BBL.	GAS-MCF.	WATER-BBL.	GAS- OIL RATIO
10/18/2005	24			35	136	241	3886

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL-BBL.	GAS-MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
			35	136	241	38

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Sold

35. LIST OF ATTACHMENTS

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

SIGNED Jerry W. Sherrell TITLE Production Clerk DATE 11/28/2005

*(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.

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.
San Andres	2798	4235	

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS.DEPTH	TRUE VERT.DEPTH
Yates	1120	
Seven Rivers	1424	
Queen	2050	
San Andres	2798	
Glorietta	4235	

30-015-31560

OGRID 13837

PROP 6125

POOL 96718

Geol Tops per/BGA

Salado	826
Base of Salt	968
Yates	1119
7 Rivers	1437
Bowers	1818
Queen	2056
Graybug	2440
San Andres	2798
Lovington Sd	2824
Glorieta	4235

5-15-01

PLAT EXP/AZ-LL/MCFL/NGT

1086 - 4878

PLAT EXP/3D-LD/COMP NEUT/NGT

200 - 4867

Form 3160-4
(October 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE* (other instructions on reverse side)

FOR APPROVED OMB NO. 1004-0137 Expires: December 31,1991

N.M. Cons. Division
811 S. 1st Street
Artesia, NM 88210-2834

5. LEASE DESIGNATION AND SERIAL NO. LC-054988B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO. Jenkins B Federal #13

2. NAME OF OPERATOR: Mack Energy Corporation

9. API WELL NO. 30-015-31560 0051

3. ADDRESS AND TELEPHONE NO.: P.O. Box 960, Artesia, NM 88211-0960 (505) 748-1288

10. FIELD AND POOL, OR WILDCAT: Loco Hills Paddock

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface: 2310 FNL & 880 FWL
At top prod. interval reported below
At total depth

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec 20-T17S-R30E

RECEIVED OCD - ARTESIA

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
		Eddy	NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASING HEAD
2/23/01	3/5/01	4/19/01	3637 RKB	3624

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
4880	4860		→	Yes	

24. PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*: 4312.5-4715.5 Paddock

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Gamma Ray, Neutron, Density, Lateralog, Spectral Gamma Ray

27. WAS WELL CORED: No

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

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8 K-55	48	465	17 1/2	450 sx	None
8 5/8 J-55	24	1090	12 1/4	600 sx	None
5 1/2 J-55	17	4874	7 7/8	960 sx	None

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	4741	

31. PERFORATION RECORD (Interval, size and number)
4312.5-4715.5 .41, 97

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4312.5-4715.5	2500 gals 15% NE Acid
4312.5-4715.5	32000 gals 20% NE Acid
4312.5-4715.5	54000 gals 40# gel
4312.5-4715.5	5000 15% HCL Acid

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump)	WELL STATUS (Producing or shut-in)
4/24/01	2 1/2 x 2 x 16' RHBC HVR PAP BNC	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL-BBL.	GAS-MCF.	WATER-BBL.	GAS-OIL RATIO
5/2/01	24			175	326	456	1863

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL-BBL.	GAS-MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
			175	326	456	38

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): Sold

35. LIST OF ATTACHMENTS

ACCEPTED FOR RECORD
(ORIG. SGD.) DAVID R. GLASS
MAY 21 2001
DAVID R. GLASS
PETROLEUM ENGINEER

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

SIGNED Lisa D Cate TITLE Production Analyst DATE 5/14/01

*(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.

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.
Loco Hills Paddock	4300	4699	

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS.DEPTH	TRUE VERT.DEPTH
Queen	2050	
San Andreas	2798	
Glorietta	4235	

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT – JENKINS B FEDERAL #14 (API# 30-015-32257)

PURPOSE: X Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes X No

II. OPERATOR: COG OPERATING LLC

ADDRESS: 550 WEST TEXAS AVE., SUITE 1300, MIDLAND, TX 79701

CONTACT PARTY: GAYLE BURLESON PHONE: (432) 685-4340

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes X No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE: _____ DATE: FEB. 5, 2007

E-MAIL ADDRESS: brian@permitswest.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

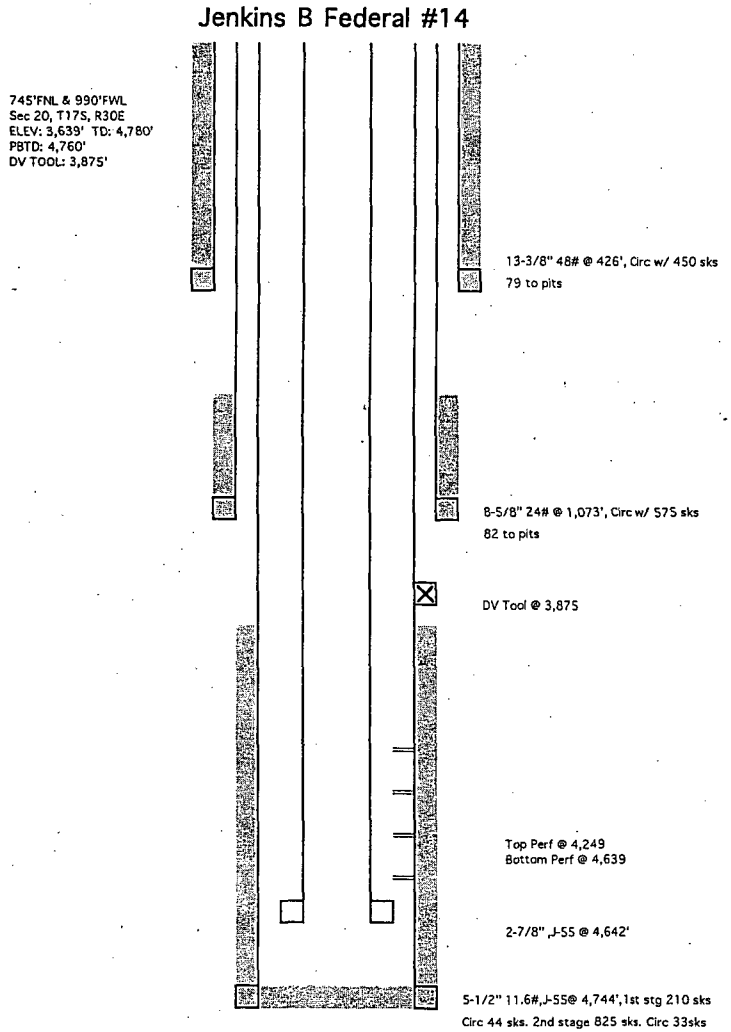
INJECTION WELL DATA SHEET

OPERATOR: COG OPERATING LLC

WELL NAME & NUMBER: JENKINS B FEDERAL #14

WELL LOCATION: 745' FNL & 990' FWL (FOOTAGE LOCATION) | D (UNIT LETTER) | 20 (SECTION) | 17 S (TOWNSHIP) | 30 E (RANGE)

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2"

Casing Size: 13-3/8"

Cemented with: 450 sx

or _____ ft³

Top of Cement: Surface

Method Determined: Circulated

Intermediate Casing

Hole Size: 12-1/4"

Casing Size: 8-5/8"

Cemented with: 575 sx

or _____ ft³

Top of Cement: Surface

Method Determined: Circulated

Production Casing

Hole Size: 7-7/8"

Casing Size: 5-1/2"

Cemented with: 1035 sx

or _____ ft³

Top of Cement: Surface

Method Determined: Circulated

Total Depth: 4744'

Injection Interval

4249 feet to 4639 feet

(Perforated)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" Lining Material: PLASTIC

Type of Packer: MODEL R INJECTION PACKER

Packer Setting Depth: APPROXIMATELY 100' ABOVE HIGHEST PERFORATION

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes **X** No

   If no, for what purpose was the well originally drilled? OIL PRODUCTION

   _____

2. Name of the Injection Formation: PADDOCK MEMBER OF THE YESO FORMATION

3. Name of Field or Pool (if applicable): LOCO HILLS; PADDOCK (#96718)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO

   _____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   OVER: GRAYBURG JACKSON; SR-Q-SA-G-SA (BOTTOM @ 4,044' IN JENKINS B FEDERAL #17)
   UNDER: BLINEBRY (TOP @ 4,780' IN JENKINS B FEDERAL #18)

Well: Jenkins B Federal # 14

745'FNL & 990'FWL Sec 20, T17S, R30E
ELEV: 3,639' TD: 4,780'
DF: ? PBTD: 4,760'
KB: ?
DV TOOL: 3,875'
Pumping Unit: ?

Casing

TYPE	SIZE, in	WEIGHT, lbs/ft	GRADE	TOP	BOTTOM	CEMENT
SURFACE	13-3/8	48#	K-55	SURFACE	426'	Circ w/ 450 sks, 79 sks to pit
INTERMEDIATE	8-5/8	24#	J-55	SURFACE	1,073'	Circ w/ 575 sks, circ 82
INTERMEDIATE	5-1/2	15.5#	J-55	SURFACE	4,744'	210 sks Circ. 44 sx . 2nd stage c/w 575 & 250 sx Circ. 33sx.
PROD. LINER	2-7/8		J-55	SURFACE	4,642'	

PERFS:4249.5,51,55,57,59,84.5,89,91.5,95,97,99,4301,09.5,12,14,17,20.5,23.5,26.5,31,34,36,38.5,40.5,43.5,45.5,47.5,49.5,75,77,88.5,4407,11,14.5,17,23,24.5,30,34,35.5,38.5,41,42.5,48,49.5,55,57,61,63,64.5,67.5,70.5,72,74,78,80,84,86,88,91,92.5,94,96.5,98,99.5,4502,04,17,18.5,20.5,22.5,24,25.5,27.5,37.5,40,42,65,68.5,73,75,77,79.5,82.5,91.5,95,99,4601.5,10.5,13,19.5,25.5,28,36,39

6/9/2002- Spud Date

06/29/2002- RU Schlumberger & run PDC & perf. 4249.5-4639 95 holes.

07/01/2002- RIH w/5 1/2" PPI tool. RU BJ & acidize w/2500 gals 15% NEFE & 285 balls. Breakdown @ 1355# @ 4.19 bpm. Avg. Rate 6 Avg. PSI 1900# ISIP 991# 5 min. 422# 10 min. 241# 15 min. 105#. Balled off 4800# w/109 balls. Rev. out & PPI perfs. Trip Pkr. RU & pull 5 swab runs 5th run taggedf @ 1500' w/15% oil cut. Ready for hot acid job.

07/02/2002- RU BJ & pump hot acid job 32,000 gals 20% heated HCL & 54,000 gals heated 40# gel in 25 & 41 bbl stages. Drop 100 balls 1000# block in 10 stages. Avg. Rate 6 bpm Avg. Psi 1386# ISIP 890# 5 min. 727# 10 min.619# 15 min. 551#. Pump 5000 gals cold 15% HCL @ 2 bpm @ 520#. Flush w/90 bbls FW @ 2 bpm @ 482# ISIP 335# 5 min. 270# 10 min. 223# 15 min. 190#. Well dead in 15 min. Release Pkr. & POH. RIH w/149 jts 2 7/8" J-55 tbg. SN @ 4642' TA @ 4147' w/133 jts. RIH w/2 1/2x2x16' RHBC HVR PAP BNC pump. 74 used type 97 wcn 1" rods & 110 new type 97 wcn 3/4" rods. 2'x3/4" pony.

02/2006- Production totals of the Paddock 51,453 bbls oil & 169,960 MCF gas

Form 3160-4
(October 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE* (other instructions on reverse side)

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31, 1991

Oil Cons. N.M. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

C15F

5. LEASE DESIGNATION AND SERIAL NO.
NM-054988-B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO
Jenkins B Federal #14

2. NAME OF OPERATOR
Mack Energy Corporation

9. API WELL NO.
30-015-32257 SI

3. ADDRESS AND TELEPHONE NO.
P.O. Box 960, Artesia, NM 88211-0960 (505) 748-1288

10. FIELD AND POOL, OR WILDCAT
Loco Hills Paddock

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 745 FNL & 990 FWL
At top prod. interval reported below
At total depth

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
Sec. 20, T17S, R30E, D

RECEIVED
2002
OCD - ARTESIA

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
		Eddy	NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASING HEAD
6/9/02	6/22/02	7/2/02	3652' RKB	3639'

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
4780'	4760'		→	Yes	

24. PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*
4249.5-4639' Paddock

25. WAS DIRECTIONAL SURVEY MADE
Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN
Gamma Ray, Neutron, Density, Lateralog, Spectral Gamma Ray

27. WAS WELL CORED
No

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

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8 K-55	48	426'	17 1/2	450 sx	None
8 5/8 J-55	24	1073'	12 1/4	575 sx	None
5 1/2 J-55	17	4774'	7 7/8	1035 sx	None

ACCEPTED FOR RECORD
AUG 30 2002
ALEXIS C. SWOBODA
PETROLEUM ENGINEER

29. LINER RECORD

SIZE	T O P (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8	4642'	

31. PERFORATION RECORD (Interval, size and number)
4249.5-4639', .41, 95

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4249.5-4639'	2500 gals 15% NEFE
4249.5-4639'	32000 gals 20% HCL
4249.5-4639'	54000 gals 40# gel
4249.5-4639'	5000 gals 15% acid

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping - size and type of pump*)	WELL STATUS (*Producing or shut-in*)
7/6/02	2 1/2x2x16' Pump	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL-BBL.	GAS-MCF.	WATER-BBL.	GAS-OIL RATIO
7/28/02	24 hours			107	198	159	1850

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL-BBL.	GAS-MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
			107	198	159	38

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
Sold

35. LIST OF ATTACHMENTS
Deviation Survey, Logs

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

SIGNED Melissa D. Cates TITLE Production Analyst DATE 8/20/02

*(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.

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.
Loco Hills Paddock	4173	4647	

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS.DEPTH	TRUE VERT.DEPTH
Yates	1106	
Seven Rivers	1403	
Queen	2022	
San Andres	2755	
Glorietta	4173	

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT – JENKINS B FEDERAL #1 (API# 30-015-04214)

I. PURPOSE: X Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes X No

II. OPERATOR: COG OPERATING LLC

ADDRESS: 550 WEST TEXAS AVE., SUITE 1300, MIDLAND, TX 79701

CONTACT PARTY: GAYLE BURLESON PHONE: (432) 685-4340

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes X No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

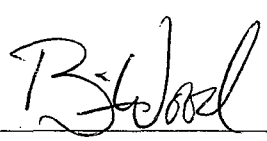
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE:  DATE: FEB. 5, 2007

E-MAIL ADDRESS: brian@permitswest.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT – JENKINS B FEDERAL #17R (API# 30-015-34138)

I. PURPOSE: X Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes X No

II. OPERATOR: COG OPERATING LLC

ADDRESS: 550 WEST TEXAS AVE., SUITE 1300, MIDLAND, TX 79701

CONTACT PARTY: GAYLE BURLESON PHONE: (432) 685-4340

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes X No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

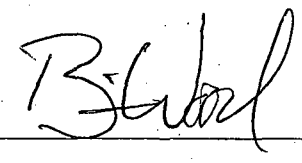
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE:  DATE: FEB. 5, 2007

E-MAIL ADDRESS: brian@permitswest.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

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III. WELL DATA

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(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

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(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

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Side 1

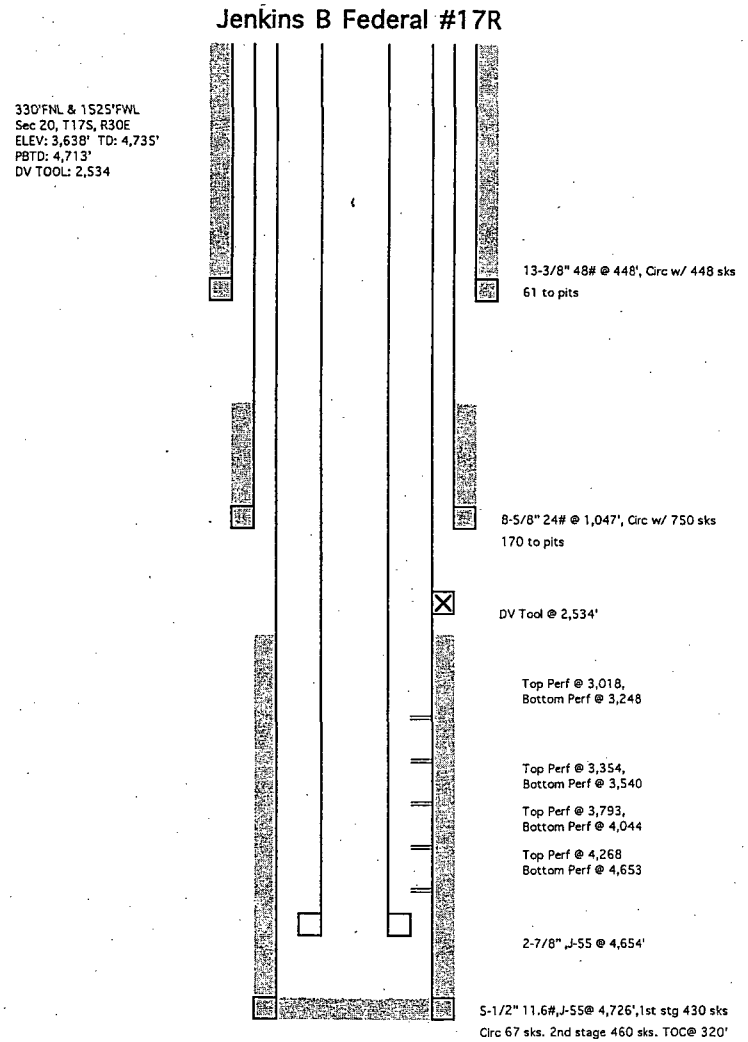
INJECTION WELL DATA SHEET

OPERATOR: COG OPERATING LLC

WELL NAME & NUMBER: JENKINS B FEDERAL #17R

WELL LOCATION:	330' FNL & 1525' FWL	C	20	17 S	30 E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2"

Casing Size: 13-3/8"

Cemented with: 448 sx

or _____ ft^3

Top of Cement: Surface

Method Determined: Circulated

Intermediate Casing

Hole Size: 12-1/4"

Casing Size: 8-5/8"

Cemented with: 750 sx

or _____ ft^3

Top of Cement: Surface

Method Determined: Circulated

Production Casing

Hole Size: 7-7/8"

Casing Size: 5-1/2"

Cemented with: 940 sx

or _____ ft^3

Top of Cement: 320'

Method Determined: Logged

Total Depth: 4726'

Injection Interval

4268 feet to 4653 feet

(Perforated)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" Lining Material: PLASTIC

Type of Packer: MODEL R INJECTION PACKER

Packer Setting Depth: APPROXIMATELY 100' ABOVE HIGHEST PERFORATION

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes **X** No

   If no, for what purpose was the well originally drilled? OIL PRODUCTION

   _____

2. Name of the Injection Formation: PADDOCK MEMBER OF THE YESO FORMATION

3. Name of Field or Pool (if applicable): LOCO HILLS; PADDOCK (#96718)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. YES

   DHC WITH SAN ANDRES (3018' – 4044'); WILL SQUEEZE

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   OVER: GRAYBURG JACKSON; SR-Q-SA-G-SA (BOTTOM @ 4,044' IN JENKINS B FEDERAL #17)
   UNDER: BLINEBRY (TOP @ 4,780' IN JENKINS B FEDERAL #18)

Well: Jenkins B Federal # 17R

330'FNL & 1525'FWL Sec 20, T17S, R30E
ELEV: 3,638' TD: 4,735'
DF: ? PBTD: 4,713'
KB: ?
DV TOOL: 2,534
Pumping Unit: ?

Casing

TYPE	SIZE, in	WEIGHT, lbs/ft	GRADE	TOP	BOTTOM	CEMENT
SURFACE	13-3/8	48#	H-40	SURFACE	448'	Circ w/ 448 sks, 161 sks to pit
INTERMEDIATE	8-5/8	24#	J-55	SURFACE	1,047'	Circ w/ 750 sks, 170 to pits
INTERMEDIATE	5-1/2	15.5#	J-55	SURFACE	4,726'	430 sks Circ. 67 sx . 2nd stage c/w 260 & 200 sx TOC @320'
PROD. LINER	2-7/8		J-55	SURFACE	4,654'	

PERFS: 4268.5-4653' 1 SPF 85 holes.
3793-4044.5 2 SPF 64 holes.
3354-3540.5 2 SPF 58 holes.
3018.5-3248 2 SPF 62 holes.

11/10/2005- Spud Date

12/28/2005- Perf. 4268.5-4653' 1 SPF 85 holes.

12/29/2005- RIH PPI perfs w/1900 gals 15% NEFE acid fish valves & reverse out 60 bbls. Set Pkr. @ 4175' open bypass spot acid & balls to Pkr. close bypass & acidize w/3100 gals NEFE acid & 250 balls. Balled off 3800# w/185 balls on. Avg. Rate 6.5 bpm A vg. Psi 2300# ISIP 1184# 5 min. 690# 10 min. 294# 15 min. 63# RU & swab. 5th run tagged @ 800' well flowed 15 min. w/stain oil 6th run had scattered fluid w/15% oil cut. Trip Pkr.

12/30/2005- RU BJ & pump hot acid job32,000 gals heated 20% HCL & 54,000 gals heated 40# linear gel in 25 & 41 bbl stages dropped 80 balls & 1000# block in 10 stages. Avg. Rate 6 bpm Avg. Psi 1125# ISIP 623# 5 min. 460# 10 min. 335# 15 min. 220#. Pump 5000 gals cold 15% @ 2 bpm @ 120# Flush w/90 bbls FW @ 2 bpm @ 171#. ISIP 0.Well didn't flow back.

01/02/2006- Release Pkr. RIH couldn't break circ. w/420 bbls tag 2' fill POH w/Pkr. RU Schlumberger & perf. 3793-4044.5 2 SPF 64 holes.

01/03/2006- RIH w/5 1/2" PTBP & PPI tool. Set PTBP @ 4123' & test 2500#. PPI perfs w/600 gals 15% NEFE acid fish valves Set Pkr. @ 3730' & acidize w/2200 gals 15% NEFE acid & 200 balls. Balled off 4135# w/180 balls. Avg. Rate 5.9 bpm Avg. Psi

2895# ISIP 1737# 5 min. 1359# 10 min. 1258# 15 min. 1188#. Well flowed back 5 min. RU pull 6 swab runs 6th run pulled 400' fluid w/10% oil cut. Trip Pkr.

01/04/2006- RU BJ & frac. w/500 gals Technihib ahead start 1/4# 16/30 white sand in 30# linear gel pump 32,500 gals total w/.15# -.35# 14/30 lite prop 125. Start 1/2-3# 16/30 white sand 75,680# & 15,660# 16/30 SiberProp @ 3# Flush w/80 bbls 40# linear gel. Avg. Rate 80 bpm Avg. Psi 3200# ISIP 2340# 5 min. 1919# 10 min. 1796# 15 min. 1723#..

01/05/2006- Perf. 3354-3540.5 58 holes.

01/06/2006- Did ball job with 1900 gals. 15% NEFE and 150 ball sealers. Balled out to 4500 Psi with 104 balls. Avg. psi-1900, avg. rate-6.3 BPM. ISIP-1272, 5 min.-1169, 10 min.-1104, 15 min.-1063. Bled off, made 1 swab run and well flowed acid for 10 minutes. Swab dry with 3 more runs. Wait 1 hr., rec. 400' fluid with 1-2% oil. Wait another hr. rec. 400' fluid with 5% oil. Unset Pkr. and POH. NU frac valve.

01/09/2006- Perforate 3018.5'-3248' 2/SPF 62 holes. Did PPI job and ball job with 2500 gals. 15% NEFE. Job communicated down. Unset Pkr. and POH. RIH with overshot and 30 stds.

01/10/2006- Finish running in hole and circ. balls off of RBP and unset. POH and RIH with SN and TAC. Land SN @ 4654' with 145 jts. 2 7/8". TAC @ 2891' with 90 jts. Ran rods and pump. 2 1/2"x2"x20' RHTC, 2'x3/4" pony, 105-3/4" rods and 80-7/8" rods, all new. Space out with 6' pony and hang on. Rig down.

02/2006- Production totals of the Paddock 1,683 bbls oil & 5,859 MCF gas

02/2006- Production totals of the Queen/San Andres 903 bbls oil & 3,131 MCF gas

Form 3160-4
(October 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

OCD-ARTESIA

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31,1991

5. LEASE DESIGNATION AND SERIAL NO.: LC-054988B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

RECEIVED
FEB 27 2006
OCD-ARTESIA

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME, WELL NO.: Jenkins B Federal #17

2. NAME OF OPERATOR: Mack Energy Corporation

9. API WELL NO.: 30-015-34138 0051

3. ADDRESS AND TELEPHONE NO.: P.O. Box 960, Artesia, NM 88211-0960 (505) 748-1288

10. FIELD AND POOL, OR WILDCAT: Grayburg Jackson SR Q G SA/Paddock

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 330 FNL & 1525 FWL
At top prod. interval reported below
At total depth

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec 20-T17S-R30E

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
		Eddy	NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASING HEAD
11/10/2005	11/20/2005	1/15/2006	3654' RKB	3638'

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
4735	4713		→	Yes	

24. PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*
3018.5-4044'-San Andres, 4268.5-4653'-Paddock

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN
Gamma Ray, Neutron, Density, Lateralog, Spectral Gamma Ray

27. WAS WELL CORED: No

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

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8 H-40	48	448	17 1/2	448 sx	None
8 5/8" J-55	24	1047	12 1/4	750 sx	None
5 1/2" J-55	17	4726	7 7/8	940 sx	None

29. LINER RECORD

SIZE	T O P (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8	4654	

31. PERFORATION RECORD (Interval, size and number)
3018.5-4044', .45, 184
4268.5-4653', .45, 85

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
	See 3160-5 for detail

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping - size and type of pump*)	WELL STATUS (*Producing or shut-in*)
		Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL-BBL.	GAS-MCF.	WATER-BBL.	GAS-OIL RATIO
1/25/2006	24 hours			72	101	410	1403

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL-BBL.	GAS-MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
			72	101	410	

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Sold

35. LIST OF ATTACHMENTS: Deviation Survey and Logs

ACCEPTED FOR RECORD
(ORIG. SGD.) DAVID R. GLASS
FEB 23 2006
DAVID R. GLASS
PETROLEUM ENGINEER

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

SIGNED Jerry W. Shenell TITLE Production Clerk DATE 2/15/2006

*(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.

