



COG Operating, LLC

Application for Waterflood in the Yeso pool.

Jenkins B Federal #3

API# 30-015-04216

Section 20, Township 17S, Range 30E, Unit C

330' FNL & 2310' FWL

Eddy County, New Mexico

Jenkins B Federal #7

API# 30-015-29451

Section 20, Township 17S, Range 30E, Unit E

1650' FNL & 1090' FWL

Eddy County, New Mexico

Jenkins B Federal #11

API# 30-015-30665

Section 20, Township 17S, Range 30E, Unit D

330' FNL & 990' FWL

Eddy County, New Mexico

Jenkins B Federal #15

API# 30-015-33472

Section 20, Township 17S, Range 30E, Unit F

1650' FNL & 1090' FWL

Eddy County, New Mexico



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.

| | | | | | |
|-----------------|----------|---------------------|-------------------|----------|-----------------------------|
| DATE IN 1-21-10 | SUSPENSE | ENGINEER J. Wainell | LOGGED IN 1-21-10 | TYPE WFX | PTG-W APP NO. 1002153964 |
|-----------------|----------|---------------------|-------------------|----------|-----------------------------|

ABOVE THIS LINE FOR DIVISION USE ONLY

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



COG operating
229137
OKRD

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]

Eddy Co
4 wells

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD
- 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 _____

Jenkins B Federal #3
 API# 30-015-04216

13898 - R12792
880 rsi

- [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

2010 JAN 21 P 2:00
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R-12792

- [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.

Kanicia Carrillo
 Print or Type Name

[Signature]
 Signature

Regulatory Analyst
 Title

12/10/09
 Date

kcarrillo@conchoresources.com
 e-mail Address

| | | | | | |
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[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] Jenkins B Federal #7
API# 30-015-29451
- [A] Location - Spacing Unit - Simultaneous Dedication
- ☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement
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- [D] Other: Specify _____

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- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A] Jenkins B Federal #11
 [A] Location - Spacing Unit - Simultaneous Dedication API# 30-015-30665
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
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- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A] Jenkins B Federal #15
API# 30-015-33472
- [A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

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
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COG Operating, LLC

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Application for
Waterflood in the Yeso pool

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- III. Conversion Well Data
- V. AOR Maps
- VI. AOR Well Tabulation &
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- VII. Proposed Operation
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- VIII. Geological Review
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Justification for Conversion to Injection

Concho Resources

Jenkins B Federal #3 (Sec 20 C, T-17S R-30E), Loco Hills Field DHC 3501
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Eddy County, New Mexico

The purpose of converting each of these wells is to realign existing injection patterns to improve secondary recovery operations in the Glorieta/Paddock interval of the Yeso formation. The information obtained from these conversions may impact the potential recovery of secondary reserves in the Loco Hills field in Eddy County, New Mexico. Data such as reservoir preferential permeability trends, injectivities into each interval, injection conformances, sweep efficiencies, and operating pressures may be incorporated into future studies concerning the feasibility of water flooding operations in the area.

Previously, the New Mexico Oil Conversation Division approved COG's application for injection permits for the Jenkins B Federal #'s 1, 4, 10, 12, 13, 14, 17R, & 18 (Order No. R-12792, Case No. 13898, on July 30th, 2007). A copy of that order is attached. COG seeks approval of additional injection permits under an expansion of the previous order.

Also attached are production plots of each proposed conversion with cumulative production listed from the Paddock interval.

OOIP & Recoverable Reserves

Original oil in place (OOIP) estimates have been made for each lease based on core and log based volumetric calculations. The local impact or sweep from each proposed conversion is estimated below:

Jenkins B #3

- Paddock OOIP/acre 61 MBO 305
- Estimated impacted area 5 acres
- Estimated recovery 5% of OOIP
- Total estimated oil recovery 15 MBO 15 ✓

Jenkins B #7

- Paddock OOIP/acre 61 MBO
- Estimated impacted area 5 acres
- Estimated recovery 5% of OOIP
- Total estimated oil recovery 15 MBO

Jenkins B #11

- Paddock OOIP/acre 61 MBO
- Estimated impacted area 5 acres
- Estimated recovery 5% of OOIP
- Total estimated oil recovery 15 MBO

Jenkins B #15

- Paddock OOIP/acre 61 MBO
- Estimated impacted area 5 acres
- Estimated recovery 5% of OOIP
- Total estimated oil recovery 15 MBO

Mobility Ratio Data

Core data is available from several sources in the Loco Hills field. Most of the core data includes porosity, permeability, and saturation data from mainly the Paddock interval. The nearest known relative permeability data in the Paddock is from Concho operated Skelly Unit #971 in the Fren Field, Section 14 K, T-17S, R-31E. A plot of Kro & Krw data from six Paddock core samples is attached. The data indicates a mobility ratio (K_{rw}/K_{ro}) of 1 is reached at water saturations exceeding 43%. Favorable mobility ratios are expected if the Sw's are less than 43%.

Calculated water saturations are generally less than 40% in the Paddock. It is expected that injection into this interval will sweep oil and not cause a harmful effect on surrounding production.

Successful secondary recovery will prevent waste of New Mexico's natural resources and contribute to local, state, and federal budget incomes.

Other Productive Zones

Productive intervals exist both above and below the Yeso formation. Attached is a tabulation of nearby wells and their completion zones. Below is a summary of shallow and deep wells around the proposed conversions:

- Shallow productive horizons include Seven Rivers, Queen, and Grayburg completions (2,443' - 4,661').
- Deep productive horizons include Abo (6,632' - 6,942'), Pennsylvanian (10,891' - 11,057'), and Morrow (10,734' - 11,234').

Reservoir Bottom Hole Pressure Data

In December, 2009, each well was shut in for 24 hours and the fluid level was shot with a sonic gun. Shut in bottom hole pressure data is attached and summarized below. Wells with high SIBHP's have been impacted by break through from nearby injectors.

Jenkins B #3

- 24 Hr SIBHP=889 PSIG

Jenkins B #7

- 24 Hr SIBHP=657 PSIG

Jenkins B #11

- 24 Hr SIBHP=1,036 PSIG

Jenkins B #15

- 24 Hr SIBHP=477 PSIG

Jenkins
B17R

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 13898
ORDER NO. R-12792

APPLICATION OF COG OPERATING, L.L.C FOR A PRESSURE MAINTENANCE
WATER INJECTION PROJECT, EDDY COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on April 12, 2007, at Santa Fe, New Mexico, before Examiner Richard I. Ezeanyim.

NOW, on this 30th day of July, 2007, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) The applicant, COG Operating, L.L.C. ("COG" or "Applicant"), seeks authority to institute a pressure maintenance project on the Federal lease underlying the NW/4 of Section 20, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico, by the injection of water into the Paddock formation of the Loco Hills-Glorieta-Yeso Pool (96718) through the following eight existing producing oil wells to be converted to water injection wells:

| Well Name and (API Number) | Footage Location (all NW/4 of 20-17S-30E) | Unit Letter | Perforated injection interval (feet) |
|---|--|----------------|--|
| Jenkins B Federal Well No. 1 (30-015-04214) | 1650' FNL & 330' FWL | C | 4282 - 4737 |
| Jenkins B Federal Well No. 4 (30-015-04231) | 1650' FNL & 1650' FWL | F | 4286 - 4637 |
| Jenkins B Federal Well No. 10 (30-015-30668) | 850' FNL & 2310' FWL | C | 4418-4667 |

Case No. 13898

Order No. R-12792

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maintenance project. Estimated ultimate primary plus secondary is 2.2 million barrels of oil.

(i) The total project cost associated with the implementation of this project would be approximately \$2.49 million and the total net incremental value of the project would be approximately \$23.41 million.

(j) There are no water wells and no underground sources of drinking water within a two mile radius of the NW/4 of Section 20. There are no geologic faults in this area which would connect the injection zone with any source of drinking water.

(k) The submitted data on all plugged or active wells within the ½ mile area(s) of review (AOR) which penetrate the zone of interest indicates that these wells are cased and plugged so as to protect fresh water and prevent fluid migration from the injection zone.

(5) Pursuant to General Rule 701.F, the proposed project should be classified as a pressure maintenance project.

(6) The acreage within the NW/4 of Section 20, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico, should be considered a "project area" for secondary recovery operations within the Paddock formation and should be called the "Jenkins B Federal Lease Paddock Pressure Maintenance Project".

(7) The proposed lease pressure maintenance project should result in the recovery of otherwise unrecoverable oil thereby preventing waste; and should not impair correlative rights. Accordingly, this proposed injection project should be approved and COG should be designated as operator.

(8) As per request of the applicant, the project should not at this time be qualified as an enhanced oil recovery ("EOR") project eligible for the recovered oil tax rate.

(9) Before commencing injection operations, all perforations in any of the eight approved injection wells, other than those perforations into the Paddock formation, shall be abandoned with Division approved and witnessed plug-back or squeeze operations.

(10) Approval and permitting of future additional or alternative water injection wells within the Paddock formation and within the "project area" should be enabled through the administrative process.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, COG Operating LLC ("COG"), is hereby authorized to institute a pressure maintenance project on the federal lease underlying the NW/4 of Section 20, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico, by the injection of water into the Paddock formation of the Loco Hills Glorieta-Yeso Pool (96718) through the following eight

Case No. 13898
Order No. R-12792
Page 4 of 6

existing wells, which will be converted from producing oil wells to water-injection wells.

| Well Name and (API Number) | Footage Location (all NW/4 of 20-17S-30E) | Unit Letter | Perforated Injection interval (feet) |
|--|--|----------------|--|
| Jenkins B Federal Well No. 1 (30-015-04214) | 1650' FNL & 330' FWL | C | 4282 - 4737 |
| Jenkins B Federal Well No. 4 (30-015-04231) | 1650' FNL & 1650' FWL | F | 4286 - 4637 |
| Jenkins B Federal Well No. 10 (30 015-30668) | 850' FNL & 2310' FWL | C | 4418-4667 |
| Jenkins B Federal Well No. 12 (30-015-31559) | 2310' FNL & 2310' FWL | F | 4321-4748 |
| Jenkins B Federal Well No. 13 (30-015-31560) ✓ | 2310' FNL & 880' FWL | E | 4312-4715 |
| Jenkins B Federal Well No. 14 (30-015-32257) | 745' FNL & 990' FWL | D | 4250-4639 |
| Jenkins B Federal Well No. 17R (30-015-34138) ✓ | 330' FNL & 1525' FWL | C | 4268-4653 |
| Jenkins B Federal Well No. 18 (30-0150-34474) ✓ | 330' FNL & 430' FWL | D | 4260-4630 |

(2) The acreage within the NW/4 of Section 20, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico, is hereby considered a "project area" for secondary recovery operations within the Paddock formation and shall hereafter be called the "Jenkins B Federal Lease Paddock Pressure Maintenance Project".

(3) COG Operating, L.L.C. (OGRD-229137) is hereby designated the operator of this project.

(4) The following three injection wells shall be repaired as follows prior to commencing injection operations into those wells:

(a) The San Andres perforations from 3,106 feet to 3,402 feet in the Jenkins B Federal Well No. 13 shall be squeezed.

(b) The San Andres perforations from 3,018 feet to 4,044 feet in the Jenkins B Federal Well No. 17R shall be squeezed.

(c) The Blinbry perforations from 5,082 feet to 6,181 feet within the Jenkins B Federal Well No. 18 shall be squeezed and then isolated with a cast iron bridge plug (CIBP) set at 4,730 feet and capped with 20 feet of cement.

The operator shall provide written verification to the Engineering Bureau in the Santa Fe Office of the Division of the completion of this required remedial cementing work.

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Order No. R-12792
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(5) The operator shall take all steps necessary to ensure that the injected water only enters and remains confined to the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(6) The allowable for the project area shall be the top unit allowable for the Loco Hills-Glerieta-Yeso Pool times the number of proration units within the project area.

(7) The allowable assigned to the project area may be produced from any well or wells in any proportion.

(8) Injection into each of the wells except the Jenkins B Federal Well No. 1 shall be accomplished through 2-7/8-inch plastic-lined tubing installed in a packer set no higher than 100 feet above the uppermost perforation. Injection into the Jenkins R Federal Well No. 1 shall be accomplished through 2-3/8-inch plastic-lined tubing installed in a packer set no higher than 100 feet above the uppermost perforation.

(9) The casing-tubing annulus in each injection well shall be filled with an inert, corrosion inhibited fluid and a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak-detection device in order to determine leakage in the casing, tubing or packer.

(10) Prior to commencing injection operations, the casing in each of the subject wells shall be pressure tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's Artesia District Office.

(11) Each injection well or pressurization system for each well shall be equipped with a pressure-limiting switch or other acceptable device which will limit the wellhead pressure on the injection wells to no more than 880 pounds per square inch (psi).

(12) Any increase in the injection pressure on any of the said injection wells shall be permitted through the administrative process after the operator has demonstrated the proposed injection pressure will remain below formation fracturing pressure or otherwise after notice and hearing.

(13) The operator shall notify the supervisor of the Artesia District Office of the Division in advance of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(14) The operator shall immediately notify the supervisor of the Division's Artesia District Office of the failure of the tubing, casing or packer in any of said injection wells or the leakage of water or oil from any plugged and abandoned, producing, or injection well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(15) The operator shall provide written notice of the date of commencement of

Case No. 13898
Order No. R-12792
Page 6 of 6

injection operations into each well to the Artesia District Office of the Division.

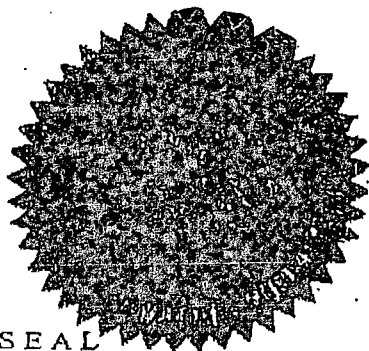
(16) The Jenkins B Federal Lease Paddock Pressure Maintenance Project shall be governed by Division Rules No. 701 through 708. The operator shall submit monthly reports of these injection and production operations on Division Form C-115, in accordance with Rule No. 706 and Rule No. 1115 of the Division Rules and Regulations.

(17) In accordance with Rule No 705.C, the injection authority granted herein for each of the eight injection wells shall terminate one year after the effective date of this order if the operator has not commenced injection operations into that well, and will terminate *ipso facto*, one year after injection operations into that well have ceased; provided, however, the Division, upon written request by the operator, may grant an extension for good cause.

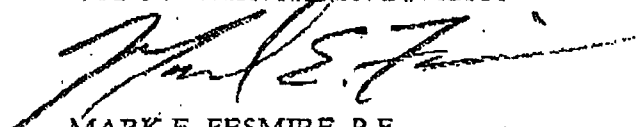
(18) Approval and permitting of future additional or alternative water injection wells within the Paddock formation and within the "project area" shall be through the administrative process. All other substantive revisions shall be through notice and hearing.

(19) Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (i) to protect fresh water or (ii) in a manner consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


MARK E. FESMIRE, P.E.
Director

Rate/Time Graph

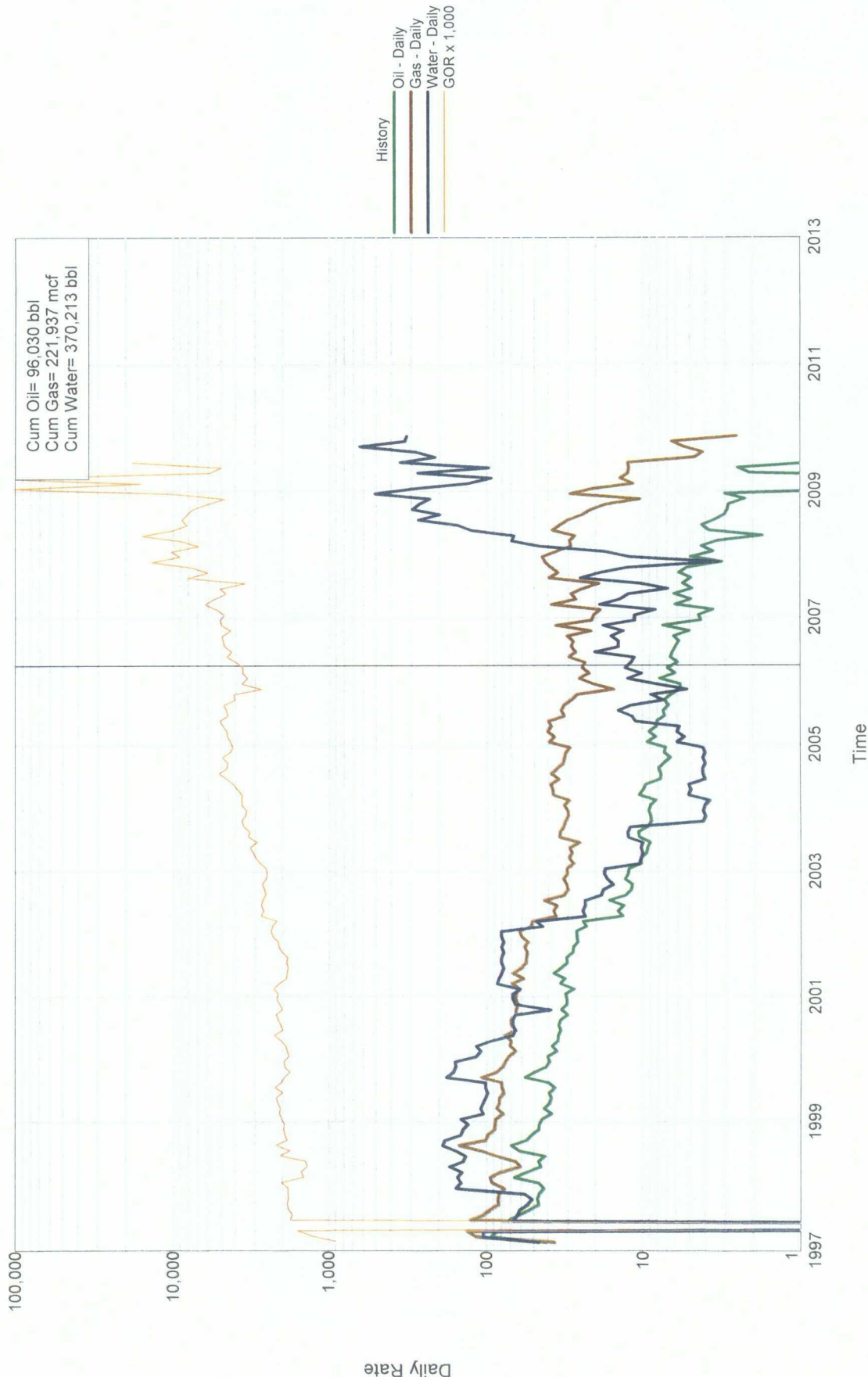
Lease Name: JENKINS B FEDERAL (3)
County, ST: EDDY, NM
Location: 20C 17S 30E

Project: u:\power tools\projects\click\loco hills area 1.mdb

Date: 12/22/2009
Time: 3:19 PM

Operator: COG OPERATING LIMITED LIABILITY CORP
Field Name: LOCO HILLS

COG OPERATING LIMITED LIABILITY CORP JENKINS B FEDERAL (3) 3 LOCO HILLS GLORIETA YESO EDDY NM 20C 17S 30E



Rate/Time Graph

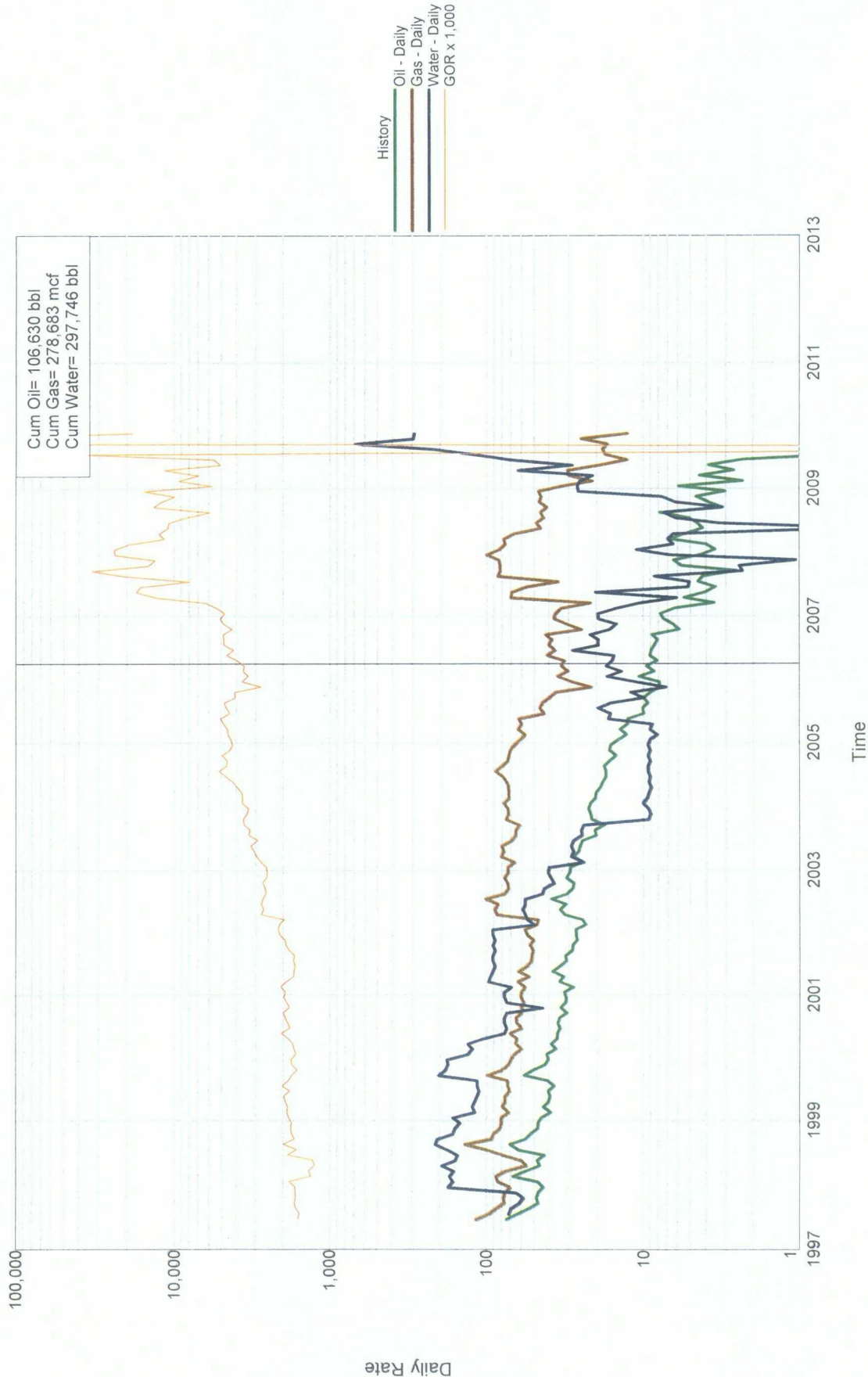
Lease Name: JENKINS B FEDERAL (7)
County, ST: EDDY, NM
Location: 20E 17S 30E