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.
Paddock	4268	4653	
San Andres	3018	4044	

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS.DEPTH	TRUE VERT.DEPTH
Yates	1116	
Seven Rivers	1413	
Queen	2029	
San Andres	2756	
Glorietta	4186	

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT – JENKINS B FEDERAL #18 (API# 30-015-34474)

I. PURPOSE: X Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes X No

II. OPERATOR: COG OPERATING LLC

ADDRESS: 550 WEST TEXAS AVE., SUITE 1300, MIDLAND, TX 79701

CONTACT PARTY: GAYLE BURLESON PHONE: (432) 685-4340

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes X No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE:  DATE: FEB. 5, 2007

E-MAIL ADDRESS: brian@permitswest.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

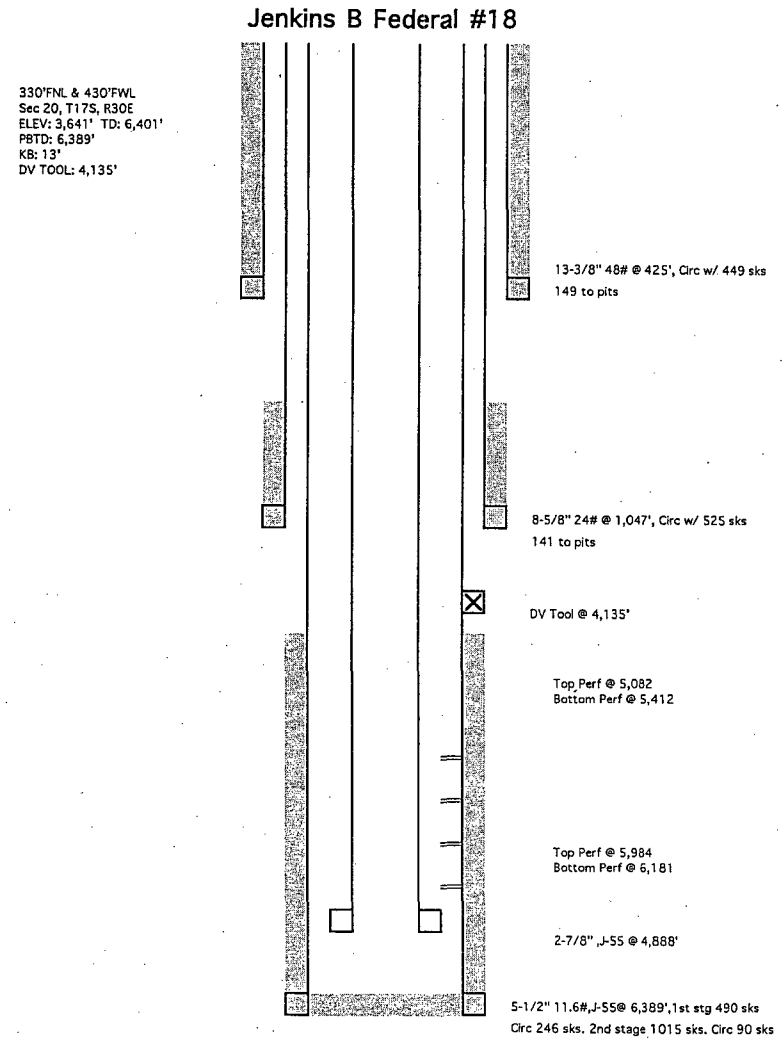
INJECTION WELL DATA SHEET

OPERATOR: COG OPERATING LLC

WELL NAME & NUMBER: JENKINS B FEDERAL #18

WELL LOCATION: 330' FNL & 430' FWL (FOOTAGE LOCATION) | D (UNIT LETTER) | 20 (SECTION) | 17 S (TOWNSHIP) | 30 E (RANGE)

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8"

Cemented with: 449 sx *or* _____ ft^3

Top of Cement: Method Determined:

Intermediate Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"

Cemented with: 525 sx *or* _____ ft^3

Top of Cement: 1,200' Method Determined: Logged

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2"

Cemented with: 1,505 sx *or* _____ ft^3

Top of Cement: Surface Method Determined: Calculated

Total Depth: 6389'

Injection Interval

4260.5 feet to 4629.5 feet

(Perforated)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" Lining Material: PLASTIC

Type of Packer: MODEL R INJECTION PACKER

Packer Setting Depth: APPROXIMATELY 100' ABOVE HIGHEST PERFORATION

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes **X** No

   If no, for what purpose was the well originally drilled? OIL PRODUCTION

   _____

2. Name of the Injection Formation: PADDOCK MEMBER OF THE YESO FORMATION

3. Name of Field or Pool (if applicable): LOCO HILLS; PADDOCK (#96718)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. YES

   BLINEBRY (5082' – 6181'); WILL SET CIBP @ 4,730' WITH 20' CEMENT ON TOP OF CIBP

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   OVER: GRAYBURG JACKSON; SR-Q-SA-G-SA (BOTTOM @ 4,044' IN JENKINS B FEDERAL #17R)
   UNDER: BLINEBRY (TOP @ 4,780' IN JENKINS B FEDERAL #18)

Well: Jenkins B Federal # 18

330'FNL & 430'FWL Sec 20, T17S, R30E
ELEV: 3,641' **TD: 6,401'**
DF: ? **PBTD: 6,389'**
KB: 13'
DV TOOL: 4,135'
Pumping Unit: ?

Casing

TYPE	SIZE, in	WEIGHT, lbs/ft	GRADE	TOP	BOTTOM	CEMENT
SURFACE	13-3/8	48#	H-40	SURFACE	425'	Circ w/ 449 sks, 149 sks to pit
INTERMEDIATE	8-5/8	24#	J-55	SURFACE	1,047'	Circ w/ 525 sks, circ 141
INTERMEDIATE	5-1/2	15.5#	J-55	SURFACE	6,389'	490 sks Circ. 246 sx . 2nd stage c/w 865 & 150 sx Circ. 90sx.
PROD. LINER	2-7/8		J-55	SURFACE	4,888'	

PERFS:5984.5,86,91.5,95.5,6003.5,06.5,09.5,17.5,19.5,21,24,58,70,87,90,92.5,97,99.5, 6105.5,07.5,13.5,15.5,17.5,26,28.5,44,52.5,54.5,59.5,66,72,77,79.5,81.5 5082.5,5116.5,20.5,24,27.5,34,68,71,72.5,75,78.5,87,88.5,94,96,5208.5,11,25,47.5,51.5,5 9.5,67,99.5,5380,86,90.5,94,5401,08,12.5 2/SPF 60 holes

2/06/06- Spud Date

03/11/2006- Rig up Schlumberger and ran PDC and perforated 5984.5'-6181.5' 34 settings 2/SPF 68 holes. Rig wireline down.

03/13/2006- RIH with 5 1/2" PPI and 2 7/8" tbg. run to 6204' w/ 198jts and pickle tbg with 2bbls acid and drop SV & FCV. 2500gal 15% PPI/ball job, spot 17bbls acid and PPI all perfs, all open, 1 communicated. Pull up to 5918' w/ 189jts and fish FCV & SV set PPI to treat. Drop 204 balls, 16 balls every 3bbls. Balled off to 4400psi w/ 144balls on. AR-6bpm AP-2900psi ISIP-2268psi 5min-2097psi 10min-2029psi 15min-1974psi. Swabbed well dry in 11runs IFL-surface FFL-5500' started seeing oil on the on 6th swab, on last run saw 8-10% oil.

03/14/2006- NU frac valve and pump 5 tank hybrid frac, 43,176 gals. 30# linear gel, 54,550 gals. 40# linear gel, 8,000 lbs. LiteProp 125 14/30, 75,620 lbs. White 16/30 and 15,520 lbs. SiberProp 16/30. Min psi-2720, avg. psi-4550, max psi-5010, avg. rate-74 BPM, max rate-77 BPM. ISIP-3635, 5 min.-3047, 10 min.-2932, 15 min.-2855.

03/15/2006- Perforate 5082.5'-5412.5' 30 settings 2/SPF 60 holes. Rig wireline down and RIH with RBP and PPI tool. PPI and acidize with 2500 gals. 15% NEFE and 180 ball sealers. Every perf open, ball out to 5000 psi with 108 balls. Avg. psi-2900, avg rate-6.3 BPM, ISIP-2270, 5 min.-1936, 10 min.-1870, 15 min.-1855.

03/16/2006- NU frac valve and pump 5 tank hybrid frac, 41,487 gals. 30# linear gel, 53,718 gals. 40# linear gel, 8,000 lbs. LiteProp 125 14/30, 75,000 lbs. White 16/30 and 15,000 lbs. SiberProp 16/30. Min psi-3467, avg. psi-3623, max psi-3779, avg. rate-81 BPM. ISIP-2605, 5 min.-2269, 10 min.-2178, 15 min.-2045.

03/17/2006- RIH with SN and TAC. wash 90' sand and land SN @ 6203' w/198 jts. 2 7/8" J-55. TAC @ 4888' w/156 jts. TAC did not set. Ran in hole with 2 1/2"x2"x24' RHTC, 2'x3/4" pony, 167-new T-66 3/4" rods and 77-new T-66 7/8" rods. Hang on and rig down.

Form 3160-4
(October 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

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

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31,1991

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

RECEIVED
MAY 02 2006
OCD-ARTESIA

5. LEASE DESIGNATION AND SERIAL NO.: LC-054988B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME, WELL NO.: Jenkins B Federal #18

9. API WELL NO.: 30-015-34474

10. FIELD AND POOL, OR WILDCAT: Loco Hills Paddock

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 20 T17S R30E

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: COG Operating LLC

3. ADDRESS AND TELEPHONE NO.: 550 W. Texas, Suite 1300, Midland, TX 79701 (432) 685-4372

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 330 FNL & 430 FWL
At top prod. interval reported below
At total depth

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
		Eddy	NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASING HEAD
2/6/2006	2/20/2006	3/17/2006	3654' RKB	3641'

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
6401	6389		→	Yes	

24. PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*: 5082.5-6181.5', .42, 128

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Gamma Ray, Neutron, Density, Lateralog, Spectral Gamma Ray

27. WAS WELL CORED: No

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

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8, H-40	48	425	17 1/2	449sx	None
8 5/8, J-55	24	1047	12 1/4	525sx	None
5 1/2, J-55	17	6389	7 7/8	1505sx	None

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	6203	

31. PERFORATION RECORD (Interval, size and number)
5082.5-6181.5', .42, 128

ACCEPTED FOR RECORD
APR 27 2006
GARY GOURLEY
PETROLEUM ENGINEER

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5082.5-6181.5'	See 3160-5 for detail

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping - size and type of pump*)	WELL STATUS (*Producing or shut-in*)
3/20/2006	2 1/2"x2"x24' pump	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL-BBL.	GAS-MCF.	WATER-BBL.	GAS-OIL RATIO
3/20/2006	24 hours			66	118	275	1788

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL-BBL.	GAS-MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
			66	118	275	

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Sold

35. LIST OF ATTACHMENTS: Deviation Survey and Logs

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

SIGNED Jerry W. Shenell TITLE Production Clerk DATE 4/24/2006

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

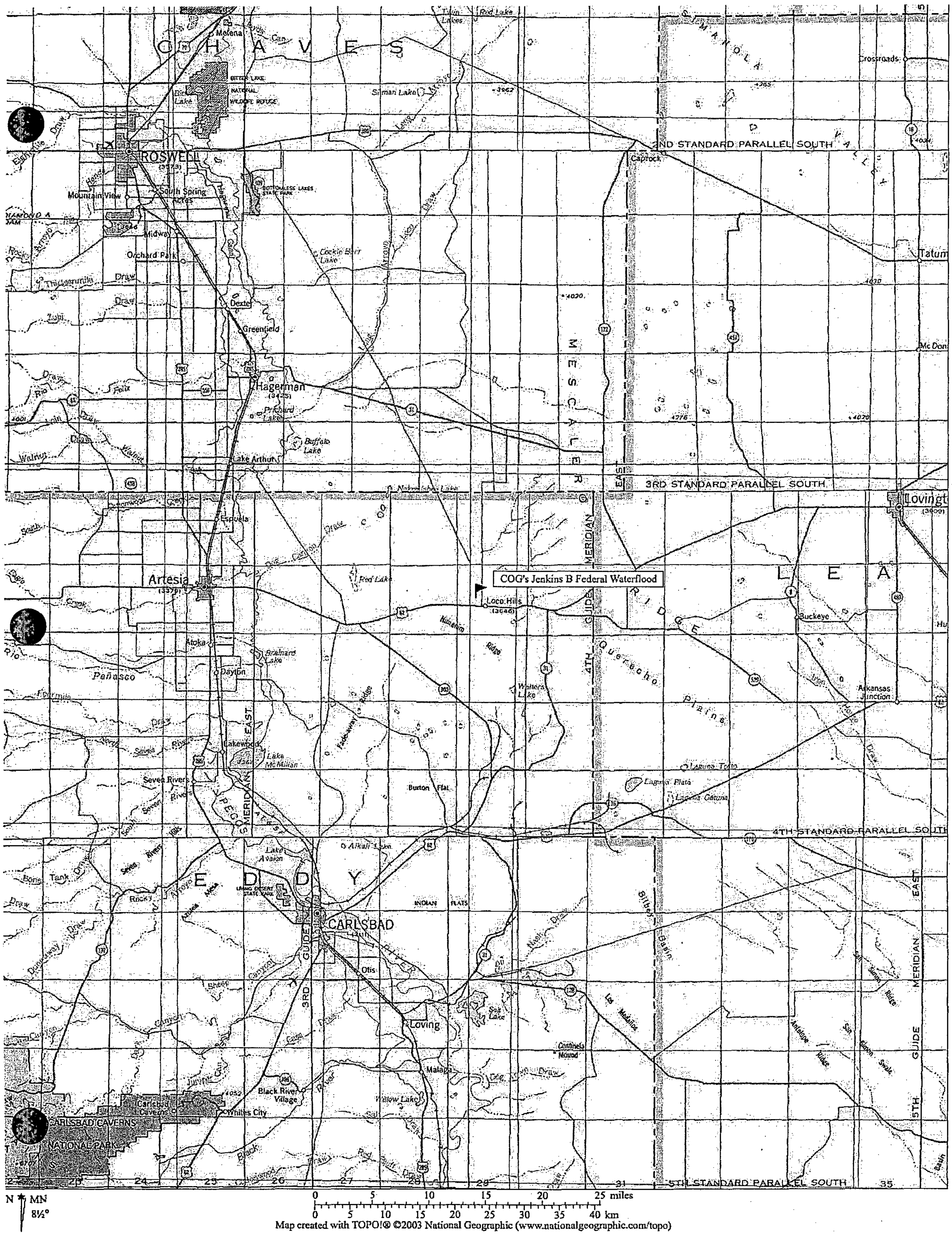
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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):

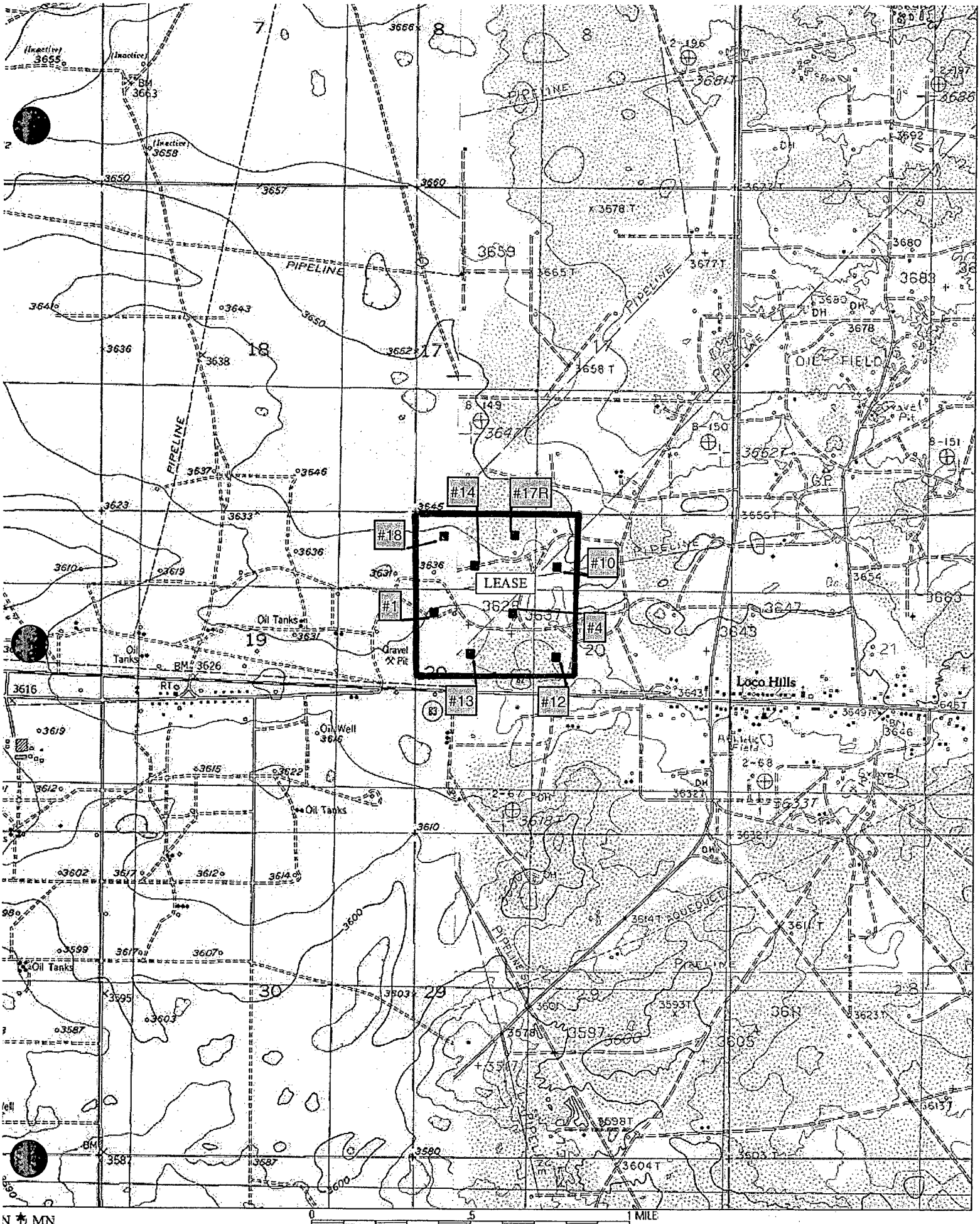
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Loco Hills Paddock	5082	6181	

38. GEOLOGIC MARKERS

NAME	TOP MEAS.DEPTH	TOP TRUE VERT.DEPTH
Yates	1100	
Seven Rivers	1394	
Queen	2016	
Grayburg	2400	
San Andres	2738	
Glorietta	4166	



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)



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DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

1 02-25-1920;041STAT0437;30USC226

Case Type 310781: O&G RENEWAL LEASE - PD

Commodity 459: OIL & GAS L

Case Disposition: AUTHORIZED

Total Acres	Serial Number
160.000	NMLC-- 0 054988B

Serial Number: NMLC-- 0 054988B

Name & Address				Int Rel % Interest
BROWN JAMES D JR	321 W GRAND	ARTESIA NM 88210	OPERATING RIGHTS	0.000000000
CHASE OIL CORP	PO BOX 1767	ARTESIA NM 882111767	OPERATING RIGHTS	0.000000000
CHASE RICHARD L	505 S BOLTON RD	ARTESIA NM 88210	OPERATING RIGHTS	0.000000000
CHASE ROBERT C	2306 SIERRA VISTA DR	ARTESIA NM 88210	OPERATING RIGHTS	0.000000000
COG OIL & GAS LP	550 W TEXAS #1300	MIDLAND TX 79701	LESSEE	100.000000000
COG OIL & GAS LP	550 W TEXAS #1300	MIDLAND TX 79701	OPERATING RIGHTS	0.000000000
CROUCH GERENE D C	PO BOX 693	ARTESIA NM 88211	OPERATING RIGHTS	0.000000000
ERICSON REBECCA S	2102 BRISCOE AVE	ARTESIA NM 88210	OPERATING RIGHTS	0.000000000

Serial Number: NMLC-- 0 054988B

Mer Twp Rng Sec	STyp	SNr Suff	Subdivision	District/Resource Area	County	Mgmt Agency
23 0170S 0300E 020	ALIQ	NW;		CARLSBAD FO	EDDY	BUREAU OF LAND MGMT

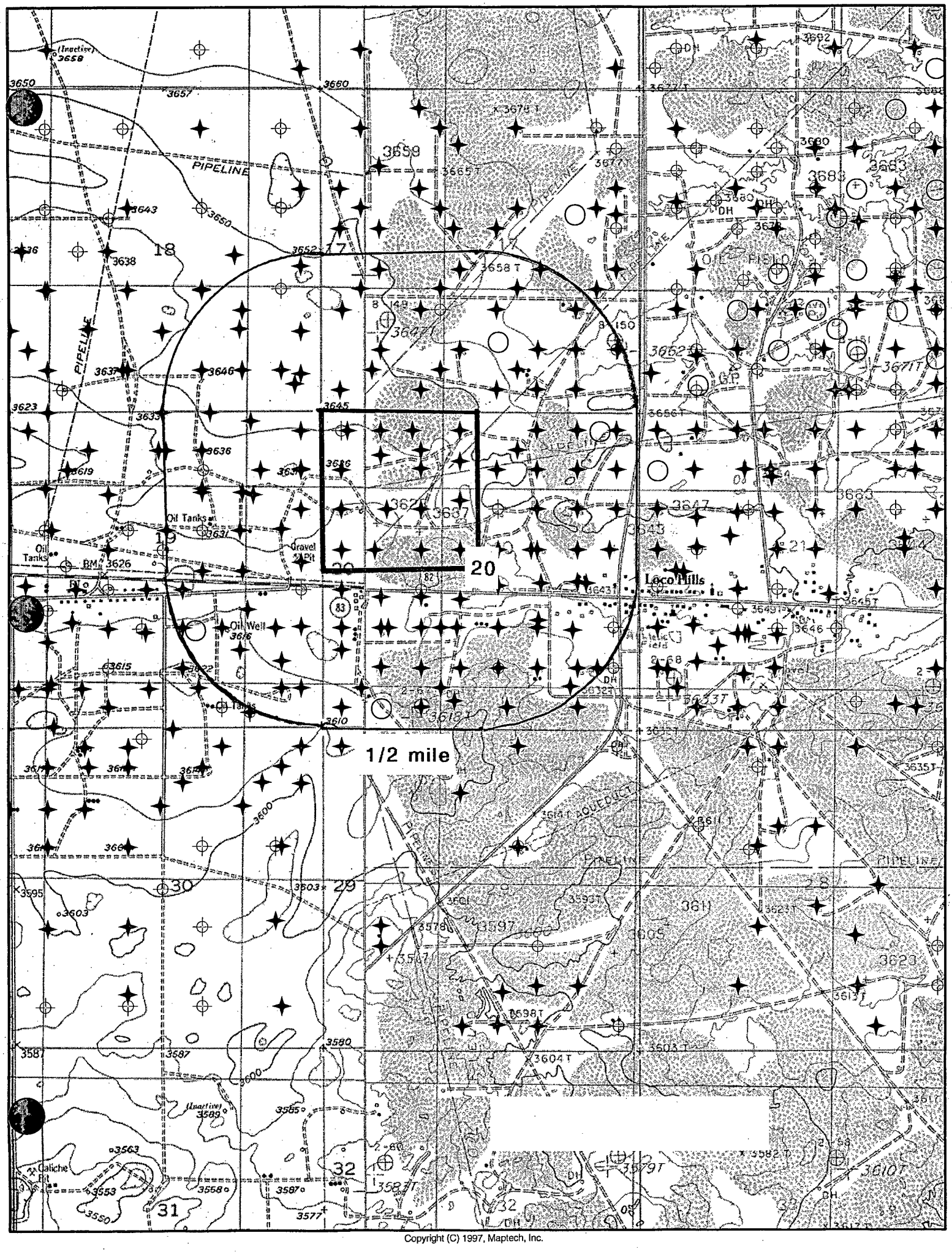
Serial Number: NMLC-- 0 054988B

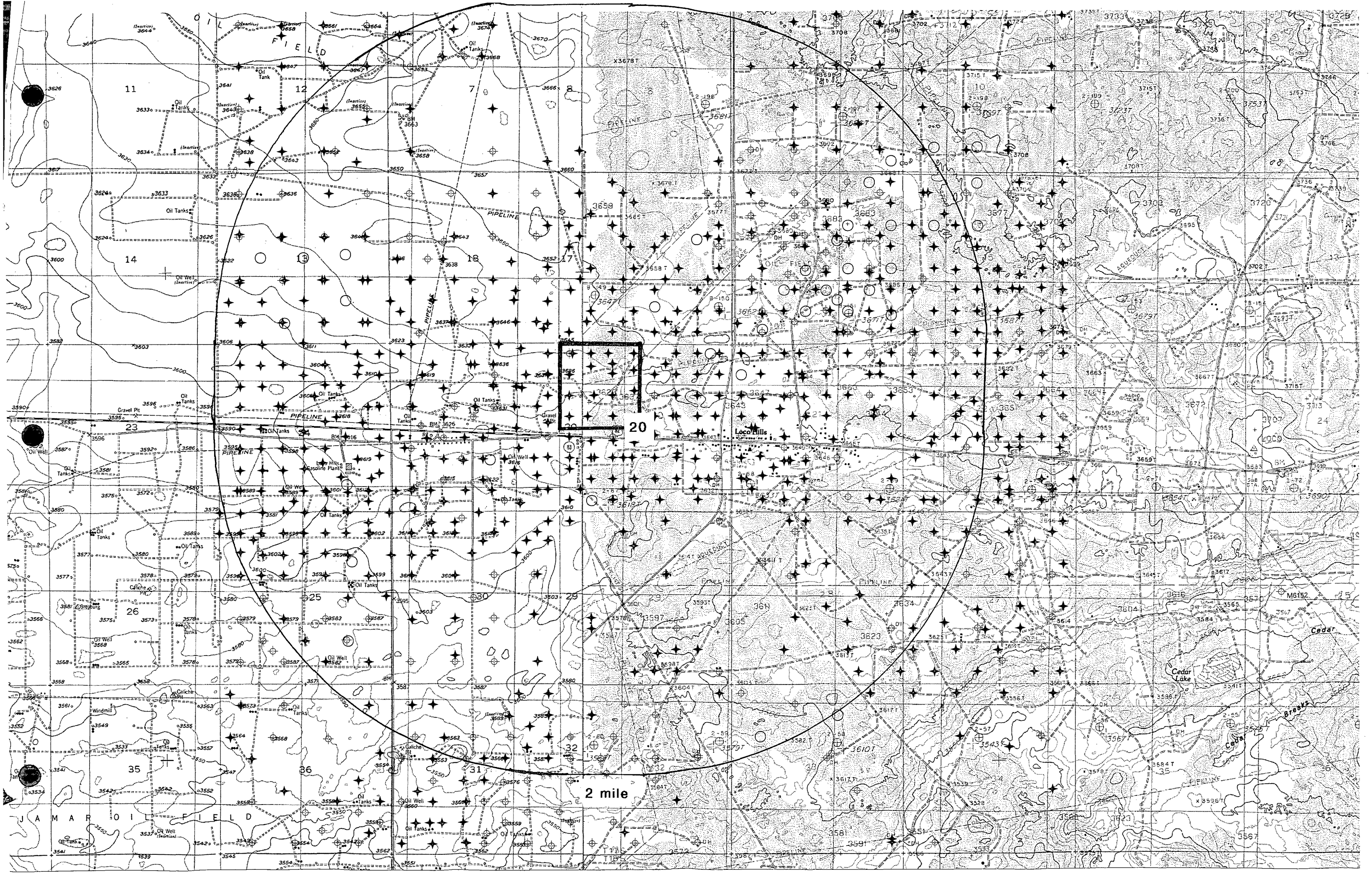
Act Date	Code	Action	Action Remarks	Pending Office
03/20/1936	387	CASE ESTABLISHED		
03/20/1936	496	FUND CODE	05;145003	
[illegible]/20/1936	868	EFFECTIVE DATE		
[illegible]6/15/1937	553	CASE CREATED BY ASGN	OUT OF NMLC029342-B;	
03/01/1956	237	LEASE ISSUED		
03/01/1956	242	LEASE RENEWED	THRU 02/28/66;	
03/01/1956	242	LEASE RENEWED	THRU 2/28/66;	
03/16/1962	817	MERGER RECOGNIZED	GRARIDGE CORP/IBEX CO	
03/16/1962	940	NAME CHANGE RECOGNIZED	IBEX CO/GRARIDGE CORP	
03/01/1966	237	LEASE ISSUED		
03/01/1966	242	LEASE RENEWED	THRU 02/28/76;	
03/01/1966	242	LEASE RENEWED	THRU 2/28/76;	
03/01/1976	237	LEASE ISSUED		
03/01/1976	242	LEASE RENEWED	THRU 02/28/86;	
03/01/1976	242	LEASE RENEWED	THRU 2/28/86;	
01/01/1978	246	LEASE COMMITTED TO CA	SRM-1302	
04/11/1984	140	ASGN FILED	PETRO CORP/DAMSON	
10/11/1984	963	CASE MICROFILMED	CNUM 103,829 AC	
11/10/1984	139	ASGN APPROVED	EFF 05/01/84;	
01/27/1986	314	RENEWAL APLN FILED		
03/01/1986	237	LEASE ISSUED		
03/01/1986	242	LEASE RENEWED	THRU 02/28/96;	
03/01/1986	534	RLTY RATE-SLIDING-SCH D		
07/25/1988	974	AUTOMATED RECORD VERIF	AGH/MIG	
12/22/1988	932	TRF OPER RGTS FILED		
01/24/1989	933	TRF OPER RGTS APPROVED	EFF 01/01/89;	
01/24/1989	974	AUTOMATED RECORD VERIF	TF/MT	
[illegible]/07/1989	932	TRF OPER RGTS FILED		
[illegible]/11/1989	933	TRF OPER RGTS APPROVED	EFF 05/01/89;	
05/11/1989	974	AUTOMATED RECORD VERIF	DGT/MT	