Project: u:\power tools\projects\dick\loco hills area 1.mdb

Date: 12/22/2009
Time: 3:20 PM

Operator: COG OPERATING LIMITED LIABILITY CORP
Field Name: LOCO HILLS

COG OPERATING LIMITED LIABILITY CORP JENKINS B FEDERAL (7) 7 LOCO HILLS GLORIETA YESO EDDY NM 20E 17S 30E



Rate/Time Graph

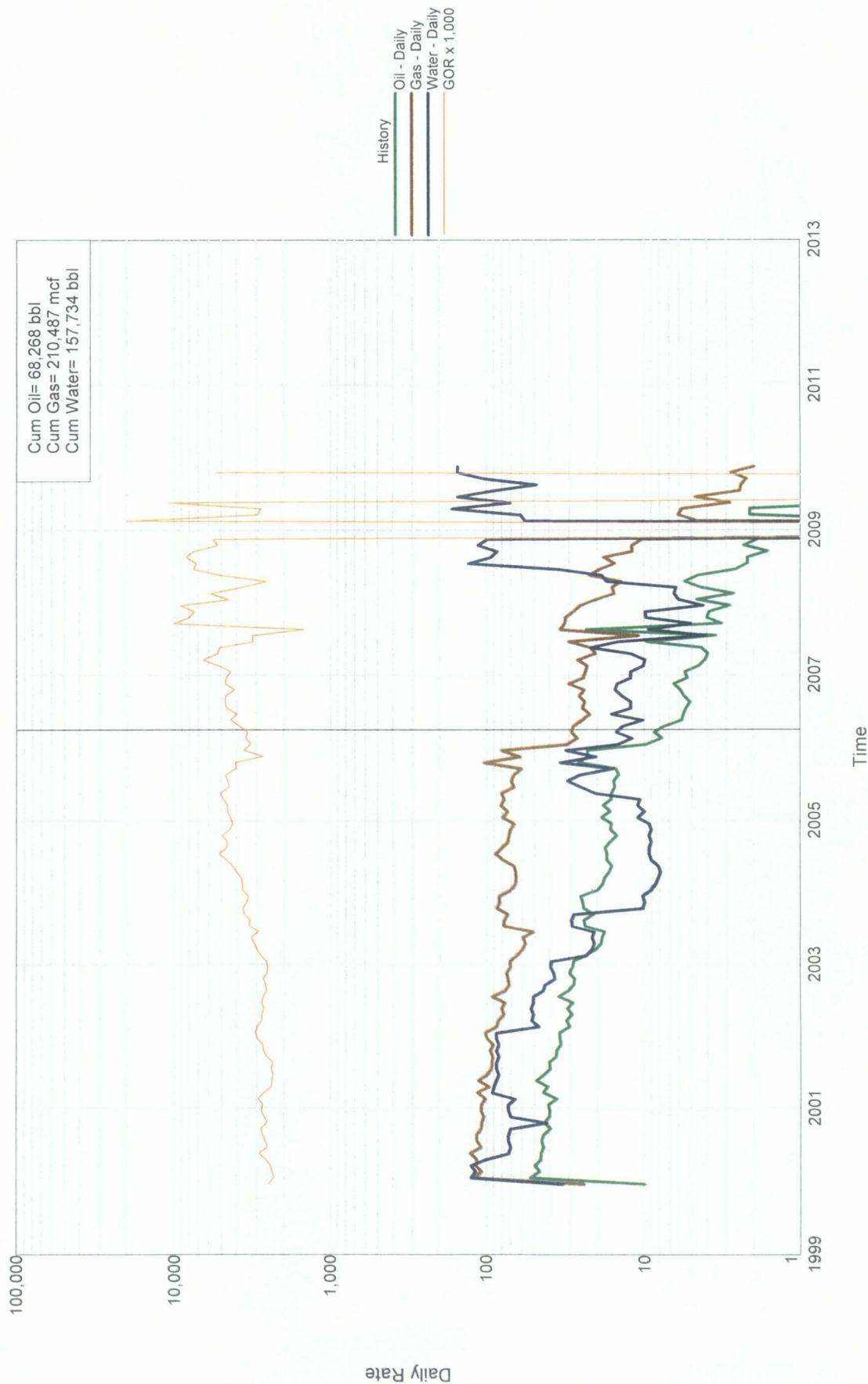
Lease Name: JENKINS B FEDERAL (11)
County, ST: EDDY, NM
Location: 20D 17S 30E NE NW NW

Project: u:\power tools\projects\lick\loco hills area 1.mdb

Date: 12/22/2009
Time: 3:20 PM

Operator: COG OPERATING LIMITED LIABILITY CORP
Field Name: LOCO HILLS

COG OPERATING LIMITED LIABILITY CORP JENKINS B FEDERAL (11) 11 LOCO HILLS GLORIETA YESO EDDY NM 20D 17S 30E NE NW NW



Rate/Time Graph

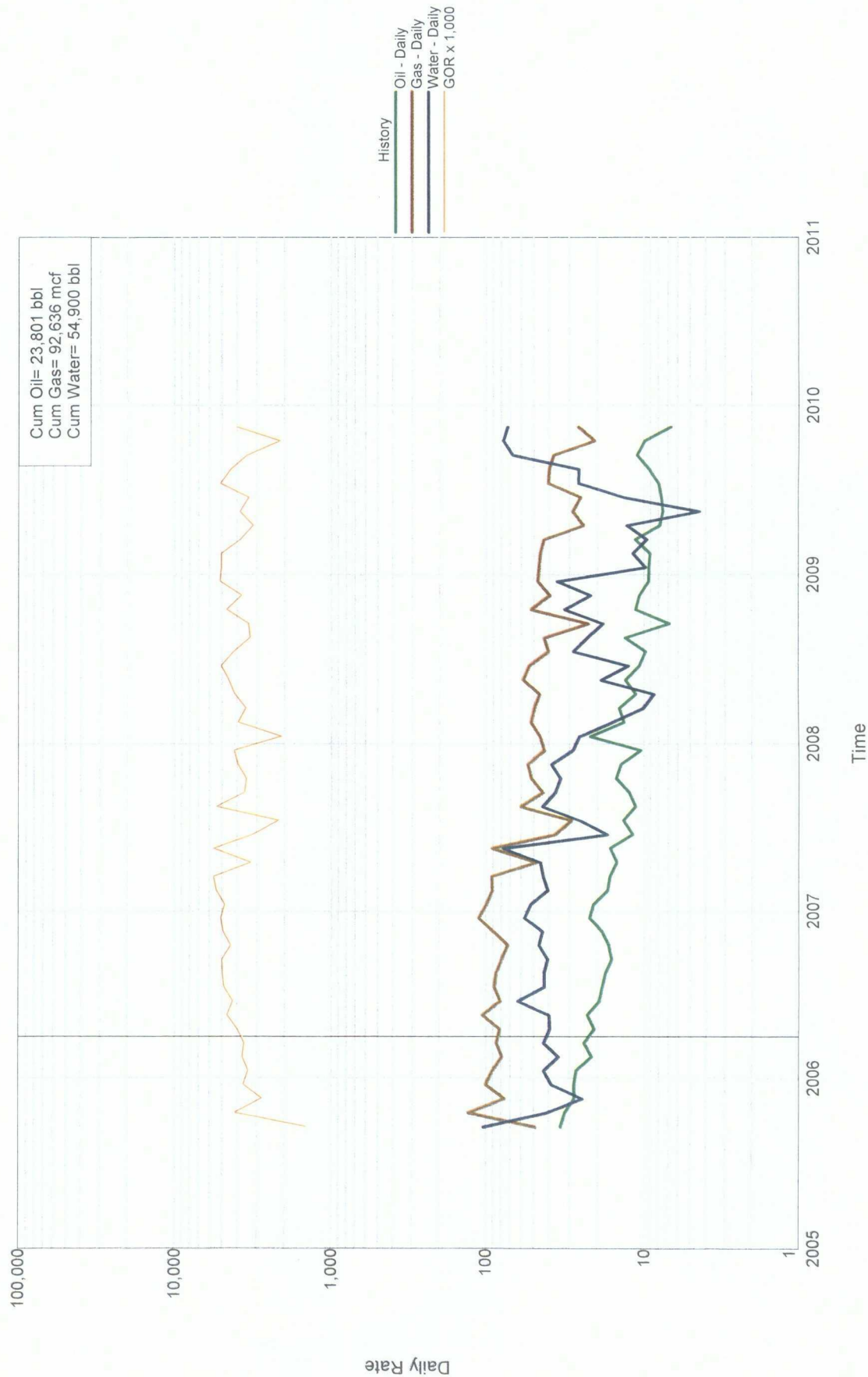
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Date: 12/22/2009
Time: 3:20 PM

Lease Name: JENKINS B FEDERAL (15Q)
County, ST: EDDY, NM
Location: 20F 17S 30E NE SE NW

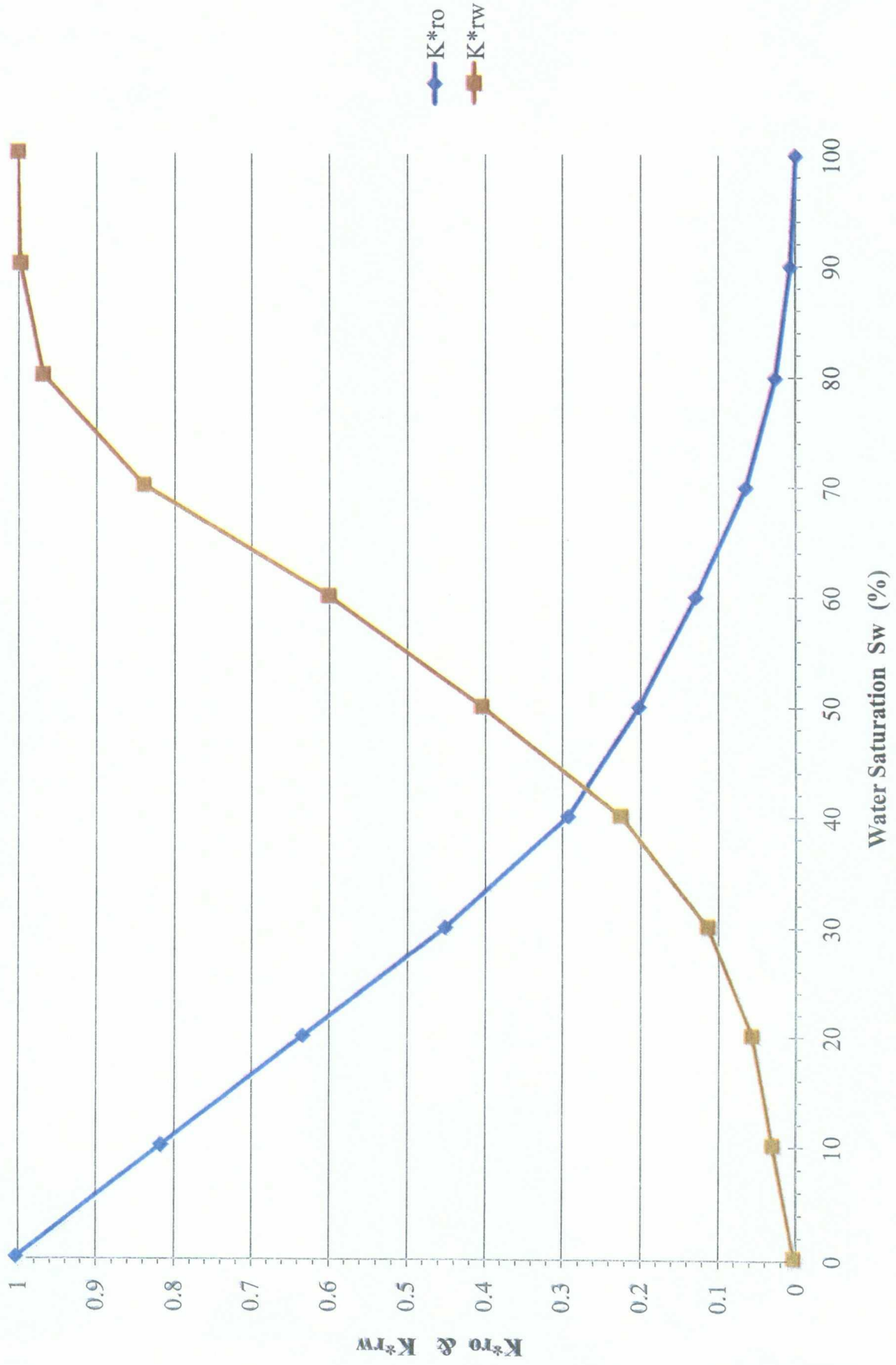
Operator: COG OPERATING LIMITED LIABILITY CORP
Field Name: LOCO HILLS

COG OPERATING LIMITED LIABILITY CORP JENKINS B FEDERAL (15Q) 15Q LOCO HILLS GLORIETA YESO EDDY NM 20F 17S 30E NE SE NW



Skelly 971 Relative Perm Plot

6 CORE PADDOCK AVG. NORMALIZED REL. PERM.
COG SKELLY 971, SEC 14-K, T 17S R-31-E
EDDY COUNTY, NM



COG Jenkins B SIBHP Data

| | | |
|-------------------------|-------------------------------|-------------|
| | | |
| WELL NAME: | Jenkins B#3 | |
| CSG PRESSURE: | | 20.8 |
| FEET TO FLUID: | | 2616 |
| JTS TO FLUID: | | |
| GAS FREE LIQUID: | | |
| COMMENTS: | SBHP 889.4 ✓ | |
| REMARKS: | 24 Hr SIBHP 12/17/2009 | |
| WELL NAME: | JenkinsB #11 | |
| CSG PRESSURE: | | 73.1 |
| FEET TO FLUID: | | 2327 |
| JTS TO FLUID: | | |
| GAS FREE LIQUID: | | |
| COMMENTS: | SBHP 1035.9 ✓ | |
| REMARKS: | 24 Hr SIBHP 12/17/2009 | |
| WELL NAME: | JenkinsB #7 | |
| CSG PRESSURE: | | 22.7 |
| FEET TO FLUID: | | 3014 |
| JTS TO FLUID: | | |
| GAS FREE LIQUID: | | |
| COMMENTS: | SBHP 656.9 ✓ | |
| REMARKS: | 24 Hr SIBHP 12/17/2009 | |
| WELL NAME: | JenkinB#15 | |
| CSG PRESSURE: | | 42.9 |
| FEET TO FLUID: | | 3468 |
| JTS TO FLUID: | | |
| GAS FREE LIQUID: | | |
| COMMENTS: | SBHP 476.7 ✓ | |
| REMARKS: | 24 Hr SIBHP 12/17/2009 | |

III. Well Data

COG Operating, LLC
Jenkins B Federal #3 ✓
API# 30-015-04216
Lease # NMLC054988
Sec 20, T17S, R30E, Unit C
330' FNL & 2310' FWL
Eddy County, NM

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

Type of Packer: Model R Injection Packer

Packer Setting Depth: 4,237'

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

Additional Data

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

If no, for what purpose was the well originally drilled? Producing oil well.

2. Name of the Injection Formation: Paddock

3. Name of Field or Pool (if applicable): Loco Hills; Glorieta, Yeso (96718) 4,337'-4,600'

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-3511

Grayburg Jackson; SR-Q-G-SA 4,050' - 4,071'. See attached for plugging procedure.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Grayburg 2,400' - 3,700' & Morrow 10,600' - 10,700'

COG Operating LLC

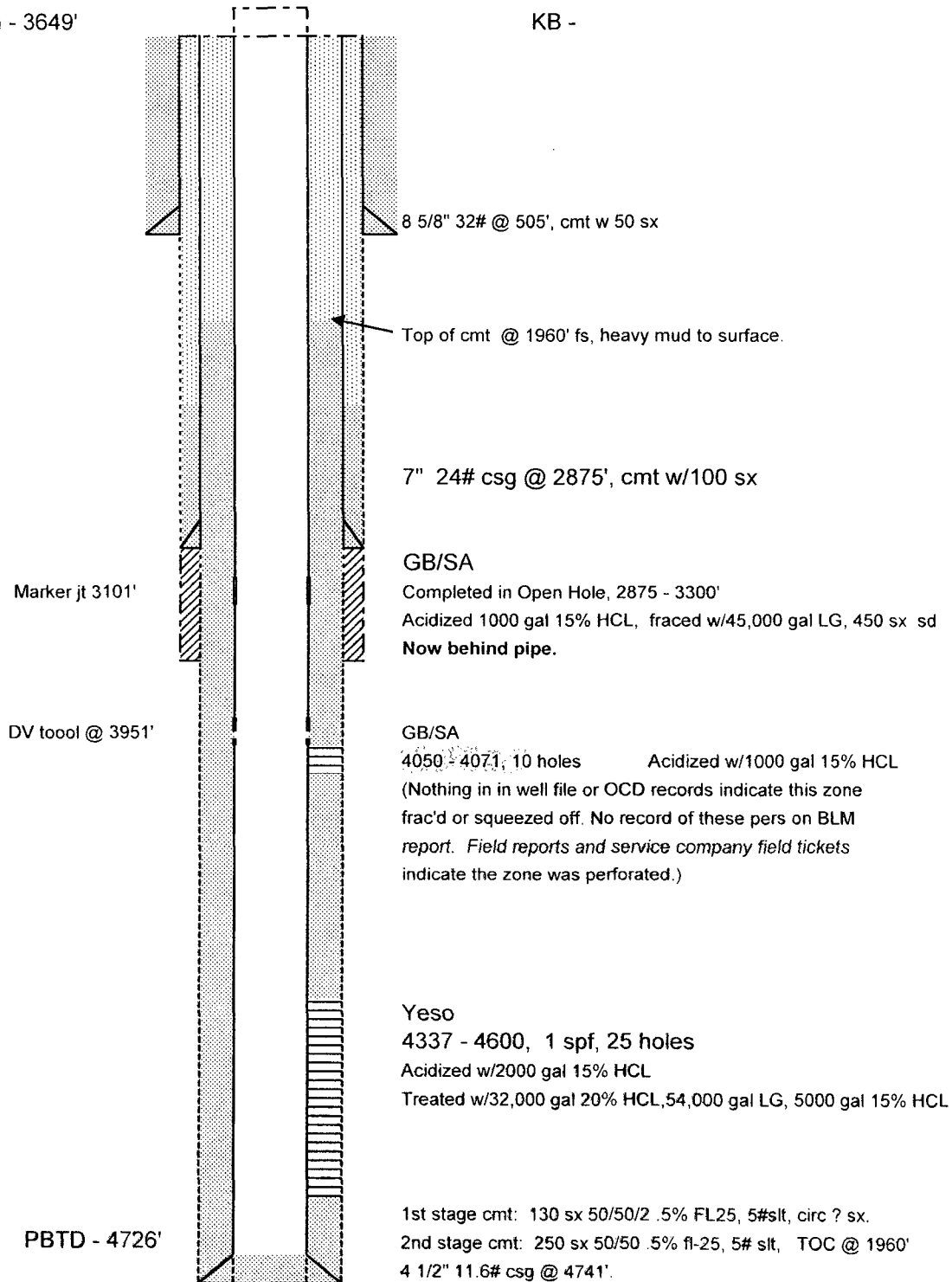
Lease & Well #
API# 30-015-042216
Spudded /19/1938

Jenkins B Federal #3

ACTIVE

Elevation - 3649'

KB -



III. Well Data

COG Operating, LLC
Jenkins B Federal #7
API# 30-015-29451
Lease # NMLC054988
Sec 20, T17S, R30E, Unit E
1650' FNL & 1090' FWL
Eddy County, NM

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

Type of Packer: Model R Injection Packer

Packer Setting Depth: 4,189'

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

Additional Data

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

If no, for what purpose was the well originally drilled? Producing oil well.

2. Name of the Injection Formation: Paddock

3. Name of Field or Pool (if applicable): Loco Hills; Glorieta, Yeso 96718 4,289' - 4,634'

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: Grayburg 2,400' - 3,700' & Morrow 10,600' - 10,700'

COG Operating LLC

ACTIVE

Lease & Well

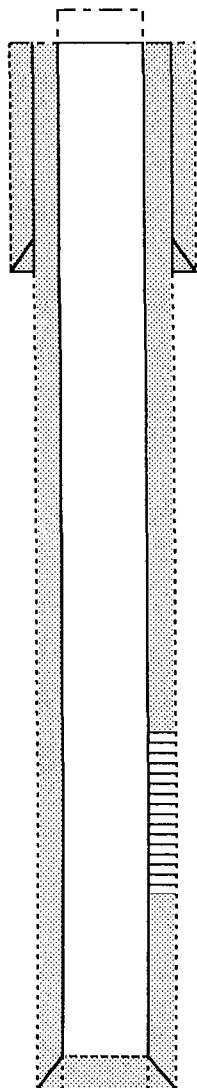
Jenkins B Federal #7

API# 3001529451

Spud: 4/3/97

Elevation - 3643'

KB -



8 5/8" 24# @ 415', 300 sx cmt, circ. 121 sx

Marker jt @ 3,102'

DV TOOL @ 3,968'

Paddock

4289 - 4634'

Acidized w/2,000 gal 15% NEFE

Hot acid job: 32,000/54,000/5,000

1st stage: 165 sx 50/50/c circ 32 sx.

2nd stage: 900 sx lite, 350 sx 50/50/2 c, circ 225 sx.

5 1/2" 17# csg @ 4796'.

PBTD - 4783'

III. Well Data

COG Operating, LLC
Jenkins B Federal #11
API# 30-015-30665
Lease # NMLC054988
Sec 20, T17S, R30E, Unit D
330' FNL & 990' FWL
Eddy County, NM

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

Type of Packer: Model R Injection Packer

Packer Setting Depth: 4,318'

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

Additional Data

1. Is this a new well drilled for injection? Yes X No
If no, for what purpose was the well originally drilled? Producing oil well.