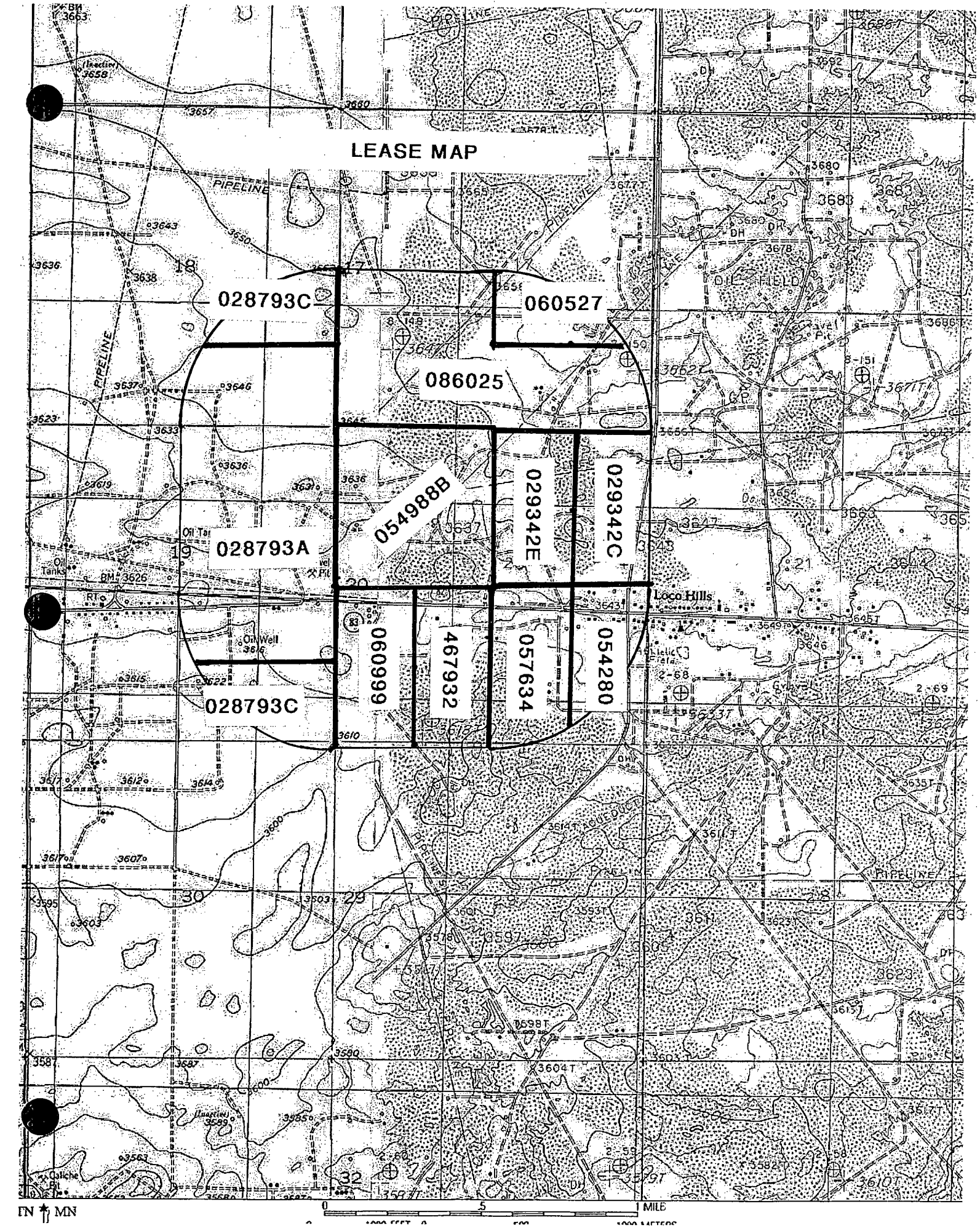
/04/1991	140	ASGN FILED	DAMSON/DAMSON ETAL
/09/1991	139	ASGN APPROVED	EFF 03/01/91;
04/09/1991	974	AUTOMATED RECORD VERIF	GLC/CG
09/18/1991	140	ASGN FILED	DAMSON/P&P ETAL
04/09/1992	140	ASGN FILED	DAMSON/P&P ETAL
06/22/1992	139	ASGN APPROVED	EFF 05/01/92;
06/22/1992	974	AUTOMATED RECORD VERIF	BTM/JS
08/06/1992	140	ASGN FILED	PARKER/MARBOB ENY
10/01/1992	621	RLTY RED-STRIPPER WELL	1.3%;/1/
12/07/1992	140	ASGN FILED	MARBOB/CHASE OIL CORP
12/31/1992	140	ASGN FILED	NATIONSBANK/MACK ENE
01/04/1993	567	ASGN RETURNED UNAPPROVED	DAMSON/P&P ETAL
01/04/1993	974	AUTOMATED RECORD VERIF	ST/JS
01/05/1993	932	TRF OPER RGTS FILED	MACK ENE/D CHASE
01/05/1993	932	TRF OPER RGTS FILED	MACK ENE/R C CHASE
01/05/1993	932	TRF OPER RGTS FILED	MACK ENE/R L CHASE
01/19/1993	139	ASGN APPROVED	EFF 10/01/91;
01/19/1993	974	AUTOMATED RECORD VERIF	ST/JS
02/10/1993	625	RLTY REDUCTION APPV	/1/
02/11/1993	933	TRF OPER RGTS APPROVED	(1)EFF 02/01/93;
02/11/1993	933	TRF OPER RGTS APPROVED	(2)EFF 02/01/93;
02/11/1993	933	TRF OPER RGTS APPROVED	(3)EFF 02/01/93;
02/11/1993	974	AUTOMATED RECORD VERIF	SSP/JS
04/01/1993	139	ASGN APPROVED	EFF 01/01/93;
04/01/1993	139	ASGN APPROVED	EFF 09/01/92;
04/01/1993	974	AUTOMATED RECORD VERIF	CM/KRP
/07/1993	909	BOND ACCEPTED	EFF 04/05/93;NM2151
/16/1993	575	APD FILED	MACK ENERGY CORP
06/01/1993	974	AUTOMATED RECORD VERIF	JLV
06/17/1993	576	APD APPROVED	#7 JENKINS B FED
07/22/1993	139	ASGN APPROVED	EFF 01/01/93;
07/22/1993	933	TRF OPER RGTS APPROVED	MACK ENE/R C CHASE
07/22/1993	974	AUTOMATED RECORD VERIF	TF/JCV
08/31/1993	974	AUTOMATED RECORD VERIF	GAG
11/08/1993	140	ASGN FILED	TURNCO/CHASE OIL
11/15/1993	140	ASGN FILED	EST J F WEST/CHASE
11/15/1993	140	ASGN FILED	J H WEST/CHASE OIL
11/15/1993	140	ASGN FILED	MACK ENE/CHASE OIL
12/30/1993	932	TRF OPER RGTS FILED	CHASE/R C CHASE ETAL
01/21/1994	139	ASGN APPROVED	(1)EFF 12/01/93;
01/21/1994	139	ASGN APPROVED	(2)EFF 12/01/93;
01/21/1994	139	ASGN APPROVED	(3)EFF 12/01/93;
01/21/1994	139	ASGN APPROVED	(4)EFF 12/01/93;
01/21/1994	974	AUTOMATED RECORD VERIF	DGT/DGT
01/27/1994	974	AUTOMATED RECORD VERIF	VHG
05/12/1994	933	TRF OPER RGTS APPROVED	EFF 04/01/94;
05/12/1994	974	AUTOMATED RECORD VERIF	VHG
03/01/1996	242	LEASE RENEWED	THRU 02/28/16;
03/01/1996	530	RLTY RATE - 12 1/2%	/A/
03/01/1996	868	EFFECTIVE DATE	LAST RENEWAL;
06/21/1996	932	TRF OPER RGTS FILED	HOME-STAKE ETAL/CHASE
09/27/1996	933	TRF OPER RGTS APPROVED	EFF 07/01/96;
/27/1996	974	AUTOMATED RECORD VERIF	MV/MV
10/01/1996	140	ASGN FILED	HOME-STAKE ETAL/CHASE

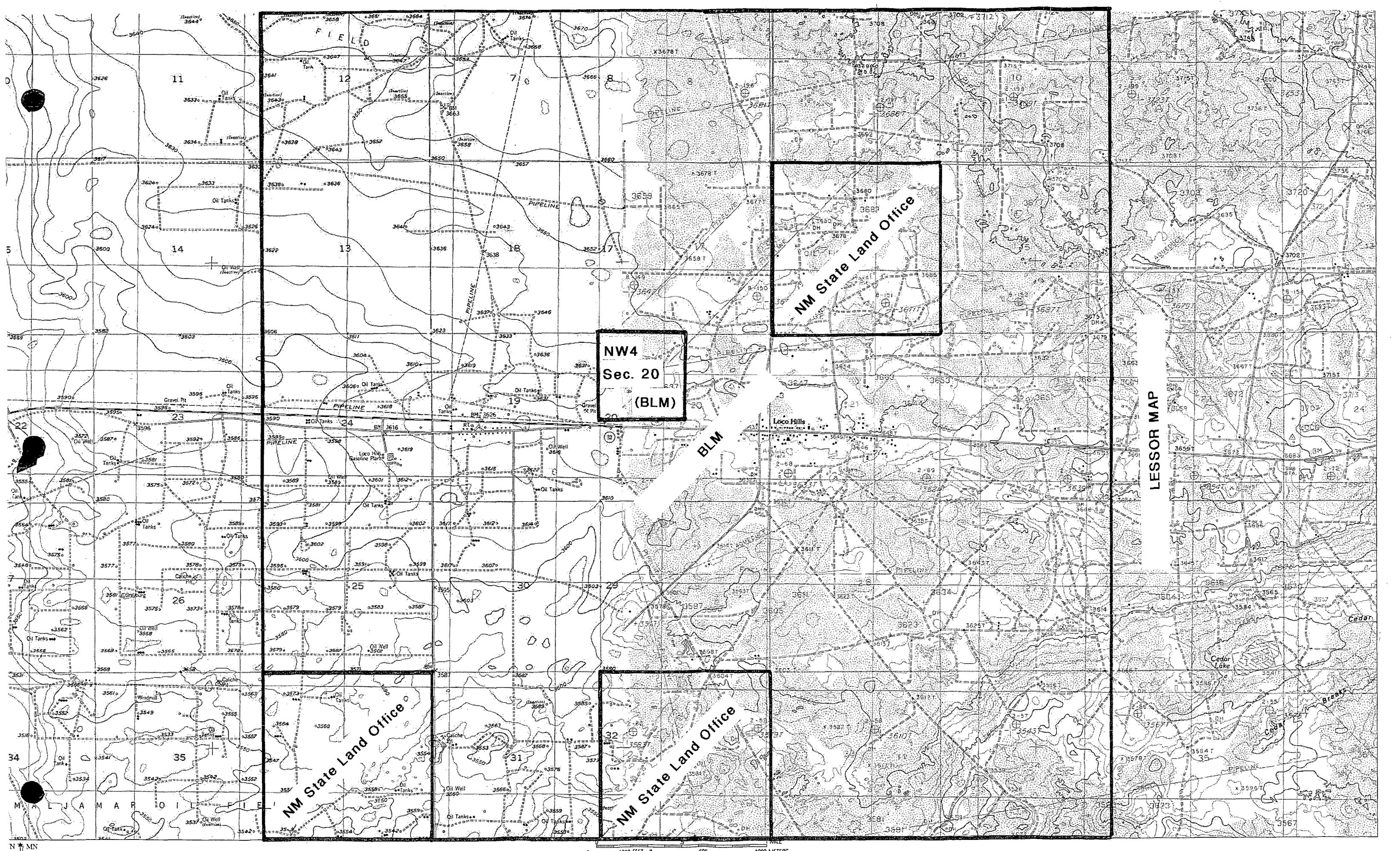
/03/1996	314	RENEWAL APLN FILED	
11/25/1996	139	ASGN APPROVED	EFF 11/01/96;
11/25/1996	974	AUTOMATED RECORD VERIF	ANN
12/03/1996	237	LEASE ISSUED	
12/03/1996	974	AUTOMATED RECORD VERIF	AR
01/23/1997	575	APD FILED	
01/29/1997	575	APD FILED	
02/13/1997	576	APD APPROVED	#8 JENKINS B FED
03/06/1997	576	APD APPROVED	7 JENKINS B FED
06/27/1997	575	APD FILED	
07/25/1997	576	APD APPROVED	#9 JENKINS B FED
05/10/2006	140	ASGN FILED	CHASE OIL/COG OIL &;1
06/26/2006	932	TRF OPER RGTS FILED	CHASE OIL/COG OIL &;1
07/25/2006	139	ASGN APPROVED	EFF 06/01/06;
07/25/2006	974	AUTOMATED RECORD VERIF	ANN
07/28/2006	933	TRF OPER RGTS APPROVED	EFF 07/01/06;
07/28/2006	974	AUTOMATED RECORD VERIF	MV
02/28/2016	763	EXPIRES	

Line Nr	Remarks	Serial Number: NMLC-- 0 054988B
0002	BONDED OPERATOR(S):	
0003	09/27/1996 - MACK ENERGY CORP NM2151 SW/NM	
0004	/A/AC 534 RLTY RATE SLIDING SCH D EFF 3/20/1936 THRU	
0005	2/28/1996. AC530 RLTY RATE 12.5% EFF 3/1/96 THRU	
0006	THE PRESENT.	




OIL FIELD
PIPELINE
Oil Tanks
Oil Well
Gravel Pit
Caliche Pit
Windmill
Loco Hills
Loco Hills Gasoline Plant
Cedar Lake
AQUEDUCT
20
2 mile
JAMAR OIL FIELD


LEASE MAP
028793C
060527
086025
054988B
029342E
029342C
028793A
060999
467932
057634
054280
028793C
Loco Hills
PIPELINE
FIELD
Oil Well
Oil Tanks
Caliche Pit
Gravel Pit
TN MN
0
5
MILE

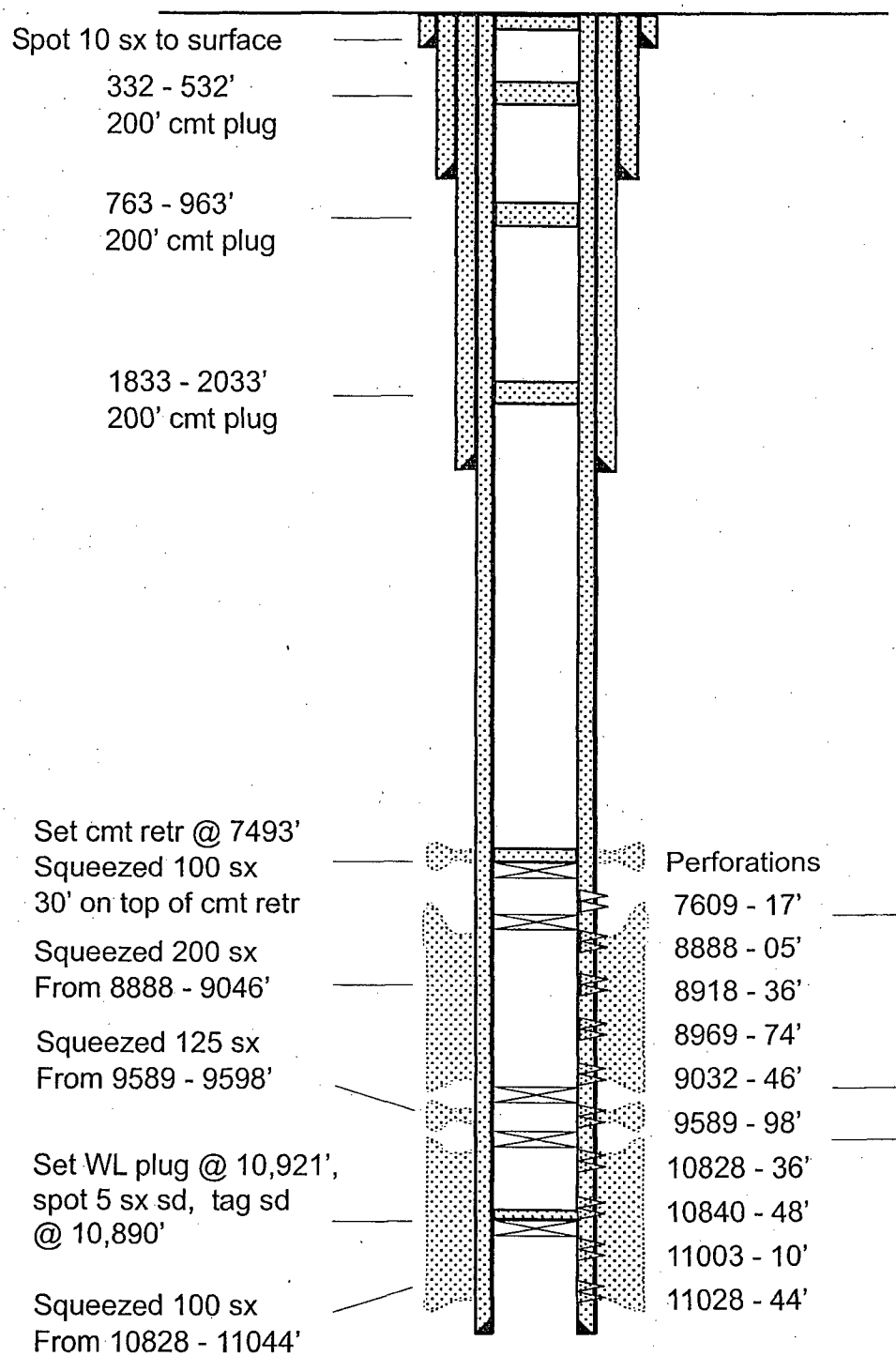


Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

PLUGGED WELLBORE DIAGRAM

MC INTYRE FED 008
API # 30-0-15-23265
1650' FSL & 1980' FWL
SECTION 17-T17S-R30E
EDDY COUNTY, NM
STATUS: P&A ON 11/15/80

CASING		Depth Set	Hole Size	Cement
30"		38'	36"	Redi-mix to Surf
13-3/8"	54.5# K-55	446'	17-1/2"	425 sx to Surf
8-5/8"	32# S-80	2,652'	11"	1250 sx to Surf
5-1/2"	17# L-80	11,242'	7-7/8"	2035 sx to Surf



Total Depth 11,244 ft.

NOT TO SCALE

Created by Permits West, Inc. 11/21/06

Form 9-330
(Rev. 5-63)

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

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ARTESIA, OFFICE

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ARTESIA, NEW MEXICO

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other

b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other P & A

2. NAME OF OPERATOR: ARCO Oil & Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR: P. O. Box 1710, Hobbs, New Mexico 88240

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 1650' FSL & 1980' FWL
At top prod. interval reported below: As Above
At total depth: As Above

5. LEASE DESIGNATION AND SERIAL NO.: NM -074936

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: McIntyre Federal

9. WELL NO.: 8

10. FIELD AND POOL, OR WILDCAT: South Loco Hills Morrow Gas

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: 17-17S-30E

14. PERMIT NO.: DATE ISSUED:

12. COUNTY OR PARISH: Eddy

13. STATE: N M

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
7/29/80	9/11/80	Dry	3660.1' GR	

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
11,244'	P & A		→	0-11,244'	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: None

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: GR-DLL, GR-FDC-CNL w/Caliper, GR Sonic log, CBL & Corr log.

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
30"		38'	36"	Redi-Mix to surf	
13-3/8" OD	54.5# K-55	446'	17½"	425 sx Circ to surf	
8-5/8" OD	32# S-80	2652'	11"	1250 sx Circ to surf	
5½" OD	17# L-80	11,242'	7-7/8"	2035 sx Circ to surf	

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)
11,003-11,010 & 11028-11044' =46 .50" holes
10,828-10,836 & 10840-10848' =32 .44" holes
9589-9598' = 10 .44" holes
9032-9046' = 29 .44" holes
8969-8974' = 11 .25" holes
8888-8905 & 8918-8936' = 37 .26" holes
~~7609-7617' = 17 .50" holes~~

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
11,003-11,010'	3000 gals 5% acid, flushed w/45
11,028-11,044'	bbls 3% KCL wtr & 900 SCF N2/bbl
	& 27,720 gals Titan-2 gel 40 w/
	(cont'd on attached sheet)

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
none	Dry Hole	P&A

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

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

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)

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DEC 10 1980
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

PETER W. CHESTER

TEST WITNESSED BY

35. LIST OF ATTACHMENTS
Logs as listed in Item 26 above, DST & Inclination Report

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

SIGNED [signature] TITLE Dist. Drlg. Supt. DATE 12/02/80

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

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

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.
Wolfcamp	7566'	7767'	Open tool @ 6:30 AM 8/22/80 w/fair blow, incr to good. Press build was 3 psig in 15 mins. Closed tool for 30 mins, no gas to surf. Opened tool w/good blow, press incr to 3-3/4 psig in 30 mins. Opened ½" choke to pit w/fair blow & press for 30 mins. Closed tool 120 mins, no gas to surf. Rel tools @ 10:45 AM & POH. Rev out 4761' (65 bbls) of slightly gas cut drlg mud & fm fluid.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Upper Miss.	11,153'	
Morrow Gas	10,700'	
Atoka	10,400'	
Strawn Gas	10,258'	
Cisco	9,332'	
Wolfcamp	7,600'	
Queen SA	2,020'	
T. Salt	240'	
B. Salt	950'	

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683636

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Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☐ other Dry Hole - P & A
2. NAME OF OPERATOR ARCO Oil & Gas Company
   Division of Atlantic Richfield Company
3. ADDRESS OF OPERATOR
   Box 1710, Hobbs, New Mexico 88240
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 1650 FSL & 1980 FWL
   AT TOP PROD. INTERVAL: As above
   AT TOTAL DEPTH: As above

5. LEASE
   NM 074936
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME
   McIntyre Federal
9. WELL NO.
   8
10. FIELD OR WILDCAT NAME
    Loco Hills Morrow Gas
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
    17-17S-30E
12. COUNTY OR PARISH
    Eddy
13. STATE
    N M
14. API NO.
15. ELEVATIONS (SHOW DF, KDB, AND WD)
    3660.1' GR

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AUG 13 1981
O. C. D.
ARTESIA, OFFICE

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☒
SHOOT OR ACIDIZE	☐		☒
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☒
(other)			

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U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. 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.)*

On 9/22/80, drld out cmt 11,148' to 11,166' PBD. Spotted 200 gals 10% Acetic acid @ 11,060'. Ran CBL 11,500' to surf, OK. Ran Corr log, set pkr @ 10,921' and Vann Guns @ 11,003-11,010' & 11,028-11,044' and perf w/ 2 JSPF (46-.50" holes). GTS in 10 mins. Flwd to pit 6 hrs, flwd ARO 242 MCFGPD, no fluid, FTP 3.5# thru 48/64" ck. Ran swab, rec ¼ BFW. On 9/26/80 SITP 2200#. Flwd to pit 7 hrs rec 249 MCFGPD, OBF, FTP 4# on 48/64" ck. 9/30/80 acidized Morrow perfs 11,003-11,044' w/3,000 gals 5% acid, flushed w/45 bbl trtd 3% KCL wtr. All fluid contg 900 SCF N_2 per bbl. Flwd to pit 3 hrs, rec approx 30 BLW. Swbd 2½ hrs rec 20 BLW, FFL dry. FTP 3# on 48/64" ck, 235 MCFGPD. SITP 2000# 72 hr SITP 2700#. 10/9/80 fraced Morrow perfs 11,003-11,044' w/ 27,720 gal Titan 2 gel 40, w/36,000# 20/40 sd & 9,240 gals CO_2. Flwd to pit 14 hrs, rec 100 BLW, well died. Swbd Morrow perfs 11,003-11,044' 3 hrs rec 22 BLW. Set WL plug in tbg recept @ 10,921'. Spot 5 sx sd on pkr & recpt. Tagged sd @ 10,890'. On 10/15/80 spotted 200 gals acetic acid @ 10,855'. POH w/ tbg. Perf'd Morrow 10,828-836' & 10,840-48' w/2 JSPF. RIH w/Lok-set pkr, set pkr @ 10,716'.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Jerry W. Schmidt TITLE Dist. Drlg. Supt. DATE 11/24/80

(This space for Federal or State office use)

APPROVED BY (Orig. Sgd.) PETER W. CHESTER TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

APPROVED
AUG 11 1981
FOR
JAMES A. GILLHAM
DISTRICT SUPERVISOR

*See Instructions on Reverse Side

Swbd 3 hrs, rec 40 BLW, swbd tbg dry. SI 4 hrs, no fluid entry. TP 0#. Acidized perfs 10,828-36' & 10,840-48' w/ 500 gals Mor-Flo BC acid, swbd tbg dry, no gas. Acidized w/1500 gals Mor Flo BC acid flushed w/ 31 bbls 3% KCL wtr & all fluid w/ 900 SCF N_2. Flwd to pit 1½ hrs, rec 25 BLW. Swbd 1½ hrs, rec 12 BLW, no gas. POH w/tbg & pkr. RIH w/ cmt retr, set retr @ 10,716'. Squeezed perfs 10,828-11,044' w/ 1 gal. Morflow II in 10 BFW followed by 100 sx Cl "H" cmt w/ 8/10 of 1% Halad-9, RO 5 sx cmt. On 10/26/80 spotted 10% acetic acid 9615-9415'. Perf'd Canyon 9589-98' w/ 1 JSPF (10-.44" holes). RIH w/ pkr, set pkr @ 9484'. Swbd 9 hrs, rec 40 BLW, 25 BFW, 0 BO & GTSTM. ON SITP 150#. Swbd 6 hrs, rec 60 BLW & 0 BO, no gas. POH w/ tbg & pkr. Set cmt retr @ 9484'. Cmt squeezed perfs 9589-98' w/ 125 sx Cl "H" cmt, RO 10 sx cmt. Spot 200 gals 10% acetic acid @ 9080'. On 10/30/80 perf'd Wolfcamp 9032-9046' w/ 2 JSPF. Set Lok-set pkr @ 8883'. Swbd 2 hrs, rec 30 BLW, 0 BO, small show gas. Acidized perfs 9032-46' w/ 2000 gals 15% HCl-NE-FE acid flushed w/ 41 bbl 2% KCL wtr. Swbd 2 hrs rec 37 BLW, 0 BW, no gas. 65 hr SITP 100#. Swbd tbg dry. Perf'd Wolfcamp 8969-74' w/ 2 JSPF (11-.25" holes). Swbd 2½ hrs, rec 24 BLW, 5 BFW, tr of oil. Acidized perfs 8969-74' w/ 1000 gals 15% HCL-NE-FE acid flushed w/ 38 bbls 2% KCL wtr Swbd 5 hrs, rec 58 BLW, tr of oil. ON SITP 50#. Swbd 6 hrs, rec 10 BLW, tr of oil, gas TSTM. Perf'd Wolfcamp 8888-8905' & 8918-8936' w/ 1 JSPF = 37-.26" holes. Swbd 9 hrs, rec 21 BLW, tr of oil, gas TSTM. ON SITP 25#. Swbd 3 hrs, rec 6 BLW, tr of oil. POH w/ pkr & tbg. RIH w/ cmt retr, set retr @ 8830'. Squeezed Wolfcamp perfs 8888-9046' w/ 200 sx Cl "H" cmt w/ .8% CF9, RO 18 sx cmt. Spotted 200 gals 10% acetic acid @ 7650'. Perf'd Upper Wolfcamp 7609-17' w/ 2 JSPF = 17-.50" holes. RIH w/ pkr & tbg, set pkr @ 7493'. Swbd 2 hrs, rec 31 BLW. Acidized perfs 7609-17' w/ 500 gals 15% NE-FE acid flushed w/ 32 bbl 3% KCL wtr. Swbd 6 hrs, rec 44 BLW, 76 BFW. ON SITP 75#. Swbd 8 hrs, rec 150 BLW. ON SITP 75#. Swbd 8 hrs, rec 150 BLW, tr of oil. POH w/ pkr & tbg. RIH w/ cmt retr, set retr @ 7493'. Squeezed Wolfcamp perfs 7609-17' w/ 100 sx Cl "C" cmt, RO 25 sx cmt, spot 30' cmt plug on top of cmt retr. Spot 200' cmt plugs @ 2033-1833', 963-763', 532-332'. Removed wellhead, installed regulation dry hole marker, spot 10 sx cmt @ surface. P & A eff: 11/15/80. Clean & level location.
FINAL REPORT.

Form 9-330 cont'd (Item 32)
McIntyre Federal #8
1650' FSL & 1980' FWL
Sec 17-17S-30E, Eddy County

Acid, Shot, Fracture, Cement Squeeze, Etc.

	36,000# sd & 9240 gals CO_2.
10,828-10,836' & 10,840-10,848'	2000 gals Mor-Flo BC acid flushed w/31 bbls 3% KCL wtr & 900 SCF N_2.
10,828-11,044'	Squeezed w/1 gal Morflow II in 10 BFW, 100 sx Cl H cmt w/8/10 of 1% Halad-9.
9589-9598'	Squeezed w/125 sx Cl H cmt.
9032-9046'	Acidized w/2000 gals 15% HCL-NEFE acid, flushed w/41 bbls 2% KCL wtr.
8969-8974'	Acidized w/1000 gals 15% HCL-NE-FE acid, flushed w/38 bbls 2% KCL wtr.
8888-8905' 8918-8936' 8969-8974' 9032-9046'	Squeezed w/200 sx Cl H cmt w/.8% CF9.
7609-7617'	Acidized w/500 gals 15% NE-FE acid, flushed w/32 bbls 3% KCL wtr. Squeezed w/100 sx Cl C cmt, 30' on top of cmt retr @ 7493'.
2033-1833'	200' cmt plug
963- 763'	200' cmt plug
532- 332'	200' cmt plug

N.M.O.C.D. COPY

C/SF 1
File

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other

2. NAME OF OPERATOR ARCO Oil & Gas Company
Division of Atlantic Richfield Company ✓

3. ADDRESS OF OPERATOR
P. O. Box 1710, Hobbs, New Mexico 88240

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1650' FSL & 1980' FWL UL-K
AT TOP PROD. INTERVAL: As Above
AT TOTAL DEPTH: As Above

5. LEASE
NM 074936

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
McINTYRE FEDERAL

9. WELL NO.
8

10. FIELD OR WILDCAT NAME
Loco Hills Morrow Gas

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
17-17S-30E

12. COUNTY OR PARISH
Eddy

13. STATE
N M

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
3660.1' GR

RECEIVED
OCT 23 1980
O. C. D.
ARTESIA, OFFICE

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	☐	☐
FRACTURE TREAT	☐	☐
SHOOT OR ACIDIZE	☐	☐
REPAIR WELL	☐	☐
PULL OR ALTER CASING	☐	☐
MULTIPLE COMPLETE	☐	☐
CHANGE ZONES	☐	☐
ABANDON*	☐	☐
(other)		DST, run 5½" OD Prod csg & cmtg

RECEIVED
OCT 20 1980
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. 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.)*

On 8/23/80 ran DST #1 Wolfcamp 7566-7767' Opened tool @ 6:30 AM w/ fair blow, increasing to good. Pressure build was 3 PSIG in 15 mins. Closed tool for 60 mins, no gas to surface. Open tool w/ good blow, press increased to 3-3/4 PSIG in 30 mins, opened ½" choke to pit w/fair blow & press for 30 mins. Closed tool 120 mins, no gas to surf. Released tools @ 10:45 AM & POH. Reversed out 4761' (65 bbls) of slightly gas cut drlg mud & fm fluid. Finished drlg 7-7/8" hole to 11,244' TD @ 10:30 PM 9/11/80. Ran GR-DLL, GR-FDC-CNL w/ Caliper, GR-Sonic log. RIH w/5½" OD 17# L-80 csg @ 11,242', SC @ 7861'. Cmtd 1st stage w/ 1000 gals mud flush, 385 sx Cl H HOWCO light contg .3% CFR-2 and 5# KCL followed by 450 sx Class H contg .75% CFR-2 & 5# KCL, Opened stage collar, circ 140 sx cmt to surf. Cmtd 2nd stage w/1000 gal mud flush followed by 900 sx Cl C w/3% Econolite, 5# Gilsonite per sx, followed by 300 sx Cl H neat. Circ 75 sx cmt to surf. PD @ 6:20 PM w/3500#. WOC. 120 hrs. Press tested csg to 1600# for 30 mins, OK.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Jerry W Schmidt TITLE Dist. Drlg. Supt. DATE Oct 17, 1980

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED FOR RECORD
OCT 21 1980
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

*See Instructions on Reverse Side

N.M.O.C.D. COPY

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other

2. NAME OF OPERATOR ARCO Oil & Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
P. O. Box 1710, Hobbs, New Mexico 88240

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.) 1650' FSL & 1980' FWL (Unit Letter "K")
AT SURFACE:
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: As Above

5. LEASE
NM 074936

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
McIntyre Federal

9. WELL NO.
8

10. FIELD OR WILDCAT NAME
Loco Hills Morrow Gas

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
17-17S-30E

12. COUNTY OR PARISH
Eddy

13. STATE
New Mexico

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
3660.1' GR

RECEIVED
SEP 3 1980
O. C. D.
ARTESIA, OFFICE

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other)		Run Intermediate & Cement	

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. 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.)*

Finished drlg 11" hole to 2652' 8-5-80. RIH w/ 8-5/8" OD 32# S-80 csg set @ 2652'. Cmtd 8-5/8" OD csg w/ 1050 sx pace setter Lite cmt contg 12# salt, 5# Gilsonite 1¼# cello seal/sk followed by 200 sx Cl "C" Neat. Circ 250 sx cmt to surf. PD @ 7:25 AM 8-6-80. WOC 18 hrs. Pressure tested casing to 1500# for 30 mins, OK.

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AUG 14 1980
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED W. D. McDaniel TITLE Dist. Drlg. Supt DATE 8/11/80

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED FOR RECORD
AUG 27 1980
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

*See Instructions on Reverse Side

N.M.O.C.D. COPY

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
AUG 13 1980
O. C. D.
ARTESIA, OFFICE

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other

2. NAME OF OPERATOR ARCO Oil & Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
P. O. Box 1710, Hobbs, New Mexico 88240

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.) 1650' FSL & 1980' FWL Unit Letter "K"
AT SURFACE:
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: As above

5. LEASE
NM 074936

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Mc Intyre Federal

9. WELL NO.
8

10. FIELD OR WILDCAT NAME
Und South Loco Hills Morrow Gas

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
17-17S-30E

12. COUNTY OR PARISH
Eddy

13. STATE
N. M.

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
3660.1' GR

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other)		Spud run conductor pipe, surf csg & cmt.	☐

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

RECEIVED
AUG 11 1980
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

17. 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.)*

On 7-29-80 ran 38' of 30" conductor pipe. Cmtd w/ Redi-mix to surf. Spudded 17½" hole @ 1:00 PM 7-31-80. Drld to 450'. RIH w/ 13-3/8" OD K-55 54.5# csg set @ 446'. Cmtd w/ 425 sx Cl "C" cmt w/ 2% CaCl. Circ 38 sx cmt to surf. WOC 11 hrs. Pressure tested csg to 1000# for 30 mins, OK. Volume of cmt slurry was 561 cu ft of Cl "C" cmt w/ 2% CaCl. Circ 50 cut ft cmt to surf. Approximate cmt slurry when mixed was 79°. Estimated minimum formation temperature in zone of interest was 67°. Estimate of cmt strength @ time of test was 1200 PSIG. Actual time cmt was in place prior testing csg was 11 hrs.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED D. D. McDaniel TITLE Dist. Drlg. Supt. DATE 8/6/80

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

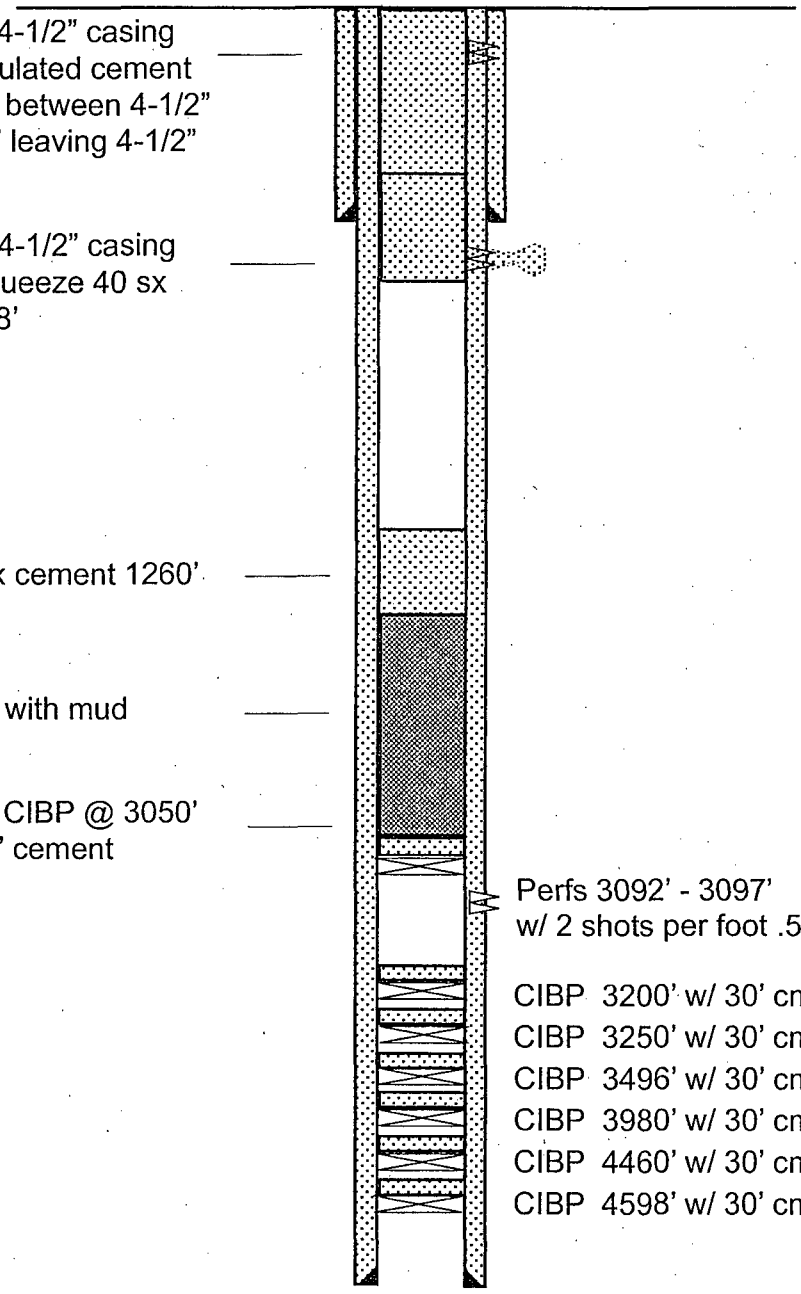
ACCEPTED FOR RECORD
AUG 13 1980
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

*See Instructions on Reverse Side

PLUGGED WELLBORE DIAGRAM

MCINTYRE A 010
API # 30-0-15-23382
990' FSL & 2290' FEL
SECTION 20-T17S-R30E
EDDY COUNTY, NM
STATUS: P&A ON 9/20/96

CASING		Depth Set	Hole Size	Cement
8-5/8"	24# K-55	510'	11"	215 sx, Circ 20 sx to pit
4-1/2"	10.5# K-55	4700'	7-7/8"	2777 sx



PBTP = 4680'
Total Depth 4,700 ft.

NOT TO SCALE

Created by Permits West, Inc. 11/29/06

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cr[illegible]. Division
811 S. 1st Street
Artesia, NM 88210-2834

OCT - 8 1996

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

c/SF

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

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NOV - 1 1996
OIL CON. DIV.
DIST. 2

5. Lease Designation and Serial No.
LC-057634

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
McIntyre A #10

2. Name of Operator
Mack Energy Corporation

9. API Well No.
30-105-23382

3. Address and Telephone No.
P. o. Box 960, Artesia, NM 88211-0960 (505) ~~748-1288~~

10. Field and Pool, or Exploratory Area
Grbg Jcksn ~~Grvr~~ Q GGB SSA

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec.20 T-17-S R-30-E 990' FSL & ~~2310~~ 2290' FEL

11. County or Parish, State
Eddy. NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ 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.)*

11-8-96
P&A

1) Set 4½ CIBP @ 3050' Cap W/14' cement
2) Load hole with mud
3) Spot 25sx cement 1260'
4) Perforate 4½ casing @ 560' squeeze 40 sx W.O.C. Tag cement top @ 458'
5) Perforate 4½ casing @ 60' Circulated cement to surface between 4½ & 8-5/8 leaving 4½ full Set PA marker
6) Job completed 9/20/96

Approved as to plugging of the well bore.
Liability under bond is retained until
surface restoration is completed.

BUREAU OF LAND MANAGEMENT
RECEIVED
OCT 15 1996
ROSWELL, NEW MEXICO

14. I hereby certify that the foregoing is true and correct
Signed Bonnie Maldonado Title Supervisor Date 09/26/97

(This space for Federal or State office use)
Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date OCT 30 1996
Conditions of approval, if any:

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.

*See Instruction on Reverse Side

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

C/SF

NMOCD
811 S.1st
Artesia, N.M. 88210

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

5. Lease Designation and Serial No.
LC-057634

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

1. Type of Well
[XX] Oil Well [ ] Gas Well [ ] Other

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JUL 24 1996
OIL CON. DIV.
DIST. 2

8. Well Name and No.
McIntyre A #10

2. Name of Operator
Mack Energy Corporation

9. API Well No.
30-015-23382

3. Address and Telephone No.
P.O. Box 960, Artesia, NM 88211-0960 (505) 748-1288

10. Field and Pool, or Exploratory Area
Grayburg Jackson 7RVS-QGGB-SA

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec. 20 T-17-S R-30-E 990 FSL 2310 FEL

11. County or Parish, State
Eddy, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[X] Abandonment	[ ] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[ ] Other _____	[ ] 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.)*

(1) Set 4½ C.I.B.P. at 3050' cap w/35' cement
(2) Load hole w/mud
(3) Spot 25 sxs cement plug at top of yates 1240'
(4) Perforate 4½ casing at 8 5/8 shoe 50' below 560' squeeze w/40 sxs cement and tag
(5) Perforate 4½ casing at 60' circulate cement to surface-set P.A. marker

14. I hereby certify that the foregoing is true and correct
Signed Raymond D'Addonardo Title Supervisor Date 7-16-96

(This space for Federal or State office use)
Approved by David R. Glass Title PETROLEUM ENGINEER Date JUL 18 1996
Conditions of approval, if any:
SEE ATTACHED

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.

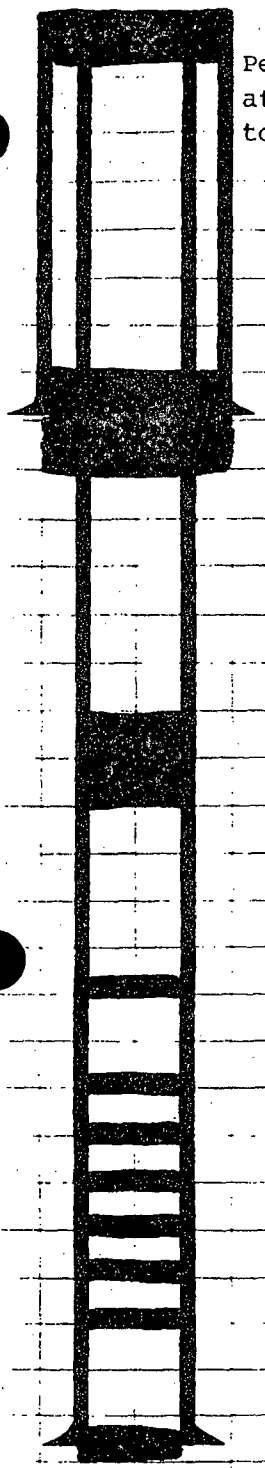
*See Instruction on Reverse Side

After

IPANY Mack Energy Corporation
LEASE & WELL NO. McIntyre A #10
FORMATION
COUNTY & STATE Eddy, NM

PRIDE

RAYMOND MALDONADO
SUPERVISOR, P & A OPERATIONS
BUS. (505)393-9171
FAX (505)393-3848
MOBILE (505)390-0540



Perforate 4½ at 60' circ. to-surface

8 5/8 510' cmt. w/215 sxs circ.

Perforations 560' squeeze w/40 sxs cement

Spot 25 sxs cement at yates 1240'

Set 4½ C.I.B.P. at 3050' cap w/30' cement

Oper. perforations 3092-97

C.I.B.P. 3200' w/30' cmt. 3-20-96

C.I.B.P. 3250' w/30' cmt. 11-20-80

C.I.B.P. 3496' w/30' cmt. 9-30-80

C.I.B.P. 3980' w/30' cmt. 8-19-80

C.I.B.P. 4460' w/30' cmt. 8-3-80

C.I.B.P. 4598' w/30' cmt. 7-29-80

4680' P.B.T.D.

4700' T.D. cmt. w/2777 sxs T.O.C. 1100'
4½ casing 4700'

CONVERSION FACTORS

MULTIPLY	By	TO OBTAIN
Barrels	5.6146	Cubic Feet
Cubic Feet	7.4806	Gallons
Gallons	0.1337	Cubic Feet
Pounds/gal.	7.4806	Pounds/Cu. Ft.

PIPE VOLUMES

0.00545 x I.D.² in inches = Cu. Ft./Ft.
0.0407 x I.D.² in inches = Gals./Ft.
0.00097 x I.D.² in inches = Bbls./Ft.

HYDROSTATIC PRESSURE

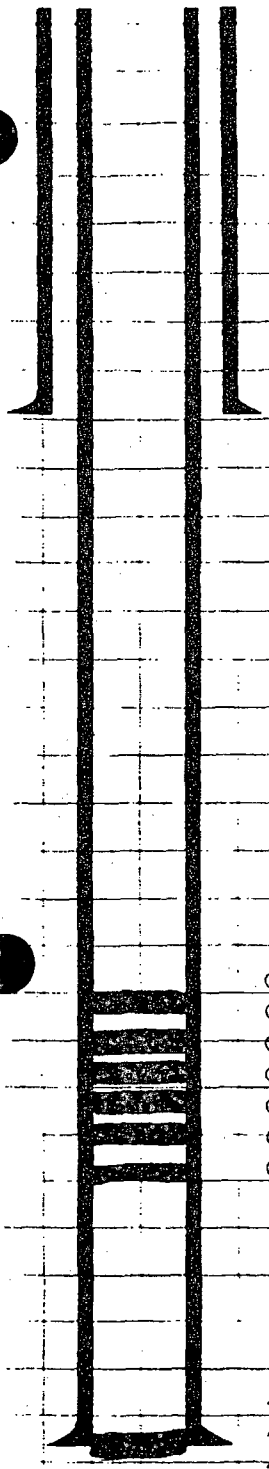
FOR WATER:
0.434 x Depth in Feet = PSI.
FOR OTHER FLUIDS:
0.434 x Depth x Sp. Gr. = PSI.

Before

PANY Mack Energy Corporation
LEASE & WELL NO. McIntyre A #10
FORMATION
COUNTY & STATE Eddy, NM

PRIDE

RAYMOND MALDONADO
SUPERVISOR, P & A OPERATIONS
BUS. (505)393-9171
FAX (505)393-3848
MOBILE (505)390-0540



8 5/8 cmt. w/215 sxs circ.

Oper. Perfs. 3092-97
CIBP 3200' w/30' cmt. 3-20-96
~~CIBP 3250' w/30' cmt. 11-20-80~~
CIBP 3496' w/30' cmt. 9-30-80
CIBP 3980' w/30' cmt. 8-19-80
~~CIBP 4460' w/30' cmt. 8-3-80~~
CIBP 4598' w/30' cmt. 7-29-80

4680' P.B.T.P.
4700' T.D. cmt. w/2777 sxs T.O.C. 1100'
~~4½ casing 4700'~~

CONVERSION FACTORS

MULTIPLY	By	TO OBTAIN
Barrels	5.6146	Cubic Feet
Cubic Feet	7.4806	Gallons
Gallons	0.1337	Cubic Feet
Pounds/gal.	7.4806	Pounds/Cu. Ft.

PIPE VOLUMES

0.00545 x I.D.² in inches = Cu. Ft./Ft.
0.0407 x I.D.² in inches = Gals./Ft.
0.00097 x I.D.² in inches = Bbls./Ft.

HYDROSTATIC PRESSURE

FOR WATER:
0.434 x Depth in Feet = PSI.
FOR OTHER FLUIDS:
0.434 x Depth x Sp. Gr. = PSI.

Form C-330
(Rev. 5-63)

N.M.O.C.D. COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE* (other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

c/SF

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: LC-057634

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

7. UNIT AGREEMENT NAME:

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

8. FARM OR LEASE NAME: McIntyre A

2. NAME OF OPERATOR: Holly Energy Inc. ✓

9. WELL NO.: 10

3. ADDRESS OF OPERATOR: P.O. Box 726 Artesia, New Mexico 88210

10. FIELD AND POOL, OR WILDCAT: Grayburg-Jackson S.R.Q.-G.-S.A

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 990 FSL 2310 FEL Sec 20 T-17S R-30E
At top prod. interval reported below
At total depth same

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec 20 T-17S R-30E

14. PERMIT NO. | DATE ISSUED

12. COUNTY OR PARISH: Eddy | 13. STATE: NM

RECEIVED
MAR 30 1981
MAY 2 1981
O. C. D.
ARTESIA, OFFICE

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
6-29-80	7-11-80	2-1-81	3613.5 GR	3614.5

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
4700	3250		→	Surf-TD	

ACCEPTED FOR RECORD
PETER W. CHESTER
MAR 24 1981
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: San Andres 3092'-3097

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: DLL/ML CDL/CNL CBL/GR

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
8-5/8	24#	510'	11"	215 Class C	none
4 1/2	10.50#	4700'	7-7/8	2777 sacks	none

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-3/8	3090	

31. PERFORATION RECORD (*Interval, size and number*)
3092-3097 w/2 shots per foot .50 dia

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
	SEE ATTACHED SHEET

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
2-1-81	pumping 1½ x 10	producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10-2-80	24			9	16 MCF/D	5	1778

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
-	12#		9	16 MCF/D	5	35.1

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): vented

TEST WITNESSED BY: Bob Loyd

35. LIST OF ATTACHMENTS
2- degree of inclination- 2-DLL 2- CNL 2-CBL & GR

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

SIGNED Robert Loyd TITLE Superintendent DATE 3-18-81

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

C-SF

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.: LC-057634

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

SUNDRY NOTICES AND REPORTS ON WELLS

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

RECEIVED
JUL 17 1980
O. C. D.
ARTESIA, OFFICE

1. OIL WELL [X] GAS WELL [ ] OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: Holly Energy Inc. ✓

8. FARM OR LEASE NAME: McIntyre A

3. ADDRESS OF OPERATOR: P.O. Box 726 Artesia, New Mexico 88210

9. WELL NO.: 10

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface: 990' FSL 2310' FEL Sec 20 T-17S R-30E

10. FIELD AND POOL, OR WILDCAT: Grayburg-Jackson

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 20 T-17S R-30E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3613.5

12. COUNTY OR PARISH: Eddy

13. STATE: N M

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) set production casing			[X]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. 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.)*

Drill 7 7/8 hole to 4701'

Set 4700' of 4 1/2 K-55 10.50# stc casing and cement with 887 sacks of Class C 5# salt per sack, 1590 sacks Class H with 5# salt per sack.

Plug down 6:30a.m. 7-11-80

18. I hereby certify that the foregoing is true and correct

SIGNED Robert Loyd TITLE Superintendent DATE 7-14-80

(This space for Federal or State office use)

APPROVED (Orig. Sgd.) PETER W. CHESTER TITLE ACTING DISTRICT ENGINEER DATE JUL 16 1980

McIntyre A-10

Paddock

Perf: 4604-19 4626-34 4636-46 4660-70 2 shots per foot.Treat w/1500 gl. 15%-recovered formation water. Set CIBP @ 4598' with 30' cement on top (Paddock)

Perf: 4475-79 4489-91 4495-4501 4505-10 with 2 shots per foot. Treat with 1500 gl 15% acid. Recovered formation water set CIBP @ 4461 w/30' cement on top. (San Andres)

Perf: 4008-14 4018-30 4032-36 4045-48 4052-56 4060-66 4069-71 4076-79 4087-89 4092-96 with 2 shots per foot. Acidize with 1500 gl 15% acid. Fraced well with 40,000 gl gelled acid water 18,000# 100 mesh sand and 30,000# 20/40 sand.Recovered formation water and traces of oil. Set CIBP @ 3980' with 30' cement on top

San Andres

Perf: 3523-26 3531-50 3563-65 3578-81 3662-68 2 shots per foot. Acidize with 1500 gl 15% acid. Fraced with 20,000 gl Gelled water. 24,000# 100 mesh. Recovered formation water no oil. Set CIBP @3496' w/30' cement on top

San Andres

Perf: 3272,73,83,84,3302,04,06,34,39,44,48,51,53,56,61,63,65,71,73,75,86,88,90,98,3401, 05, 07,12,15,20,21,35,3437,1 shot per foot.Fraced 20,000 gl gelled water. 24,00# 100 mesh, 19,000# 20/40 sand. Recovered formation water no oil. Set CIBP @ 3250 with 30' cement on top.

San Andres

Perf: 3092-3097 with 2 shots per foot. Fraced with 12,000 gl. gelled water. 4000# 100 mesh 8000# 20/40 sand

N.M.O.C.D. COPY

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.: LC-057634

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL [X] GAS WELL [ ] OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: Holly Energy Inc.

8. FARM OR LEASE NAME: McIntyre A

3. ADDRESS OF OPERATOR: P.O. Box 726 Artesia, New Mexico

9. WELL NO.: 10

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 990' FSL 2310' FEL Sec 20 T-17S R-30E

10. FIELD AND POOL, OR WILDCAT: Grayburg-Jackson

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 20 T-17S R-30E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3613.5

12. COUNTY OR PARISH: Eddy

13. STATE: N.M.

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Spud & set surface pipe			[X]
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. 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.)*

Spud Well 8:00 a.m. 6-29-80

Drill 11" hole to 520' & set 510' 8 5/8 24# K-55 Stc casing and cement with 215 sacks class C 2% cacl. Plug down 9:45 P.M. 6-29-80.

Circulate 20 sacks to pit

RECEIVED
JUL 8 1980
O. C. D.
ARTESIA, OFFICE

18. I hereby certify that the foregoing is true and correct

SIGNED [signature] TITLE Superintendent DATE 7-1-80

(This space for Federal or State office use)

APPROVED BY /s/ PETER W. CHESTER TITLE ACTING DISTRICT ENGINEER DATE JUL 7 1980

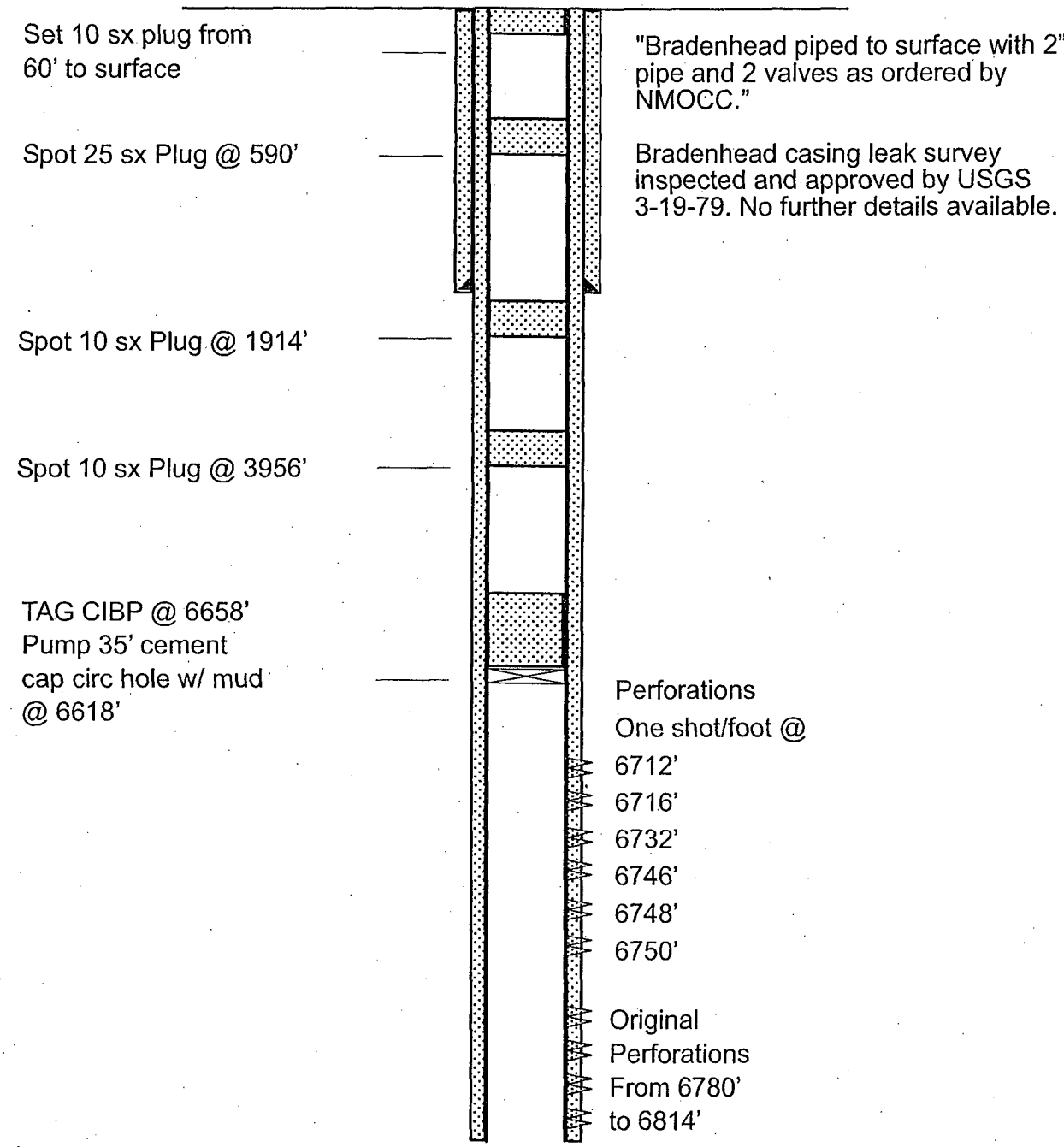
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

PLUGGED WELLBORE DIAGRAM

MCINTYRE A 004
API # 30-0-15-04222
1650' FSL & 410' FEL
SECTION 20-T17S-R30E
EDDY COUNTY, NM
STATUS: P&A ON 11/8/02

CASING	Depth Set	Cement
8-5/8" 24# J-55	1860'	580 sx
5-1/2" 15.5# J-55	6857'	750 sx



Total Depth 6,857 ft.