2. Name of the Injection Formation: Paddock

3. Name of Field or Pool (if applicable): Loco Hills; Glorieta, Yeso (96718) 4,418'-4,666'

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-3517

Grayburg Jackson; SR-Q-G-SA 3,013' - 3,556'. See attached for plugging procedure.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Grayburg 2,400' - 3,700' & Morrow 10,600' - 10,700'

COG Operating LLC

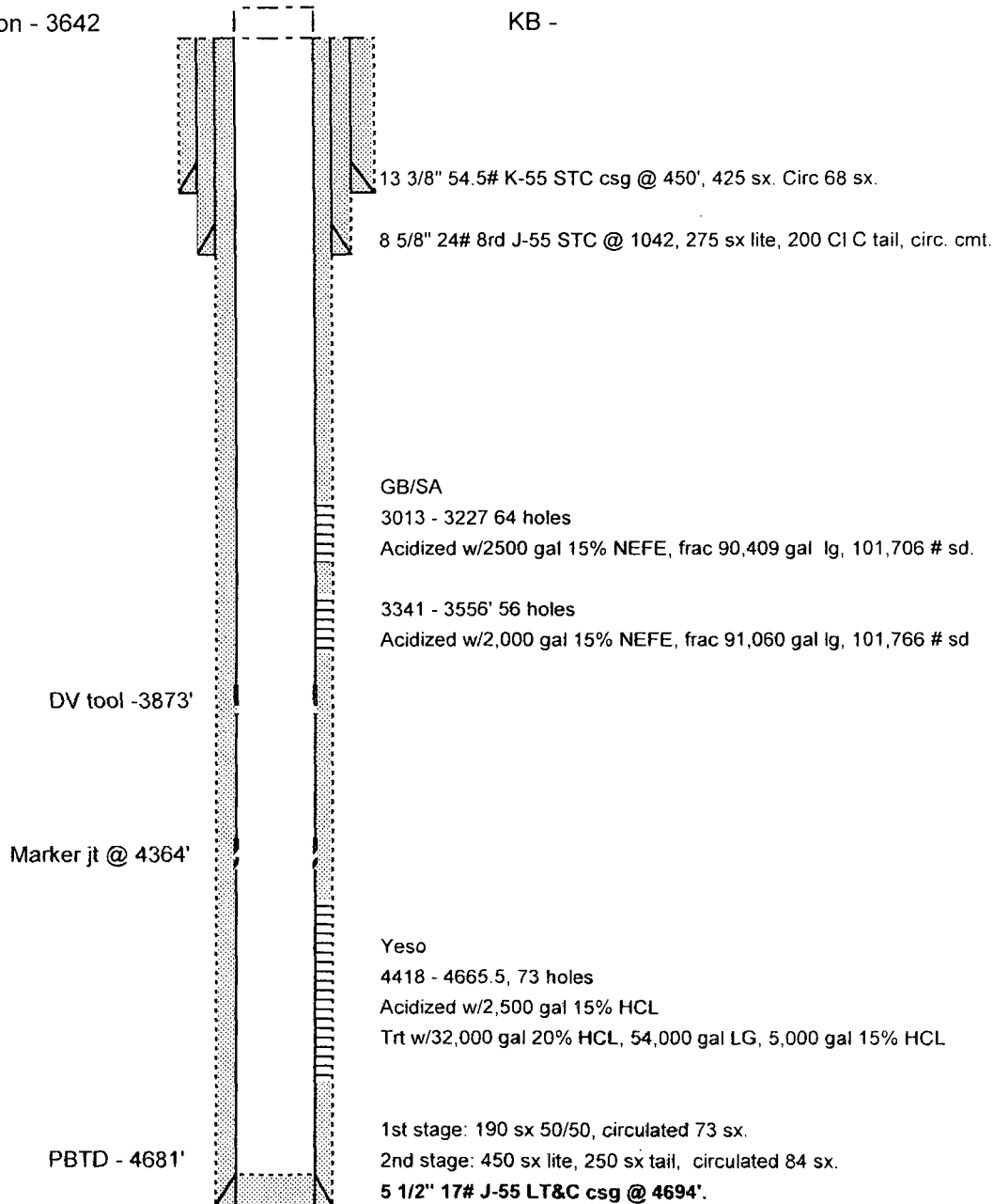
Lease & Well #
API# 3001530665
SPUD: 12/1/99

Jenkins B Federal # 11

ACTIVE

Elevation - 3642

KB -



III. Well Data

COG Operating, LLC
Jenkins B Federal #15
API# 30-015-33472
Lease # NMLC054988
Sec 20, T17S, R30E, Unit F
1650' FNL & 1090' FWL
Eddy County, NM

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

Type of Packer: Model R Injection Packer

Packer Setting Depth: 4,212'

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

Additional Data

Is this a new well drilled for injection? Yes X No

If no, for what purpose was the well originally drilled? Producing oil well.

2. Name of the Injection Formation: Paddock

3. Name of Field or Pool (if applicable): Loco Hills; Glorieta, Yeso (96718) 4,312'-4,716'

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-3521

Grayburg Jackson; SR-Q-G-SA 3,046' - 3968'. See attached for plugging procedure.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Grayburg 2,400' - 3,700' & Morrow 10,600' - 10,700'

COG Operating LLC

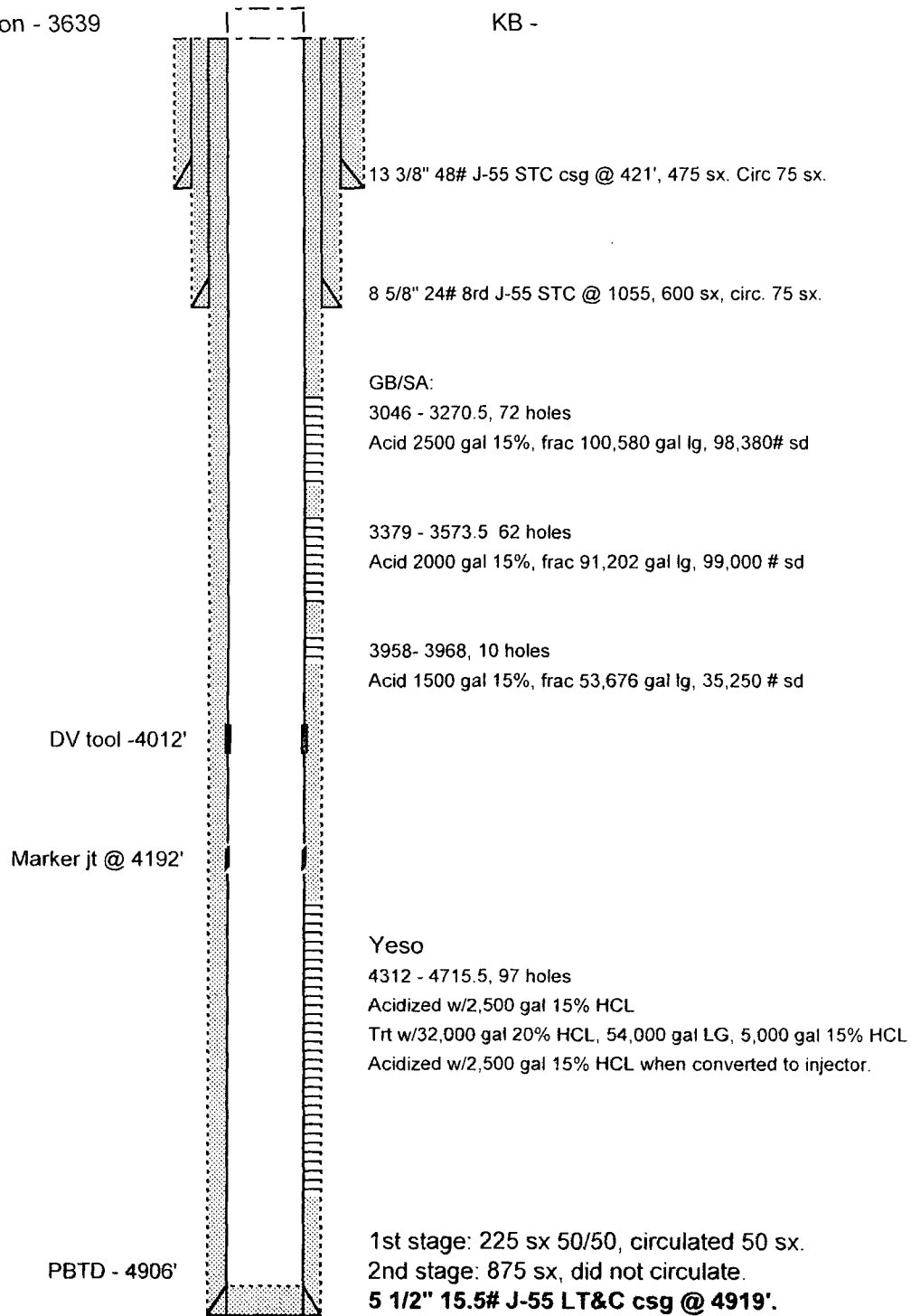
Lease & Well #
API# 3001533472
SPUD: 5/5/05

Jenkins B Federal # 15

ACTIVE

Elevation - 3639

KB -



12/23/2009

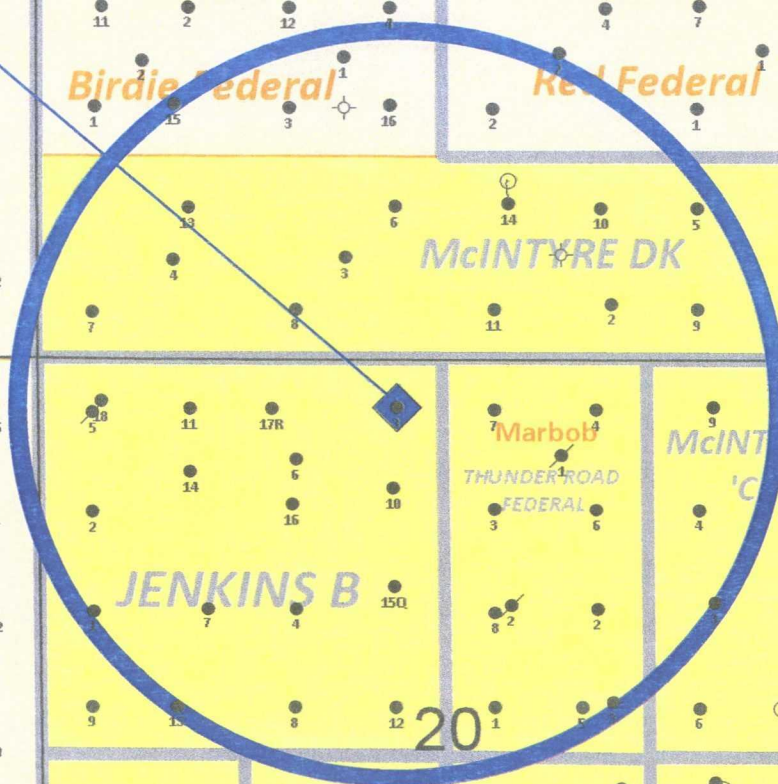
Jenkins B Federal # 15 Wellbore diagram

SH

**Jenkins 'B'
Federal #3**

18
**Marbob
Burch Keely**

19
**Marbob
Burch Keely**



**CADDO /
ETZ STATE**

MESILLA

HOUMA

WICHITA

JUNIPER

**McINTYRE
WD 'C'**

BERRY 'A'

**BRIGHAM
'B'**

WOOLLEY

**CB
HOLDER**

**POLARIS
'B'**

**Marbob
Birdie Federal**

**Marbob
Birdie Federal**

**Marbob
Red Federal**

McINTYRE DK

**Marbob
THUNDER ROAD
FEDERAL**

JENKINS B

**McINTYRE
'B'**

**McINTYRE
'E'**

**McINTYRE
'A' WEST**

**McINTYRE
'A' EAST**

BEESON

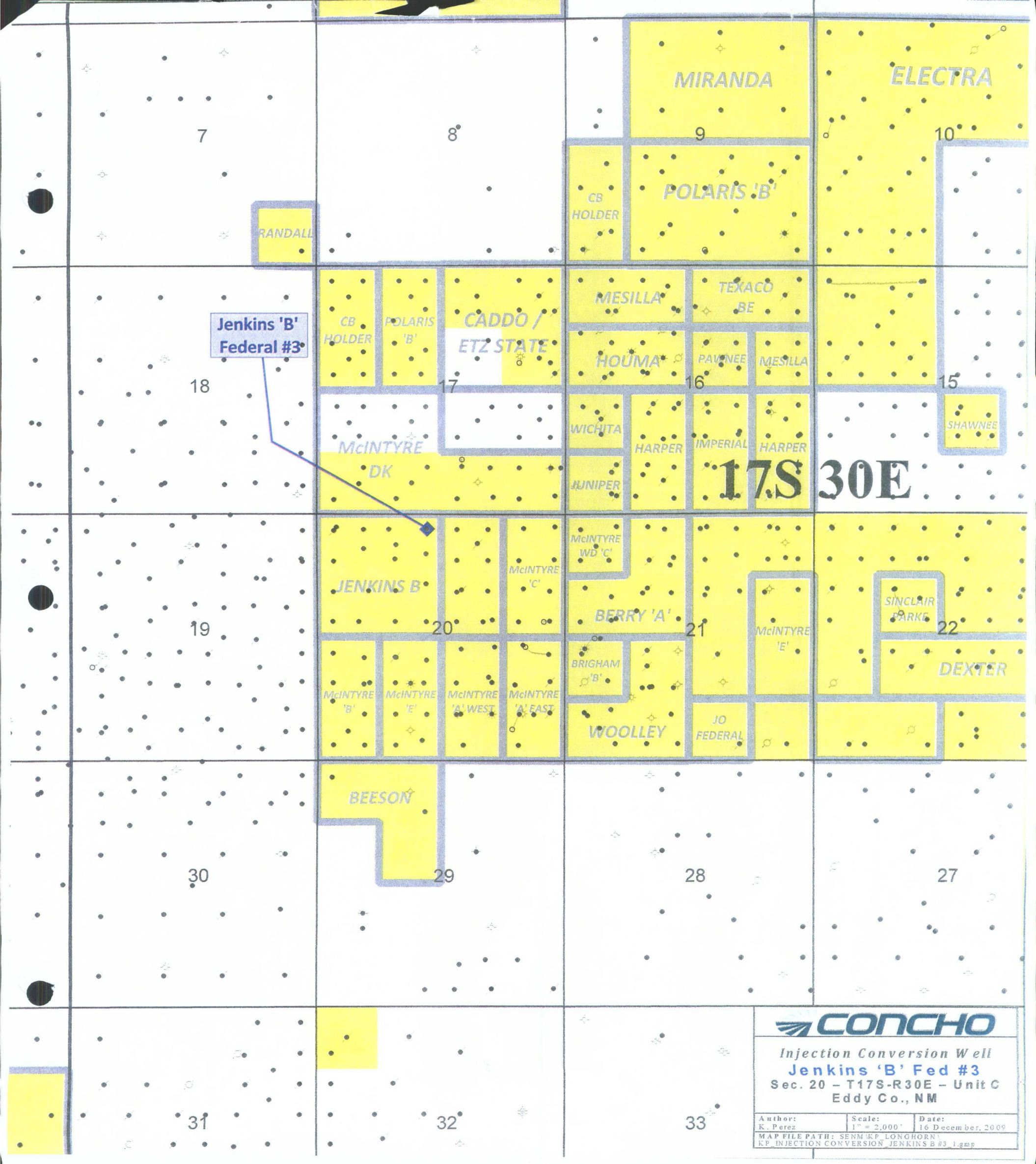
COG Leasehold

CONCHO

**Injection Conversion Well
Jenkins 'B' Fed #3**

**Sec. 20 - T17S-R30E - Unit C
Eddy Co., NM**

| | | |
|---|-----------------------|----------------------------|
| Author: K. Perez | Scale: 1" = 1,000' | Date: 16 December, 2009 |
| MAP FILE PATH: S:\NM\ED\LONGHORN\ EP_INJECTION CONVERSION_JENKINS B #3_2.gmp | | |



Jenkins 'B'
Federal #3

17S 30E



Injection Conversion Well
Jenkins 'B' Fed #3
Sec. 20 - T17S-R30E - Unit C
Eddy Co., NM

| | | |
|--|-----------------------|----------------------------|
| Author: K. Perez | Scale: 1" = 2,000' | Date: 16 December, 2009 |
| MAP FILE PATH: SENM\KP_LONGHORN\KP_INJECTION CONVERSION_JENKINS B #3_1.gmp | | |

Jenkins 'B'
Federal #7

18
Marbob
Burch Keely

19
Marbob
Burch Keely

Marbob
Burch Keely

CB
HOLDER

POLARIS
'B'

Marbob
Birdie Federal

Marbob
Birdie Federal

Marbob
Red Federal

McINTYRE DK

JENKINS B

20

McINTYRE
'B'

McINTYRE
'E'

McINTYRE
'A' WEST

McINTYRE
'A' EAST

BEESON

CADDO /
ETZ STATE

MESILLA

HOUMA

WICHITA

HARPER

JUNIPER

McINTYRE
WD 'C'

BERRY 'A'

BRIGHAM
'B'

WOOLLEY

COG Leasehold

CONCHO

Injection Conversion Well
Jenkins 'B' Fed #7
Sec. 20 - T17S-R30E - Unit E
Eddy Co., NM

Author: K. Perez
Scale: 1" = 1,000'
Date: 16 December, 2009
MAP FILE PATH: SENMWP LONGHORN\EP_INJECTION CONVERSION_JENKINS B #7_2.gmp

Jenkins 'B'
Federal #7

MIRANDA

ELECTRA

RANDALL

CB
HOLDER

POLARIS 'B'

CB
HOLDER

POLARIS
'B'

CADDO /
ETZ STATE

MESILLA

TEXACO
BE

HOUMA

PAVINEE

MESILLA

McINTYRE
DK

WICHITA

HARPER

IMPERIAL

HARPER

JUNIPER

17S 30E

SHAWNEE

JENKINS B

McINTYRE
'C'

McINTYRE
WD 'C'

BERRY 'A'

SINCLAIR
PARKS

McINTYRE
'B'

McINTYRE
'E'

McINTYRE
'A' WEST

McINTYRE
'A' EAST

BRIGHAM
'B'

McINTYRE
'E'

DEXTER

WOOLLEY

JO
FEDERAL

BEESON

CONCHO

Injection Conversion Well
Jenkins 'B' Fed #7
Sec. 20 - T17S-R30E - Unit E
Eddy Co., NM

| | | |
|--|-----------------------|----------------------------|
| Author: K. Perez | Scale: 1" = 2,000' | Date: 16 December, 2009 |
| MAP FILE PATH: SENM\KP_LONGHORN\KP_INJECTION CONVERSION_JENKINS B #7_1.gwp | | |

**Jenkins 'B'
Federal #11**

**18
Marbob
Burch Keely**

**19
Marbob
Burch Keely**

**Marbob
Burch Keely**

**CB
HOLDER**

**POLARIS
'B'**

**Marbob
Birdie Federal**

**Marbob
Birdie Federal**

**Marbob
Red Federal**

McINTYRE DK

JENKINS B

**Marbob
THUNDER ROAD
FEDERAL**

**McINTYRE
'C'**

**McINTYRE
WD 'C'**

BERRY 'A'

**BRIGHAM
'B'**

WOOLLEY

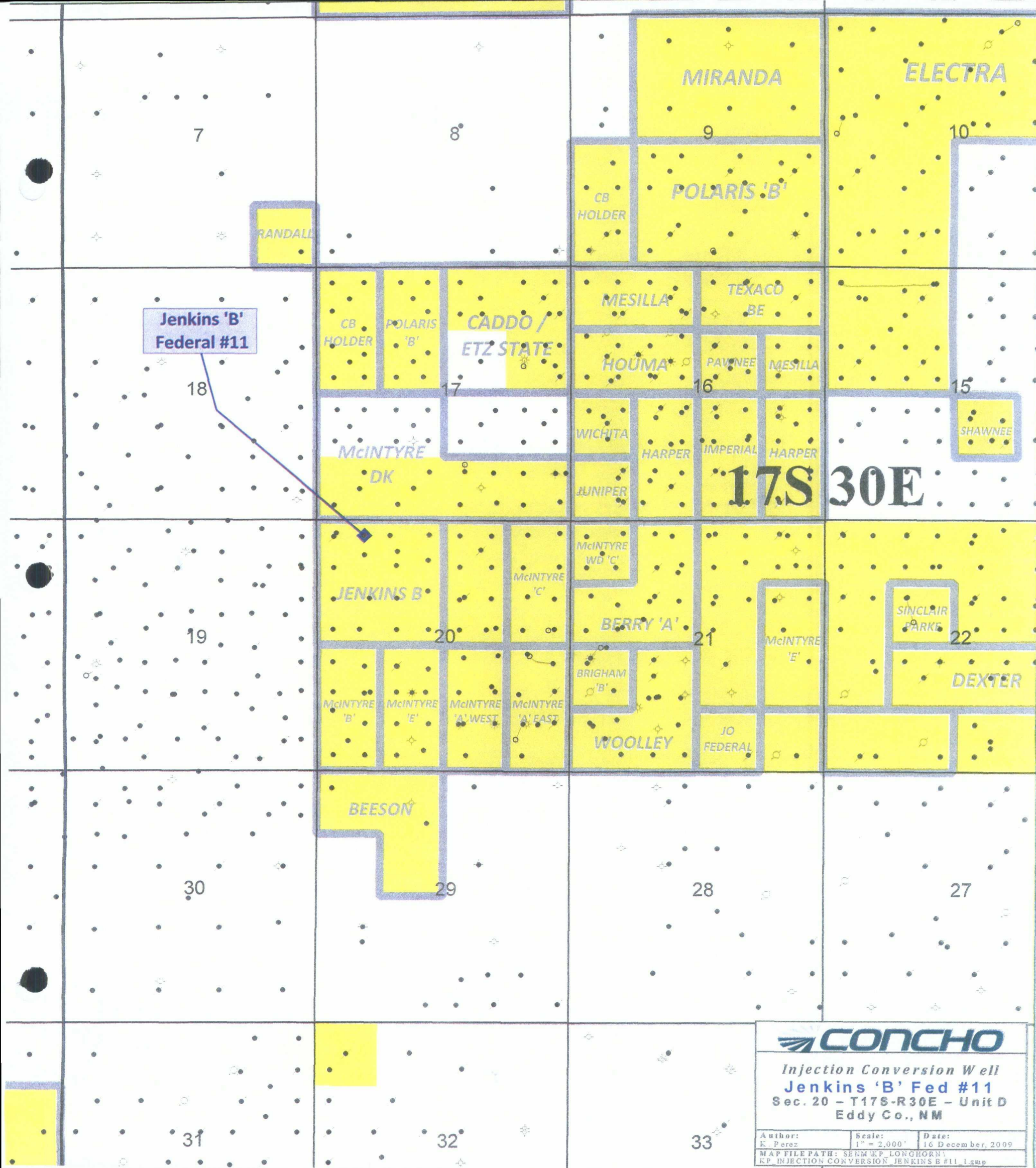
BEESON

COG Leasehold -

CONCHO

**Injection Conversion Well
Jenkins 'B' Fed #11
Sec. 20 - T17S-R30E - Unit D
Eddy Co., NM**

Author: K. Perez
Scale: 1" = 1,000'
Date: 16 December, 2009
MAP FILE PATH: SENMWP\LONGHORN\EP_INJECTION CONVERSION_JENKINS B #11_2.gmp