NOT TO SCALE

Created by Permits West, Inc. 11/21/06

C|SF

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

5. Lease Designation and Serial No.: LC-054280

6. If Indian, Allottee or Tribe Name:

7. If Unit or CA, Agreement Designation:

1 Type of Well: [X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.: McIntyre A #4

2. Name of Operator: Mack Energy Corporation

9. API Well No.: 30-015-04222

3. Address and Telephone No.: P.O. Box 960, Artesia, NM 88211-0960 (505)748-1288

10. Field and Pool, or Exploratory Area: Loco Hills Abo

4. Location of Well (Footage, Sec., T. R., M. or Survey Description): 1650 FSL & 410 FEL, Sec. 20, T17S R30E, I

11. County or Parish, State: Eddy, NM

RECEIVED
2002
OCD - ARTESIA

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

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[X] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[ ] Other _____	[ ] 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)*

10/07/2002 Tag CIBP @ 6658', pump 35' cement cap, circ hole w/mud @ 6618', spot 10 sx plug @ 3956', spot 10 sx plug @ 1914', spot 25 sx plug @ 590', set 10 sx plug from 60' to surface.
10/08/2002 Install dry hole marker.

Post P&A

APPROVED

14. I hereby certify that the foregoing is true and correct

Signed _____ Title Production Analyst Date 10/30/02

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

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.

*See Instruction on Reverse Side

OCD - Art -ia

C\SF

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

5. Lease Designation and Serial No.
LC-054280

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

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

RECEIVED
OCD - ARTESIA

1 Type of Well
[X] 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 (505)748-1288

4. Location of Well (Footage, Sec., T. R., M. or Survey Description)
1650 FSL & 410 FEL, Sec. 20 T17S R30E

8. Well Name and No.
McIntyre A #4

9. API Well No.
30-015-04222

10. Field and Pool, or Exploratory Area
Loco Hills Abo

11. County or Parish, State
Eddy, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
	[ ] Recompletion	[ ] New Construction
[X] Subsequent Report	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
[ ] Final Abandonment Notice	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other Extend TA Status	[ ] 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 would like to Extend TA Status on the McIntyre A #4 for a period of one year to further study the economic value of producing this well.

1. Tested casing to 500# held OK.

Attached you will find the CIT chart.

TA Approved For 12 Month Period
2/6/2003

Accepted for record - NMOCD

14. I hereby certify that the foregoing is true and correct

Signed [signature] Title Production Analyst Date 2/8/02

(This space for Federal or State office use)

Approved by (ORIG. SGD.) JOE G. LARA Title Petroleum Engineer Date 3/20/2002

Conditions of approval, if any:

*See Instruction on Reverse Side

OCD-Artesia

dist

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

5. Lease Designation and Serial No.: LC-054280

6. If Indian, Allottee or Tribe Name:

7. If Unit or CA, Agreement Designation:

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 (505)748-1288

4. Location of Well (Footage, Sec., T. R., M. or Survey Description): 1650 FSL 410 FEL Sec. 20- T17S- R30E

8. Well Name and No.: McIntyre A Federal #4

9. API Well No.: 30-015-04222

10. Field and Pool, or Exploratory Area: Loco Hills Abo

11. County or Parish, State: Eddy, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans	
☒ Subsequent Report	☐ Recompletion	☐ New Construction	
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing	
	☐ Casing Repair	☐ Water Shut-Off	
	☐ Altering Casing	☐ Conversion to Injection	
	☒ Other T&A Well	☐ 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 Temporarily Abandoned well as follows:

12/2000 1. Remove all down hole equipment.

2. Set CIBP at 6658'.

3. Test Casing to 500 # Held OK

1/22/2001 Mack Energy Corporation retested to 300 # held OK. Attached is a copy of the Chart.

Mack Energy Corporation proposes to T&A this well for a period of one year to further study the economic value of producing this well.

RECEIVED
OCD - ARTESIA

TA Approved For 12 Month Period
Ending 1/22/2002

RECEIVED
2001 JAN 25 A 11:49
ROSWELL, NEW MEXICO

14. I hereby certify that the foregoing is true and correct

Signed Teresa D Carl Title Production Analyst Date 1/24/2001

(This space for Federal or State office use)

Approved by (ORIG. SGD.) JOE G. LARA Title Petroleum Engineer Date 2/8/2001

Conditions of approval, if any:

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.

•See Instruction on Reverse Side

OCD - Artesia

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

5. Lease Designation and Serial No.: LC-054280

6. If Indian, Allottee or Tribe Name:

7. If Unit or CA, Agreement Designation:

1 Type of Well: [X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.: McIntyre A ~~Federal~~ #4

2. Name of Operator: Mack Energy Corporation

9. API Well No.: 30-015-04222

3. Address and Telephone No.: P.O. Box 960, Artesia, NM 88211-0960 (505)748-1288

10. Field and Pool, or Exploratory Area: Loco Hills Abo

4. Location of Well (Footage, Sec., T. R., M. or Survey Description): 1650 FSL 410 FEL Sec 20 T17S R30E

11. County or Parish, State: Eddy, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other T&A Well	[ ] 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 Temporarily Abandoned well as follows:

1. Remove all down hole equipment.
2. Set CIBP at 6658'.
3. Test Casing to 500# Held OK

Mack Energy Corporation proposes to T&A this well for a period of one year to further study the economic value of producing this well.

RECEIVED
OCD - ARTESIA

14. I hereby certify that the foregoing is true and correct

Signed _____ Title Production Analyst Date 12/14/00

(This space for Federal or State office use)

Approved by Record Only Title _____ Date _____

Conditions of approval, if any:

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.

•See Instruction on Reverse Side

c/s f

N.M Oil Cons. Di
211 S. 1st
A 210-2834

Form 3160-5
June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

5. Lease Designation and Serial No.: LC-054280

6. If Indian, Allottee or Tribe Name:

7. If Unit or CA, Agreement Designation:

1 Type of Well: [X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.: McIntyre A Federal #4

2. Name of Operator: Mack Energy Corporation

9. API Well No.: 30-015-04222

3. Address and Telephone No.: P.O. Box 960, Artesia, NM 88211-0960 (505)748-1288

10. Field and Pool, or Exploratory Area: Loco Hills Abo

4. Location of Well (Footage, Sec., T. R., M. or Survey Description): 1650 FSL 410 FEL Sec 20 T17S R30E

11. County or Parish, State: Eddy, NM

DEC 1997 RECEIVED OCD ARTESIA

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

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other Put on Pump	[ ] 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)*

07/15/97 RU Computalog & run bond log & PND log. Wireline TD @ 6812'. Bottom 2' perfs covered w/fill.

08/07/97 RU RIH w/5 1/2" RTTS. Set RTTS & acidize perfs w/2000 gals 15% NEFE. POH w/RTTS & RIH w/new 2 3/8" Prod. tbg. Land SN @ 6796' w/216 jts. TA 10 jts above SN & MS 12 jts above SN.

08/09/97 RIH w/2x1 1/2x16' HVR PAP. 2'x3/4" on pump. 10-7/8" 186-3/4" 75-7/8" on top. 2-2-4'x7/8" ponies. RD.

10/07/97 Install pumping unit. Put well on pump.

ACCEPTED FOR RECORD
DAVID R. GLASS
DEC 11 1997

14. I hereby certify that the foregoing is true and correct

Signed Cuxx D. Carter Title Production Clerk Date 12/1/97

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

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.

•See Instruction on Reverse Side

C15F

Form 3160-
(June 1990

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

RECEIVED
1997 JUN -5 P 12:02
BUREAU OF LAND MGMT
CARLSBAD RESOURCE AREA

RECEIVED
JUN 12 1997
OCD
ARTESIA, OFFICE

5. Lease Designation and Serial No.
LC-054280

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

1 Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
McIntyre A #4

2. Name of Operator
Mack Energy Corporation

9. API Well No.
30-015-04222

3. Address and Telephone No.
P.O. Box 960, Artesia, NM 88211-0960 (505)748-1288

10. Field and Pool, or Exploratory Area
Loco Hills Abo

4. Location of Well (Footage, Sec., T. R., M. or Survey Description)
Sec 20-T17S-R30E 1650 FSL & 410 FEL

11. County or Parish, State
Eddy , NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☒ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ 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 drille give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)*

The McIntyre A #4 was shut in on 8/24/95. Perforations are at 6712, 6716, 6732 ,6746 ,6748 ,6750, & 6780-6814 ft. in the Loco Hills Abo.

Mack Energy proposes to recomplete the McIntyre A #4 in the Loco Hills Abo as follows:

RU pulling unit. RIH with 4 1/2" bit & scraper. Drill out CIBP at 6625'. Clean out hole to 6825'. TOH to run PND cased hole log from TD-6270'.

Evaluate log and test for commercial production in the Loco Hills Abo.

Mack Energy requests a workover pit for the proposed work.

RECEIVED
1997 JUN 10 A 9:51
BUREAU OF LAND MGMT.
ROSWELL OFFICE

14. I hereby certify that the foregoing is true and correct

Signed Mark Brewer Title Engineer Date 06/04/97

(This space for Federal or State office use)

Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 11 1997
Conditions of approval, if any:

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 statemer or representations as to any matter within its jurisdiction.

•See Instruction on Reverse Side

Drawer DD
Artesia, NM 88210 CIST

m 3160-5
ne 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

5. Lease Designation and Serial No.
LC 054280

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE

7. If Unit or CA, Agreement Designation

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.
McIntyre A #4

2. Name of Operator
Enron Oil & Gas Company

9. API Well No.
30 015 04222

3. Address and Telephone No.
P. O. Box 2267, Midland, Texas 79702

10. Field and Pool, or Exploratory Area
Loco Hills Abo

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1650' FSL & 410' FEL
Sec 20, T17S, R30E Unit I.

11. County or Parish, State
Eddy County, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[X] Abandonment	[ ] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[ ] Other _____	[ ] 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.)*

See attached P&A procedure

DEC 12 '94

14. I hereby certify that the foregoing is true and correct
Signed Betty Gildon Title Regulatory Analyst Date 11/7/94

(This space for Federal or State office use)
Approved by (ORIG. SGD.) JOE G. LARA Title PETROLEUM ENGINEER Date 12/8/94
Conditions of approval, if any: See attached.

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.

*See Instruction on Reverse Side

Enron Oil & Gas Company

McIntyre A #4
1650 FSL 410 FEL
Sec 20 T17S R30E
Eddy County, New Mexico

Plugging Procedure

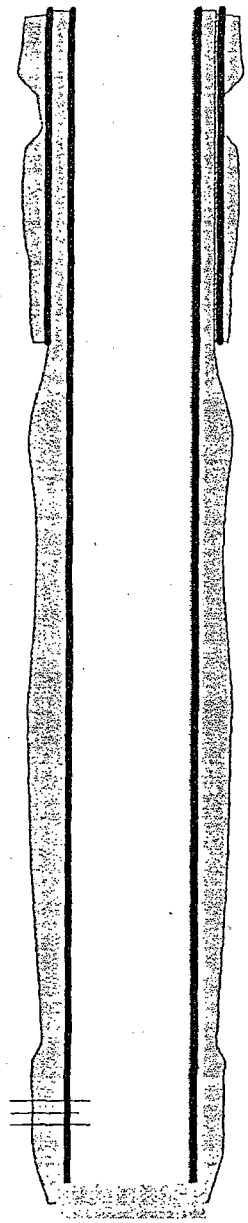
Current well bore diagram attached:

1. MIRU pulling unit - POH with rods and pump
2. Install BOP - POH with 2-3/8 tubing
3. RU wireline - RIH with 4-1/2 CIBP to 6750. Set CIBP
4. Dump 5 sx cement on top of CIBP (Approx 40 ft)
5. Spot 20 sx plug 4365 - 4215
6. Tag top of plug
7. Spot 20 sx plug 3095 - 2945
8. Tag top of plug
9. Spot 20 sx plug 1935 - 1785
10. Tag top of plug
11. Spot 15 sx plug 100 feet to surface
12. Move out equipment - clean location

By: Gary L. Smith 0928
94

Enron Oil & Gas Co.

McIntyre A # 4
1650 FSL 410 FEL
Sec 20 T17S R30E
Eddy County, New Mexico



KB 3644
DF 3642
GL 3630

8-5/8 24# J-55
set @ 1860

Cemented to surface
with 500 sx

Abo perfs
6780 - 6814

5-1/2 15.5# J-55 casing
set @ 6857

Cemented to surface
with 700 sx

TD 6857

Formation tops:
Yates 1215
Queen 2184
San Andres 3095
Glorietta 4365
Abo 6275
Abo Reef 6488

By: Gary L. Smith 092994

NO. OF COPIES RECEIVED	3	
DISTRIBUTION		
SANTA FE		
[redacted]	1	✓
U.S.	1	
LAND OFFICE		
OPERATOR	1	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [ ] Fed [X]

5. State Oil & Gas Lease No.: Federal LC 054280

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

RECEIVED
APR - 6 1979
O. C. C.
ARTESIA, OFFICE

1. OIL WELL [X] GAS WELL [ ] OTHER-

2. Name of Operator: Holly Energy Inc. ✓

3. Address of Operator: Box 726, Artesia, N.M. 88210

4. Location of Well: UNIT LETTER I, 1650' FEET FROM THE south LINE AND 410' FEET FROM THE east LINE, SECTION 20 TOWNSHIP 17S RANGE 30E NMPM.

7. Unit Agreement Name:

8. Farm or Lease Name: McIntyre A

9. Well No.: 4

10. Field and Pool, or Wildcat: Loco Hills Abo

15. Elevation (Show whether DF, RT, GR, etc.): 3630' GL

12. County: Eddy

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER Casing Leak Survey [X]		OTHER Casing Leak Survey [X]	

17. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

Bradenhead piped to surface with 2" pipe and 2 valves as ordered by N.M.O.C.C..
Inspected and approved on 3-19-79 by James Brasfield, U.S.G.S..

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

[redacted] Robert Loyd TITLE Production Foreman DATE 4-4-79

APPROVED BY B. W Weaver TITLE OIL AND GAS INSPECTOR DATE MAY - 2 1979

CONDITIONS OF APPROVAL, IF ANY:

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

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

Copy to U.S.G.S.

5. LEASE DESIGNATION AND SERIAL NO.: LC 054280

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL [X] GAS WELL [ ] OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: FRANKLIN, ASTON & FAIR, INC.

8. FARM OR LEASE NAME: McIntyre A

3. ADDRESS OF OPERATOR: P. O. Box 1090, Roswell, New Mexico 88201

9. WELL NO.: 4

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1650' FSL & 410' FEL Sec. 20-17S-30E

10. FIELD AND POOL, OR WILDCAT: Loco Hills Abo

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 20, T. 17 S., R. 30 E., N.M.P.M.

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3,644' KB

12. COUNTY OR PARISH: Eddy

13. STATE: New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[X]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. 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.) *

On August 19, 1968 we perforated one shot per foot at 6712', 6716', 6732', 6746', 6748', 6750' and acidized with 2500 gallons Super X acid followed by 3000 gallons 2% acid. Before treatment production was 20 BOPD and 35 BWPD. After treatment production increased to 45 BOPD and 55 BWPD pumping.

RECEIVED
SEP 24 1968
O. C. C.
ARTESIA, OFFICE

RECEIVED
SEP 23 1968
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

18. I hereby certify that the foregoing is true and correct

SIGNED Grant M. Smith TITLE Geologist DATE 9/20/68

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
SEP 23 1968
R. L. BEAUMAN
ACTING DISTRICT ENGINEER

*See Instructions on Reverse Side

Form 9-330

N. M. O. C. C. COPY

Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

U. S. LAND OFFICE New Mexico
SERIAL NUMBER LC 054280
LEASE OR PERMIT TO PROSPECT ....

LOCATE WELL CORRECTLY

RECEIVED
MAR 10 1961

RECEIVED
MAR 14 1961
O. C. C.
ARTESIA, OFFICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Franklin, Aston & Fair, Inc. Address P. O. Box 769, Roswell, N. M.

Lessor or Tract McIntyre Field Loco Hills Abo State New Mexico

Well No. 4A Sec. 20 T 17S R 30E Meridian N.M.P.M. County Eddy

Location 1650 ft. {N./S.} of S Line and 410 ft. {E./W.} of E Line of Section Elevation 3630
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed R. R. Aston

Date March 7, 1961 Title Vice President

The summary on this page is for the condition of the well at above date.

Commenced drilling January 26, 1961, 19...... Finished drilling February 18, 1961

OIL OR GAS SANDS OR ZONES
(Denote gas by G)

No. 1, from 6488' to 6856' No. 4, from .... to ....
No. 2, from .... to .... No. 5, from .... to ....
No. 3, from .... to .... No. 6, from .... to ....

IMPORTANT WATER SANDS

No. 1, from .... to .... No. 3, from .... to ....
No. 2, from .... to .... No. 4, from .... to ....

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
8-5/8	[illegible]	8		1860	Guide				
5-1/2	[illegible]	8		6857	[illegible]				

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8-5/8	1860'	500 sacks	Plug		
5-1/2	6857'	750 "	Fluid		

FOLD | MARK

PLUGS AND ADAPTERS

Heaving plug—Material .... Length .... Depth set ....
Adapters—Material .... Size ....

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from surface feet to 6857' feet, and from .... feet to .... feet
Cable tools were used from .... feet to .... feet, and from .... feet to .... feet

DATES

........, 19...... Put to producing February 21, 1961

The production for the first 24 hours was 132 barrels of fluid of which 100 % was oil; 0 % emulsion; 0 % water; and 0 % sediment. Gravity, °Bé. 43.9 corrected

If gas well, cu. ft. per 24 hours .... Gallons gasoline per 1,000 cu. ft. of gas ....

Rock pressure, lbs. per sq. in. ....

EMPLOYEES

........, Driller ...., Driller
........, Driller ...., Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	400	400	Red Shale, Red Sand, Caliche & Anhydrite
400	1000	600	Red Shale and Anhydrite
1000	1240	240	Salt
1240	1700	460	Anhydrite with Salt stringers
1700	2500	800	Anhydrite and Red Beds
2500	2700	200	Red Shale and Anhydrite
2700	2790	90	Gray-Tan dense Dolomite
2790	3650	860	Tan Dense Dolomite
3650	4110	460	Dark Tan-Brown dense Dolomite
4110	5750	1640	Gray-Tan -Buff-Tan Dolomite
5750	6488	738	Dark Brown-Black dense Dolomite and Chert
6488	6856	368	White-Tan dense - Porous Reef Dolomite

(OVER)

16—43094-4

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

RECEIVED FEB 28 19

(Form C-104)
Revised 7/1/57

REQUEST FOR (OIL) - (GAS) ALLOWABLE

☐ New Well
☐ Recompletion

This form shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-104 is to be submitted in QUADRUPLICATE to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7:00 A.M. on date of completion or recompletion, provided this form is filed during calendar month of completion or recompletion. The completion date shall be that date in the case of an oil well when new oil is delivered into the stock tanks. Gas must be reported on 15.025 psia at 60° Fahrenheit.

Roswell, New Mexico (Place) February 25, 1961 (Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Franklin, Asten & Fair, Inc. (Company or Operator) McIntyre (Lease), Well No. 4-A, in NE ¼ SE ¼,

I (Unit Letter), Sec. 20, T. 17 S, R. 30 E, NMPM., Lees Hills Abo Pool

Eddy County. Date Spudded 1-26-61 Date Drilling Completed 2-18-61

Elevation 3630' Total Depth 6857' PBTD 6825'

Top Oil/Gas Pay 6730' Name of Prod. Form. Abo Reef

PRODUCING INTERVAL -

Perforations 6730' - 6814'

Open Hole none Depth Casing Shoe 6857 Depth Tubing 6702

OIL WELL TEST -

Natural Prod. Test: 132 bbls.oil, 0 bbls water in 24 hrs, 0 min. Choke Size 12/64

Test After Acid or Fracture Treatment (after recovery of volume of oil equal to volume of load oil used): _____ bbls.oil, _____ bbls water in _____ hrs, _____ min. Choke Size _____

GAS WELL TEST -

Natural Prod. Test: _____ MCF/Day; Hours flowed _____ Choke Size _____

Method of Testing (pitot, back pressure, etc.): _____

Test After Acid or Fracture Treatment: _____ MCF/Day; Hours flowed _____

Choke Size _____ Method of Testing: _____

Acid or Fracture Treatment (Give amounts of materials used, such as acid, water, oil, and sand): _____

Casing Press. _____ Tubing Press. _____ Date first new oil run to tanks February 21, 1961

Oil Transporter Texas New Mexico Pipe Line Company

Gas Transporter _____

Please indicate location:

D	C	B	A
E	F	G	H
L	K	J	I •
M	N	O	P

1650'S 410'E

Tubing, Casing and Cementing Record

Size	Feet	Sax
8-5/8"	1860	580
5-1/2"	6857	750
2" Tub.	6702	

Remarks: _____

I hereby certify that the information given above is true and complete to the best of my knowledge.

Approved February 27, 1961

FEB 28 1961

OIL CONSERVATION COMMISSION

By: M L Armstrong

Title OIL AND GAS INSPECTOR

Franklin, Asten & Fair, Inc. (Company or Operator)

By: R. Q. Asten (Signature)

Title Vice President

Send Communications regarding well to:

Name Franklin, Asten & Fair, Inc.

Address P. O. Box 769, Roswell, New Mexico

UWI: 30015302920000 API #: 30-015-30292 IC # 300157022198 Status: Active Type: Oil

Surface: 2310 FNL 990 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `C` Well #: 6

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4865 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE C 006

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	451	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1047	Cement Amount:	600 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	4838	Cement Amount:	920 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4797	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4368 Depth Base: 4760

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4368 Depth Base: 4760

UWI: 30015302930000 API #: 30-015-30293 IC # 300157022098 Status: Active Type: Oil

Surface: 1650 FSL 2310 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `A` Well #: 13

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4935 *Depth Total Logger:* *Depth True Vertical:*

Formation at TD: YESO Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE A WEST 013

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	426	Cement Amount:	525 sx	Top of Cement:	Circ to Pit
CASING	Size: 8 5/8 IN	Depth Base:	1049	Cement Amount:	600 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	4920	Cement Amount:	955 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4892	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4422 Depth Base: 4875

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4422 Depth Base: 4875

UWI: 30015306650000 API #: 30-015-30665 IC # Status: Active Type: Oil

Surface: 330 FNL 990 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS B FEDERAL Well #: 11

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4710 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: SAN ANDRES Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 011

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	450	Cement Amount:	425 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1042	Cement Amount:	475 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4694	Cement Amount:	890 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4193	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4681	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4259	Depth Base:	4632
Type: INITIAL POTENTIAL	#: 3	Formation Top:	SAN ANDRES	Depth Top:	3013	Depth Base:	4632
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES	Depth Top:	3341	Depth Base:	3561
Type: PRODUCTION TEST	#: 2	Formation Top:	SAN ANDRES	Depth Top:	3013	Depth Base:	3227

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4259	Depth Base:	4632
Type: INITIAL POTENTIAL	#: 3	Formation Top		Depth Top:	4259	Depth Base:	4632
Type: INITIAL POTENTIAL	#: 3	Formation Top		Depth Top:	3013	Depth Base:	3561
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	3341	Depth Base:	3561
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	3013	Depth Base:	3227

UWI: 30015306680000 API #: 30-015-30668 IC # 300157011199 Status: Active Type: Oil

Surface: 850 FNL 2310 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS `B` FEDERA Well #: 10

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4744 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 010

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	417	Cement Amount:	400 sx	Top of Cement:	Circ to Pit
CASING	Size: 8 5/8 IN	Depth Base:	1037	Cement Amount:	475 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4714	Cement Amount:	1000 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4685	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4418 Depth Base: 4666

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4418 Depth Base: 4666

UWI: 30015306790000 API #: 30-015-30679 IC # 300157010499 Status: Active Type: Oil

Surface: 990 FSL 990 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `DK` FEDE Well #: 13

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4668 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 013

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	364	Cement Amount:	325 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1033	Cement Amount:	525 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4663	Cement Amount:	860 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4594	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4279 Depth Base: 4580

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4279 Depth Base: 4580

UWI: 30015306980000 API #: 30-015-30698 IC # 300157010599 Status: Active Type: Oil

Surface: 2310 FSL 1575 FEL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: RED FEDERAL Well #: 4

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4765 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: RED FEDERAL 004

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	424	Cement Amount:	300 sx	Top of Cement:	Ready Mix to Cella
CASING	Size: 5 1/2 IN	Depth Base:	4765	Cement Amount:	1300 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4239	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4293 Depth Base: 4584

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4293 Depth Base: 4584

UWI: 30015307310000 API #: 30-015-30731 IC # 300157014199 Status: Active Type: Oil

Surface: 660 FSL 1295 FEL Section: 18 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 297

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4730 Depth Total Logger: Depth True Vertical:

Formation at TD: GLORIETA Producing Formation: GLORIETA Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 297

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	433	Cement Amount:	300 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4730	Cement Amount:	1300 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4193	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: GLORIETA Depth Top: 4239 Depth Base: 4551

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4239 Depth Base: 4551

UWI: 30015307720000 API #: 30-015-30772 IC # Status: Active Type: Oil

Surface: 990 FSL 315 FEL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: COG OPERATING LLC Lease Name: MCINTYRE DK FEDER Well #: 12

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4750 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: SAN ANDRES Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 012Y

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	424	Cement Amount:	425 sx	Top of Cement:	Circ to Pit
CASING	Size: 8 5/8 IN	Depth Base:	1117	Cement Amount:	850 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	4711	Cement Amount:	1000 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4582	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4676	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES	Depth Top:	2985	Depth Base:	4669
Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4380	Depth Base:	4669

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4380	Depth Base:	4669
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3734	Depth Base:	4118
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3360	Depth Base:	3552
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2985	Depth Base:	3213
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4380	Depth Base:	4669

UWI: 30015307890000 API #: 30-015-30789 IC # 300157018699 Status: Active Type: Oil

Surface: 2360 FSL 330 FEL Section: 18 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 303

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4703 Depth Total Logger: Depth True Vertical:

Formation at TD: SAN ANDRES Producing Formation: SAN ANDRES Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 303

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN Depth Base: 406 Cement Amount: 300 sx Top of Cement: Circ to Surf

CASING Size: 5 1/2 IN Depth Base: 4703 Cement Amount: 1350 sx Top of Cement: Circ to Surf

TUBING Size: 2 7/8 IN Depth Base: 4136 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES Depth Top: 4206 Depth Base: 4494

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4206 Depth Base: 4494

UWI: 30015307920000 API #: 30-015-30792 IC # Status: Active Type: Oil

Surface: 1650 FSL 990 FEL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: RED FEDERAL Well #: 1

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4740 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: RED FEDERAL 001

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	394	Cement Amount:	300 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4740	Cement Amount:	1300 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4256	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4306 Depth Base: 4573

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4306 Depth Base: 4573

UWI: 30015309810000 API #: 30-015-30981 IC # Status: Active Type: Oil

Surface: 330 FSL 2310 FEL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: COG OPERATING LLC Lease Name: MCINTYRE DK FEDER Well #: 11

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4746 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: GRAYBURG-SA Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 011

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	456	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1042	Cement Amount:	475 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4737	Cement Amount:	980 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4627	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4632	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	GRAYBURG-SAN ANDRES	Depth Top:	2978	Depth Base:	4077
Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4216	Depth Base:	4600
Type: INITIAL POTENTIAL	#: 2	Formation Top:	PADDOCK	Depth Top:	4216	Depth Base:	4600

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3956	Depth Base:	4077
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3317	Depth Base:	3451
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2978	Depth Base:	3222
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4216	Depth Base:	4600
Type: INITIAL POTENTIAL	#: 2	Formation Top		Depth Top:	4216	Depth Base:	4600

UWI: 30015310710000 API #: 30-015-31071 IC # 3001577795200 Status: Active Type: Oil

Surface: 1615 FSL 1065 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `A` FEDER Well #: 11

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4970 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTRYE A EAST 011

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	454	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1120	Cement Amount:	500 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4961	Cement Amount:	1100 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4922	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4452 Depth Base: 4899

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4452 Depth Base: 4899

UWI: 30015313300000 API #: 30-015-31330 IC # Status: Active Type: Oil

Surface: 1650 FSL 380 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BIRDIE FEDERAL Well #: 1

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4772 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BIRDIE FEDERAL 001

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	421	Cement Amount:	300 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4772	Cement Amount:	1150 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4201	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4245 Depth Base: 4532

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4245 Depth Base: 4532

UWI: 30015314810000 API #: 30-015-31481 IC # 3001574341200 Status: Active Type: Oil

Surface: 2415 FSL 844 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `A` FEDER Well #: 14

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5141 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTRYE A EAST 014

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	428	Cement Amount:	450 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 8 5/8 IN	Depth Base:	1219	Cement Amount:	650 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	5110	Cement Amount:	700 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4362	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4421 Depth Base: 4919

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4421 Depth Base: 4919

UWI: 30015315590000 API #: 30-015-31559 IC # 3001579515200 Status: Active Type: Oil

Surface: 2310 FNL 2310 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS `B` FEDERA Well #: 12

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4900 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 012

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	427	Cement Amount:	450 sx	Top of Cement:	Circ to Pit
CASING	Size: 8 5/8 IN	Depth Base:	1098	Cement Amount:	600 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4866	Cement Amount:	1050 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4781	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4321 Depth Base: 4748

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4321 Depth Base: 4748

UWI: 30015315600000 API #: 30-015-31560 IC # Status: Active Type: Oil

Surface: 2310 FNL 880 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS B FEDERAL Well #: 13

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4880 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: SAN ANDRES Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 013

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	465	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1090	Cement Amount:	600 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4874	Cement Amount:	710 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4741	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4741	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4312	Depth Base:	4716
Type: INITIAL POTENTIAL	#: 4	Formation Top:	SAN ANDRES	Depth Top:	3106	Depth Base:	4716
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES	Depth Top:	3912	Depth Base:	3928
Type: PRODUCTION TEST	#: 2	Formation Top:	SAN ANDRES	Depth Top:	3402	Depth Base:	3595
Type: PRODUCTION TEST	#: 3	Formation Top:	SAN ANDRES	Depth Top:	3106	Depth Base:	3296

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4312	Depth Base:	4716
Type: INITIAL POTENTIAL	#: 4	Formation Top		Depth Top:	4312	Depth Base:	4716
Type: INITIAL POTENTIAL	#: 4	Formation Top		Depth Top:	3106	Depth Base:	3928
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	3912	Depth Base:	3928
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	3402	Depth Base:	3595
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	3106	Depth Base:	3296

UWI: 30015315610000 API #: 30-015-31561 IC # Status: Active Type: Oil

Surface: 330 FSL 330 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `B` Well #: 7

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5017 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE B 007

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	436	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1049	Cement Amount:	550 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 5 1/2 IN	Depth Base:	5012	Cement Amount:	1110 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4694	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4464 Depth Base: 4679

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4464 Depth Base: 4679

UWI: 30015315620000 API #: 30-015-31562 IC # 3001579521200 Status: Active Type: Oil

Surface: 990 FSL 990 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `B` Well #: 8

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4884 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE B 008

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	411	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1088	Cement Amount:	600 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4867	Cement Amount:	875 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4739	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4436 Depth Base: 4722

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4435 Depth Base: 4722

UWI: 30015315630000 API #: 30-015-31563 IC # Status: Active Type: Oil

Surface: 2310 FNL 455 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `C` Well #: 7

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 5037 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: SAN ANDRES Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE C 007

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	410	Cement Amount:	450 sx	Top of Cement:	Circ to Pit
CASING	Size: 8 5/8 IN	Depth Base:	1101	Cement Amount:	600 sx	Top of Cement:	
CASING	Size: 5 1/2 IN	Depth Base:	5029	Cement Amount:	840 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4849	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4851	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4394	Depth Base:	4831
Type: INITIAL POTENTIAL	#: 5	Formation Top:	SAN ANDRES	Depth Top:	3132	Depth Base:	4831
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES	Depth Top:	4024	Depth Base:	4050
Type: PRODUCTION TEST	#: 2	Formation Top:	SAN ANDRES	Depth Top:	3925	Depth Base:	3968
Type: PRODUCTION TEST	#: 3	Formation Top:	SAN ANDRES	Depth Top:	3436	Depth Base:	3580
Type: PRODUCTION TEST	#: 4	Formation Top:	SAN ANDRES	Depth Top:	3132	Depth Base:	3348

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4394	Depth Base:	4831
Type: INITIAL POTENTIAL	#: 5	Formation Top		Depth Top:	4394	Depth Base:	4831
Type: INITIAL POTENTIAL	#: 5	Formation Top		Depth Top:	3132	Depth Base:	4050
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	4024	Depth Base:	4050
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	3925	Depth Base:	3968
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	3436	Depth Base:	3580
Type: PRODUCTION TEST	#: 4	Formation Top		Depth Top:	3132	Depth Base:	3348

UWI: 30015315640000 API #: 30-015-31564 IC # 3001579518200 Status: Active Type: Oil

Surface: 990 FSL 1650 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `E` Well #: 6

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5801 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE E 006

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	417	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1097	Cement Amount:	550 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	5790	Cement Amount:	1750 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4732	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4456 Depth Base: 4698

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4456 Depth Base: 4698

UWI: 30015317860000 API #: 30-015-31786 IC # 3001571657200 Status: Active Type: Oil

Surface: 330 FSL 1650 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `E` Well #: 7

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5020 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE E 007

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	417	Cement Amount:	425 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1206	Cement Amount:	625 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	5019	Cement Amount:	970 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4686	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4489 Depth Base: 4678

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4489 Depth Base: 4678

UWI: 30015317870000 API #: 30-015-31787 IC # 3001571822200 Status: Active Type: Oil

Surface: 1650 FSL 2250 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `E` Well #: 8

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5020 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE E 008

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	425	Cement Amount:	450 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 8 5/8 IN	Depth Base:	1224	Cement Amount:	625 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4967	Cement Amount:	1030 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4879	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4415 Depth Base: 4863

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4415 Depth Base: 4863

UWI: 30015317880000 API #: 30-015-31788 IC # 3001571910200 Status: Active Type: Oil

Surface: 1650 FSL 1100 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `B` Well #: 9

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4980 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE B 009

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	430	Cement Amount:	425 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1230	Cement Amount:	625 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4973	Cement Amount:	950 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4862	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4302 Depth Base: 4845

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4302 Depth Base: 4845

UWI: 30015317890000 API #: 30-015-31789 IC # 3001572045200 Status: Active Type: Oil

Surface: 1775 FSL 1625 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `A` Well #: 17

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5050 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE A WEST 017

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	422	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1231	Cement Amount:	625 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	5029	Cement Amount:	975 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4898	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4441 Depth Base: 4871

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4441 Depth Base: 4871

UWI: 30015318550000 API #: 30-015-31855 IC # 3001571550200 Status: Active Type: Oil

Surface: 330 FSL 2160 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `A` Well #: 16

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 6210 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE A WEST 016

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	435	Cement Amount:	450 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 8 5/8 IN	Depth Base:	1217	Cement Amount:	625 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	6204	Cement Amount:	1305 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4722	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4568 Depth Base: 4710

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4568 Depth Base: 4710

UWI: 30015321870000 API #: 30-015-32187 IC # 3001579885200 Status: Active Type: Oil

Surface: 430 FSL 2210 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `E` Well #: 9

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4810 Depth Total Logger: 4814 Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE E 009

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	428	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1182	Cement Amount:	600 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4802	Cement Amount:	965 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4728	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4499 Depth Base: 4704

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4499 Depth Base: 4704

UWI: 30015321880000 API #: 30-015-32188 IC # 3001579887200 Status: Active Type: Oil

Surface: 990 FSL 2310 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `A` Well #: 18

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4836 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE A WEST 018

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	425	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1215	Cement Amount:	800 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4826	Cement Amount:	900 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4728	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4490 Depth Base: 4694

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4490 Depth Base: 4694

UWI: 30015322170000 API #: 30-015-32217 IC # 3001576903200 Status: Active Type: Oil

Surface: 2190 FSL 1664 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `E` Well #: 10

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4861 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE E 010

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	461	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1210	Cement Amount:	575 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4850	Cement Amount:	985 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4802	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4354 Depth Base: 4791

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4354 Depth Base: 4791

UWI: 30015322570000 API #: 30-015-32257 IC # 3001571961200 Status: Active Type: Oil

Surface: 745 FNL 990 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS `B` FEDERA Well #: 14

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4780 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 014

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	426	Cement Amount:	450 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1073	Cement Amount:	575 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4774	Cement Amount:	1035 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4642	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4249 Depth Base: 4639

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4249 Depth Base: 4639

UWI: 30015323300000 API #: 30-015-32330 IC # Status: Active Type: Oil

Surface: 990 FNL 1650 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: THUNDER ROAD FED Well #: 6

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4850 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: THUNDER ROAD FEDERAL 006

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	373	Cement Amount:	275 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	4848	Cement Amount:	1360 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4252	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4277 Depth Base: 4624

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4277 Depth Base: 4624

UWI: 30015323710000 API #: 30-015-32371 IC # Status: Active Type: Oil

Surface: 965 FNL 1650 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS `B` FEDERA Well #: 16

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4775 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 016

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	425	Cement Amount:	450 sx	Top of Cement:	0
CASING	Size: 8 5/8 IN	Depth Base:	1067	Cement Amount:	575 sx	Top of Cement:	0
CASING	Size: 5 1/2 IN	Depth Base:	4768	Cement Amount:	995 sx	Top of Cement:	0
TUBING	Size: 2 7/8 IN	Depth Base:	4674	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4271 Depth Base: 4648

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4271 Depth Base: 4648

UWI: 30015323840000 API #: 30-015-32384 IC # 3001571288200 Status: Active Type: Oil

Surface: 2310 FNL 1750 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: THUNDER ROAD FED Well #: 5

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4920 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: THUNDER ROAD FEDERAL 005

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	373	Cement Amount:	300 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	4919	Cement Amount:	1275 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4315	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4338 Depth Base: 4698

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4338 Depth Base: 4698

UWI: 30015324250000 API #: 30-015-32425 IC # 3001578840200 Status: Active Type: Oil

Surface: 990 FNL 990 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 328

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4823 Depth Total Logger: Depth True Vertical:

Formation at TD: GLORIETA Producing Formation: GLORIETA Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 328

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	355	Cement Amount:	300 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4822	Cement Amount:	1325 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4222	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: GLORIETA Depth Top: 4226 Depth Base: 4523

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4226 Depth Base: 4523

UWI: 30015324260000 API #: 30-015-32426 IC # 3001578841200 Status: Active Type: Oil

Surface: 1650 FSL 1295 FEL Section: 18 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 329

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4825 Depth Total Logger: Depth True Vertical:

Formation at TD: GLORIETA Producing Formation: GLORIETA Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 329

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	365	Cement Amount:	300 sx	Top of Cement:	
CASING	Size: 5 1/2 IN	Depth Base:	4825	Cement Amount:	1125 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4221	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: GLORIETA Depth Top: 4238 Depth Base: 4490

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4238 Depth Base: 4490

UWI: 30015329150000 API #: 30-015-32915 IC # Status: Active Type: Oil

Surface: 25 FNL 1825 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 357

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4720 Depth Total Logger: Depth True Vertical:

Formation at TD: GLORIETA Producing Formation: GLORIETA Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 357

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	361	Cement Amount:	300 sx	Top of Cement:	Circ to Pit
CASING	Size: 4 1/2 IN	Depth Base:	4698	Cement Amount:	1310 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4209	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: GLORIETA Depth Top: 4233 Depth Base: 4518

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4233 Depth Base: 4518

UWI: 30015329160000 API #: 30-015-32916 IC # Status: Active Type: Oil

Surface: 1400 FNL 1115 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 358

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4822 Depth Total Logger: Depth True Vertical:

Formation at TD: GLORIETA Producing Formation: SAN ANDRES Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 358

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	355	Cement Amount:	300 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	4818	Cement Amount:	1235 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4227	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES Depth Top: 4237 Depth Base: 4587

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4237 Depth Base: 4587

UWI: 30015329710000 API #: 30-015-32971 IC # 3001576236200 Status: Active Type: Oil

Surface: 1295 FNL 1980 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 362

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4840 Depth Total Logger: Depth True Vertical:

Formation at TD: GLORIETA Producing Formation: GLORIETA Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 362

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	406	Cement Amount:	400 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4838	Cement Amount:	325 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4281	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: GLORIETA Depth Top: 4286 Depth Base: 4570

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4286 Depth Base: 4570

UWI: 30015329720000 API #: 30-015-32972 IC # 3001576234200 Status: Active Type: Oil

Surface: 1100 FSL 660 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 364

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4980 Depth Total Logger: Depth True Vertical:

Formation at TD: GLORIETA Producing Formation: GLORIETA Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 364

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN Depth Base: 370 Cement Amount: 300 sx Top of Cement: Circ to Pit

CASING Size: 5 1/2 IN Depth Base: 4967 Cement Amount: 1100 sx Top of Cement: Circ to Pit

TUBING Size: 2 7/8 IN Depth Base: 4345 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: GLORIETA Depth Top: 4368 Depth Base: 4767

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4368 Depth Base: 4767

UWI: 30015329910000 API #: 30-015-32991 IC # 3001578670200 Status: Active Type: Oil

Surface: 965 FNL 330 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 361

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4812 Depth Total Logger: Depth True Vertical:

Formation at TD: GLORIETA Producing Formation: GLORIETA Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 361

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	380	Cement Amount:	300 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4811	Cement Amount:	1150 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4245	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: GLORIETA Depth Top: 4252 Depth Base: 4575

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4252 Depth Base: 4575

UWI: 30015334720000 API #: 30-015-33472 IC # Status: Active Type: Oil

Surface: 1500 FNL 2310 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS B FEDERAL Well #: 15

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4935 Depth Total Logger: Depth True Vertical:

Formation at TD: GLORIETA Producing Formation: GLORIETA Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 015Q

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 13 3/8 IN	Depth Base:	421	Cement Amount:	475 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1055	Cement Amount:	575 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4919	Cement Amount:	1100 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	3992	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4691	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	GLORIETA	Depth Top:	4272	Depth Base:	4686
Type: INITIAL POTENTIAL	#: 4	Formation Top:	SAN ANDRES	Depth Top:	3046	Depth Base:	3968
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES	Depth Top:	3958	Depth Base:	3968
Type: PRODUCTION TEST	#: 2	Formation Top:	SAN ANDRES	Depth Top:	3379	Depth Base:	3574
Type: PRODUCTION TEST	#: 3	Formation Top:	SAN ANDRES	Depth Top:	3046	Depth Base:	3271

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4272	Depth Base:	4686
Type: INITIAL POTENTIAL	#: 4	Formation Top		Depth Top:	3046	Depth Base:	3968
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	3958	Depth Base:	3968
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	3379	Depth Base:	3574
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	3046	Depth Base:	3271

UWI: 30015338110000 API #: 30-015-33811 IC # 3001574881200 Status: Active Type: Oil

Surface: 600 FSL 330 FEL Section: 18 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 382

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4760 Depth Total Logger: Depth True Vertical:

Formation at TD: GLORIETA Producing Formation: GLORIETA Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 382

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN Depth Base: 395 Cement Amount: 400 sx Top of Cement: Ready Mix to Surf

CASING Size: 5 1/2 IN Depth Base: 4753 Cement Amount: 1350 sx Top of Cement: Circ to Pit

TUBING Size: 2 7/8 IN Depth Base: 4246 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: GLORIETA Depth Top: 4247 Depth Base: 4501

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4247 Depth Base: 4501

UWI: 30015338160000 API #: 30-015-33816 IC # 3001574883200 Status: Active Type: Oil

Surface: 660 FNL 2559 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 379

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4710 Depth Total Logger: Depth True Vertical:

Formation at TD: YESO Producing Formation: YESO Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 379

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	393	Cement Amount:	300 sx	Top of Cement:	0
CASING	Size: 5 1/2 IN	Depth Base:	4710	Cement Amount:	1010 sx	Top of Cement:	0
TUBING	Size: 2 7/8 IN	Depth Base:	4592	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: YESO Depth Top: 4193 Depth Base: 4515

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4193 Depth Base: 4515

UWI: 30015341380000 API #: 30-015-34138 IC # 3001578069200 Status: Active Type: Oil

Surface: 330 FNL 1525 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS B FEDERAL Well #: 17

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4735 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: SAN ANDRES Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 017R

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	448	Cement Amount:	448 sx	Top of Cement:	Circ
CASING	Size: 8 5/8 IN	Depth Base:	1047	Cement Amount:	750 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4726	Cement Amount:	940 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4654	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES Depth Top: 3018 Depth Base: 4653

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4268	Depth Base:	4653
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	3793	Depth Base:	4044
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	3354	Depth Base:	3540
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	3018	Depth Base:	3248

UWI: 30015341920000 API #: 30-015-34192 IC # 3001578285200 Status: New (Not drill Type: Gas

Surface: 1640 FSL 2100 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: GRUY PET MGMT CO Lease Name: GRAYBURG DEEP UNI Well #: 20

Field: SAND TANK Geologic Province: PERMIAN BASIN

Depth Total Driller: Depth Total Logger: Depth True Vertical:

Formation at TD: Producing Formation: Date of Abandonment:

GO-TECH - Operator: CIMAREX ENERGY CO OF C GO-TECH - Well Name: GRAYBURG DEEP 020

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name:

Test_Report:

Test_Perf_Report:

UWI: 30015344470000 API #: 30-015-34447 IC # 3001570802200 Status: Active Type: Oil

Surface: 990 FNL 330 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `C` Well #: 8

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 6020 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE C 008

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	421	Cement Amount:	450 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 8 5/8 IN	Depth Base:	1041	Cement Amount:	850 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	6012	Cement Amount:	1420 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	5759	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4872 Depth Base: 5729

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 5611 Depth Base: 5729

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 5104 Depth Base: 5471

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4872 Depth Base: 4999

UWI: 30015344730000 API #: 30-015-34473 IC # 3001570798200 Status: Active Type: Oil

Surface: 330 FNL 990 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `C` Well #: 9

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 6040 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE C 009

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size:	13 3/8 IN	Depth Base:	415	Cement Amount:	628 sx	Top of Cement:
CASING	Size:	8 5/8 IN	Depth Base:	1123	Cement Amount:	900 sx	Top of Cement:
CASING	Size:	5 1/2 IN	Depth Base:	6031	Cement Amount:	1245 sx	Top of Cement:
TUBING	Size:	2 7/8 IN	Depth Base:	5696	Cement Amount:	sx	Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 5033 Depth Base: 5680

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 5431 Depth Base: 5680

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 5033 Depth Base: 5295

UWI: 30015344740000 API #: 30-015-34474 IC # 3001570796200 Status: Active Type: Oil

Surface: 330 FNL 430 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: COG OPERATING LLC Lease Name: JENKINS B FEDERAL Well #: 18

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 6401 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 018

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size:	13 3/8 IN	Depth Base:	425	Cement Amount:	449 sx	Top of Cement:
CASING	Size:	8 5/8 IN	Depth Base:	1047	Cement Amount:	525 sx	Top of Cement:
CASING	Size:	5 1/2 IN	Depth Base:	6389	Cement Amount:	1505 sx	Top of Cement:
TUBING	Size:	2 7/8 IN	Depth Base:	6203	Cement Amount:	sx	Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 5082 Depth Base: 6181

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 5082 Depth Base: 6181

UWI: 30015345370000 API #: 30-015-34537 IC # 3001570795200 Status: Active Type: Oil

Surface: 1140 FSL 2310 FEL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: 988 FSL 2310 FEL Section: 17

Operator: MACK ENERGY CORP Lease Name: MCINTYRE DK FEDER Well #: 14

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 5108 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 014

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK; GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 13 3/8 IN	Depth Base:	440	Cement Amount:	500 sx	Top of Cement:
CASING	Size: 8 5/8 IN	Depth Base:	1024	Cement Amount:	650 sx	Top of Cement:
CASING	Size: 5 1/2 IN	Depth Base:	5100	Cement Amount:	1235 sx	Top of Cement:
TUBING	Size: 2 7/8 IN	Depth Base:	4682	Cement Amount:	sx	Top of Cement:

Test_Report:

Test_Perf_Report:

Type: PRODUCTION TEST #: 1 Formation Top GRAYBURG JACKSON SR Q G SA Depth Top: 2766 Depth Base: 4597

UWI: 30015345960000 API #: 30-015-34596 IC # 3001571796200 Status: New (Not drill Type: Gas

Surface: 330 FNL 610 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: GRUY PET MGMT CO Lease Name: LOCO HILLS 20 FEDE Well #: 1

Field: EMPIRE SOUTH Geologic Province: PERMIAN BASIN

Depth Total Driller: Depth Total Logger: Depth True Vertical:

Formation at TD: Producing Formation: Date of Abandonment:

GO-TECH - Operator: CIMAREX ENERGY CO OF C GO-TECH - Well Name: LOCO HILLS 20 FED COM 001

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name:

Test_Report:

Test_Perf_Report:

UWI: 30015347750000 API #: 30-015-34775 IC # 3001572777200 Status: Active Type: Oil

Surface: 330 FSL 990 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE B Well #: 10

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 7035 Depth Total Logger: Depth True Vertical:

Formation at TD: LOCO HILLS AB Producing Formation: LOCO HILLS AB Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE B 010

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS ABO

CASING	Size: 13 3/8 IN	Depth Base:	442	Cement Amount:	475 sx	Top of Cement:	
CASING	Size: 8 5/8 IN	Depth Base:	1062	Cement Amount:	650 sx	Top of Cement:	
CASING	Size: 5 1/2 IN	Depth Base:	7028	Cement Amount:	1960 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	6888	Cement Amount:	sx	Top of Cement:	

Test_Report:

Test_Perf_Report:

Type: PRODUCTION TEST #: 1 Formation Top LOCO HILLS ABO Depth Top: 6750 Depth Base: 6867

UWI: 30015348060000 API #: 30-015-34806 IC # 3001572778200 Status: Spud (11/200 Type: Oil

Surface: 675 FSL 1120 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: 990 FSL 990 FEL Section: 20

Operator: MACK ENERGY CORP Lease Name: MCINTYRE A EAST Well #: 19

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5960 Depth Total Logger: Depth True Vertical:

Formation at TD: Producing Formation: Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTRYE A EAST 019

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name:

CASING	Size: 13 3/8 IN	Depth Base:	400	Cement Amount:	943 sx	Top of Cement:	
CASING	Size: 8 5/8 IN	Depth Base:	1345	Cement Amount:	976 sx	Top of Cement:	
CASING	Size: 5 1/2 IN	Depth Base:	5950	Cement Amount:	1856 sx	Top of Cement:	

Test_Report:

Test_Perf_Report:

UWI: 30015041840000 API #: 30-015-04184 IC # Status: Active Type: Oil

Surface: 330 FSL 330 FEL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `DK` FEDE Well #: 1

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4796 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 001

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 9 5/8 IN	Depth Base:	526	Cement Amount:	60 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	2905	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base:	4788	Cement Amount:	400 sx	Top of Cement:	2800
TUBING	Size: 2 7/8 IN	Depth Base:	4633	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4306	Depth Base:	4597
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	2905	Depth Base:	3241
Type: PRODUCTION TEST	#: 1	Formation Top:	GRAYBURG-SAN ANDRES	Depth Top:	2905	Depth Base:	3241
Type: PRODUCTION TEST	#: 1	Formation Top:		Depth Top:	2905	Depth Base:	3241
Type: PRODUCTION TEST	#: 2	Formation Top:		Depth Top:	2905	Depth Base:	3241
Type: PRODUCTION TEST	#: 3	Formation Top:		Depth Top:	2905	Depth Base:	3241

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4306	Depth Base:	4597
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2905	Depth Base:	3241
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2905	Depth Base:	3241
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2905	Depth Base:	3241
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	2905	Depth Base:	3241
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	2905	Depth Base:	3241

UWI: 30015041860000 API #: 30-015-04186 IC # Status: Active Type: Oil

Surface: 660 FSL 1980 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `DK` FEDE Well #: 3

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4797 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 003

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 10 3/4 IN	Depth Base:	532	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	3295	Cement Amount:	1000 sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base:	4782	Cement Amount:	300 sx	Top of Cement:	3295
TUBING	Size: 2 7/8 IN	Depth Base:	4609	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4226	Depth Base:	4590
Type: INITIAL POTENTIAL	#: 1	Formation Top:	GRAYBURG	Depth Top:	2470	Depth Base:	2645
Type: PRODUCTION TEST	#: 1	Formation Top:	GRAYBURG	Depth Top:	2470	Depth Base:	2645
Type: PRODUCTION TEST	#: 1	Formation Top:		Depth Top:	3194	Depth Base:	3256
Type: PRODUCTION TEST	#: 2	Formation Top:		Depth Top:	3112	Depth Base:	3152
Type: PRODUCTION TEST	#: 3	Formation Top:		Depth Top:	2470	Depth Base:	2645
Type: PRODUCTION TEST	#: 4	Formation Top:		Depth Top:		Depth Base:	
Type: PRODUCTION TEST	#: 5	Formation Top:		Depth Top:	3194	Depth Base:	3256
Type: PRODUCTION TEST	#: 6	Formation Top:		Depth Top:	3112	Depth Base:	3142
Type: PRODUCTION TEST	#: 7	Formation Top:		Depth Top:	2470	Depth Base:	2645

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4226	Depth Base:	4590
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2470	Depth Base:	2645
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2470	Depth Base:	2645
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	3194	Depth Base:	3256
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	3112	Depth Base:	3152
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	2635	Depth Base:	2645
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	2605	Depth Base:	2615
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	2550	Depth Base:	2570
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	2470	Depth Base:	2505
Type: PRODUCTION TEST	#: 5	Formation Top		Depth Top:	3194	Depth Base:	3256
Type: PRODUCTION TEST	#: 6	Formation Top		Depth Top:	3112	Depth Base:	3142
Type: PRODUCTION TEST	#: 7	Formation Top		Depth Top:	2470	Depth Base:	2645

UWI: 30015041880000 API #: 30-015-04188 IC # Status: Active Type: Oil

Surface: 660 FSL 1980 FEL Section: 18 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: Lease Name: Well #:

Field: Geologic Province:

Depth Total Driller: Depth Total Logger: Depth True Vertical:

Formation at TD: Producing Formation: Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 028

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 9 IN	Depth Base:	509	Cement Amount:	50 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	2903	Cement Amount:	100 sx	Top of Cement:	
LINER	Size: 5 1/2 IN	Depth Base:	4209	Cement Amount:	100 sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	GRAYBURG-SAN ANDRES	Depth Top:	2470	Depth Base:	3298
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	4209	Depth Base:	4243
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	2903	Depth Base:	3185
Type: PRODUCTION TEST	#: 1	Formation Top:		Depth Top:	4209	Depth Base:	4243
Type: PRODUCTION TEST	#: 1	Formation Top:		Depth Top:	4209	Depth Base:	4243
Type: PRODUCTION TEST	#: 2	Formation Top:		Depth Top:	4209	Depth Base:	4243

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3290	Depth Base:	3298
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3122	Depth Base:	3225
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2688	Depth Base:	2694
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2577	Depth Base:	2583
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2470	Depth Base:	2476
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4209	Depth Base:	4243
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2903	Depth Base:	3185
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	4209	Depth Base:	4243
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	4209	Depth Base:	4243
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	4209	Depth Base:	4243

UWI: 30015041890000 API #: 30-015-04189 IC # Status: Active Type: Oil

Surface: 660 FSL 660 FEL Section: 18 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: GREAT WESTERN DRL CO Lease Name: GRAYBURG DEEP UNI Well #: 3

Field: GRAYBURG Geologic Province: PERMIAN BASIN

Depth Total Driller: 11422 Depth Total Logger: Depth True Vertical:

Formation at TD: UNKNOWN Producing Formation: GLORIETA Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 027

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 13 3/8 IN	Depth Base:	345	Cement Amount:	325 sx	Top of Cement:	
CASING	Size: 9 5/8 IN	Depth Base:	2735	Cement Amount:	1600 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	4209	Cement Amount:	150 sx	Top of Cement:	
CASING	Size: 5 1/2 IN	Depth Base:	7704	Cement Amount:	210 sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	GLORIETA	Depth Top:	4209	Depth Base:	4240
Type: PRODUCTION TEST	#: 1	Formation Top:		Depth Top:	7520	Depth Base:	7528
Type: PRODUCTION TEST	#: 2	Formation Top:		Depth Top:	7520	Depth Base:	7528
Type: PRODUCTION TEST	#: 3	Formation Top:		Depth Top:	7520	Depth Base:	7528
Type: PRODUCTION TEST	#: 4	Formation Top:		Depth Top:	7550	Depth Base:	7574
Type: PRODUCTION TEST	#: 5	Formation Top:		Depth Top:	7516	Depth Base:	7524
Type: PRODUCTION TEST	#: 6	Formation Top:		Depth Top:	7516	Depth Base:	7524
Type: PRODUCTION TEST	#: 7	Formation Top:		Depth Top:	7550	Depth Base:	7582
Type: PRODUCTION TEST	#: 8	Formation Top:		Depth Top:	4209	Depth Base:	4278
Type: PRODUCTION TEST	#: 9	Formation Top:		Depth Top:	4209	Depth Base:	4240