Jenkins 'B'
Federal #15

18
Marbob
Burch Keely

19
Marbob
Burch Keely

Marbob
Burch Keely

CB
HOLDER

POLARIS
'B'

Marbob
Birdie Federal

Marbob
Birdie Federal

Marbob
Red Federal

McINTYRE DK

JENKINS B

Marbob
THUNDER ROAD
FEDERAL

McINTYRE
'C'

McINTYRE
WD 'C'

BERRY 'A'

BRIGHAM
'B'

McINTYRE
'B'

McINTYRE
'E'

McINTYRE
'A' WEST

McINTYRE
'A' EAST

WOOLLEY

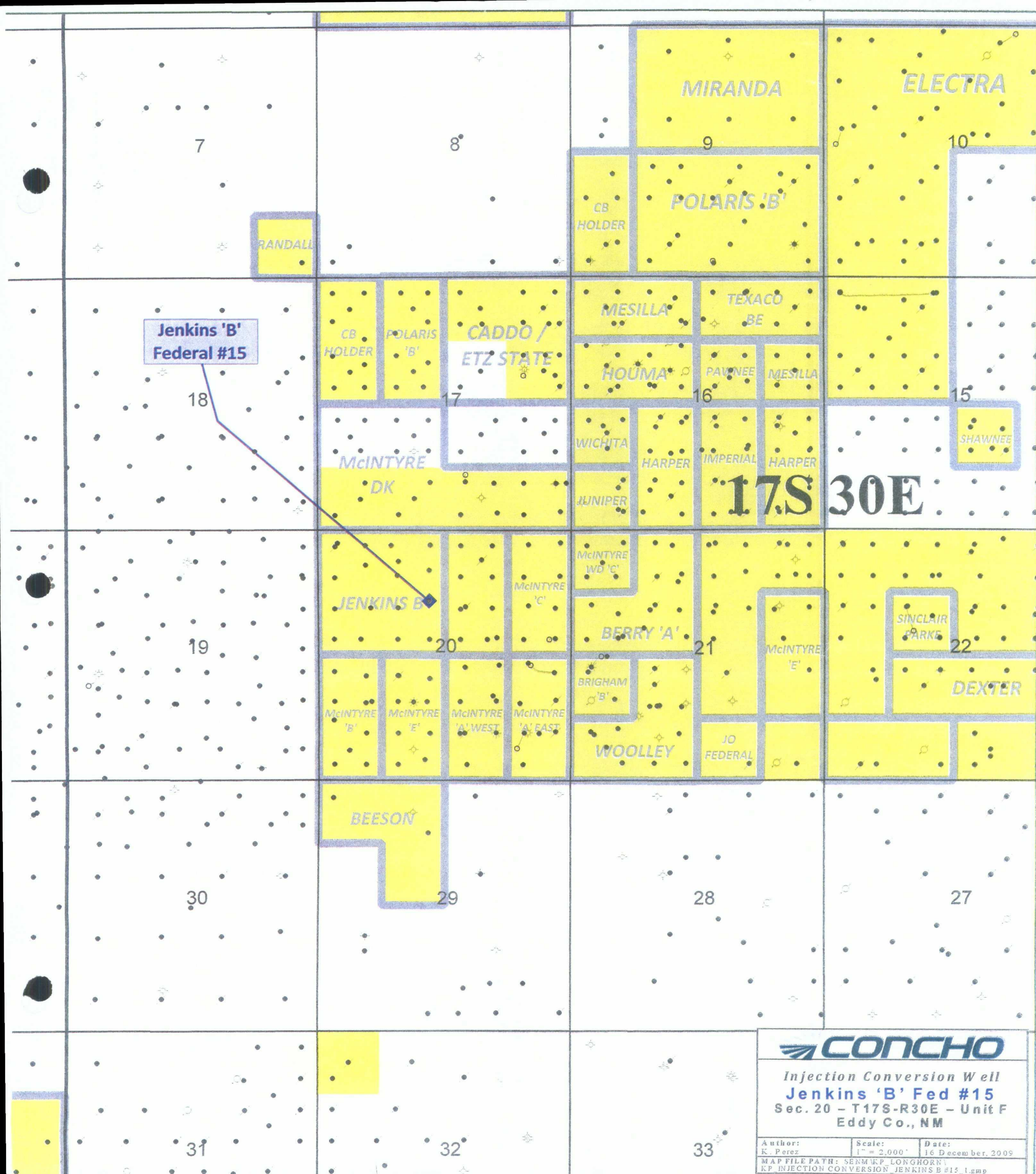
BEESON

COG Leasehold

CONCHO

Injection Conversion Well
Jenkins 'B' Fed #15
Sec. 20 - T17S-R30E - Unit F
Eddy Co., NM

Author: K. Perez
Scale: 1" = 1,000'
Date: 16 December, 2009



Injection Conversion Well
Jenkins 'B' Fed #15
Sec. 20 - T17S-R30E - Unit F
Eddy Co., NM

| | | |
|---|-----------------------|----------------------------|
| Author: K. Perez | Scale: 1" = 2,000' | Date: 16 December, 2009 |
| MAP FILE PATH: SENM\KP LONGHORN\KP_INJECTION CONVERSION_JENKINS B #15_1.gmp | | |

Jenkins B AOR Wells By Section

[illegible]

Jenkins B AOR Wells By Section

| API Number | Operator | Current Name | Lease Name | Name | Section Number | Unit | Footage North South | Footage North South Start Line | Footage East West | Footage East West Start Line | Depth Total Driller | Field Name | State Name | County Name |
|-----------------|----------------------|----------------------|----------------------|------|----------------|------|---------------------|--------------------------------|-------------------|------------------------------|---------------------|------------------|------------|-------------|
| 30015042250000 | GEN AMER OIL CO | DEXTER-FEDERAL E | DEXTER-FEDERAL E | 1 | 20 | B | 660 | FNL | 1980 | FEL | 3296 | GRAYBURG JACKSON | NEW MEXICO | EDDY |
| 30015042300000 | GEN AMER OIL CO | DEXTER-FEDERAL E | DEXTER-FEDERAL E | 2 | 20 | G | 1650 | FNL | 2310 | FEL | 3275 | GRAYBURG JACKSON | NEW MEXICO | EDDY |
| 30015042190000 | FRANKLIN ASTN&FAIR I | MCINTYRE-FEDERAL A | MCINTYRE-FEDERAL A | 1 | 20 | I | 2430 | FSL | 990 | FEL | 3348 | GRAYBURG JACKSON | NEW MEXICO | EDDY |
| 30015042180000 | FRANKLIN ASTN&FAIR I | MCINTYRE-FEDERAL B | MCINTYRE-FEDERAL B | 1 | 20 | L | 2310 | FSL | 330 | FWL | 3270 | GRAYBURG | NEW MEXICO | EDDY |
| 30015042210000 | FRANKLIN ASTN&FAIR I | MCINTYRE-FED-REPORT | MCINTYRE-FED-REPORT | 3 | 20 | J | 2365 | FSL | 2310 | FEL | 3331 | GRAYBURG JACKSON | NEW MEXICO | EDDY |
| 30015042140001 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 1 | 20 | E | 1650 | FNL | 330 | FWL | 4788 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015042150001 | COG OPERATING LLC | JENKINS B FEDERAL | JENKINS B FEDERAL | 2 | 20 | D | 990 | FNL | 330 | FWL | 4715 | GRAYBURG | NEW MEXICO | EDDY |
| 30015042160001 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 3 | 20 | C | 330 | FNL | 2310 | FWL | 4745 | GRAYBURG | NEW MEXICO | EDDY |
| 30015042310001 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 4 | 20 | F | 1650 | FNL | 1650 | FWL | 4815 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015294510000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 7 | 20 | F | 1650 | FNL | 1090 | FWL | 4810 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015293880000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 8 | 20 | F | 2310 | FNL | 1650 | FWL | 4799 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015297550000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 9 | 20 | E | 2310 | FNL | 330 | FWL | 4855 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015306680000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 10 | 20 | C | 850 | FNL | 2310 | FWL | 4744 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015306650000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 11 | 20 | D | 330 | FNL | 990 | FWL | 4710 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015315590000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 12 | 20 | F | 2310 | FNL | 2310 | FWL | 4900 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015315600000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 13 | 20 | E | 2310 | FNL | 880 | FWL | 4880 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015322570000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 14 | 20 | D | 745 | FNL | 990 | FWL | 4780 | LOCO HILLS | NEW MEXICO | EDDY |
| 300153234720001 | COG OPERATING LLC | JENKINS B FEDERAL | JENKINS B FEDERAL | 15 | 20 | F | 1500 | FNL | 2310 | FWL | 4935 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015323710000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | JENKINS 'B' FEDERAL | 16 | 20 | B | 965 | FNL | 1650 | FWL | 4775 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015341380000 | COG OPERATING LLC | JENKINS B FEDERAL | JENKINS B FEDERAL | 17 | 20 | C | 330 | FNL | 1525 | FWL | 4735 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015344740000 | COG OPERATING LLC | JENKINS B FEDERAL | JENKINS B FEDERAL | 18 | 20 | D | 330 | FNL | 430 | FWL | 6401 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015294260001 | COG OPERATING LLC | MCINTYRE W D 'C' | MCINTYRE W D 'C' | 4 | 20 | A | 990 | FNL | 990 | FEL | 4832 | GRAYBURG JACKSON | NEW MEXICO | EDDY |
| 30015294250001 | COG OPERATING LLC | MCINTYRE WD | MCINTYRE WD | 3 | 20 | K | 2135 | FSL | 2310 | FWL | 4840 | GRAYBURG JACKSON | NEW MEXICO | EDDY |
| 30015042190001 | COG OPERATING LLC | MCINTYRE 'A' | MCINTYRE 'A' | 1 | 20 | I | 2430 | FSL | 990 | FEL | 4762 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015042210001 | COG OPERATING LLC | MCINTYRE 'A' | MCINTYRE 'A' | 3 | 20 | J | 2365 | FSL | 2310 | FEL | 5110 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015234070001 | COG OPERATING LLC | MCINTYRE 'A' | MCINTYRE 'A' | 9 | 20 | J | 2400 | FSL | 1600 | FEL | 4715 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015302930000 | COG OPERATING LLC | MCINTYRE 'A' | MCINTYRE 'A' | 13 | 20 | J | 1650 | FSL | 2310 | FEL | 4935 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015317890000 | COG OPERATING LLC | MCINTYRE 'A' | MCINTYRE 'A' | 17 | 20 | J | 1775 | FSL | 1625 | FEL | 5050 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015310710000 | COG OPERATING LLC | MCINTYRE 'A' FEDERAL | MCINTYRE 'A' FEDERAL | 11 | 20 | J | 1615 | FSL | 1065 | FEL | 4970 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015042180001 | COG OPERATING LLC | MCINTYRE 'B' | MCINTYRE 'B' | 1 | 20 | L | 2310 | FSL | 330 | FWL | 4861 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015317880000 | COG OPERATING LLC | MCINTYRE 'B' | MCINTYRE 'B' | 9 | 20 | L | 1650 | FSL | 1100 | FWL | 4980 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015293890000 | COG OPERATING LLC | MCINTYRE 'B' FEDERAL | MCINTYRE 'B' FEDERAL | 5 | 20 | L | 2183 | FSL | 990 | FWL | 4845 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015042270001 | COG OPERATING LLC | MCINTYRE W D 'C' | MCINTYRE W D 'C' | 3 | 20 | H | 1650 | FNL | 990 | FEL | 4820 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015294260000 | COG OPERATING LLC | MCINTYRE W D 'C' | MCINTYRE W D 'C' | 4 | 20 | A | 990 | FNL | 990 | FEL | 4832 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015302920000 | COG OPERATING LLC | MCINTYRE W D 'C' | MCINTYRE W D 'C' | 6 | 20 | H | 2310 | FNL | 990 | FEL | 4865 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015344730000 | COG OPERATING LLC | MCINTYRE W D 'C' | MCINTYRE W D 'C' | 9 | 20 | A | 330 | FNL | 990 | FEL | 6040 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015294250000 | COG OPERATING LLC | MCINTYRE W D 'E' | MCINTYRE W D 'E' | 3 | 20 | K | 2135 | FSL | 2310 | FWL | 4840 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015302910000 | COG OPERATING LLC | MCINTYRE W D 'E' | MCINTYRE W D 'E' | 5 | 20 | K | 1650 | FSL | 1650 | FWL | 5524 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015317870000 | COG OPERATING LLC | MCINTYRE W D 'E' | MCINTYRE W D 'E' | 8 | 20 | K | 1650 | FSL | 2250 | FWL | 5020 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015322170000 | COG OPERATING LLC | MCINTYRE W D 'E' | MCINTYRE W D 'E' | 10 | 20 | K | 2190 | FSL | 1664 | FWL | 4861 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015222160001 | MACK ENERGY CORP | LOCO SW | LOCO SW | 1 | 20 | K | 1650 | FSL | 1980 | FWL | 11400 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015299100000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | THUNDER ROAD FEDERAL | 1 | 20 | G | 2310 | FNL | 2310 | FEL | 4865 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015299110000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | THUNDER ROAD FEDERAL | 2 | 20 | G | 1650 | FNL | 1650 | FEL | 4900 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015299120000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | THUNDER ROAD FEDERAL | 3 | 20 | B | 990 | FNL | 2310 | FEL | 4900 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015299520000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | THUNDER ROAD FEDERAL | 4 | 20 | B | 330 | FNL | 1650 | FEL | 4800 | LOCO HILLS | NEW MEXICO | EDDY |

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| API Number | Operator Current Name | Lease Name | Name | Section Number | Unit | Footage North South | Footage North South Start Line | Footage East West | Footage East West Start Line | Depth Total Driller | Field Name | State Name | County Name |
|----------------|-----------------------|----------------------|------|----------------|------|---------------------|--------------------------------|-------------------|------------------------------|---------------------|------------------|------------|-------------|
| 30015323840000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | 5 | 20 | G | 2310 | FNL | 1750 | FEL | 4920 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015323300000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | 6 | 20 | B | 990 | FNL | 1650 | FEL | 4850 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015362800000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | 8 | 20 | G | 1675 | FNL | 2310 | FEL | 5900 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015364170000 | MARBOB ENERGY CORP | THUNDERROAD FEDERAL | 7 | 20 | B | 330 | FNL | 2310 | FEL | 6000 | LOCO HILLS | NEW MEXICO | EDDY |
| 30015219440000 | PETROLEUM CORP OF TX | JENKINS-B-FEDERAL | 5 | 20 | D | 330 | FNL | 330 | FWL | 3693 | GRAYBURG JACKSON | NEW MEXICO | EDDY |
| 30015219450000 | PETROLEUM CORP OF TX | JENKINS-B-FEDERAL | 6 | 20 | C | 660 | FNL | 1650 | FWL | 3702 | GRAYBURG JACKSON | NEW MEXICO | EDDY |
| 30015042280000 | SINCLAIR OIL & GAS C | MCINTYRE W D 'E' | 2 | 20 | K | 2210 | FSL | 1650 | FWL | 3280 | GRAYBURG JACKSON | NEW MEXICO | EDDY |
| 30015042270000 | SINCLAIR OIL & GAS C | MCINTYRE-FEDERAL C | 3 | 20 | H | 1650 | FNL | 990 | FEL | 3300 | GRAYBURG JACKSON | NEW MEXICO | EDDY |

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| API Number | Operator Current Name | Lease Name | Name | Formation Producing Name | Date Spud | Date Completion | Date Abandonment | Date First Report | Date Last Activity |
|----------------|-----------------------|-----------------------|------|--------------------------|------------|-----------------|------------------|-------------------|--------------------|
| 30013232650000 | ARCO OIL & GAS CORP | MCINTYRE-FEDERAL | 8 | QUEEN / GRAYBURG / SAN | 8/1/1980 | 11/15/1980 | 11/15/1980 | 4/2/1980 | 8/16/2005 |
| 30013206610000 | COG OPERATING LLC | MCINTYRE | 4 | ANDRES | 6/25/1972 | 7/22/1972 | | 8/1/1973 | 8/16/2005 |
| 30013207490000 | COG OPERATING LLC | MCINTYRE | 5 | GRAYBURG / SAN ANDRES | 10/16/1972 | 11/13/1972 | | 8/1/1973 | 8/16/2005 |
| 30013209720000 | COG OPERATING LLC | MCINTYRE | 6 | SAN ANDRES D | 11/16/1973 | 11/30/1973 | | 8/1/1974 | 8/16/2005 |
| 30013041860001 | COG OPERATING LLC | MCINTYRE 'DK' FEDERAL | 3 | PADDOCK | 5/2/1997 | 12/20/1997 | | 5/15/1998 | 8/15/2005 |
| 30013274760001 | COG OPERATING LLC | MCINTYRE 'DK' FEDERAL | 7 | PADDOCK | 9/19/1997 | 1/2/1998 | | 3/16/1998 | 8/17/2005 |
| 30013274720001 | COG OPERATING LLC | MCINTYRE 'DK' FEDERAL | 8 | PADDOCK | 9/10/1997 | 1/6/1998 | | 3/9/1998 | 8/17/2005 |
| 30013294230000 | COG OPERATING LLC | MCINTYRE 'DK' FEDERAL | 9 | PADDOCK | 4/30/1997 | 12/19/1997 | | 2/10/1997 | 8/3/2006 |
| 30013294240000 | COG OPERATING LLC | MCINTYRE 'DK' FEDERAL | 10 | PADDOCK | 11/10/1997 | 12/19/1997 | | 2/10/1997 | 3/14/2006 |
| 30013309810000 | COG OPERATING LLC | MCINTYRE 'DK' FEDERAL | 11 | PADDOCK | 4/3/2000 | 5/23/2000 | | 1/14/2000 | 8/18/2005 |
| 30013306790000 | COG OPERATING LLC | MCINTYRE 'DK' FEDERAL | 13 | PADDOCK | 12/30/1999 | 2/8/2000 | | 5/5/1999 | 8/18/2005 |
| 30013345370000 | COG OPERATING LLC | MCINTYRE DK FEDERAL | 14 | SAN ANDRES | 5/26/2006 | 7/2/2006 | | 10/27/2005 | 5/2/2007 |
| 30013059420000 | DANCIGER OIL&REFININ | TURNER B | 7 | J&A'D | 1/29/1942 | 2/4/1942 | 2/4/1942 | 8/1/1973 | 8/16/2005 |
| 30013206310000 | GEN AMER OIL CO | ARCO | 1 | GRAYBURG / SAN ANDRES | 4/26/1972 | 6/23/1972 | | 8/1/1973 | 8/16/2005 |
| 30013206320000 | GEN AMER OIL CO | ARCO | 2 | GRAYBURG / SAN ANDRES | 4/22/1972 | 6/11/1972 | | 6/1/1977 | 8/16/2005 |
| 30013206140000 | GEN AMER OIL CO | MCINTYRE /F/ | 2 | GRAYBURG / SAN ANDRES | 4/2/1972 | 4/21/1972 | | 6/1/1977 | 8/16/2005 |
| 30013041830000 | KENNEDY OIL CO INC | MCINTYRE | 2 | | 10/3/1935 | 12/28/1935 | | 8/1/1973 | 8/15/2005 |
| 30013041860000 | KENNEDY OIL CO INC | MCINTYRE | 3 | GRAYBURG | 4/21/1956 | 8/3/1956 | | 8/1/1973 | 8/15/2005 |
| 30013313300000 | MARBOB ENERGY CORP | BIRDIE FEDERAL | 1 | PADDOCK | 9/16/2000 | 10/17/2000 | | 9/20/2000 | 8/18/2005 |
| 30013302310000 | MARBOB ENERGY CORP | BIRDIE FEDERAL | 3 | PADDOCK | 5/10/1998 | 6/16/1998 | | 4/2/1998 | 8/18/2005 |
| 30013367600000 | MARBOB ENERGY CORP | BIRDIE FEDERAL | 15 | YESO | 12/31/2008 | 3/5/2009 | | 11/21/2008 | 9/23/2009 |
| 30013365760000 | MARBOB ENERGY CORP | BIRDIE FEDERAL | 16 | YESO | 9/24/2008 | 11/4/2008 | | 7/18/2008 | 9/23/2009 |
| 30013301430000 | MARBOB ENERGY CORP | RED FEDERAL | 2 | PADDOCK | 4/10/1998 | 5/8/1998 | | 2/9/1998 | 8/18/2005 |
| 30013041890000 | GREAT WESTERN DRL CO | GRAYBURG DEEP UNIT | 3 | GLORIETA | 2/29/1956 | 5/1/1957 | | 8/1/1973 | 8/15/2005 |
| 30013041160000 | LOCKHART & COMPANY | PARKE PERMIT | 1 | | 9/6/1929 | 1/8/1930 | 1/8/1930 | 8/1/1973 | 8/15/2005 |
| 30013297740000 | MARBOB ENERGY CORP | BURCH KEELY UNIT | 275 | SAN ANDRES D | 11/20/1997 | 12/9/1997 | | 7/7/1997 | 8/18/2005 |
| 30013338110000 | MARBOB ENERGY CORP | BURCH KEELY UNIT | 382 | GLORIETA | 5/21/2005 | 8/3/2005 | | 8/19/2004 | 8/25/2006 |
| 30013213660000 | GEN AMER OIL CO | BURCH /A/ | 31 | GRAYBURG / SAN ANDRES | 9/5/1974 | 10/8/1974 | | 2/1/1975 | 8/16/2005 |
| 30013041980001 | GEN AMER OIL CO | BURCH A | 6 | GRAYBURG / SAN ANDRES | 5/27/1972 | 8/1/1972 | | 8/1/1973 | 11/30/2006 |
| 30013041980000 | GEN AMER OIL CO | BURCH-FEDERAL A | 6 | | 2/4/1935 | 4/23/1935 | | 8/1/1973 | 8/15/2005 |
| 30013042030000 | GEN AMER OIL CO | BURCH-FEDERAL A | 11 | | 2/8/1938 | 4/1/1938 | | 8/1/1973 | 8/15/2005 |
| 30013276450000 | MARBOB ENERGY CORP | BURCH-KEELY UNIT | 225 | SAN ANDRES D | 5/14/1994 | 6/20/1994 | | 7/14/1993 | 1/23/2007 |
| 30013276460000 | MARBOB ENERGY CORP | BURCH-KEELY UNIT | 242 | SAN ANDRES D | 8/8/1994 | 9/28/1994 | | 7/14/1993 | 1/23/2007 |
| 30013295100000 | MARBOB ENERGY CORP | BURCH KEELY UNIT | 269 | SAN ANDRES D | 6/8/1997 | 7/1/1997 | | 3/17/1997 | 8/18/2005 |
| 30013324250000 | MARBOB ENERGY CORP | BURCH KEELY UNIT | 328 | GLORIETA | 10/19/2002 | 12/4/2002 | | 7/26/2002 | 8/18/2005 |
| 30013329160000 | MARBOB ENERGY CORP | BURCH KEELY UNIT | 358 | SAN ANDRES | 9/25/2003 | 10/29/2003 | | 8/4/2003 | 8/18/2005 |
| 30013329910000 | MARBOB ENERGY CORP | BURCH KEELY UNIT | 361 | GLORIETA | 2/4/2004 | 3/25/2004 | | 6/6/2003 | 8/25/2006 |
| 30013237000000 | HOLLY ENERGY | MCINTYRE 'A' | 8 | ABO /SH/ | 6/4/1980 | 9/12/1980 | | 4/9/1980 | 8/16/2005 |
| 30013224440000 | HOLLY ENERGY | MCINTYRE /B/ | 3 | GRAYBURG | 4/19/1978 | 6/1/1978 | | 9/1/1978 | 8/16/2005 |
| 30013225710000 | GEN AMER OIL CO | DEXTER /E/ | 3 | GRAYBURG / SAN ANDRES | 6/30/1978 | 5/23/1979 | | 5/1/1979 | 8/16/2005 |