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4209	Depth Base:	4240
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	7520	Depth Base:	7528
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	7520	Depth Base:	7528
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	7520	Depth Base:	7528
Type: PRODUCTION TEST	#: 4	Formation Top		Depth Top:	7550	Depth Base:	7574
Type: PRODUCTION TEST	#: 5	Formation Top		Depth Top:	7516	Depth Base:	7524
Type: PRODUCTION TEST	#: 6	Formation Top		Depth Top:	7516	Depth Base:	7524
Type: PRODUCTION TEST	#: 7	Formation Top		Depth Top:	7550	Depth Base:	7582
Type: PRODUCTION TEST	#: 8	Formation Top		Depth Top:	4209	Depth Base:	4278
Type: PRODUCTION TEST	#: 9	Formation Top		Depth Top:	4209	Depth Base:	4240

UWI: 30015042140000 API #: 30-015-04214 IC # Status: Active Type: Oil

Surface: 1650 FNL 330 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS `B` FEDERA Well #: 1

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4788 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 001

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 10 3/4 IN	Depth Base:	480	Cement Amount:	500 sx	Top of Cement:	156 (Estimated)
CASING	Size: 7 IN	Depth Base:	3003	Cement Amount:	100 sx	Top of Cement:	2663 (Estimated)
CASING	Size: 4 1/2 IN	Depth Base:	4788	Cement Amount:	275 sx	Top of Cement:	
TUBING	Size: 2 3/8 IN	Depth Base:	4737	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4282	Depth Base:	4736
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	3003	Depth Base:	3258
Type: PRODUCTION TEST	#: 1	Formation Top:	QUEEN	Depth Top:	3003	Depth Base:	3258
Type: PRODUCTION TEST	#: 1	Formation Top:		Depth Top:	3003	Depth Base:	3258
Type: PRODUCTION TEST	#: 2	Formation Top:		Depth Top:	3003	Depth Base:	3258

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4282	Depth Base:	4736
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3003	Depth Base:	3258
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	3003	Depth Base:	3258
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	3003	Depth Base:	3258
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	3003	Depth Base:	3258

UWI: 30015042150000 API #: 30-015-04215 IC # Status: Active Type: Oil

Surface: 990 FNL 330 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS B FEDERAL Well #: 2

Field: GRAYBURG Geologic Province: PERMIAN BASIN

Depth Total Driller: 4715 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 002

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 IN	Depth Base:	500	Cement Amount:	50 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	2910	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base:	4704	Cement Amount:	380 sx	Top of Cement:	3136
TUBING	Size: 2 7/8 IN	Depth Base:	4583	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4258	Depth Base:	4570
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	2910	Depth Base:	3265
Type: PRODUCTION TEST	#: 1	Formation Top:	QUEEN-SAN ANDRES	Depth Top:	2910	Depth Base:	3265
Type: PRODUCTION TEST	#: 1	Formation Top:		Depth Top:	2910	Depth Base:	3265
Type: PRODUCTION TEST	#: 2	Formation Top:		Depth Top:	2910	Depth Base:	3265
Type: PRODUCTION TEST	#: 3	Formation Top:		Depth Top:	2910	Depth Base:	3265

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4258	Depth Base:	4570
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2910	Depth Base:	3265
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2910	Depth Base:	3265
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2910	Depth Base:	3265
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	2910	Depth Base:	3265
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	2910	Depth Base:	3265

UWI: 30015042160000 API #: 30-015-04216 IC # 300157023397 Status: Active Type: Oil

Surface: 330 FNL 2310 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS `B` FEDERA Well #: 3

Field: GRAYBURG Geologic Province: PERMIAN BASIN

Depth Total Driller: 4745 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 003

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 1/4 IN	Depth Base: 505	Cement Amount:	50 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base: 2875	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base: 4741	Cement Amount:	2340 sx	Top of Cement:	1960
TUBING	Size: 2 7/8 IN	Depth Base: 4615	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top: PADDOCK	Depth Top:	4337	Depth Base:	4600
Type: INITIAL POTENTIAL	#: 1	Formation Top:	Depth Top:	2875	Depth Base:	3300
Type: PRODUCTION TEST	#: 1	Formation Top: SAN ANDRES D	Depth Top:	2875	Depth Base:	3300
Type: PRODUCTION TEST	#: 1	Formation Top:	Depth Top:	2875	Depth Base:	3300

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4337	Depth Base:	4600
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	2875	Depth Base:	3300
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	2875	Depth Base:	3300
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	2875	Depth Base:	3300

UWI: 30015042170000 API #: 30-015-04217 IC # Status: Active Type: Oil

Surface: 660 FSL 660 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `B` Well #: 2

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5080 Depth Total Logger: 4888 Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE B 002

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	542	Cement Amount:	50 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	3075	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	3170	Cement Amount:	sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base:	5064	Cement Amount:	360 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4754	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4491	Depth Base:	4718
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	3075	Depth Base:	3346
Type: PRODUCTION TEST	#: 1	Formation Top:	GRAYBURG-SAN ANDRES	Depth Top:	3075	Depth Base:	3346

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4491	Depth Base:	4718
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3075	Depth Base:	3346
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	3075	Depth Base:	3346

UWI: 30015042180000 API #: 30-015-04218 IC # Status: Active Type: Oil

Surface: 2310 FSL 330 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `B` Well #: 1

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4861 Depth Total Logger: Depth True Vertical:

Formation at TD: YESO Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE B 001

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 10 IN	Depth Base:	551	Cement Amount:	50 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	2640	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base:	4850	Cement Amount:	375 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4742	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4323	Depth Base:	4714
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	2640	Depth Base:	3270
Type: PRODUCTION TEST	#: 1	Formation Top:	GRAYBURG-SAN ANDRES	Depth Top:	2640	Depth Base:	3270
Type: PRODUCTION TEST	#: 1	Formation Top:		Depth Top:	2640	Depth Base:	3270
Type: PRODUCTION TEST	#: 2	Formation Top:		Depth Top:	2640	Depth Base:	3270
Type: PRODUCTION TEST	#: 3	Formation Top:		Depth Top:	2640	Depth Base:	3270
Type: PRODUCTION TEST	#: 4	Formation Top:		Depth Top:	2640	Depth Base:	3270

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4323	Depth Base:	4714
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2640	Depth Base:	3270
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2640	Depth Base:	3270
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2640	Depth Base:	3270
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	2640	Depth Base:	3270
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	2640	Depth Base:	3270
Type: PRODUCTION TEST	#: 4	Formation Top		Depth Top:	2640	Depth Base:	3270

UWI: 30015042190000 API #: 30-015-04219 IC # Status: Active Type: Oil

Surface: 2430 FSL 990 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `A` Well #: 1

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4762 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTRYE A EAST 001

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 10 3/4 IN	Depth Base:	548	Cement Amount:	50 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	2675	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base:	4762	Cement Amount:	360 sx	Top of Cement:	2670
TUBING	Size: 2 3/8 IN	Depth Base:	4709	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4423	Depth Base:	4700
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	2675	Depth Base:	3348
Type: PRODUCTION TEST	#: 1	Formation Top:	GRAYBURG-SAN ANDRES	Depth Top:	2675	Depth Base:	3348

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4423	Depth Base:	4700
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2675	Depth Base:	3348
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2675	Depth Base:	3348

UWI: 30015042210000 API #: 30-015-04221 IC # Status: Active Type: Oil

Surface: 2365 FSL 2310 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `A` Well #: 3

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5110 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE A WEST 003

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 1/4 IN	Depth Base:	559	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	2606	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base:	5082	Cement Amount:	450 sx	Top of Cement:	2500
TUBING	Size: 2 3/8 IN	Depth Base:	4807	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4336	Depth Base:	4784
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	2606	Depth Base:	3331
Type: PRODUCTION TEST	#: 1	Formation Top:	GRAYBURG-SAN ANDRES	Depth Top:	2606	Depth Base:	3331
Type: PRODUCTION TEST	#: 1	Formation Top:		Depth Top:	2606	Depth Base:	2724
Type: PRODUCTION TEST	#: 2	Formation Top:		Depth Top:	2606	Depth Base:	3331
Type: PRODUCTION TEST	#: 3	Formation Top:		Depth Top:	2606	Depth Base:	3331
Type: PRODUCTION TEST	#: 4	Formation Top:		Depth Top:	2606	Depth Base:	3331

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4336	Depth Base:	4784
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2606	Depth Base:	3331
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2606	Depth Base:	3331
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2606	Depth Base:	2724
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	2606	Depth Base:	3331
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	2606	Depth Base:	3331
Type: PRODUCTION TEST	#: 4	Formation Top		Depth Top:	2606	Depth Base:	3331

UWI: 30015042220000 API #: 30-015-04222 IC # Status: Plugged Type: Oil

Surface: 1650 FSL 410 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: FRANKLIN ASTN&FAIR I Lease Name: MCINTYRE-FEDERAL Well #: 4

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 6857 Depth Total Logger: Depth True Vertical:

Formation at TD: QUEEN-SAN AN Producing Formation: ABO /SH/ Date of Abandonment: 10/7/200

GO-TECH - Operator: MACK ENERGY CORP GO-TECH - Well Name: MCINTYRE A 004

GO-TECH - Plug Date: 10/8/2002 GO-TECH - One_Producing_Pool_Name:

CASING Size: 13 3/8 IN Depth Base: 44 Cement Amount: sx Top of Cement:
CASING Size: 8 5/8 IN Depth Base: 1860 Cement Amount: 706 sx Top of Cement:
CASING Size: 5 1/2 IN Depth Base: 6857 Cement Amount: 700 sx Top of Cement:

Test_Report:
Type: INITIAL POTENTIAL #: 1 Formation Top: ABO /SH/ Depth Top: 6780 Depth Base: 6814

Test_Perf_Report:
Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 6780 Depth Base: 6814

UWI: 30015042230000 API #: 30-015-04223 IC # Status: Plugged Type: Oil

Surface: 990 FSL 410 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: FRANKLIN ASTN&FAIR I Lease Name: MCINTYRE-FEDE A Well #: 5

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 6830 Depth Total Logger: Depth True Vertical:

Formation at TD: QUEEN-SAN AN Producing Formation: SAN ANDRES D Date of Abandonment: 10/23/19

GO-TECH - Operator: ENRON OIL & GAS CO GO-TECH - Well Name: McINTYRE A 005

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name:

CASING Size: 8 5/8 IN Depth Base: 1873 Cement Amount: 560 sx Top of Cement:

CASING Size: 5 1/2 IN Depth Base: 6830 Cement Amount: 550 sx Top of Cement: 100

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	3398	Depth Base:	3446
Type: INITIAL POTENTIAL	#: 1	Formation Top:	ABO /SH/	Depth Top:	6770	Depth Base:	6800

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3446	Depth Base:	3446
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3444	Depth Base:	3444
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3442	Depth Base:	3442
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3437	Depth Base:	3437
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3418	Depth Base:	3418
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3414	Depth Base:	3414
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3412	Depth Base:	3412
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3410	Depth Base:	3410
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3406	Depth Base:	3406
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3398	Depth Base:	3398
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	6770	Depth Base:	6800
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	6770	Depth Base:	6800

UWI: 30015042240000 API #: 30-015-04224 IC # 300157021998 Status: Active Type: Oil

Surface: 990 FSL 1650 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `A` Well #: 6

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 11300 Depth Total Logger: Depth True Vertical:

Formation at TD: MORROW Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE A WEST 006

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	1850	Cement Amount:	800 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	2595	Cement Amount:	380 sx	Top of Cement:	Circ to Surf
CASING	Size: 4 1/2 IN	Depth Base:	5248	Cement Amount:	700 sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base:	E+04	Cement Amount:	1150 sx	Top of Cement:	9500

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4505	Depth Base:	4723
Type: INITIAL POTENTIAL	#: 1	Formation Top:	MORROW	Depth Top:	11224	Depth Base:	11234

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4505	Depth Base:	4723
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	11224	Depth Base:	11234

UWI: 30015042260000 API #: 30-015-04226 IC # Status: Active Type: Oil

Surface: 330 FNL 330 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `C` Well #: 2

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4858 Depth Total Logger: Depth True Vertical:

Formation at TD: YESO Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE C 002

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 9 5/8 IN	Depth Base:	515	Cement Amount:	50 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	2929	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base:	4824	Cement Amount:	360 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4657	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4244	Depth Base:	4644
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	2929	Depth Base:	3265
Type: PRODUCTION TEST	#: 1	Formation Top:	GRAYBURG-SAN ANDRES	Depth Top:	2929	Depth Base:	3265

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4244	Depth Base:	4644
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2929	Depth Base:	3265
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2929	Depth Base:	3265

UWI: 30015042270000 API #: 30-015-04227 IC # Status: Active Type: Oil

Surface: 1650 FNL 990 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `C` Well #: 3

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4820 Depth Total Logger: Depth True Vertical:

Formation at TD: YESO Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE C 003

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 1/4 IN	Depth Base:	506	Cement Amount:	50 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	2903	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base:	4811	Cement Amount:	350 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4763	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4301	Depth Base:	4726
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	2903	Depth Base:	3300
Type: PRODUCTION TEST	#: 1	Formation Top:	GRAYBURG-SAN ANDRES	Depth Top:	2903	Depth Base:	3300
Type: PRODUCTION TEST	#: 1	Formation Top:		Depth Top:	2903	Depth Base:	3300

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4301	Depth Base:	4726
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2903	Depth Base:	3300
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2903	Depth Base:	3300
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2903	Depth Base:	3300

UWI: 30015042310000 API #: 30-015-04231 IC # 300157023497 Status: Active Type: Oil

Surface: 1650 FNL 1650 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS `B` FEDERA Well #: 4

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4815 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 004

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 1/4 IN	Depth Base:	506	Cement Amount:	50 sx	Top of Cement:	
CASING	Size: 7 IN	Depth Base:	2843	Cement Amount:	100 sx	Top of Cement:	
CASING	Size: 4 1/2 IN	Depth Base:	4788	Cement Amount:	1974 sx	Top of Cement:	1624
TUBING	Size: 2 7/8 IN	Depth Base:	4650	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4286	Depth Base:	4637
Type: INITIAL POTENTIAL	#: 1	Formation Top:		Depth Top:	2843	Depth Base:	3253
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	2843	Depth Base:	3253
Type: PRODUCTION TEST	#: 1	Formation Top:		Depth Top:	2843	Depth Base:	3253

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4286	Depth Base:	4637
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2843	Depth Base:	3253
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2843	Depth Base:	3253
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2843	Depth Base:	3253

UWI: 30015206610000 API #: 30-015-20661 IC # Status: Active Type: Oil

Surface: 660 FSL 860 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: Lease Name: Well #:

Field: Geologic Province:

Depth Total Driller: Depth Total Logger: Depth True Vertical:

Formation at TD: Producing Formation: Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 004

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN Depth Base: 515 Cement Amount: 225 sx Top of Cement: Circ

CASING Size: 5 1/2 IN Depth Base: 4263 Cement Amount: 200 sx Top of Cement: 900

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	QUEEN-GRAYBURG-SAN ANDRES	Depth Top: 2016	Depth Base: 4094

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top: 4093	Depth Base: 4094
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top: 3559	Depth Base: 3568
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top: 3078	Depth Base: 3196
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top: 3003	Depth Base: 3036
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top: 2664	Depth Base: 2728
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top: 2564	Depth Base: 2612
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top: 2472	Depth Base: 2492
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top: 2016	Depth Base: 2042

UWI: 30015209720000 API #: 30-015-20972 IC # Status: Active Type: Oil

Surface: 990 FSL 2310 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: Lease Name: Well #:

Field: Geologic Province:

Depth Total Driller: Depth Total Logger: Depth True Vertical:

Formation at TD: Producing Formation: Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 006

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN Depth Base: 496 Cement Amount: 200 sx Top of Cement:

CASING Size: 5 1/2 IN Depth Base: 4329 Cement Amount: 850 sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES D Depth Top: 3300 Depth Base: 4042

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 3300 Depth Base: 4042

UWI: 30015222160000 API #: 30-015-22216 IC # Status: Active Type: Gas

Surface: 1650 FSL 1980 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: LOCO SW Well #: 1

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 11400 Depth Total Logger: Depth True Vertical:

Formation at TD: MISSISSIPPIAN Producing Formation: ABO /SH/ Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: LOCO SW 001

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS;ABO

CASING	Size: 13 3/8 IN	Depth Base:	500	Cement Amount:	487 sx	Top of Cement:	
CASING	Size: 8 5/8 IN	Depth Base:	3487	Cement Amount:	1335 sx	Top of Cement:	940
CASING	Size: 5 1/2 IN	Depth Base:	E+04	Cement Amount:	790 sx	Top of Cement:	
TUBING	Size: 2 3/8 IN	Depth Base:	7947	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	ABO /SH/	Depth Top:	6941	Depth Base:	6942
Type: INITIAL POTENTIAL	#: 1	Formation Top:	MORROW	Depth Top:	11101	Depth Base:	11129
Type: PRODUCTION TEST	#: 1	Formation Top:	MORROW	Depth Top:	11101	Depth Base:	11129
Type: PRODUCTION TEST	#: 1	Formation Top:	MORROW	Depth Top:	11101	Depth Base:	11129

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	6941	Depth Base:	6942
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	11101	Depth Base:	11129
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	11101	Depth Base:	11129
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	11122	Depth Base:	11129
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	11101	Depth Base:	11111

UWI: 30015232650000 API #: 30-015-23265 IC # 300157013280 Status: Plugged Type: Oil

Surface: 1650 FSL 1980 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: ARCO OIL & GAS CORP Lease Name: MCINTYRE-FEDERAL Well #: 8

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 11244 Depth Total Logger: Depth True Vertical:

Formation at TD: MORROW Producing Formation: Date of Abandonment:

GO-TECH - Operator: ARCO OIL & GAS CO GO-TECH - Well Name: MC INTYRE FED 008

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name:

CASING	Size: 13 3/8 IN	Depth Base:	446	Cement Amount:	425 sx	Top of Cement:	Circ to Surf
CASING	Size: 8 5/8 IN	Depth Base:	2652	Cement Amount:	1250 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	E+04	Cement Amount:	2250 sx	Top of Cement:	Circ to Surf

Test_Report:

Type: PRODUCTION TEST	#: 1	Formation Top:	MORROW	Depth Top:	11003	Depth Base:	11044
Type: PRODUCTION TEST	#: 2	Formation Top:	MORROW	Depth Top:	11003	Depth Base:	11044
Type: PRODUCTION TEST	#: 3	Formation Top:	MORROW	Depth Top:	10828	Depth Base:	10848
Type: PRODUCTION TEST	#: 4	Formation Top:	CANYON	Depth Top:	9589	Depth Base:	9598
Type: PRODUCTION TEST	#: 5	Formation Top:	WOLFCAMP	Depth Top:	9032	Depth Base:	9046
Type: PRODUCTION TEST	#: 6	Formation Top:	WOLFCAMP	Depth Top:	8969	Depth Base:	8974
Type: PRODUCTION TEST	#: 7	Formation Top:	WOLFCAMP	Depth Top:	8888	Depth Base:	8936

Test_Perf_Report:

Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	11028	Depth Base:	11044
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	11003	Depth Base:	11010
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	11003	Depth Base:	11044
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	10840	Depth Base:	10848
Type: PRODUCTION TEST	#: 3	Formation Top		Depth Top:	10828	Depth Base:	10836
Type: PRODUCTION TEST	#: 4	Formation Top		Depth Top:	9589	Depth Base:	9598
Type: PRODUCTION TEST	#: 5	Formation Top		Depth Top:	9032	Depth Base:	9046
Type: PRODUCTION TEST	#: 6	Formation Top		Depth Top:	8969	Depth Base:	8974
Type: PRODUCTION TEST	#: 7	Formation Top		Depth Top:	8918	Depth Base:	8936
Type: PRODUCTION TEST	#: 7	Formation Top		Depth Top:	8888	Depth Base:	8905

UWI: 30015232700000 API #: 30-015-23270 IC # 300157015380 Status: Active Type: Oil

Surface: 1650 FSL 1650 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: HOLLY ENERGY Lease Name: MCINTIRE `A` Well #: 8

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 6900 Depth Total Logger: Depth True Vertical:

Formation at TD: ABO /SH/ Producing Formation: ABO /SH/ Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE A WEST 008

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS;ABO

CASING	Size: 8 5/8 IN	Depth Base:	1598	Cement Amount:	800 sx	Top of Cement:	Circ to Surf
CASING	Size: 4 1/2 IN	Depth Base:	6898	Cement Amount:	2517 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 3/8 IN	Depth Base:	6565	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: ABO /SH/ Depth Top: 6632 Depth Base: 6859

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 6824 Depth Base: 6859

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 6698 Depth Base: 6710

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 6632 Depth Base: 6684

UWI: 30015233820000 API #: 30-015-23382 IC # 300157025180 Status: Plugged Type: Oil

Surface: 990 FSL 2460 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: HOLLY ENERGY Lease Name: MCINTYRE `A` Well #: 10

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4700 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: SAN ANDRES D Date of Abandonment: 2/8/2002

GO-TECH - Operator: MACK ENERGY CORP GO-TECH - Well Name: MCINTYRE A 010

GO-TECH - Plug Date: 9/20/1996 GO-TECH - One_Producing_Pool_Name:

CASING	Size: 8 5/8 IN	Depth Base:	510	Cement Amount:	215 sx	Top of Cement:	Circ to Surf
CASING	Size: 4 1/2 IN	Depth Base:	4700	Cement Amount:	2777 sx	Top of Cement:	1100
TUBING	Size: 2 3/8 IN	Depth Base:	3090	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	3092	Depth Base:	3097
Type: PRODUCTION TEST	#: 1	Formation Top:	PADDOCK	Depth Top:	4604	Depth Base:	4670
Type: PRODUCTION TEST	#: 2	Formation Top:	PADDOCK	Depth Top:	4475	Depth Base:	4510
Type: PRODUCTION TEST	#: 3	Formation Top:	SAN ANDRES D	Depth Top:	4008	Depth Base:	4096
Type: PRODUCTION TEST	#: 4	Formation Top:	SAN ANDRES D	Depth Top:	3523	Depth Base:	3668
Type: PRODUCTION TEST	#: 5	Formation Top:	SAN ANDRES D	Depth Top:	3272	Depth Base:	3437

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	3092	Depth Base: 3097
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	4604	Depth Base: 4619
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	4626	Depth Base: 4634
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	4636	Depth Base: 4646
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	4660	Depth Base: 4670
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	4475	Depth Base: 4479
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	4489	Depth Base: 4491
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	4495	Depth Base: 4501
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	4505	Depth Base: 4510
Type: PRODUCTION TEST	#: 3	Formation Top	Depth Top:	4052	Depth Base: 4056
Type: PRODUCTION TEST	#: 3	Formation Top	Depth Top:	4008	Depth Base: 4014
Type: PRODUCTION TEST	#: 3	Formation Top	Depth Top:	4018	Depth Base: 4030
Type: PRODUCTION TEST	#: 3	Formation Top	Depth Top:	4045	Depth Base: 4048
Type: PRODUCTION TEST	#: 3	Formation Top	Depth Top:	4060	Depth Base: 4066
Type: PRODUCTION TEST	#: 3	Formation Top	Depth Top:	4069	Depth Base: 4071
Type: PRODUCTION TEST	#: 3	Formation Top	Depth Top:	4076	Depth Base: 4079
Type: PRODUCTION TEST	#: 3	Formation Top	Depth Top:	4087	Depth Base: 4089
Type: PRODUCTION TEST	#: 3	Formation Top	Depth Top:	4092	Depth Base: 4096
Type: PRODUCTION TEST	#: 3	Formation Top	Depth Top:	4032	Depth Base: 4036
Type: PRODUCTION TEST	#: 4	Formation Top	Depth Top:	3523	Depth Base: 3526
Type: PRODUCTION TEST	#: 4	Formation Top	Depth Top:	3531	Depth Base: 3550
Type: PRODUCTION TEST	#: 4	Formation Top	Depth Top:	3563	Depth Base: 3565
Type: PRODUCTION TEST	#: 4	Formation Top	Depth Top:	3578	Depth Base: 3581
Type: PRODUCTION TEST	#: 4	Formation Top	Depth Top:	3662	Depth Base: 3668
Type: PRODUCTION TEST	#: 5	Formation Top	Depth Top:	3272	Depth Base: 3437

UWI: 30015234070000 API #: 30-015-23407 IC # Status: Active Type: Oil

Surface: 2400 FSL 1600 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `A` Well #: 9

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4715 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE A WEST 009

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	508	Cement Amount:	315 sx	Top of Cement:	Circ to Surf
CASING	Size: 4 1/2 IN	Depth Base:	4715	Cement Amount:	2150 sx	Top of Cement:	1150
TUBING	Size: 2 3/8 IN	Depth Base:	3355	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 3/8 IN	Depth Base:	4671	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	2901	Depth Base:	3372
Type: INITIAL POTENTIAL	#: 2	Formation Top:	PADDOCK	Depth Top:	4372	Depth Base:	4660
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES	Depth Top:	2901	Depth Base:	3372
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	3826	Depth Base:	3883
Type: PRODUCTION TEST	#: 2	Formation Top:	SAN ANDRES D	Depth Top:	3223	Depth Base:	3372
Type: PRODUCTION TEST	#: 3	Formation Top:	SAN ANDRES D	Depth Top:	2901	Depth Base:	2988

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	2901	Depth Base: 3372
Type: INITIAL POTENTIAL	#: 2	Formation Top	Depth Top:	4372	Depth Base: 4660
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3863	Depth Base: 3863
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	2901	Depth Base: 3372
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3883	Depth Base: 3883
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3879	Depth Base: 3879
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3867	Depth Base: 3867
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3859	Depth Base: 3859
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3855	Depth Base: 3855
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3851	Depth Base: 3851
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3841	Depth Base: 3841
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3836	Depth Base: 3836
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3830	Depth Base: 3830
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3826	Depth Base: 3826
Type: PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3871	Depth Base: 3871
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3285	Depth Base: 3285
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3223	Depth Base: 3223
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3228	Depth Base: 3228
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3257	Depth Base: 3257
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3263	Depth Base: 3263
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3268	Depth Base: 3268
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3334	Depth Base: 3334
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3372	Depth Base: 3372
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3362	Depth Base: 3362
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3360	Depth Base: 3360
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3274	Depth Base: 3274
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3340	Depth Base: 3340
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3277	Depth Base: 3277
Type: PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3329	Depth Base: 3329

UWI: 30015234070000 API #: 30-015-23407 CONTINUATION SHEET

Type:	PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3325	Depth Base:	3325
Type:	PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3318	Depth Base:	3318
Type:	PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3311	Depth Base:	3311
Type:	PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3301	Depth Base:	3301
Type:	PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3296	Depth Base:	3296
Type:	PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3291	Depth Base:	3291
Type:	PRODUCTION TEST	#: 2	Formation Top	Depth Top:	3347	Depth Base:	3347
Type:	PRODUCTION TEST	#: 3	Formation Top	Depth Top:	2901	Depth Base:	2904
Type:	PRODUCTION TEST	#: 3	Formation Top	Depth Top:	2911	Depth Base:	2915
Type:	PRODUCTION TEST	#: 3	Formation Top	Depth Top:	2976	Depth Base:	2978
Type:	PRODUCTION TEST	#: 3	Formation Top	Depth Top:	2982	Depth Base:	2988

UWI: 30015274720000 API #: 30-015-27472 IC # 300157012898 Status: Active Type: Oil

Surface: 330 FSL 1650 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `DK` FEDE Well #: 8

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5100 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 008

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	251	Cement Amount:	300 sx	Top of Cement:	Circ to Surf
CASING	Size: 8 5/8 IN	Depth Base:	1055	Cement Amount:	625 sx	Top of Cement:	290' From Surf
CASING	Size: 5 1/2 IN	Depth Base:	5089	Cement Amount:	1320 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	3942	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	5022	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4217	Depth Base:	5004
Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	3012	Depth Base:	3909
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	3012	Depth Base:	3909

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4217	Depth Base:	5004
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3763	Depth Base:	3909
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3012	Depth Base:	3627
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	3012	Depth Base:	3909

UWI: 30015274760000 API #: 30-015-27476 IC # 300157014898 Status: Active Type: Oil

Surface: 330 FSL 330 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `DK` FEDE Well #: 7

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5113 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 007

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	255	Cement Amount:	300 sx	Top of Cement:	Surface
CASING	Size: 8 5/8 IN	Depth Base:	1036	Cement Amount:	700 sx	Top of Cement:	Surface
CASING	Size: 5 1/2 IN	Depth Base:	5099	Cement Amount:	1320 sx	Top of Cement:	Surface
TUBING	Size: 2 7/8 IN	Depth Base:	3965	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4541	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4202	Depth Base:	4491
Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	2995	Depth Base:	3951
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	2995	Depth Base:	3951

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4202	Depth Base:	4491
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3771	Depth Base:	3951
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2995	Depth Base:	3610
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	2995	Depth Base:	3951

UWI: 30015276450000 API #: 30-015-27645 IC # 300157039993 Status: Active Type: Oil

Surface: 330 FNL 330 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH-KEELY UNIT Well #: 225

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 5050 Depth Total Logger: Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: SAN ANDRES D Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 225