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| API Number | Operator Current Name | Lease Name | Name | Formation Producing Name | Date Spud | Date Completion | Date Abandonment | Date First Report | Date Last Activity |
|----------------|-----------------------|----------------------|------|--------------------------|------------|-----------------|------------------|-------------------|--------------------|
| 30015042250000 | GEN AMER OIL CO | DEXTER-FEDERAL E | 1 | | 3/18/1925 | 6/11/1925 | | 8/1/1973 | 8/15/2005 |
| 30015042300000 | GEN AMER OIL CO | DEXTER-FEDERAL E | 2 | | 2/26/1936 | 6/12/1936 | 5/13/1994 | 8/1/1973 | 8/15/2005 |
| 30015042190000 | FRANKLIN ASTN&FAIR I | MCINTYRE-FEDERAL A | 1 | | 7/13/1938 | 12/16/1938 | | 8/1/1973 | 8/15/2005 |
| 30015042180000 | FRANKLIN ASTN&FAIR I | MCINTYRE-FEDERAL B | 1 | | 10/21/1937 | 2/5/1938 | | 8/15/1999 | 8/15/2005 |
| 30015042210000 | FRANKLIN ASTN&FAIR I | MCINTYRE-FED-REPORT | 3 | | 3/28/1940 | 6/29/1940 | | 8/1/1973 | 8/15/2005 |
| 30015042140001 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 1 | PADDOCK | 7/31/1999 | 9/19/1999 | | 10/20/1999 | 8/15/2005 |
| 30015042150001 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 2 | PADDOCK | 1/28/1997 | 3/6/1997 | | 5/23/1997 | 8/15/2005 |
| 30015042160001 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 3 | PADDOCK | 1/21/1997 | 2/18/1997 | | 3/31/1997 | 8/15/2005 |
| 30015042310001 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 4 | PADDOCK | 1/10/1997 | 2/12/1997 | | 3/31/1997 | 8/15/2005 |
| 30015294510000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 7 | PADDOCK | 4/3/1997 | 5/17/1997 | | 2/3/1997 | 8/18/2005 |
| 30015293880000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 8 | PADDOCK | 10/10/1997 | 2/15/1998 | | 1/29/1997 | 8/18/2005 |
| 30015297550000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 9 | PADDOCK | 10/27/1997 | 7/17/1998 | | 7/2/1997 | 8/18/2005 |
| 30015306680000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 10 | PADDOCK | 8/3/1999 | 9/14/1999 | | 5/20/1999 | 8/18/2005 |
| 30015306650000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 11 | PADDOCK | 12/1/1999 | 1/7/2000 | | 5/20/1999 | 8/18/2005 |
| 30015315590000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 12 | PADDOCK | 2/21/2001 | 3/26/2001 | | 11/22/2000 | 8/18/2005 |
| 30015315600000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 13 | PADDOCK | 2/23/2001 | 5/2/2001 | | 11/22/2000 | 8/18/2005 |
| 30015322570000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 14 | PADDOCK | 6/9/2002 | 7/28/2002 | | 3/5/2002 | 8/18/2005 |
| 30015334720001 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 15 | GLORIETA | 8/26/2005 | 10/6/2005 | | 12/12/2005 | 8/25/2006 |
| 30015323710000 | COG OPERATING LLC | JENKINS 'B' FEDERAL | 16 | PADDOCK | 9/8/2002 | 11/4/2002 | | 7/19/2002 | 8/18/2005 |
| 30015341380000 | COG OPERATING LLC | JENKINS B FEDERAL | 17 | SAN ANDRES | 11/10/2005 | 1/25/2006 | | 4/27/2005 | 1/23/2007 |
| 30015344740000 | COG OPERATING LLC | JENKINS B FEDERAL | 18 | PADDOCK | 2/6/2006 | 3/20/2006 | | 10/27/2005 | 1/23/2007 |
| 30015294260001 | COG OPERATING LLC | MCINTYRE W D 'C' | 4 | SAN ANDRES | 3/25/2006 | 4/3/2006 | | 6/12/2006 | 6/12/2006 |
| 30015294250001 | COG OPERATING LLC | MCINTYRE WD | 3 | PADDOCK | 2/1/2006 | 3/6/2006 | | 4/25/2006 | 10/6/2009 |
| 30015042190001 | COG OPERATING LLC | MCINTYRE 'A' | 1 | PADDOCK | 2/20/1997 | 11/26/1997 | | 5/15/1998 | 8/15/2005 |
| 30015042210001 | COG OPERATING LLC | MCINTYRE 'A' | 3 | PADDOCK | 3/10/1997 | 1/1/1998 | | 5/15/1998 | 8/15/2005 |
| 30015234070001 | COG OPERATING LLC | MCINTYRE 'A' | 9 | PADDOCK | 11/15/1999 | 12/17/1999 | | 1/26/2000 | 8/16/2005 |
| 30015302930000 | COG OPERATING LLC | MCINTYRE 'A' | 13 | PADDOCK | 6/27/1998 | 8/19/1998 | | 4/16/1998 | 8/18/2005 |
| 30015317890000 | COG OPERATING LLC | MCINTYRE 'A' | 17 | PADDOCK | 6/23/2001 | 8/15/2001 | | 4/13/2001 | 8/18/2005 |
| 30015310710000 | COG OPERATING LLC | MCINTYRE 'A' FEDERAL | 11 | PADDOCK | 4/28/2000 | 7/12/2000 | | 2/24/2000 | 8/18/2005 |
| 30015042180001 | COG OPERATING LLC | MCINTYRE 'B' | 1 | PADDOCK | 4/15/1997 | 7/29/1998 | | 9/24/1998 | 8/15/2005 |
| 30015317880000 | COG OPERATING LLC | MCINTYRE 'B' | 9 | PADDOCK | 7/9/2001 | 8/14/2001 | | 4/11/2001 | 8/18/2005 |
| 30015293890000 | COG OPERATING LLC | MCINTYRE 'B' FEDERAL | 5 | PADDOCK | 3/21/1997 | 3/16/1998 | | 2/3/1997 | 8/25/2006 |
| 30015042270001 | COG OPERATING LLC | MCINTYRE W D 'C' | 3 | PADDOCK | 3/18/1997 | 8/20/1998 | | 9/17/1998 | 8/15/2005 |
| 30015294260000 | COG OPERATING LLC | MCINTYRE W D 'C' | 4 | PADDOCK | 4/17/1997 | 12/20/1997 | | 2/10/1997 | 6/12/2006 |
| 30015302920000 | COG OPERATING LLC | MCINTYRE W D 'C' | 6 | PADDOCK | 3/23/1999 | 4/28/1999 | | 4/16/1998 | 8/18/2005 |
| 30015344730000 | COG OPERATING LLC | MCINTYRE W D 'C' | 9 | PADDOCK | 12/23/2005 | 3/1/2006 | | 10/27/2005 | 1/23/2007 |
| 30015294250000 | COG OPERATING LLC | MCINTYRE W D 'E' | 3 | PADDOCK | 5/13/1997 | 2/24/1998 | | 2/10/1997 | 4/25/2006 |
| 30015302910000 | COG OPERATING LLC | MCINTYRE W D 'E' | 5 | PADDOCK | 7/26/1998 | 9/17/1998 | | 4/16/1998 | 8/18/2005 |
| 30015317870000 | COG OPERATING LLC | MCINTYRE W D 'E' | 8 | PADDOCK | 7/9/2001 | 8/28/2001 | | 4/9/2001 | 8/18/2005 |
| 30015322170000 | COG OPERATING LLC | MCINTYRE W D 'E' | 10 | PADDOCK | 4/9/2002 | 5/20/2002 | | 1/17/2002 | 8/18/2005 |
| 30015222160001 | MACK ENERGY CORP | LOCO SW | 1 | ABO /SH/ | 8/28/2001 | 10/18/2001 | | 12/3/2001 | 8/16/2005 |
| 30015299100000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | 1 | PADDOCK | 12/4/1997 | 1/25/1998 | | 10/1/1997 | 8/18/2005 |
| 30015299110000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | 2 | PADDOCK | 11/10/1997 | 12/23/1997 | | 10/1/1997 | 8/18/2005 |
| 30015299120000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | 3 | PADDOCK | 11/30/1997 | 12/23/1997 | | 10/1/1997 | 8/18/2005 |
| 30015299520000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | 4 | PADDOCK | 3/30/1998 | 4/22/1998 | | 10/1/1997 | 8/18/2005 |

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| API Number | Operator Current Name | Lease Name | Name | Formation Producing Name | Date Spud | Date Completion | Date Abandonment | Date First Report | Date Last Activity |
|----------------|-----------------------|----------------------|------|--------------------------|------------|-----------------|------------------|-------------------|--------------------|
| 30015323840000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | 5 | PADDOCK | 9/15/2002 | 11/18/2002 | | 5/22/2002 | 8/18/2005 |
| 30015323300000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | 6 | PADDOCK | 8/31/2002 | 9/30/2002 | | 6/12/2002 | 8/18/2005 |
| 30015362800000 | MARBOB ENERGY CORP | THUNDER ROAD FEDERAL | 8 | YESO | 7/26/2008 | 9/2/2008 | | 2/26/2008 | 9/23/2009 |
| 30015364170000 | MARBOB ENERGY CORP | THUNDERROAD FEDERAL | 7 | YESO | 11/1/2008 | 12/19/2008 | | 5/14/2008 | 9/23/2009 |
| 30015219440000 | PETROLEUM CORP OF TX | JENKINS-B-FEDERAL | 5 | GRAYBURG / SAN ANDRES | 1/4/1977 | 2/4/1977 | | 6/1/1977 | 8/16/2005 |
| 30015219450000 | PETROLEUM CORP OF TX | JENKINS-B-FEDERAL | 6 | GRAYBURG / SAN ANDRES | 12/18/1976 | 2/10/1977 | | 6/1/1977 | 8/16/2005 |
| 30015042280000 | SINCLAIR OIL & GAS C | MCINTYRE W D 'E' | 2 | SAN ANDRES | 7/21/1937 | 11/17/1937 | 3/13/2002 | 8/1/1973 | 8/15/2005 |
| 30015042270000 | SINCLAIR OIL & GAS C | MCINTYRE-FEDERAL C | 3 | | 5/18/1938 | 7/12/1938 | | 8/1/1973 | 8/15/2005 |

PI/Dwights PLUS on CD Well Summary Report

| General Information | | | | | |
|---------------------|---|---------------------|---------------------|---|--------------|
| State | : | NEW MEXICO | Final Status | : | D&A-OG |
| County | : | EDDY | Drill Total Depth | : | 11244 |
| Field | : | LOCO HILLS | Log Total Depth | : | |
| Operator Name | : | ARCO OIL & GAS CORP | True Vertical Depth | : | |
| Lease Name | : | MCINTYRE-FEDERAL | | | |
| Well Number | : | 8 | Spud Date | : | AUG 01, 1980 |
| API Number | : | 30015232650000 | Comp Date | : | NOV 15, 1980 |
| Regulatory API | : | | | | |
| Init Lahee Class | : | D | Hole Direction | : | VERTICAL |
| Final Lahee Class | : | D | Reference Elevation | : | |
| Permit Number | : | | Ground Elevation | : | 3660 |
| Geologic Province | : | PERMIAN BASIN | KB Elevation | : | |
| Formation at TD | : | 402MRRW | | | |
| Oldest Age Pen | : | 402 | | | |
| Township | : | 17 S | Section | : | 17 SEC |
| Range | : | 30 E | Spot | : | |
| Base Meridian | : | NEW MEXICO | | | |

| Additional Location Information | | | | |
|---------------------------------|---|------------------------------------|--------------------|---|
| Footage Location | : | 1650 FSL 1980 FWL CONGRESS SECTION | | |
| Latitude | : | 32.8316900 | Latitude (Bot) | : |
| Longitude | : | -103.9958100 | Longitude (Bot) | : |
| Lat./Long. Source | : | TS | | |
| Location Narrative | : | Type | Remark | |
| | | LOCATION | 1 MI NW/LOCO HILLS | |

| Production Tests | | | | | | | | |
|------------------|----------|-----------|-----------|------------|-------|---------|-----------|---------------|
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | Oil GOR | Prod Grav | Test Method |
| 001 | 402MRRW | 402MRRW | 11003 | 11044 | 48/64 | | | PERF FLOWING |
| 002 | 402MRRW | 402MRRW | 11003 | 11044 | | | | PERF SWABBING |
| 003 | 402MRRW | 402MRRW | 10828 | 10848 | | | | PERF SWABBING |
| 004 | 405CNYN | 405CNYN | 9589 | 9598 | | | | PERF SWABBING |
| 005 | 451WFMP | 451WFMP | 9032 | 9046 | | | | PERF SWABBING |
| 006 | 451WFMP | 451WFMP | 8969 | 8974 | | | | PERF SWABBING |
| 007 | 451WFMP | 451WFMP | 8888 | 8936 | | | | PERF SWABBING |

| Production Shutoff | | | | |
|--------------------|--------------|-----------|------------|----------------|
| Test | Shutoff Type | Top Depth | Base Depth | Plugback Depth |
| 003 | SQZD | 10828 | 11044 | |
| 004 | SQZD | 9589 | 9598 | |

| Production Volume | | | | | | | | | | | | |
|-------------------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
| 001 | | | | | | | 249 | MCFD | | | | |
| 002 | | | UO | | | | | | | | | |
| 003 | | | | | | | | | | | | |
| 004 | | | | | | | | | | | | |
| 005 | | | | | | | | | | | | |
| 006 | | | UO | | | | | | | | | |
| 007 | | | | | | | | | | | | |

| Production Pressure | | | | |
|---------------------|-----|------|-----|------|
| Test | FTP | SITP | FCP | SICP |
| 001 | | | | |

120 BBL

PI/Dwights PLUS on CD Well Summary Report002
004
005
006
007**Production Treatment**

| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
|------|-------|-------|--------|------|--------|-----|-----|-----|------|-----|-------|-----|
| 001 | 11003 | 11044 | 3000 | GAL | | | | | ACID | | | |
| 003 | 10828 | 10848 | 2000 | GAL | | | | | ACID | | | |
| 005 | 9032 | 9046 | 2000 | GAL | | | | | ACID | | | |
| 006 | 8969 | 8974 | 1000 | GAL | | | | | ACID | | | |
| 007 | 8888 | 8936 | 500 | GAL | | | | | ACID | | | |

Production Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|-------|-------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 11003 | 11010 | | PERF | 402MRRW | 402MRRW | C | 1 | | |
| 001 | 11028 | 11044 | | PERF | 402MRRW | 402MRRW | C | 1 | | |
| 002 | 11003 | 11044 | | PERF | 402MRRW | 402MRRW | | 2 | | |
| 003 | 10828 | 10836 | | PERF | 402MRRW | 402MRRW | C | 1 | | |
| 003 | 10840 | 10848 | | PERF | 402MRRW | 402MRRW | C | 1 | | |
| 004 | 9589 | 9598 | | PERF | 405CNYN | 405CNYN | C | 1 | | |
| 005 | 9032 | 9046 | | PERF | 451WFMP | 451WFMP | C | 2 | | |
| 006 | 8969 | 8974 | | PERF | 451WFMP | 451WFMP | C | 2 | | |
| 007 | 8888 | 8905 | | PERF | 451WFMP | 451WFMP | C | 1 | | |
| 007 | 8918 | 8936 | | PERF | 451WFMP | 451WFMP | C | 1 | | |

Formation Tests

| Test | Type | Top Depth | Base Depth | Top Form | Top Choke | Bottom Choke | Show |
|------|------|-----------|------------|----------|-----------|--------------|------|
| 001 | DST | 7566 | 7767 | 451WFMP | | | S |

Pressure and Time

| Test | Init | Hydro Final | Init Flow | | Final Flow | | Shut-in | | Open Time | | Shut-in Time | |
|------|------|-------------|-----------|-------|------------|-------|---------|-------|-----------|-------|--------------|-------|
| | | | Init | Final | Init | Final | Init | Final | Init | Final | Init | Final |
| 001 | 3666 | 3621 | | | 435 | 2118 | 2791 | 2769 | | 75 | 60 | 120 |

Pipe Recovery

| Test | Amount | Unit | Desc | Rec Type | Rec Method |
|------|--------|------|------|----------|--------------|
| 001 | 4761 | FT | GCM | | PIPE |
| 001 | 1 | CF | G | | SMPL CHAMBER |
| 001 | 2100 | CC | W | | SMPL CHAMBER |

Log Data

| Run No | Log Type | Top | Base | Log MD | Max Temp |
|--------|----------|-----|------|--------|----------|
| 01 | CB | | | | |

Casing Data

| Size | Base Depth | Cement Unit |
|-----------|------------|-------------|
| 13 3/8 IN | 446 | 425 SACK |
| 8 5/8 IN | 2652 | 1250 SACK |
| 5 1/2 IN | 11244 | |

PI/Dwights PLUS on CD Well Summary Report

| | | | |
|----------------------------|---|---------------------|----------------|
| General Information | | | |
| State | : NEW MEXICO | Final Status | : OIL |
| County | : EDDY | Drill Total Depth | : 4277 |
| Field | : GRAYBURG JACKSON | Log Total Depth | : |
| Operator Name | : KENNEDY OIL CO INC C O G | True Vertical Depth | : |
| Lease Name | : MCINTYRE | | |
| Well Number | : 4 | Spud Date | : JUN 25, 1972 |
| API Number | : 30015206610000 | Comp Date | : JUL 22, 1972 |
| Regulatory API | : | | |
| Init Lahee Class | : D | Hole Direction | : VERTICAL |
| Final Lahee Class | : DO | Reference Elevation | : |
| Permit Number | : | Ground Elevation | : 3649 |
| Geologic Province | : PERMIAN BASIN | KB Elevation | : |
| Formation at TD | : 453SADRD SAN ANDRES D | | |
| Oldest Age Pen | : 453 PERMIAN GUADALUPIAN | | |
| Producing Formation | : 453QGSA QUEEN / GRAYBURG / SAN ANDRES | | |
| Township | : 17 S | Section | : 17 SEC |
| Range | : 30 E | Spot | : |
| Base Meridian | : NEW MEXICO | | |

| | | | |
|--|------------------------------------|-----------------|---|
| Additional Location Information | | | |
| Footage Location | : 660 FSL 860 FWL CONGRESS SECTION | | |
| Latitude | : 32.8289400 | Latitude (Bot) | : |
| Longitude | : -103.9994500 | Longitude (Bot) | : |
| Lat./Long. Source | : TS | | |

| | | | | | | | | | |
|--------------------------------|----------|-----------|-----------|------------|-------|------|----------|-------------|-------------|
| Initial Potential Tests | | | | | | | | | |
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
| 001 | 453QGSA | 453QGSA | 2016 | 4094 | 19/64 | 2595 | 36 | PERF | FLOWING |

IP Volume

| | | | | | | | | | | | | |
|------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
| 001 | 99 | BPD | | | | | | | | | | |

IP Pressure

| | | | | |
|------|-----|------|-----|------|
| Test | FTP | SITP | FCP | SICP |
| 001 | 200 | | 400 | |

IP Treatment

| | | | | | | | | | | | | |
|------|------|------|--------|------|--------|-----|-----|-----|------|-----|-------|------|
| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
| 001 | 2016 | 4094 | 8250 | GAL | | | | | ACID | | | |
| 001 | 2016 | 4094 | 170000 | GAL | 170000 | LB | | | FRAC | | SAND | GELA |

IP Perforation

| | | | | | | | | | | |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
| 001 | 2016 | 2042 | | PERF | 453QGSA | 453QGSA | A | | | |
| 001 | 2472 | 2492 | | PERF | 453QGSA | 453QGSA | A | | | |
| 001 | 2564 | 2612 | | PERF | 453QGSA | 453QGSA | A | | | |
| 001 | 2664 | 2728 | | PERF | 453QGSA | 453QGSA | A | | | |
| 001 | 3003 | 3036 | | PERF | 453QGSA | 453QGSA | A | | | |
| 001 | 3078 | 3196 | | PERF | 453QGSA | 453QGSA | A | | | |
| 001 | 3559 | 3568 | | PERF | 453QGSA | 453QGSA | A | | | |
| 001 | 4093 | 4094 | | PERF | 453QGSA | 453QGSA | A | | | |

Formations

| | | | | | | | |
|-----------|-----------|-----------|---------|------------|----------|--------|-----------|
| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
|-----------|-----------|-----------|---------|------------|----------|--------|-----------|

PI/Dwights PLUS on CD Well Summary Report

| | | | |
|---------|--------------|------|-----|
| 454SALT | SALT | 505 | LOG |
| 453QUEN | QUEEN | 2015 | LOG |
| 453SADR | SAN ANDRES D | 2718 | LOG |

Log Data

| Run No | Log Type | Top | Base | Log MD | Max Temp |
|--------|----------|-----|------|--------|----------|
| 01 | EL | | | | |
| 01 | NEES | | | | |

Casing Data

| Size | Base Depth | Cement | Unit |
|----------|------------|--------|------|
| 8 5/8 IN | 515 | 225 | SACK |
| 5 1/2 IN | 4263 | 200 | SACK |