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	427	Cement Amount:	350 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	5050	Cement Amount:	1540 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4647	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES D Depth Top: 4160 Depth Base: 4558

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4313 Depth Base: 4558

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4160 Depth Base: 4228

UWI: 30015276460000 API #: 30-015-27646 IC # Status: Active Type: Oil

Surface: 1650 FNL 330 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH-KEELY UNIT Well #: 242

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4820 Depth Total Logger: Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: SAN ANDRES D Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 242

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	413	Cement Amount:	400 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4799	Cement Amount:	1450 sx	Top of Cement:	Circ to Pit
TUBING	Size: 2 7/8 IN	Depth Base:	4496	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4665	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	2577	Depth Base:	4608
Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	4434	Depth Base:	4608

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4434	Depth Base:	4608
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3808	Depth Base:	3923
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3157	Depth Base:	3238
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2577	Depth Base:	2802
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4434	Depth Base:	4608

UWI: 30015280890000 API #: 30-015-28089 IC # 300157031994 Status: Active Type: Oil

Surface: 1980 FNL 1345 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH-KEELY UNIT Well #: 244

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4740 Depth Total Logger: Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: GRAYBURG Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 244

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	407	Cement Amount:	350 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4736	Cement Amount:	1050 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4656	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: GRAYBURG Depth Top: 2581 Depth Base: 4618

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4404	Depth Base:	4618
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	3102	Depth Base:	3356
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	2581	Depth Base:	2751

UWI: 30015281550000 API #: 30-015-28155 IC # 300157038094 Status: Active Type: Oil

Surface: 1650 FSL 2310 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH-KEELY UNIT Well #: 229

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4800 Depth Total Logger: Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: SAN ANDRES D Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 229

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	399	Cement Amount:	400 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4784	Cement Amount:	1875 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4286	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES D Depth Top: 4264 Depth Base: 4553

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4264 Depth Base: 4553

UWI: 30015283330000 API #: 30-015-28333 IC # 300157001395 Status: Active Type: Oil

Surface: 2615 FSL 1980 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 262

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4740 Depth Total Logger: Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: SAN ANDRES D Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 262

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN Depth Base: 414 Cement Amount: sx Top of Cement:

CASING Size: 5 1/2 IN Depth Base: 4736 Cement Amount: 2100 sx Top of Cement:

TUBING Size: 2 7/8 IN Depth Base: 4343 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES D Depth Top: 4237 Depth Base: 4572

Type: PRODUCTION TEST #: 1 Formation Top: SAN ANDRES D Depth Top: 4237 Depth Base: 4572

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4237 Depth Base: 4572

Type: PRODUCTION TEST #: 1 Formation Top Depth Top: 4237 Depth Base: 4572

UWI: 30015290350000 API #: 30-015-29035 IC # 300157023996 Status: Active Type: Oil

Surface: 2540 FSL 1420 FEL Section: 18 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 257

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4875 Depth Total Logger: Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: SAN ANDRES D Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 257

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN Depth Base: 408 Cement Amount: 400 sx Top of Cement: Circ to Surf

CASING Size: 5 1/2 IN Depth Base: 4846 Cement Amount: 2250 sx Top of Cement: Circ to Surf

TUBING Size: 2 7/8 IN Depth Base: 4120 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES D Depth Top: 4220 Depth Base: 4457

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4220 Depth Base: 4457

UWI: 30015290380000 API #: 30-015-29038 IC # 300157024096 Status: Active Type: Oil

Surface: 1980 FSL 1220 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 265

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4787 Depth Total Logger: Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: SAN ANDRES D Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 265

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	423	Cement Amount:	350 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4787	Cement Amount:	1775 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4656	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	4294	Depth Base:	4592
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	4294	Depth Base:	4592

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4294	Depth Base:	4592
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	4294	Depth Base:	4592

UWI: 30015293880000 API #: 30-015-29388 IC # 300157004497 Status: Active Type: Oil

Surface: 2310 FNL 1650 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS `B` FEDERA Well #: 8

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4799 Depth Total Logger: 4796 Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 008

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING Size: 8 5/8 IN Depth Base: 470 Cement Amount: 350 sx Top of Cement: Circ

CASING Size: 5 1/2 IN Depth Base: 4783 Cement Amount: 1150 sx Top of Cement: Circ to Pit

TUBING Size: 2 7/8 IN Depth Base: 4743 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4331 Depth Base: 4729

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4331 Depth Base: 4729

UWI: 30015293890000 API #: 30-015-29389 IC # Status: Active Type: Oil

Surface: 2183 FSL 990 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE B FEDERA Well #: 5

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4845 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: SAN ANDRES Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE B 005

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	443	Cement Amount:	350 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4835	Cement Amount:	1270 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4742	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 3/8 IN	Depth Base:	4745	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4338	Depth Base:	4709
Type: INITIAL POTENTIAL	#: 4	Formation Top:	SAN ANDRES	Depth Top:	3138	Depth Base:	4709
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES	Depth Top:	3940	Depth Base:	3963
Type: PRODUCTION TEST	#: 2	Formation Top:	SAN ANDRES	Depth Top:	3406	Depth Base:	3566
Type: PRODUCTION TEST	#: 3	Formation Top:	SAN ANDRES	Depth Top:	3138	Depth Base:	3315

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4423	Depth Base: 4423
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4338	Depth Base: 4338
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4501	Depth Base: 4501
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4479	Depth Base: 4479
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4477	Depth Base: 4477
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4475	Depth Base: 4475
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4474	Depth Base: 4474
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4471	Depth Base: 4471
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4469	Depth Base: 4469
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4463	Depth Base: 4463
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4461	Depth Base: 4461
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4440	Depth Base: 4440
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4437	Depth Base: 4437
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4531	Depth Base: 4531
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4426	Depth Base: 4426
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4556	Depth Base: 4556
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4421	Depth Base: 4421
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4414	Depth Base: 4414
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4411	Depth Base: 4411
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4382	Depth Base: 4382
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4380	Depth Base: 4380
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4362	Depth Base: 4362
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4356	Depth Base: 4356
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4354	Depth Base: 4354
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4350	Depth Base: 4350
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4347	Depth Base: 4347
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4345	Depth Base: 4345
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4343	Depth Base: 4343
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4433	Depth Base: 4433
Type: INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4637	Depth Base: 4637

UWI: 30015293890000 API #: 30-015-29389 CONTINUATION SHEET

Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4709	Depth Base:	4709
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4699	Depth Base:	4699
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4691	Depth Base:	4691
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4689	Depth Base:	4689
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4687	Depth Base:	4687
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4670	Depth Base:	4670
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4667	Depth Base:	4667
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4662	Depth Base:	4662
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4661	Depth Base:	4661
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4528	Depth Base:	4528
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4639	Depth Base:	4639
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4583	Depth Base:	4583
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4559	Depth Base:	4559
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4560	Depth Base:	4560
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4562	Depth Base:	4562
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4659	Depth Base:	4659
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4579	Depth Base:	4579
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4634	Depth Base:	4634
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4586	Depth Base:	4586
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4600	Depth Base:	4600
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4617	Depth Base:	4617
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4621	Depth Base:	4621
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4632	Depth Base:	4632
Type:	INITIAL POTENTIAL	#: 1	Formation Top	Depth Top:	4577	Depth Base:	4577
Type:	INITIAL POTENTIAL	#: 4	Formation Top	Depth Top:	3138	Depth Base:	3963
Type:	INITIAL POTENTIAL	#: 4	Formation Top	Depth Top:	4338	Depth Base:	4709
Type:	PRODUCTION TEST	#: 1	Formation Top	Depth Top:	3940	Depth Base:	3963
Type:	PRODUCTION TEST	#: 3	Formation Top	Depth Top:	3138	Depth Base:	3315

UWI: 30015294230000 API #: 30-015-29423 IC # Status: Active Type: Oil

Surface: 330 FSL 990 FEL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: COG OPERATING LLC Lease Name: MCINTYRE DK FEDER Well #: 9

Field: GRAYBURG JACK . Geologic Province: PERMIAN BASIN

Depth Total Driller: 4810 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PERMIAN UPPE Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 009

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	456	Cement Amount:	300 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4722	Cement Amount:	1435 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4605	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4639	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PERMIAN UPPER	Depth Top:	2771	Depth Base:	4609
Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4246	Depth Base:	4609

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4246	Depth Base:	4609
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	2771	Depth Base:	4014
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4246	Depth Base:	4609

UWI: 30015294240000 API #: 30-015-29424 IC # Status: Active Type: Oil

Surface: 990 FSL 1610 FEL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE DK FEDER Well #: 10

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4761 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: SAN ANDRES Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE DK FEDERAL 010

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	453	Cement Amount:	325 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	4722	Cement Amount:	1450 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4617	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4617	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4410	Depth Base:	4603
Type: INITIAL POTENTIAL	#: 3	Formation Top:	SAN ANDRES	Depth Top:	3007	Depth Base:	4603
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES	Depth Top:	3322	Depth Base:	3520
Type: PRODUCTION TEST	#: 2	Formation Top:	SAN ANDRES	Depth Top:	3007	Depth Base:	3219

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4410	Depth Base:	4603
Type: INITIAL POTENTIAL	#: 3	Formation Top		Depth Top:	4410	Depth Base:	4603
Type: INITIAL POTENTIAL	#: 3	Formation Top		Depth Top:	3007	Depth Base:	3520
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	3322	Depth Base:	3520
Type: PRODUCTION TEST	#: 2	Formation Top		Depth Top:	3007	Depth Base:	3219

UWI: 30015294250000 API #: 30-015-29425 IC # Status: Active Type: Oil

Surface: 2135 FSL 2310 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: COG OPERATING LLC Lease Name: MCINTYRE WD Well #: 3

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4840 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE E 003

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	454	Cement Amount:	325 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4835	Cement Amount:	1025 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4765	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4796	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4344	Depth Base:	4769
Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4344	Depth Base:	4769
Type: INITIAL POTENTIAL	#: 2	Formation Top:	SAN ANDRES	Depth Top:	2997	Depth Base:	4188

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4344	Depth Base:	4769
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4344	Depth Base:	4769
Type: INITIAL POTENTIAL	#: 2	Formation Top		Depth Top:	2997	Depth Base:	4188

UWI: 30015294260000 API #: 30-015-29426 IC # Status: Active Type: Oil

Surface: 990 FNL 990 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: COG OPERATING LLC Lease Name: MCINTYRE W D `C` Well #: 4

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4832 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: SAN ANDRES Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE C 004

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	464	Cement Amount:	400 sx	Top of Cement:	30
CASING	Size: 5 1/2 IN	Depth Base:	4722	Cement Amount:	1265 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4255	Cement Amount:	sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4667	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES	Depth Top:	3358	Depth Base:	4106
Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4250	Depth Base:	4651

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	3358	Depth Base:	4106
Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4250	Depth Base:	4651

UWI: 30015294510000 API #: 30-015-29451 IC # 300157005797 Status: Active Type: Oil

Surface: 1650 FNL 1090 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS `B` FEDERA Well #: 7

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4810 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 007

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	415	Cement Amount:	300 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	4796	Cement Amount:	1415 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4653	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	PADDOCK	Depth Top:	4289	Depth Base:	4634
Type: PRODUCTION TEST	#: 1	Formation Top:	PADDOCK	Depth Top:	4289	Depth Base:	4634

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4289	Depth Base:	4634
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	4289	Depth Base:	4634

UWI: 30015295100000 API #: 30-015-29510 IC # Status: Active Type: Oil

Surface: 2515 FNL 330 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: Lease Name: Well #:

Field: Geologic Province:

Depth Total Driller: Depth Total Logger: Depth True Vertical:

Formation at TD: Producing Formation: Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 269

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	422	Cement Amount:	350 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4791	Cement Amount:	1250 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4237	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	4290	Depth Base:	4630
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	4290	Depth Base:	4630

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4290	Depth Base:	4630
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	4290	Depth Base:	4630

UWI: 30015295290000 API #: 30-015-29529 IC # 300157021797 Status: Active Type: Oil

Surface: 1675 FSL 330 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 270

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4850 Depth Total Logger: Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: SAN ANDRES D Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 270

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	389	Cement Amount:	350 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4805	Cement Amount:	1310 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4270	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	4345	Depth Base:	4683
Type: PRODUCTION TEST	#: 1	Formation Top:	SAN ANDRES D	Depth Top:	4345	Depth Base:	4683

Test_Perf_Report:

Type: INITIAL POTENTIAL	#: 1	Formation Top		Depth Top:	4345	Depth Base:	4683
Type: PRODUCTION TEST	#: 1	Formation Top		Depth Top:	4345	Depth Base:	4683

UWI: 30015295610000 API #: 30-015-29561 IC # 300157025297 Status: Active Type: Oil

Surface: 990 FSL 2310 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `E` Well #: 4

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5218 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE E 004

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	443	Cement Amount:	400 sx	Top of Cement:	Circ
CASING	Size: 5 1/2 IN	Depth Base:	5208	Cement Amount:	1750 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4695	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4463 Depth Base: 4660

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4463 Depth Base: 4660

UWI: 30015295620000 API #: 30-015-29562 IC # 300157025197 Status: Active Type: Oil

Surface: 1650 FNL 330 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `C` Well #: 5

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4792 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE C 005

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING Size: 8 5/8 IN Depth Base: 464 Cement Amount: 300 sx Top of Cement: Circ

CASING Size: 5 1/2 IN Depth Base: 4785 Cement Amount: 1095 sx Top of Cement: Circ

TUBING Size: 2 7/8 IN Depth Base: 4751 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4334 Depth Base: 4740

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4334 Depth Base: 4740

UWI: 30015295630000 API #: 30-015-29563 IC # 300157024997 Status: Active Type: Oil

Surface: 990 FSL 660 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `A` Well #: 12

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5176 Depth Total Logger: 5176 Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTRYE A EAST 012

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	458	Cement Amount:	300 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	5111	Cement Amount:	1325 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4738	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4503 Depth Base: 4710

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4503 Depth Base: 4710

UWI: 30015297550000 API #: 30-015-29755 IC # 300157046797 Status: Active Type: Oil

Surface: 2310 FNL 330 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: JENKINS `B` FEDERA Well #: 9

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4855 Depth Total Logger: 4850 Depth True Vertical:

Formation at TD: YESO Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 009

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	459	Cement Amount:	350 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	4854	Cement Amount:	1125 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4730	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4296 Depth Base: 4708

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4296 Depth Base: 4708

UWI: 30015297560000 API #: 30-015-29756 IC # 300157046897 Status: Active Type: Oil

Surface: 1650 FSL 330 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE `B` Well #: 6

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4856 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: MCINTYRE B 006

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	431	Cement Amount:	325 sx	Top of Cement:	
CASING	Size: 5 1/2 IN	Depth Base:	4850	Cement Amount:	1080 sx	Top of Cement:	
TUBING	Size: 2 7/8 IN	Depth Base:	4767	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4345 Depth Base: 4727

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4345 Depth Base: 4727

UWI: 30015297740000 API #: 30-015-29774 IC # 300157047897 Status: Active Type: Oil

Surface: 1295 FSL 330 FEL Section: 18 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 275

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4748 Depth Total Logger: 4746 Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: SAN ANDRES D Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 275

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN Depth Base: 415 Cement Amount: 350 sx Top of Cement: Circ to Surf

CASING Size: 5 1/2 IN Depth Base: 4743 Cement Amount: 1370 sx Top of Cement: Circ to Surf

TUBING Size: 2 7/8 IN Depth Base: 4231 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES D Depth Top: 4288 Depth Base: 4547

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4288 Depth Base: 4547

UWI: 30015298110000 API #: 30-015-29811 IC # 300157057997 Status: Active Type: Oil

Surface: 1295 FSL 1345 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 274

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4751 Depth Total Logger: 4742 Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: SAN ANDRES D Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 274

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN Depth Base: 412 Cement Amount: 350 sx Top of Cement: Circ to Surf

CASING Size: 5 1/2 IN Depth Base: 4751 Cement Amount: 2000 sx Top of Cement: Circ to Surf

TUBING Size: 2 7/8 IN Depth Base: 4267 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES D Depth Top: 4316 Depth Base: 4692

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4316 Depth Base: 4692

UWI: 30015298210000 API #: 30-015-29821 IC # 300157059697 Status: Active Type: Oil

Surface: 660 FSL 2040 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 279

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4816 Depth Total Logger: 4819 Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: SAN ANDRES D Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 279

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN Depth Base: 419 Cement Amount: 350 sx Top of Cement:

CASING Size: 5 1/2 IN Depth Base: 4798 Cement Amount: 1400 sx Top of Cement:

TUBING Size: 2 7/8 IN Depth Base: 4279 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES D Depth Top: 4352 Depth Base: 4713

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4352 Depth Base: 4713

UWI: 30015299100000 API #: 30-015-29910 IC # 300157063697 Status: Active Type: Oil

Surface: 2310 FNL 2310 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: THUNDER ROAD FED Well #: 1

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4865 Depth Total Logger: 4862 Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: THUNDER ROAD FEDERAL 001

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	420	Cement Amount:	350 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4850	Cement Amount:	1300 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4374	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4317 Depth Base: 4713

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4317 Depth Base: 4713

UWI: 30015299110000 API #: 30-015-29911 IC # 300157063797 Status: Active Type: Oil

Surface: 1650 FNL 1650 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: THUNDER ROAD FED Well #: 2

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4900 Depth Total Logger: 4897 Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: THUNDER ROAD FEDERAL 002

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	405	Cement Amount:	400 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4871	Cement Amount:	1550 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4234	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4301 Depth Base: 4698

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4301 Depth Base: 4698

UWI: 30015299120000 API #: 30-015-29912 IC # 300157063897 Status: Active Type: Oil

Surface: 990 FNL 2310 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: THUNDER ROAD FED Well #: 3

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4900 Depth Total Logger: 4912 Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: THUNDER ROAD FEDERAL 003

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING Size: 8 5/8 IN Depth Base: 402 Cement Amount: 350 sx Top of Cement: Circ to Surf

CASING Size: 5 1/2 IN Depth Base: 4841 Cement Amount: 1675 sx Top of Cement: Circ to Surf

TUBING Size: 2 7/8 IN Depth Base: 4294 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4341 Depth Base: 4584

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4341 Depth Base: 4584

UWI: 30015299290000 API #: 30-015-29929 IC # 300157067197 Status: Active Type: Oil

Surface: 660 FSL 330 FEL Section: 19 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BURCH KEELY UNIT Well #: 285

Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN

Depth Total Driller: 4900 Depth Total Logger: 4914 Depth True Vertical:

Formation at TD: SAN ANDRES D Producing Formation: SAN ANDRES D Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BURCH KEELY UNIT 285

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING	Size: 8 5/8 IN	Depth Base:	390	Cement Amount:	450 sx	Top of Cement:	Ready Mix to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4893	Cement Amount:	1450 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4362	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES D Depth Top: 4423 Depth Base: 4800

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4423 Depth Base: 4800

UWI: 30015299520000 API #: 30-015-29952 IC # 300157063997 Status: Active Type: Oil

Surface: 330 FNL 1650 FEL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: THUNDER ROAD FED Well #: 4

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4800 Depth Total Logger: 4803 Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: THUNDER ROAD FEDERAL 004

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	390	Cement Amount:	400 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4780	Cement Amount:	1300 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4190	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4250 Depth Base: 4585

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4250 Depth Base: 4585

UWI: 30015301430000 API #: 30-015-30143 IC # 300157006598 Status: Active Type: Oil

Surface: 1650 FSL 2310 FEL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: RED FEDERAL Well #: 2

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4815 Depth Total Logger: 4812 Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: RED FEDERAL 002

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	398	Cement Amount:	400 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4805	Cement Amount:	1175 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4242	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4299 Depth Base: 4557

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4299 Depth Base: 4557

UWI: 30015302310000 API #: 30-015-30231 IC # 300157016698 Status: Active Type: Oil

Surface: 1650 FSL 1650 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BIRDIE FEDERAL Well #: 3

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4900 Depth Total Logger: 4891 Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BIRDIE FEDERAL 003

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING Size: 8 5/8 IN Depth Base: 401 Cement Amount: 400 sx Top of Cement: Circ to Surf

CASING Size: 5 1/2 IN Depth Base: 4884 Cement Amount: 1300 sx Top of Cement: Circ to Surf

TUBING Size: 2 7/8 IN Depth Base: 4183 Cement Amount: sx Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4255 Depth Base: 4539

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4255 Depth Base: 4539

UWI: 30015302350000 API #: 30-015-30235 IC # 300157016798 Status: Active Type: Oil

Surface: 2310 FSL 2310 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BIRDIE FEDERAL Well #: 4

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4735 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BIRDIE FEDERAL 004

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	416	Cement Amount:	400 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4732	Cement Amount:	1150 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4221	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4270 Depth Base: 4578

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4270 Depth Base: 4578

UWI: 30015302370000 API #: 30-015-30237 IC # 300157016598 Status: Active Type: Oil

Surface: 2310 FSL 990 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MARBOB ENERGY CORP Lease Name: BIRDIE FEDERAL Well #: 2

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 4723 Depth Total Logger: Depth True Vertical:

Formation at TD: YESO Producing Formation: YESO Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP GO-TECH - Well Name: BIRDIE FEDERAL 002

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 8 5/8 IN	Depth Base:	404	Cement Amount:	400 sx	Top of Cement:	Circ to Surf
CASING	Size: 5 1/2 IN	Depth Base:	4720	Cement Amount:	1400 sx	Top of Cement:	Circ to Surf
TUBING	Size: 2 7/8 IN	Depth Base:	4185	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: YESO Depth Top: 4235 Depth Base: 4529

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4235 Depth Base: 4529

UWI: 30015302910000 API #: 30-015-30291 IC # 300157022298 Status: Active Type: Oil

Surface: 1650 FSL 1650 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole: Section:

Operator: MACK ENERGY CORP Lease Name: MCINTYRE W D `E` Well #: 5

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Driller: 5524 Depth Total Logger: 5531 Depth True Vertical:

Formation at TD: YESO Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: W D MCINTYRE E 005

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING	Size: 13 3/8 IN	Depth Base:	412	Cement Amount:	450 sx	Top of Cement:	355
CASING	Size: 8 5/8 IN	Depth Base:	1047	Cement Amount:	600 sx	Top of Cement:	Circ to Pit
CASING	Size: 5 1/2 IN	Depth Base:	5517	Cement Amount:	1180 sx	Top of Cement:	Circ
TUBING	Size: 2 7/8 IN	Depth Base:	4861	Cement Amount:	sx	Top of Cement:	

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4390 Depth Base: 4828

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4390 Depth Base: 4828

CATALYST
Oilfield Services

Water Analysis Report

Company:	COG - c/o Mack Energy Corporation	Sample #:	6181
Area:	Artesia	Analysis ID #:	108
Lease:	NORTHWEST CENTRAL		
Location:	Battery		
Sample Point:	Water Tank		

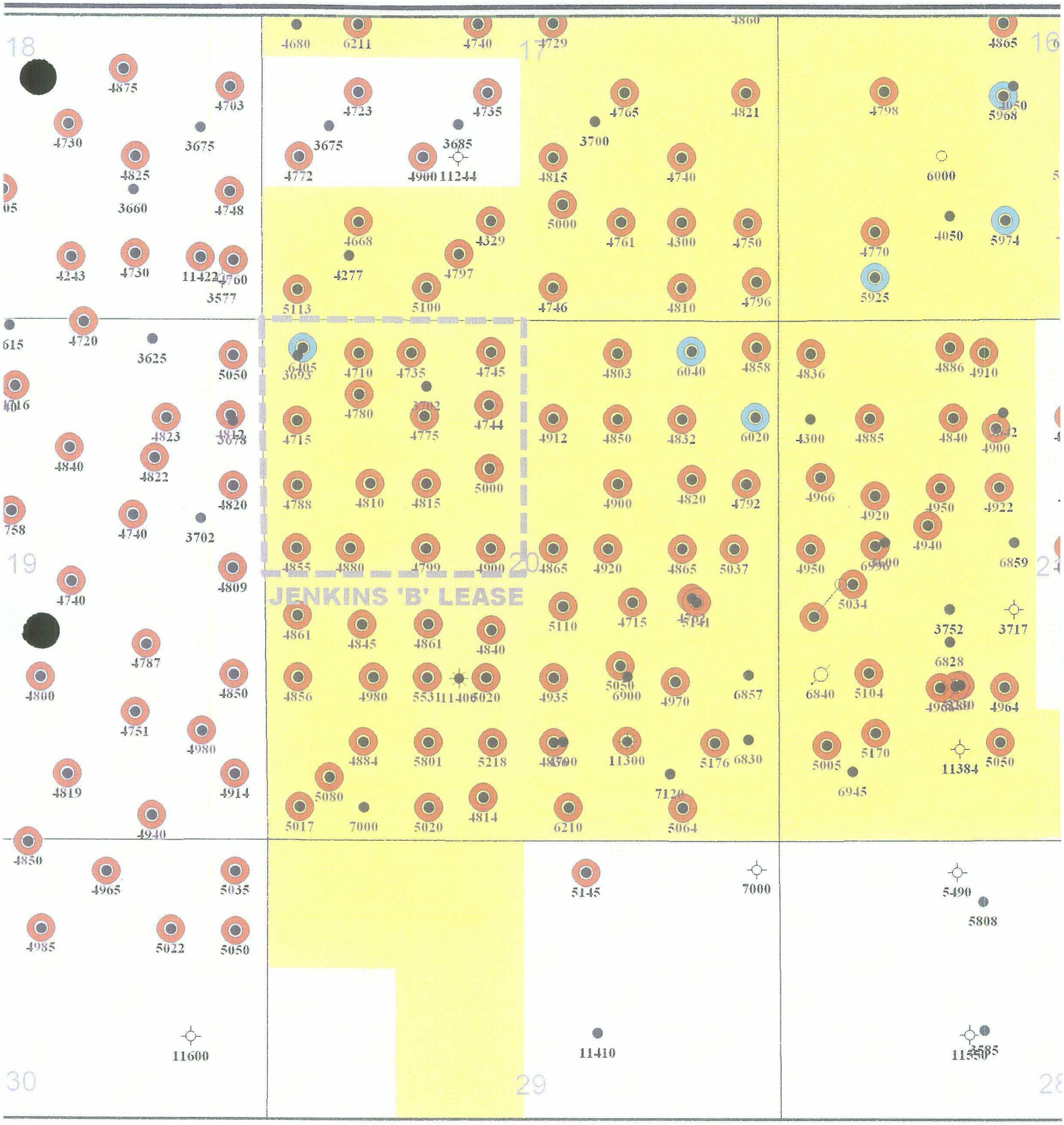
Battery

Sampling Date:	7/14/06
Analysis Date:	7/18/06
Analyst:	Mitchell Labs
TDS (mg/l or g/m3):	178637.2
Density (g/cm3, tonne/m3):	1.124
Anion/Cation Ratio:	1
Carbon Dioxide:	50
Oxygen:	
Comments:	

Anions	mg/l	meq/l
Chloride:	**106917.0**	**3015.74**
Bicarbonate:	**105.1**	**1.72**
Carbonate:		
Sulfate:	**2650.0**	**55.17**
Phosphate:		
Borate:		
Silicate:		
Hydrogen Sulfide:		42
pH at time of sampling:		7
pH at time of analysis:		
pH used in Calculation:		**7**

Cations	mg/l	meq/l
Sodium:	**62520.5**	**2719.49**
Magnesium:	**976.0**	**80.29**
Calcium:	**5467.0**	**272.8**
Strontium:		
Barium:		
Iron:	**1.2**	**0.04**
Potassium:		
Aluminum:		
Chromium:		
Copper:		
Lead:		
Manganese:	0.4	0.01
Nickel:		
Conductivity (micro-ohms/cm):		**332500**
Resistivity (ohm meter):		**.0301**

Conditions		**Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl**									
Temp	**Gauge Press.**	**Calcite CaCO3**		**Gypsum CaSO4*2H20**		**Anhydrite CaSO4**		**Celestite SrSO4**		**Barite BaSO4**	
°F	**psi**	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0	0.48	4.13	0.09	255.00	0.11	232.89	0.00	0.00	0.00	0.00
100	0	0.51	4.72	0.02	64.56	0.10	221.10	0.00	0.00	0.00	0.00
120	0	0.54	5.60	-0.04	0.00	0.12	257.66	0.00	0.00	0.00	0.00
140	0	0.56	6.78	-0.09	0.00	0.17	331.36	0.00	0.00	0.00	0.00



LEGEND

Paddock Producer

Blinebry Producer

CONCHO

Project: SENM AOI: KP_Longhorn
Eddy Co., NM

JENKINS 'B' LEASE

Production Map

Author	Scale	Date
K. Perez for R. Cox	Fit to Page	22 January, 2007

MAP FILE PATH: \SENM\KP_LONGHORN\MAP FILES\
KP_JENKINS B LEASE_PRODUCTION.gmp

Concho Resources

Jenkins 'B' Fed. #18

330 FNL & 430 FWL
Sec. 20 – TS17S – R30E