PI/Dwights PLUS on CD Well Summary Report**General Information**

| | | | |
|---------------------|---------------------------------|---------------------|----------------|
| State | : NEW MEXICO | Final Status | : OIL |
| County | : EDDY | Drill Total Depth | : 4300 |
| Field | : GRAYBURG JACKSON | Log Total Depth | : |
| Operator Name | : KENNEDY OIL CO INC C O C | True Vertical Depth | : |
| Lease Name | : MCINTYRE | | |
| Well Number | : 5 | Spud Date | : OCT 16, 1972 |
| API Number | : 30015207490000 | Comp Date | : NOV 13, 1972 |
| Regulatory API | : | | |
| Init Lahee Class | : D | Hole Direction | : VERTICAL |
| Final Lahee Class | : DO | Reference Elevation | : |
| Permit Number | : | Ground Elevation | : 3668 |
| Geologic Province | : PERMIAN BASIN | KB Elevation | : |
| Formation at TD | : 453SADR D SAN ANDRES D | | |
| Oldest Age Pen | : 453 PERMIAN GUADALUPIAN | | |
| Producing Formation | : 453GBSA GRAYBURG / SAN ANDRES | | |
| Township | : 17 S | Section | : 17 SEC |
| Range | : 30 E | Spot | : |
| Base Meridian | : NEW MEXICO | | |

Additional Location Information

| | |
|-------------------|------------------------------------|
| Footage Location | : 990 FSL 990 FEL CONGRESS SECTION |
| Latitude | : 32.8299600 |
| Longitude | : -103.9880200 |
| Lat./Long. Source | : TS |

Initial Potential Tests

| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
|------|----------|-----------|-----------|------------|-------|------|----------|-------------|-------------|
| 001 | 453GBSA | 453GBSA | 2582 | 3218 | | 1936 | 37 | PERF | PUMPING |

IP Volume

| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
|------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| 001 | 78 | BPD | | | | | | | | | | |

IP Pressure

| Test | FTP | SITP | FCP | SICP |
|------|-----|------|-----|------|
| 001 | | | | |

IP Treatment

| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
|------|------|------|--------|------|--------|-----|-----|-----|------|-----|-------|-----|
| 001 | 2582 | 3218 | 18000 | GAL | | | | | ACID | | | |

IP Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 2582 | 2590 | | PERF | 453GBSA | 453GBSA | A | | | |
| 001 | 2695 | 2700 | | PERF | 453GBSA | 453GBSA | A | | | |
| 001 | 2784 | 2788 | | PERF | 453GBSA | 453GBSA | A | | | |
| 001 | 3004 | 3053 | | PERF | 453GBSA | 453GBSA | A | | | |
| 001 | 3080 | 3218 | | PERF | 453GBSA | 453GBSA | A | | | |

Formations

| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
|-----------|--------------|-----------|---------|------------|----------|--------|-----------|
| ISALT | SALT | 505 | | | | LOG | |
| 453QUEN | QUEEN | 2042 | | | | LOG | |
| 453SADR D | SAN ANDRES D | 2738 | | | | LOG | |

Casing Data

PI/Dwights PLUS on CD Well Summary Report

| Size | Base Depth | Cement | Unit |
|----------|------------|--------|------|
| 8 5/8 IN | 505 | 225 | SACK |
| 5 1/2 IN | 4300 | 850 | SACK |

PI/Dwights PLUS on CD Well Summary Report**General Information**

| | | | | | |
|---------------------|---|------------------------|---------------------|---|--------------|
| State | : | NEW MEXICO | Final Status | : | OIL |
| County | : | EDDY | Drill Total Depth | : | 4329 |
| Field | : | GRAYBURG JACKSON | Log Total Depth | : | |
| Operator Name | : | KENNEDY OIL CO INC CUG | True Vertical Depth | : | |
| Lease Name | : | MCINTYRE | | | |
| Well Number | : | 6 | Spud Date | : | NOV 16, 1973 |
| API Number | : | 30015209720000 | Comp Date | : | NOV 30, 1973 |
| Regulatory API | : | | | | |
| Init Lahee Class | : | D | Hole Direction | : | VERTICAL |
| Final Lahee Class | : | DO | Reference Elevation | : | |
| Permit Number | : | | Ground Elevation | : | 3657 |
| Geologic Province | : | PERMIAN BASIN | KB Elevation | : | |
| Formation at TD | : | 453SADR | | | |
| Oldest Age Pen | : | 453 | | | |
| Producing Formation | : | 453SADR | | | |
| Township | : | 17 S | Section | : | 17 SEC |
| Range | : | 30 E | Spot | : | |
| Base Meridian | : | NEW MEXICO | | | |

Additional Location Information

| | | |
|-------------------|---|-----------------------------------|
| Footage Location | : | 990 FSL 2310 FWL CONGRESS SECTION |
| Latitude | : | 32.8298900 |
| Longitude | : | -103.9947300 |
| Lat./Long. Source | : | TS |

Initial Potential Tests

| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
|------|----------|-----------|-----------|------------|-------|-----|----------|-------------|-------------|
| 001 | 453SADR | 453SADR | 3300 | 4042 | | | | PERF | FLOWING |

IP Volume

| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
|------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| 001 | 30 | BPD | | | | | | | | | | |

IP Pressure

| Test | FTP | SITP | FCP | SICP |
|------|-----|------|-----|------|
| 001 | | | | |

IP Treatment

| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
|------|------|------|--------|------|--------|-----|-----|-----|------|-----|-------|-----|
| 001 | 3300 | 4042 | 2000 | GAL | | | | | ACID | | | |

IP Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 3300 | 4042 | | PERF | 453SADR | 453SADR | A | 48 | | |

Formations

| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
|-----------|--------------|-----------|---------|------------|----------|--------|-----------|
| 453QUEN | QUEEN | 2025 | | | | LOG | |
| 453SADR | SAN ANDRES D | 2725 | | | | LOG | |

Casing Data

| Size | Base Depth | Cement Unit |
|----------|------------|-------------|
| 8 5/8 IN | 496 | 200 SACK |
| 5 1/2 IN | 4329 | 850 SACK |

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: 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: C.O.C. 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: 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: L 06 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: 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: *cd* 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 |

PI/Dwights PLUS on CD Well Summary Report**General Information**

| | | | | | |
|---------------------|---|---------------------|---------------------|---|--------------|
| State | : | NEW MEXICO | Final Status | : | 2OIL |
| County | : | EDDY | Drill Total Depth | : | 4746 |
| Field | : | GRAYBURG JACKSON | Log Total Depth | : | |
| Operator Name | : | COG OPERATING LLC | True Vertical Depth | : | |
| Lease Name | : | MCINTYRE DK FEDERAL | | | |
| Well Number | : | 11 | Spud Date | : | FEB 18, 2006 |
| API Number | : | 30015309810001 | Comp Date | : | MAR 13, 2006 |
| Regulatory API | : | | | | |
| Init Lahee Class | : | D X | Hole Direction | : | VERTICAL |
| Final Lahee Class | : | DO | Reference Elevation | : | 3672 KB |
| Permit Number | : | | Ground Elevation | : | 3659 |
| Geologic Province | : | PERMIAN BASIN | KB Elevation | : | 3672 |
| Formation at TD | : | 452PDCK | | | |
| Oldest Age Pen | : | 452 | | | |
| Producing Formation | : | 453GBSA | | | |
| | | 452PDCK | | | |
| Township | : | 17 S | Section | : | 17 SEC |
| Range | : | 30 E | Spot | : | SW SW SE |
| Base Meridian | : | NEW MEXICO | | | |

Additional Location Information

| | | | | | |
|--------------------|---|-----------------------------------|-----------------------|---|--|
| Footage Location | : | 330 FSL 2310 FEL CONGRESS SECTION | | | |
| Latitude | : | 32.8280300 | Latitude (Bot) | : | |
| Longitude | : | -103.9926600 | Longitude (Bot) | : | |
| Long. Source | : | TS | | | |
| Location Narrative | : | Type | Remark | | |
| | | SCALED_FOOT | REGULATORY | | |
| | | IRREG_SECT | N | | |
| | | DST_TOWN | 1 MI N LOCO HILLS, NM | | |

Initial Potential Tests

| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
|------|----------|-----------|-----------|------------|-------|------|----------|-------------|--------------|
| 001 | 453GBSA | 453GBSA | 2978 | 4077 | | 1590 | 38 | PERF | PUMPING |
| 002 | 452PDCK | 452PDCK | 4216 | 4600 | | | | PERF | UNDESIGNATED |

IP Volume

| Test | Amount | Oil | Desc | Amount | Cond | Desc | Amount | Gas | Desc | Amount | Wtr | Desc |
|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|
| | | Unit | | | Unit | | | Unit | | | Unit | |
| 001 | 61 | BPD | | | | | 97 | MCFD | | 388 | BBL | |

UO**IP Treatment**

| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
|------|------|------|--------|------|--------|-----|-----|-----|------|-----|-------|------|
| 001 | 2978 | 3222 | 3000 | GAL | | | | | ACID | | | NEFE |
| 001 | 3317 | 3451 | 3000 | GAL | | | | | ACID | | | NEFE |
| 001 | 3317 | 3451 | 92865 | GAL | 93760 | LB | | | FRAC | | SAND | |
| 001 | 3956 | 4077 | 2500 | GAL | | | | | ACID | | | NEFE |
| 001 | 3956 | 4077 | 130421 | GAL | 92564 | LB | | | FRAC | | SAND | |

IP Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 2978 | 3222 | | PERF | 453GBSA | 453GBSA | | | | |
| 001 | 3317 | 3451 | | PERF | 453GBSA | 453GBSA | | | | |
| 001 | 3956 | 4077 | | PERF | 453GBSA | 453GBSA | | | | |
| 002 | 4216 | 4600 | | PERF | 452PDCK | 452PDCK | | | | |

PI/Dwights PLUS on CD Well Summary Report

Tubing Data

| Size | Base Depth |
|----------|------------|
| 2 7/8 IN | 4627 |

Mixed String

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

PI/Dwights PLUS on CD Well Summary Report**General Information**

| | | | |
|---------------------|-----------------------|---------------------|----------------|
| State | : NEW MEXICO | Final Status | : OIL |
| County | : EDDY | Drill Total Depth | : 5108 |
| Field | : GRAYBURG JACKSON | Log Total Depth | : |
| Operator Name | : COG OPERATING LLC | True Vertical Depth | : |
| Lease Name | : MCINTYRE DK FEDERAL | | |
| Well Number | : 14 | Spud Date | : MAY 26, 2006 |
| API Number | : 30015345370000 | Comp Date | : JUL 02, 2006 |
| Regulatory API | : | | |
| Init Lahee Class | : D | Hole Direction | : DIRECTIONAL |
| Final Lahee Class | : DO | Reference Elevation | : 3683 KB |
| Permit Number | : | Ground Elevation | : 3667 |
| Geologic Province | : PERMIAN BASIN | KB Elevation | : 3683 |
| Formation at TD | : 453GLRT | | |
| Oldest Age Pen | : 452 | | |
| Producing Formation | : 453SADR | | |
| Township | : 17 S | Section | : 17 SEC |
| Range | : 30 E | Spot | : NW SW SE |
| Base Meridian | : NEW MEXICO | | |

Additional Location Information

| | | | |
|--------------------|--------------------------------------|-----------------------|----------------|
| Footage Location | : 1140 FSL 2310 FEL CONGRESS SECTION | | |
| Latitude | : 32.8303000 | Latitude (Bot) | : 32.8298900 |
| Longitude | : -103.9925700 | Longitude (Bot) | : -103.9925700 |
| Lat./Long. Source | : TS | | |
| Location Narrative | : Type | Remark | |
| | SCALED_FOOT | REGULATORY | |
| | IRREG_SECT | N | |
| | DST_TOWN | 1 MI N LOCO HILLS, NM | |

Initial Potential Tests

| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
|------|----------|-----------|-----------|------------|-------|------|----------|-------------|-------------|
| 001 | 453SADR | 452PDCK | 2766 | 4597 | | 1961 | | PERF | PUMPING |

IP Volume

| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
|------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| 001 | 77 | BPD | | | | | 151 | MCFD | | | 407 | BBL |

IP Treatment

| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
|------|------|------|--------|------|--------|-----|-----|-----|------|-----|-------|------|
| 001 | 4275 | 4597 | 3000 | GAL | | | | | ACID | | | NEFE |
| 001 | 4275 | 4597 | 94416 | GAL | 99092 | LB | | | FRAC | | SAND | |
| 001 | 3746 | 3937 | 2500 | GAL | | | | | ACID | | | NEFE |
| 001 | 3746 | 3937 | 95466 | GAL | 98272 | LB | | | FRAC | | SAND | |
| 001 | 3064 | 3232 | 1900 | GAL | | | | | ACID | | | NEFE |
| 001 | 3064 | 3232 | 98759 | GAL | 98826 | LB | | | FRAC | | SAND | |
| 001 | 2766 | 2917 | 2000 | GAL | | | | | ACID | | | NEFE |
| 001 | 2766 | 2917 | 75000 | GAL | 98380 | LB | | | FRAC | | SAND | |
| 001 | 3332 | 3558 | 2000 | GAL | | | | | ACID | | | NEFE |
| 001 | 3332 | 3558 | 94836 | GAL | 98220 | LB | | | FRAC | | SAND | |

IP Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 2766 | 2917 | | PERF | 453SADR | 453SADR | | 52 | | |
| 001 | 3064 | 3232 | | PERF | 453SADR | 453SADR | | 54 | | |
| 001 | 3332 | 3558 | | PERF | 453SADR | 453SADR | | 62 | | |

PI/Dwights PLUS on CD Well Summary Report

| | | | | | | |
|-----|------|------|------|---------|---------|----|
| 001 | 3746 | 3937 | PERF | 453SADR | 453SADR | 66 |
| 001 | 4275 | 4597 | PERF | 452PDCK | 452PDCK | 68 |

Formations

| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
|-----------|--------------|--------------|------------|---------------|-------------|--------|-----------|
| 453YTES | YATES | 1146 | | | | LOG | |
| 453SVRV | SEVEN RIVERS | 1440 | | | | LOG | |
| 453QUEN | QUEEN | 2057 | | | | LOG | |
| 453GRBG | GRAYBURG | 2452 | | | | LOG | |
| 453SADR | SAN ANDRES | 2760 | | | | LOG | |
| 453GLRT | GLORIETA | 4191 | | | | LOG | |

Log Data

| Run No | Log Type | Top | Base | Log MD | Max Temp |
|--------|----------|-----|------|-----------|-------------|
| 1 | GR | | | | |
| 1 | N | | | | |
| 1 | DENL | | | | |
| 1 | LATL | | | | |
| 1 | SPCT | | | | |

Casing Data

| Size | Base Depth | Cement | Unit |
|-----------|------------|--------|------|
| 13 3/8 IN | 440 | 500 | SACK |
| 8 5/8 IN | 1024 | 650 | SACK |
| 5 1/2 IN | 5100 | 1235 | SACK |

Tubing Data

| Size | Base Depth | Mixed String |
|----------|------------|--------------|
| 2 7/8 IN | 4682 | |

Actual Bottom Hole From Surface Location

| Meas Depth | True Vert Depth | Polar Offset | Polar Azimuth | Y Offset | X Offset | State | County |
|---------------|--------------------|-----------------|------------------|-------------|-------------|------------|--------|
| 5108 | | | | | | NEW MEXICO | EDDY |

PI/Dwights PLUS on CD Scout Ticket**7 TURNER B**

State: NEW MEXICO
County: EDDY
Operator: DANCIGER OIL&REFININ
API: 30015059420000 IC:
Initial Class: D
Target Objective:
Final Well Class: D
Status: J&A
Field: GRAYBURG JACKSON
Permit: on AUG 15, 1973
First Report Date: AUG 15, 1973
Projected TD: Formation:
Hole Direction: VERTICAL

Location

Section, Twp., Range: 17 17 S 30 E
Spot Code:
Footage NS EW Origin: 660 FSL 1980 FEL CONGRESS SECTION
Surface Remark:
Principal Meridian: NEW MEXICO

Lat/Long: 32.8290200 / -103.9912400 TS
PBHL Footage NS EW Origin:
PBHL Section:
PBHL Remark:
ABHL Footage NS EW Origin:
ABHL Section:
ABHL Remark:

Dates and Depths

Spud: JAN 29, 1942 Spud Date Code:
TD: 470 on
LTD:
TVD:
PlugBack Depth:
Completed: FEB 04, 1942
Formation @ TD: 000UNKWN Name: UNKNOWN
Ref. Elevation:
KB. Elevation:
Ground Elevation: 3669 EG
Contractor:
Rig Release Date: Rig #

Operator Address

Street or PO Box:

City:
State, Zip: ,
Country:
Phone: Fax:
E-Mail:
Agent Name: Agent Code:
Agent Remark:

PI/Dwights PLUS on CD Well Summary Report

General Information

| | | | |
|-------------------|------------------------|---------------------|----------------|
| State | : NEW MEXICO | Final Status | : J&A |
| County | : EDDY | Drill Total Depth | : 470 |
| Field | : GRAYBURG JACKSON | Log Total Depth | : |
| Operator Name | : DANCIGER OIL&REFININ | True Vertical Depth | : |
| Lease Name | : TURNER B | | |
| Well Number | : 7 | Spud Date | : JAN 29, 1942 |
| API Number | : 30015059420000 | Comp Date | : FEB 04, 1942 |
| Regulatory API | : | | |
| Init Lahee Class | : D | Hole Direction | : VERTICAL |
| Final Lahee Class | : D | Reference Elevation | : |
| Permit Number | : | Ground Elevation | : 3669 |
| Geologic Province | : PERMIAN BASIN | KB Elevation | : |
| Formation at TD | : 000UNKWN UNKNOWN | | |
| Oldest Age Pen | : | | |
| Township | : 17 S | Section | : 17 SEC |
| Range | : 30 E | Spot | : |
| Base Meridian | : NEW MEXICO | | |

Additional Location Information

| | | | |
|-------------------|-------------------------------------|-----------------|---|
| Footage Location | : 660 FSL 1980 FEL CONGRESS SECTION | | |
| Latitude | : 32.8290200 | Latitude (Bot) | : |
| Longitude | : -103.9912400 | Longitude (Bot) | : |
| Lat./Long. Source | : TS | | |

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: 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

PI/Dwights PLUS on CD Well Summary Report

General Information

| | | | | | |
|---------------------|---|--------------------|---------------------|---|--------------|
| State | : | NEW MEXICO | Final Status | : | OIL |
| County | : | EDDY | Drill Total Depth | : | 6000 |
| Field | : | LOCO HILLS | Log Total Depth | : | |
| Operator Name | : | MARBOB ENERGY CORP | True Vertical Depth | : | |
| Lease Name | : | BIRDIE FEDERAL | | | |
| Well Number | : | 15 | Spud Date | : | DEC 31, 2008 |
| API Number | : | 30015367600000 | Comp Date | : | MAR 05, 2009 |
| Regulatory API | : | 3001536760 | | | |
| Init Lahee Class | : | D | Hole Direction | : | VERTICAL |
| Final Lahee Class | : | DO | Reference Elevation | : | 3661 KB |
| Permit Number | : | | Ground Elevation | : | 3649 |
| Geologic Province | : | PERMIAN BASIN | KB Elevation | : | 3661 |
| Formation at TD | : | 452TUBB | | | |
| Oldest Age Pen | : | 452 | | | |
| Producing Formation | : | 452YESO | | | |
| Township | : | 17 S | Section | : | 17 SEC |
| Range | : | 30 E | Spot | : | SE NW SW |
| Base Meridian | : | NEW MEXICO | | | |

Additional Location Information

| | | | | | |
|--------------------|---|-----------------------------------|-----------------|---|--|
| Footage Location | : | 1650 FSL 900 FWL CONGRESS SECTION | | | |
| Latitude | : | 32.8317000 | Latitude (Bot) | : | |
| Longitude | : | -103.9994200 | Longitude (Bot) | : | |
| Lat./Long. Source | : | TS | | | |
| Location Narrative | : | Type | Remark | | |
| | | SCALED_FOOT | REGULATORY | | |
| | | IRREG_SECT | N | | |

Initial Potential Tests

| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
|------|----------|-----------|-----------|------------|-------|-----|----------|-------------|-------------|
| 001 | 452YESO | 452YESO | 4265 | 5595 | | | | PERF | PUMPING |

IP Volume

| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
|------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| 001 | 170 | BPD | | | | | 125 | MCFD | | | 443 | BBL |

IP Treatment

| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
|------|------|------|--------|------|--------|-----|-----|-----|------|-----|-------|------|
| 001 | 5395 | 5595 | 2000 | GAL | | | | | ACID | | | NEFE |
| 001 | 5395 | 5595 | 149916 | GAL | 184555 | LB | | 49 | FRAC | | SAND | |
| 001 | 4824 | 5216 | 3000 | GAL | | | | | ACID | | | NEFE |
| 001 | 4824 | 5216 | 273807 | GAL | 337779 | LB | | 88 | FRAC | | SAND | |
| 001 | 4265 | 4545 | 2500 | GAL | | | | | ACID | | | NEFE |
| 001 | 4265 | 4545 | 169195 | GAL | 217229 | LB | | 75 | FRAC | | SAND | |

IP Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 4265 | 4545 | | PERF | 452YESO | 452YESO | | 25 | | |
| 001 | 4824 | 5216 | | PERF | 452YESO | 452YESO | | 25 | | |
| 001 | 5395 | 5595 | | PERF | 452YESO | 452YESO | | 20 | | |

Formations

| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
|-----------|-----------|-----------|---------|------------|----------|--------|-----------|
| 454RSLR | RUSTLER | 258 | | | | LOG | |

PI/Dwights PLUS on CD Well Summary Report

| | | | | |
|---------|--------------|------|-----|-----|
| 454SALT | SALT | 507 | 956 | LOG |
| 453YTES | YATES | 1140 | | LOG |
| 453SVRV | SEVEN RIVERS | 1405 | | LOG |
| 453BWRS | BOWERS SD | 1788 | | LOG |
| 453QUEN | QUEEN | 2015 | | LOG |
| 453SADR | SAN ANDRES | 2710 | | LOG |
| 453GLRT | GLORIETA | 4123 | | LOG |
| 452YESO | YESO | 4198 | | LOG |
| 452TUBB | TUBB | 5682 | | LOG |

Log Data

| Run No | Log Type | Top | Base | Log MD | Max Temp |
|--------|----------|-----|------|--------|----------|
| 1 | DSN | | | | |
| 1 | DLL | | | | |

Casing Data

| Size | Base Depth | Cement | Unit |
|----------|------------|--------|------|
| 8 5/8 IN | 380 | 325 | SACK |
| 5 1/2 IN | 5996 | 1550 | SACK |

Tubing Data

| Size | Base Depth | Mixed String |
|----------|------------|--------------|
| 2 7/8 IN | 5655 | |

PI/Dwights PLUS on CD Well Summary Report

| General Information | | | | | |
|---------------------|---|--------------------|---------------------|---|--------------|
| State | : | NEW MEXICO | Final Status | : | OIL |
| County | : | EDDY | Drill Total Depth | : | 5900 |
| Field | : | LOCO HILLS | Log Total Depth | : | |
| Operator Name | : | MARBOB ENERGY CORP | True Vertical Depth | : | |
| Lease Name | : | BIRDIE FEDERAL | | | |
| Well Number | : | 16 | Spud Date | : | SEP 24, 2008 |
| API Number | : | 30015365760000 | Comp Date | : | NOV 04, 2008 |
| Regulatory API | : | | | | |
| Init Lahee Class | : | D | Hole Direction | : | VERTICAL |
| Final Lahee Class | : | DO | Reference Elevation | : | |
| Permit Number | : | | Ground Elevation | : | 3664 |
| Geologic Province | : | PERMIAN BASIN | KB Elevation | : | |
| Formation at TD | : | 452TUBB | | | |
| Oldest Age Pen | : | 452 | | | |
| Producing Formation | : | 452YESO | | | |
| Township | : | 17 S | Section | : | 17 SEC |
| Range | : | 30 E | Spot | : | SE NE SW |
| Base Meridian | : | NEW MEXICO | | | |

| Additional Location Information | | | | |
|---------------------------------|---|------------------------------------|-----------------|---|
| Footage Location | : | 1650 FSL 2310 FWL CONGRESS SECTION | | |
| Latitude | : | 32.8316700 | Latitude (Bot) | : |
| Longitude | : | -103.9948300 | Longitude (Bot) | : |
| Lat./Long. Source | : | TS | | |
| Location Narrative | : | Type | Remark | |
| | | SCALED_FOOT | REGULATORY | |
| | | IRREG_SECT | N | |

| Initial Potential Tests | | | | | | | | | |
|-------------------------|----------|-----------|-----------|------------|-------|-----|----------|-------------|-------------|
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
| 001 | 452YESO | 452YESO | 4836 | 5547 | | | | PERF | PUMPING |

| IP Volume | | | | | | | | | | | | |
|-----------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
| 001 | 175 | BPD | | | | | 234 | MCFD | | | 145 | BBL |

| IP Treatment | | | | | | | | | | | | |
|--------------|------|------|--------|------|--------|-----|-----|-----|------|-----|-------|-----|
| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
| 001 | 5257 | 5546 | 2000 | GAL | | | | | ACID | | | HCL |
| 001 | 5257 | 5546 | 202735 | GAL | 252990 | LB | | | FRAC | | SAND | |
| 001 | 4836 | 5084 | 2000 | GAL | | | | | ACID | | | HCL |
| 001 | 4836 | 5084 | 145225 | GAL | 198343 | LB | | | FRAC | | SAND | |

| IP Perforation | | | | | | | | | | |
|----------------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
| 001 | 4836 | 5084 | | PERF | 452YESO | 452YESO | | 20 | | |
| 001 | 5258 | 5547 | | PERF | 452YESO | 452YESO | | 25 | | |

| Formations | | | | | | | |
|------------|--------------|-----------|---------|------------|----------|--------|-----------|
| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
| 4RSLR | RUSTLER | 300 | | | | LOG | |
| 4SALT | SALT | 517 | | 978 | | LOG | |
| 453YTES | YATES | 1137 | | | | LOG | |
| 453SVRV | SEVEN RIVERS | 1429 | | | | LOG | |

PI/Dwights PLUS on CD Well Summary Report

| | | | |
|----------|------------|------|-----|
| 4\$3QUEN | QUEEN | 2044 | LOG |
| 4\$3SADR | SAN ANDRES | 2729 | LOG |
| 4\$3GLRT | GLORIETA | 4168 | LOG |
| 4\$2YESO | YESO | 4229 | LOG |
| 4\$2TUBB | TUBB | 5712 | LOG |

Log Data

| Run No | Log Type | Top | Base | Log MD | Max Temp |
|--------|----------|-----|------|--------|----------|
| 1 | DLL | | | | |
| 1 | DSN | | | | |

Casing Data

| Size | Base Depth | Cement | Unit |
|----------|------------|--------|------|
| 8 5/8 IN | 379 | 597 | SACK |
| 5 1/2 IN | 5877 | 1800 | SACK |

Tubing Data

| Size | Base Depth | Mixed String |
|----------|------------|--------------|
| 2 7/8 IN | 5217 | |

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: 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 |

PI/Dwights PLUS on CD Well Summary Report**General Information**

| | | | |
|-------------------|----------------------|---------------------|----------------|
| State | : NEW MEXICO | Final Status | : D&A-G |
| County | : EDDY | Drill Total Depth | : 3577 |
| Field | : | Log Total Depth | : |
| Operator Name | : LOCKHART & COMPANY | True Vertical Depth | : |
| Lease Name | : PARKE PERMIT | | |
| Well Number | : 1 | Spud Date | : SEP 06, 1929 |
| API Number | : 30015041160000 | Comp Date | : JAN 08, 1930 |
| Regulatory API | : | | |
| Init Lahee Class | : D | Hole Direction | : VERTICAL |
| Final Lahee Class | : D | Reference Elevation | : |
| Permit Number | : | Ground Elevation | : 3644 |
| Geologic Province | : PERMIAN BASIN | KB Elevation | : |
| Formation at TD | : 000UNKWN UNKNOWN | | |
| Oldest Age Pen | : | | |
| Township | : 17 S | Section | : 18 SEC |
| Range | : 30 E | Spot | : |
| Base Meridian | : NEW MEXICO | | |

Additional Location Information

| | | | |
|-------------------|------------------------------------|-----------------|---|
| Footage Location | : 440 FSL 440 FEL CONGRESS SECTION | | |
| Latitude | : 32.8283000 | Latitude (Bot) | : |
| Longitude | : -104.0036800 | Longitude (Bot) | : |
| Lat./Long. Source | : TS | | |

Formation Tests

| Test | Type | Top Depth | Base Depth | Top Form | Top Choke | Bottom Choke | Show |
|------|------|--------------|---------------|-------------|--------------|-----------------|------|
| 001 | DST | 2000 | 2000 | | | | |
| 002 | DST | 3310 | 3314 | | | | |
| 003 | DST | 3383 | 3383 | | | | |
| 004 | DST | 3570 | 3575 | | | | |

Pressure and Time

| Test | Init | Hydro | Init Flow | | Final Flow | | Shut-in | | Open Time | | Shut-in Time | |
|------|------|-------|-----------|-------|------------|-------|---------|-------|-----------|-------|--------------|-------|
| | | Final | Init | Final | Init | Final | Init | Final | Init | Final | Init | Final |
| 001 | | | | | | | | | | | | |
| 002 | | | | | | | | | | | | |
| 003 | | | | | | | | | | | | |
| 004 | | | | | | | | | | | | |

180

Pipe Recovery

| Test | Amount | Unit | Desc | Rec Type | Rec Method |
|------|--------|------|------|----------|------------|
| 002 | 900 | FT | O | | PIPE |
| 003 | 1300 | FT | O | | PIPE |
| 004 | 100 | FT | W | | PIPE |

Material to Surface

| Test | Amount | Unit | Fluid Type | Time |
|------|--------|------|------------|------|
| 001 | 570 | MCFD | GAS | |

Casing Data

| Size | Base Depth | Cement Unit |
|-----------|------------|-------------|
| 15 1/2 IN | 157 | |
| 12 1/2 IN | 460 | |
| 10 IN | 1250 | |
| 6 5/8 IN | 2828 | |

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: 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: 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 |

PI/Dwights PLUS on CD Well Summary Report**General Information**

| | | | | | |
|---------------------|---|--------------------|---------------------|---|--------------|
| State | : | NEW MEXICO | Final Status | : | OIL |
| County | : | EDDY | Drill Total Depth | : | 4800 |
| Field | : | GRAYBURG JACKSON | Log Total Depth | : | 4809 |
| Operator Name | : | MARBOB ENERGY CORP | True Vertical Depth | : | |
| Lease Name | : | BURCH KEELY UNIT | | | |
| Well Number | : | 269 | Spud Date | : | JUN 08, 1997 |
| API Number | : | 30015295100000 | Comp Date | : | JUL 01, 1997 |
| Regulatory API | : | | | | |
| Init Lahee Class | : | D | Hole Direction | : | VERTICAL |
| Final Lahee Class | : | DO | Reference Elevation | : | 3634 KB |
| Permit Number | : | | Ground Elevation | : | 3621 |
| Geologic Province | : | PERMIAN BASIN | KB Elevation | : | 3634 |
| Formation at TD | : | 453SADRD | | | |
| Oldest Age Pen | : | 453 | | | |
| Producing Formation | : | 453SADRD | | | |
| Township | : | 17 S | Section | : | 19 SEC |
| Range | : | 30 E | Spot | : | |
| Base Meridian | : | NEW MEXICO | | | |

Additional Location Information

| | | | | |
|--------------------|---|-----------------------------------|---------------------|---|
| Footage Location | : | 2515 FNL 330 FEL CONGRESS SECTION | | |
| Latitude | : | 32.8202700 | Latitude (Bot) | : |
| Longitude | : | -104.0033500 | Longitude (Bot) | : |
| Lat./Long. Source | : | TS | | |
| Location Narrative | : | Type | Remark | |
| | | LOCATION | 21 MI E ARTESIA, NM | |

Initial Potential Tests

| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
|------|----------|-----------|-----------|------------|-------|------|----------|-------------|-------------|
| 001 | 453SADRD | 453SADRD | 4290 | 4630 | | 1480 | | PERF | PUMPING |

IP Volume

| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
|------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| 001 | 75 | BPD | | | | | 111 | MCFD | | 646 | BBL | |

IP Pressure

| Test | FTP | SITP | FCP | SICP |
|------|-----|------|-----|------|
| 001 | | | | |

IP Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 4290 | 4630 | | PERF | 453SADRD | 453SADRD | | 20 | | |

Production Tests

| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
|------|----------|-----------|-----------|------------|-------|-----|----------|-------------|-------------|
| 001 | 453SADRD | 453SADRD | 4290 | 4630 | | | | PERF | PUMPING |

Production Volume

| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
|------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| 001 | 75 | BPD | | | | | 111 | MCFD | | 646 | BBL | |

Production Pressure

| Test | FTP | SITP | FCP | SICP |
|------|-----|------|-----|------|
| 001 | | | | |

Production Treatment

PI/Dwights PLUS on CD Well Summary Report

| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
|------|------|------|--------|------|--------|-----|-----|-----|------|-----|-------|-----|
| 001 | 4290 | 4630 | 5000 | GAL | | | | | ACID | | | |

Production Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 4290 | 4630 | | PERF | 453SADRD | 453SADRD | | | | |

Log Data

| Run No | Log Type | Top | Base | Log MD | Max Temp |
|--------|----------|------|------|--------|----------|
| 01 | DNCP | 1175 | 4805 | | |
| 01 | NED | 1175 | 4805 | | |
| 01 | GRS | 1175 | 4805 | | |
| 01 | EL | 100 | 4806 | 4806 | 110 |
| 01 | MFSF | 100 | 4806 | | |

Casing Data

| Size | Base Depth | Cement | Unit |
|----------|------------|--------|------|
| 8 5/8 IN | 422 | 350 | SACK |
| 5 1/2 IN | 4791 | 1250 | SACK |

Tubing Data

| Size | Base Depth | Mixed String |
|----------|------------|--------------|
| 2 7/8 IN | 4237 | |

Dwights Energydata Narrative

Accumulated through 1997

IP: (4290-4630) P 75 BOPD; 111 MCFGPD; 646 BWPD

Perfs: 4290-4630

Perfs: - no treatment rptd

Dwights number: T4827930

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: 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

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|--------|----------------|------------------|------------------------|----------------------------|
| 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: 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: 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: 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: CCG 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

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|--------|-----------------|------------------|-----------------------|---------------------------------|
| 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:

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|-------------------------|------|------------------------|-----------------|------------------|
| 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:

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|-------------------------|------|---------------|-----------------|------------------|
| 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: COG 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

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|--------|----------------|------------------|-----------------------|---------------------|
| 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:

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|-------------------------|------|---------------------------------|-----------------|------------------|
| 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:

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|-------------------------|------|---------------|-----------------|------------------|
| 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: *COG* 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

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|--------|----------------|------------------|------------------------|---------------------|
| 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:

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|-------------------------|------|-----------------------------|-----------------|------------------|
| 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:

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|-------------------------|------|---------------|-----------------|------------------|
| 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: 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: 606 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

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|--------|----------------|------------------|------------------------|---------------------|
| 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:

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|-------------------------|------|-----------------------------|-----------------|------------------|
| 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:

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|-------------------------|------|---------------|-----------------|------------------|
| 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: 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: 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: 206 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

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|--------|----------------|------------------|------------------------|----------------------------|
| 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: 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: *LOC* 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: 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: LOO 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

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|--------|-----------------|------------------|------------------------|----------------------------|
| 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: 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: *LOC* 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

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|--------|-----------------|------------------|-----------------------|---------------------|
| 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:

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|-------------------------|------|---------------------------|-----------------|------------------|
| 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:

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|-------------------------|------|---------------|-----------------|------------------|
| 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: 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 Hdle: LOC 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

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|--------|-----------------|------------------|------------------------|----------------------------------|
| 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: 206 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

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|--------|-----------------|------------------|-----------------------|---------------------|
| 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: 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: 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: *LOG* 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: 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: *LOC* 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: 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: 606 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: 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: 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 |

PI/Dwights PLUS on CD Well Summary Report

| | | | |
|----------------------------|---------------------|---------------------|----------------|
| General Information | | | |
| State | : NEW MEXICO | Final Status | : 2OILWO |
| County | : EDDY | Drill Total Depth | : 4840 |
| Field | : GRAYBURG JACKSON | Log Total Depth | : |
| Operator Name | : COG OPERATING LLC | True Vertical Depth | : |
| Lease Name | : MCINTYRE WD | | |
| Well Number | : 3 | Spud Date | : FEB 01, 2006 |
| API Number | : 30015294250001 | Comp Date | : MAR 06, 2006 |
| Regulatory API | : | | |
| Init Lahee Class | : D X | Hole Direction | : VERTICAL |
| Final Lahee Class | : DO | Reference Elevation | : |
| Permit Number | : | Ground Elevation | : 3623 |
| Geologic Province | : PERMIAN BASIN | KB Elevation | : |
| Formation at TD | : 452PDCK | | |
| Oldest Age Pen | : 452 | | |
| Producing Formation | : 452PDCK | | |
| | 453SADR | | |
| Township | : 17 S | Section | : 20 SEC |
| Range | : 30 E | Spot | : NE NE SW |
| Base Meridian | : NEW MEXICO | | |

| | | | |
|--|--------------------------------------|--------------------------|---|
| Additional Location Information | | | |
| Footage Location | : 2135 FSL 2310 FWL CONGRESS SECTION | | |
| Latitude | : 32.8185400 | Latitude (Bot) | : |
| Longitude | : -103.9947400 | Longitude (Bot) | : |
| Long. Source | : TS | | |
| Location Narrative | : Type | Remark | |
| | SCALED_FOOT | REGULATORY | |
| | IRREG_SECT | N | |
| | DST_TOWN | .25 MI NW LOCO HILLS, NM | |

| | | | | | | | | | |
|--------------------------------|----------|-----------|-----------|------------|-------|------|----------|-------------|--------------|
| Initial Potential Tests | | | | | | | | | |
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
| 001 | 452PDCK | 452PDCK | 4344 | 4769 | | | | PERF | UNDESIGNATED |
| 002 | 453SADR | 453SADR | 2997 | 4188 | | 6600 | | PERF | PUMPING |

| | | | | | | | | | | | | |
|-----------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| IP Volume | | | | | | | | | | | | |
| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
| 001 | | | UO | | | | | | | | | |
| 002 | 25 | BPD | | | | | 165 | MCFD | | 318 | BBL | |

| | | | | | | | | | | | |
|----------------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|--|
| IP Perforation | | | | | | | | | | | |
| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per | |
| 001 | 4344 | 4769 | | PERF | 452PDCK | 452PDCK | | | | | |
| 002 | 2997 | 4188 | | PERF | 453SADR | 453SADR | | | | | |

| | | | | | | | |
|-------------------|------------|-----------|---------|------------|----------|--------|-----------|
| Formations | | | | | | | |
| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
| 453QUEN | QUEEN | 2086 | | | | LOG | |
| 453SADR | SAN ANDRES | 2850 | | | | LOG | |
| 453GLRT | GLORIETA | 4270 | | | | LOG | |

| | |
|--------------------|------------|
| Tubing Data | |
| Size | Base Depth |
| 2 7/8 IN | 4765 |

PI/Dwights PLUS on CD Well Summary Report**General Information**

| | | | | | |
|---------------------|---|------------------|---------------------|---|--------------|
| State | : | NEW MEXICO | Final Status | : | OIL |
| County | : | EDDY | Drill Total Depth | : | 4840 |
| Field | : | LOCO HILLS | Log Total Depth | : | |
| Operator Name | : | MACK ENERGY CORP | True Vertical Depth | : | |
| Lease Name | : | MCINTYRE W D 'E' | | | |
| Well Number | : | 3 | Spud Date | : | MAY 13, 1997 |
| API Number | : | 30015294250000 | Comp Date | : | FEB 24, 1998 |
| Regulatory API | : | | | | |
| Init Lahee Class | : | D | Hole Direction | : | VERTICAL |
| Final Lahee Class | : | DO | Reference Elevation | : | 3635 KB |
| Permit Number | : | | Ground Elevation | : | 3623 |
| Geologic Province | : | PERMIAN BASIN | KB Elevation | : | 3635 |
| Formation at TD | : | 452PDCK | | | |
| Oldest Age Pen | : | 452 | | | |
| Producing Formation | : | 452PDCK | | | |
| Township | : | 17 S | Section | : | 20 SEC |
| Range | : | 30 E | Spot | : | NE NE SW |
| Base Meridian | : | NEW MEXICO | | | |

Additional Location Information

| | | | | |
|--------------------|---|------------------------------------|--------------------------|---|
| Footage Location | : | 2135 FSL 2310 FWL CONGRESS SECTION | | |
| Latitude | : | 32.8185400 | Latitude (Bot) | : |
| Longitude | : | -103.9947400 | Longitude (Bot) | : |
| Lat./Long. Source | : | TS | | |
| Location Narrative | : | Type | Remark | |
| | | SCALED_FOOT | REGULATORY | |
| | | IRREG_SECT | N | |
| | | DST_TOWN | .25 MI NW LOCO HILLS, NM | |

Initial Potential Tests

| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
|------|----------|-----------|-----------|------------|-------|-----|----------|-------------|-------------|
| 001 | 452PDCK | 452PDCK | 4344 | 4769 | | 753 | 38 | PERF | PUMPING |

IP Volume

| Test | Amount | Oil Unit | Desc | Amount | Unit | Desc | Amount | Unit | Desc | Amount | Unit | Desc |
|------|--------|----------|------|--------|------|------|--------|------|------|--------|------|------|
| 001 | 136 | BPD | | | | | 102 | MCFD | | 544 | BBL | |

IP Pressure

| Test | FTP | SITP | FCP | SICP |
|------|-----|------|-----|------|
| 001 | | | | |

IP Treatment

| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
|------|------|------|--------|------|--------|-----|-----|-----|------|-----|-------|-----|
| 001 | 4344 | 4769 | 2000 | GAL | | | | | ACID | | | |
| 001 | 4344 | 4769 | 32000 | GAL | | | | | ACID | | | |

IP Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 4344 | 4769 | | PERF | 452PDCK | 452PDCK | A | 68 | | |

Log Data

| Log No | Log Type | Top | Base | Log MD | Max Temp |
|--------|----------|-----|------|--------|----------|
| 01 | GR | | | | |
| 01 | NE | | | | |
| 01 | DN | | | | |

PI/Dwights PLUS on CD Well Summary Report01 EL
01 GRS**Casing Data**

| Size | Base Depth | Cement | Unit |
|----------|------------|--------|------|
| 8 5/8 IN | 454 | 325 | SACK |
| 5 1/2 IN | 4835 | 1025 | SACK |

Tubing Data

| Size | Base Depth | Mixed String |
|----------|------------|--------------|
| 2 7/8 IN | 4796 | |

Dwights Energydata Narrative

Accumulated through 1997

IP: (San Andres 4345-4770) P 136 BOPD grav 38; 102 MCFGPD; 544 BWPD
Perfs: 4345-4770 (San Andres)
Perfs: - acid w/2000 gal 15% NE 32000 gal 20% NE
Dwights number: T4817410

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: C 06 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: CUG 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: 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: *LOC* 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
 Type: PRODUCTION TEST #: 2 Formation Top
 Type: PRODUCTION TEST #: 2 Formation Top
 Type: PRODUCTION TEST #: 2 Formation Top
 Type: PRODUCTION TEST #: 2 Formation Top
 Type: PRODUCTION TEST #: 2 Formation Top
 Type: PRODUCTION TEST #: 2 Formation Top
 Type: PRODUCTION TEST #: 3 Formation Top
 Type: PRODUCTION TEST #: 3 Formation Top
 Type: PRODUCTION TEST #: 3 Formation Top
 Type: PRODUCTION TEST #: 3 Formation Top

Depth Top: 3325 Depth Base: 3325
 Depth Top: 3318 Depth Base: 3318
 Depth Top: 3311 Depth Base: 3311
 Depth Top: 3301 Depth Base: 3301
 Depth Top: 3296 Depth Base: 3296
 Depth Top: 3291 Depth Base: 3291
 Depth Top: 3347 Depth Base: 3347
 Depth Top: 2901 Depth Base: 2904
 Depth Top: 2911 Depth Base: 2915
 Depth Top: 2976 Depth Base: 2978
 Depth Top: 2982 Depth Base: 2988

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: LCG 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: 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: CCG 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: 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: CCG 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: MCINTYRE 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: 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: 606 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: 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: *ccc* 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: 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: LCC 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 |

| | | | |
|------------|------|-------------|------|
| Depth Top: | 4709 | Depth Base: | 4709 |
| Depth Top: | 4699 | Depth Base: | 4699 |
| Depth Top: | 4691 | Depth Base: | 4691 |
| Depth Top: | 4689 | Depth Base: | 4689 |
| Depth Top: | 4687 | Depth Base: | 4687 |
| Depth Top: | 4670 | Depth Base: | 4670 |
| Depth Top: | 4667 | Depth Base: | 4667 |
| Depth Top: | 4662 | Depth Base: | 4662 |
| Depth Top: | 4661 | Depth Base: | 4661 |
| Depth Top: | 4528 | Depth Base: | 4528 |
| Depth Top: | 4639 | Depth Base: | 4639 |
| Depth Top: | 4583 | Depth Base: | 4583 |
| Depth Top: | 4559 | Depth Base: | 4559 |
| Depth Top: | 4560 | Depth Base: | 4560 |
| Depth Top: | 4562 | Depth Base: | 4562 |
| Depth Top: | 4659 | Depth Base: | 4659 |
| Depth Top: | 4579 | Depth Base: | 4579 |
| Depth Top: | 4634 | Depth Base: | 4634 |
| Depth Top: | 4586 | Depth Base: | 4586 |
| Depth Top: | 4600 | Depth Base: | 4600 |
| Depth Top: | 4617 | Depth Base: | 4617 |
| Depth Top: | 4621 | Depth Base: | 4621 |
| Depth Top: | 4632 | Depth Base: | 4632 |
| Depth Top: | 4577 | Depth Base: | 4577 |
| Depth Top: | 3138 | Depth Base: | 3963 |
| Depth Top: | 4338 | Depth Base: | 4709 |
| Depth Top: | 3940 | Depth Base: | 3963 |
| Depth Top: | 3138 | Depth Base: | 3315 |

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: *COG* 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 |

PL/Dwights PLUS on CD Well Summary Report

| | | | | | |
|----------------------------|---|-------------------|---------------------|---|--------------|
| General Information | | | | | |
| State | : | NEW MEXICO | Final Status | : | OIL-WO |
| County | : | EDDY | Drill Total Depth | : | 4832 |
| Field | : | GRAYBURG JACKSON | Log Total Depth | : | |
| Operator Name | : | COG OPERATING LLC | True Vertical Depth | : | |
| Lease Name | : | MCINTYRE W D 'C' | | | |
| Well Number | : | 4 | Spud Date | : | MAR 25, 2006 |
| API Number | : | 30015294260001 | Comp Date | : | APR 03, 2006 |
| Regulatory API | : | | | | |
| Init Lahee Class | : | D X | Hole Direction | : | VERTICAL |
| Final Lahee Class | : | DO | Reference Elevation | : | |
| Permit Number | : | | Ground Elevation | : | 3651 |
| Geologic Province | : | PERMIAN BASIN | KB Elevation | : | |
| Formation at TD | : | 452PDCK | | | |
| Oldest Age Pen | : | 452 | | | |
| Producing Formation | : | 453SADR | | | |
| Township | : | 17 S | Section | : | 20 SEC |
| Range | : | 30 E | Spot | : | |
| Base Meridian | : | NEW MEXICO | | | |

| | | | | | |
|--|---|----------------------------------|-------------------------|---|--|
| Additional Location Information | | | | | |
| Footage Location | : | 990 FNL 990 FEL CONGRESS SECTION | | | |
| Latitude | : | 32.8243800 | Latitude (Bot) | : | |
| Longitude | : | -103.9883600 | Longitude (Bot) | : | |
| Lat./Long. Source | : | TS | | | |
| Location Narrative | : | Type | Remark | : | |
| | : | DST_TOWN | .25 MI W LOCO HILLS, NM | : | |

| | | | | | | | | | | | |
|--------------------------------|----------|-----------|-----------|------------|-----------|-----------|----------|-------------|-------------|--------|----------|
| Initial Potential Tests | | | | | | | | | | | |
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method | | |
| 001 | 453SADR | 453SADR | 3358 | 4106 | | | | PERF | PUMPING | | |
| IP Volume | | | | | | | | | | | |
| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit |
| 001 | 64 | BPD | | | | | 132 | MCFD | | 311 | BBL |
| IP Perforation | | | | | | | | | | | |
| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per | |
| 001 | 3358 | 4106 | | PERF | 453SADR | 453SADR | | | | | |

| | | |
|--------------------|------------|--------------|
| Tubing Data | | |
| Size | Base Depth | Mixed String |
| 2 7/8 IN | 4255 | |

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: 606 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: 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 |

PI/Dwights PLUS on CD Well Summary Report**General Information**

| | | | |
|---------------------|---------------------|---------------------|----------------|
| State | : NEW MEXICO | Final Status | : 2OILWO |
| County | : EDDY | Drill Total Depth | : 4840 |
| Field | : GRAYBURG JACKSON | Log Total Depth | : |
| Operator Name | : COG OPERATING LLC | True Vertical Depth | : |
| Lease Name | : MCINTYRE WD | | |
| Well Number | : 3 | Spud Date | : FEB 01, 2006 |
| API Number | : 30015294250001 | Comp Date | : MAR 06, 2006 |
| Regulatory API | : | | |
| Init Lahee Class | : D X | Hole Direction | : VERTICAL |
| Final Lahee Class | : DO | Reference Elevation | : |
| Permit Number | : | Ground Elevation | : 3623 |
| Geologic Province | : PERMIAN BASIN | KB Elevation | : |
| Formation at TD | : 452PDCK | | |
| Oldest Age Pen | : 452 | | |
| Producing Formation | : 452PDCK | | |
| | : 453SADR | | |
| Township | : 17 S | Section | : 20 SEC |
| Range | : 30 E | Spot | : NE NE SW |
| Base Meridian | : NEW MEXICO | | |

Additional Location Information

| | | | |
|--------------------|--------------------------------------|--------------------------|---|
| Footage Location | : 2135 FSL 2310 FWL CONGRESS SECTION | | |
| Latitude | : 32.8185400 | Latitude (Bot) | : |
| Longitude | : -103.9947400 | Longitude (Bot) | : |
| Lat/Long. Source | : TS | | |
| Location Narrative | : Type | Remark | |
| | : SCALED_FOOT | REGULATORY | |
| | : IRREG_SECT | N | |
| | : DST_TOWN | .25 MI NW LOCO HILLS, NM | |

Initial Potential Tests

| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
|------|----------|-----------|-----------|------------|-------|------|----------|-------------|--------------|
| 001 | 452PDCK | 452PDCK | 4344 | 4769 | | | | PERF | UNDESIGNATED |
| 002 | 453SADR | 453SADR | 2997 | 4188 | | 6600 | | PERF | PUMPING |

IP Volume

| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
|------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| 001 | | | UO | | | | | | | | | |
| 002 | 25 | BPD | | | | | 165 | MCFD | | 318 | BBL | |

IP Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 4344 | 4769 | | PERF | 452PDCK | 452PDCK | | | | |
| 002 | 2997 | 4188 | | PERF | 453SADR | 453SADR | | | | |

Formations

| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
|-----------|------------|-----------|---------|------------|----------|--------|-----------|
| 453QUEN | QUEEN | 2086 | | | | LOG | |
| 453SADR | SAN ANDRES | 2850 | | | | LOG | |
| 453GLRT | GLORIETA | 4270 | | | | LOG | |

Tubing Data

| | | |
|----------|------------|--------------|
| Size | Base Depth | Mixed String |
| 2 7/8 IN | 4765 | |

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: LCC 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

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: 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: *LOC* 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

PI/Dwights PLUS on CD Well Summary Report

| General Information | | | |
|---------------------|--------------------|---------------------|----------------|
| State | : NEW MEXICO | Final Status | : OIL-WO |
| County | : EDDY | Drill Total Depth | : 11400 |
| Field | : LOCO HILLS | Log Total Depth | : |
| Operator Name | : MACK ENERGY CORP | True Vertical Depth | : |
| Lease Name | : LOCO SW | | |
| Well Number | : 1 | Spud Date | : AUG 28, 2001 |
| API Number | : 30015222160001 | Comp Date | : OCT 18, 2001 |
| Regulatory API | : | | |
| Init Lahee Class | : D X | Hole Direction | : VERTICAL |
| Final Lahee Class | : DO | Reference Elevation | : |
| Permit Number | : | Ground Elevation | : 3637 |
| Geologic Province | : PERMIAN BASIN | KB Elevation | : |
| Formation at TD | : 359MSSP | | |
| Oldest Age Pen | : 359 | | |
| Producing Formation | : 452ABO | | |
| Township | : 17 S | Section | : 20 SEC |
| Range | : 30 E | Spot | : S2 NE SW |
| Base Meridian | : NEW MEXICO | | |

| Additional Location Information | | | |
|---------------------------------|--------------------------------------|-----------------------|---|
| Footage Location | : 1650 FSL 1980 FWL CONGRESS SECTION | | |
| Latitude | : 32.8171900 | Latitude (Bot) | : |
| Longitude | : -103.9958300 | Longitude (Bot) | : |
| Lat./Long. Source | : TS | | |
| Location Narrative | : Type | Remark | |
| | : SCALED_FOOT | REGULATORY | |
| | : IRREG_SECT | N | |
| | : DST_TOWN | 1 MI W LOCO HILLS, NM | |

| Initial Potential Tests | | | | | | | | | | | | |
|-------------------------|----------|----------------|-----------|------------|-----------|-----------|----------|-------------|-------------|--------|----------|------|
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method | | | |
| 001 | 452ABO | 452ABO | 6941 | 6942 | | 5394 | 38 | PERF | PUMPING | | | |
| | | IP Volume | | | | | | | | | | |
| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
| 001 | 76 | BPD | | | | | 410 | MCFD | | 135 | BBL | |
| | | IP Treatment | | | | | | | | | | |
| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
| 001 | 6941 | 6942 | | | | | | | U | | | |
| | | IP Perforation | | | | | | | | | | |
| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per | | |
| 001 | 6941 | 6942 | | PERF | 452ABO | 452ABO | | 8 | | | | |

| Production Tests | | | | | | | | | | | | |
|------------------|--------------|--------------------|------------|----------------|-------|-----|----------|-------------|-------------|--|--|--|
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method | | | |
| 001 | 402MRRW | 402MRRW | 11101 | 11129 | | | | PERF | | | | |
| | | Production Shutoff | | | | | | | | | | |
| Test | Shutoff Type | Top Depth | Base Depth | Plugback Depth | | | | | | | | |
| 001 | BRPG | 11101 | 11129 | 11020 | | | | | | | | |
| | | Production Volume | | | | | | | | | | |
| | Oil | | Cond | | Gas | | | Wtr | | | | |



PI/Dwights PLUS on CD Well Summary Report

| Test | Amount | Unit | Desc | Amount | Unit | Desc | Amount | Unit | Desc | Amount | Unit | Desc |
|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|
| 001 | | | | | | | | | | | | |

Production Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|-------|-------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 11101 | 11129 | | PERF | 402MRRW | 402MRRW | | | | |

Formations

| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
|-----------|--------------|-----------|---------|------------|----------|--------|-----------|
| 453YTES | YATES | 1200 | | | | LOG | |
| 453SVRV | SEVEN RIVERS | 1480 | | | | LOG | |
| 453QUEN | QUEEN | 2130 | | | | LOG | |
| 453SADR | SAN ANDRES | 2904 | | | | LOG | |
| 453GLRT | GLORIETA | 4322 | | | | LOG | |
| 452ABO | ABO /SH/ | 6580 | | | | LOG | |

Log Data

| Run No | Log Type | Top | Base | Log MD | Max Temp |
|--------|----------|-----|------|--------|----------|
| 1 | GR | | | | |
| 1 | N | | | | |
| 1 | DENL | | | | |
| 1 | LATL | | | | |
| 1 | SGR | | | | |

Tubing Data

| Size | Base Depth | Mixed String |
|----------|------------|--------------|
| 2 3/8 IN | 7947 | |

PI/Dwights PLUS on CD Well Summary Report

| | | | | | |
|----------------------------|---|------------------|---------------------|---|--------------|
| General Information | | | | | |
| State | : | NEW MEXICO | Final Status | : | GAS |
| County | : | EDDY | Drill Total Depth | : | 11400 |
| Field | : | LOCO HILLS | Log Total Depth | : | |
| Operator Name | : | HOLLY ENERGY | True Vertical Depth | : | |
| Lease Name | : | MCINTYRE W D 'A' | | | |
| Well Number | : | 7 | Spud Date | : | AUG 28, 1977 |
| API Number | : | 30015222160000 | Comp Date | : | DEC 27, 1977 |
| Regulatory API | : | | | | |
| Init Lahee Class | : | D | Hole Direction | : | VERTICAL |
| Final Lahee Class | : | DG | Reference Elevation | : | |
| Permit Number | : | | Ground Elevation | : | 3637 |
| Geologic Province | : | PERMIAN BASIN | KB Elevation | : | |
| Formation at TD | : | 359MSSP | | | |
| Oldest Age Pen | : | 359 | | | |
| Producing Formation | : | 402MRRW | | | |
| Township | : | 17 S | Section | : | 20 SEC |
| Range | : | 30 E | Spot | : | S2 NE SW |
| Base Meridian | : | NEW MEXICO | | | |

| | | | | |
|--|---|------------------------------------|-----------------------|---|
| Additional Location Information | | | | |
| Footage Location | : | 1650 FSL 1980 FWL CONGRESS SECTION | | |
| Latitude | : | 32.8171900 | Latitude (Bot) | : |
| Longitude | : | -103.9958300 | Longitude (Bot) | : |
| Lat./Long. Source | : | TS | | |
| Location Narrative | : | Type | Remark | |
| | | SCALED FOOT | REGULATORY | |
| | | IRREG SECT | N | |
| | | DST_TOWN | 1 MI W LOCO HILLS, NM | |

| | | | | | | | | | | | |
|--------------------------------|----------|-----------|-----------|------------|-----------|-----------|----------|-------------|-------------|--------|----------|
| Initial Potential Tests | | | | | | | | | | | |
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method | | |
| 001 | 402MRRW | 402MRRW | 11101 | 11129 | | 79250 | 58.3 | PERF | FLOWING | | |
| IP Volume | | | | | | | | | | | |
| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit |
| 001 | | | | | | | 538 | MCFD | | | |
| IP Pressure | | | | | | | | | | | |
| Test | FTP | SITP | FCP | SICP | | | | | | | |
| 001 | | | | 3026 | | | | | | | |
| IP Perforation | | | | | | | | | | | |
| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per | |
| 001 | 11101 | 11129 | | PERF | 402MRRW | 402MRRW | | 34 | | | |

| | | | | | | | | | | | |
|-------------------------|----------|-----------|-----------|------------|-----------|------|----------|-------------|-------------|--------|----------|
| Production Tests | | | | | | | | | | | |
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method | | |
| 001 | 402MRRW | 402MRRW | 11101 | 11129 | 16/64 | | | PERF | FLOWING | | |
| Production Volume | | | | | | | | | | | |
| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit |
| 001 | | | | | | | 140 | MCFD | | | |
| Production Pressure | | | | | | | | | | | |
| Test | FTP | SITP | FCP | SICP | | | | | | | |

PI/Dwights PLUS on CD Well Summary Report

001

Production Treatment

| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
|------|-------|-------|--------|------|--------|-----|-----|-----|------|-----|-------|-----|
| 001 | 11101 | 11129 | 1500 | GAL | | | | | ACID | | | |
| 001 | 11101 | 11129 | 20000 | GAL | 15000 | LB | | | FRAC | | SAND | |

Production Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|-------|-------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 11101 | 11111 | | PERF | 402MRRW | 402MRRW | A | 17 | | |
| 001 | 11122 | 11129 | | PERF | 402MRRW | 402MRRW | A | 17 | | |

Log Data

| Run No | Log Type | Top | Base | Log MD | Max Temp |
|--------|----------|-----|------|--------|----------|
| 01 | ILD | | | | |
| 01 | NEC | | | | |
| 01 | DN | | | | |

Casing Data

| Size | Base Depth | Cement | Unit |
|-----------|------------|--------|------|
| 13 3/8 IN | 500 | 487 | SACK |
| 8 5/8 IN | 3487 | 1335 | SACK |
| 5 1/2 IN | 11371 | 790 | SACK |

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: 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

PI/Dwights PLUS on CD Well Summary Report

| | | | |
|----------------------------|------------------------|---------------------|----------------|
| General Information | | | |
| State | : NEW MEXICO | Final Status | : OIL |
| County | : EDDY | Drill Total Depth | : 4920 |
| Field | : LOCO HILLS | Log Total Depth | : |
| Operator Name | : MARBOB ENERGY CORP | True Vertical Depth | : |
| Lease Name | : THUNDER ROAD FEDERAL | | |
| Well Number | : 5 | Spud Date | : SEP 15, 2002 |
| API Number | : 30015323840000 | Comp Date | : NOV 18, 2002 |
| Regulatory API | : | | |
| Init Lahee Class | : D | Hole Direction | : VERTICAL |
| Final Lahee Class | : DO | Reference Elevation | : |
| Permit Number | : | Ground Elevation | : 3643 |
| Geologic Province | : PERMIAN BASIN | KB Elevation | : |
| Formation at TD | : 452PDCK | | |
| Oldest Age Pen | : 452 | | |
| Producing Formation | : 452PDCK | | |
| Township | : 17 S | Section | : 20 SEC |
| Range | : 30 E | Spot | : SE SW NE |
| Base Meridian | : NEW MEXICO | | |

| | | | |
|--|--------------------------------------|-----------------|---|
| Additional Location Information | | | |
| Footage Location | : 2310 FNL 1750 FEL CONGRESS SECTION | | |
| Latitude | : 32.8207700 | Latitude (Bot) | : |
| Longitude | : -103.9908400 | Longitude (Bot) | : |
| Long. Source | : TS | | |
| Location Narrative | : Type | Remark | |
| | : SCALED_FOOT | REGULATORY | |
| | : IRREG_SECT | N | |

| | | | | | | | | | | | |
|--------------------------------|----------|-----------|-----------|------------|-----------|-----------|----------|-------------|-------------|--------|----------|
| Initial Potential Tests | | | | | | | | | | | |
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method | | |
| 001 | 452PDCK | 452PDCK | 4338 | 4698 | | | | PERF | PUMPING | | |
| IP Volume | | | | | | | | | | | |
| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit |
| 001 | 211 | BBL | | | | | 285 | MCFD | | 463 | BBL |
| IP Treatment | | | | | | | | | | | |
| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent |
| 001 | 4338 | 4698 | 2000 | GAL | | | | | ACID | | HCL |
| IP Perforation | | | | | | | | | | | |
| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per | |
| 001 | 4338 | 4698 | | PERF | 452PDCK | 452PDCK | A | 20 | | | |

| | | | | | | | |
|-------------------|------------|-----------|---------|------------|----------|--------|-----------|
| Formations | | | | | | | |
| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
| 453YTES | YATES | 1178 | | | | LOG | |
| 453QUEN | QUEEN | 2084 | | | | LOG | |
| 453SADR | SAN ANDRES | 2826 | | | | LOG | |
| GLRT | GLORIETA | 4236 | | | | LOG | |

| | | | | | |
|-----------------|----------|-----|------|--------|----------|
| Log Data | | | | | |
| Run No | Log Type | Top | Base | Log MD | Max Temp |
| 1 | DLL | | | | |

PI/Dwights PLUS on CD Well Summary Report

1 CSNG

Casing Data

| Size | Base Depth | Cement | Unit |
|----------|------------|--------|------|
| 8 5/8 IN | 373 | 300 | SACK |
| 5 1/2 IN | 4919 | 1275 | SACK |

Tubing Data

| Size | Base Depth | Mixed String |
|----------|------------|--------------|
| 2 7/8 IN | 4315 | |

PI/Dwights PLUS on CD Well Summary Report

| | | | |
|----------------------------|------------------------|---------------------|----------------|
| General Information | | | |
| State | : NEW MEXICO | Final Status | : OIL |
| County | : EDDY | Drill Total Depth | : 4850 |
| Field | : LOCO HILLS | Log Total Depth | : |
| Operator Name | : MARBOB ENERGY CORP | True Vertical Depth | : |
| Lease Name | : THUNDER ROAD FEDERAL | | |
| Well Number | : 6 | Spud Date | : AUG 31, 2002 |
| API Number | : 30015323300000 | Comp Date | : SEP 30, 2002 |
| Regulatory API | : | | |
| Init Lahee Class | : D | Hole Direction | : VERTICAL |
| Final Lahee Class | : DO | Reference Elevation | : |
| Permit Number | : | Ground Elevation | : 3655 |
| Geologic Province | : PERMIAN BASIN | KB Elevation | : |
| Formation at TD | : 452PDCK | | |
| Oldest Age Pen | : 452 | | |
| Producing Formation | : 452PDCK | | |
| Township | : 17 S | Section | : 20 SEC |
| Range | : 30 E | Spot | : SE NW NE |
| Base Meridian | : NEW MEXICO | | |

| | | | |
|--|-------------------------------------|-----------------|---|
| Additional Location Information | | | |
| Footage Location | : 990 FNL 1650 FEL CONGRESS SECTION | | |
| Latitude | : 32.8243900 | Latitude (Bot) | : |
| Longitude | : -103.9905100 | Longitude (Bot) | : |
| Lat./Long. Source | : TS | | |
| Location Narrative | : Type | Remark | |
| | : SCALED_FOOT | REGULATORY | |
| | : IRREG_SECT | N | |

| | | | | | | | | | | | |
|--------------------------------|----------|-----------|-----------|------------|-----------|-----------|----------|-------------|-------------|--------|----------|
| Initial Potential Tests | | | | | | | | | | | |
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method | | |
| 001 | 452PDCK | 452PDCK | 4277 | 4624 | | | | PERF | PUMPING | | |
| IP Volume | | | | | | | | | | | |
| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit |
| 001 | 80 | BBL | | | | | 85 | MCFD | | 114 | BBL |
| IP Treatment | | | | | | | | | | | |
| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent |
| 001 | 4277 | 4624 | 2000 | GAL | | | | | ACID | | HCL |
| IP Perforation | | | | | | | | | | | |
| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per | |
| 001 | 4277 | 4624 | | PERF | 452PDCK | 452PDCK | A | 20 | | | |

| | | | | | | | |
|-------------------|------------|-----------|---------|------------|----------|--------|-----------|
| Formations | | | | | | | |
| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
| 453YTES | YATES | 1157 | | | | LOG | |
| 453QUEN | QUEEN | 2050 | | | | LOG | |
| 453SADR | SAN ANDRES | 2777 | | | | LOG | |
| GLRT | GLORIETA | 4176 | | | | LOG | |

| | | | | | |
|-----------------|----------|-----|------|--------|----------|
| Log Data | | | | | |
| Run No | Log Type | Top | Base | Log MD | Max Temp |
| 1 | DLL | | | | |

PI/Dwights PLUS on CD Well Summary Report

1 CSNG

Casing Data

| Size | Base Depth | Cement | Unit |
|----------|------------|--------|------|
| 8 5/8 IN | 373 | 275 | SACK |
| 5 1/2 IN | 4848 | 1360 | SACK |

Tubing Data

| Size | Base Depth | Mixed String |
|----------|------------|--------------|
| 2 7/8 IN | 4252 | |

PI/Dwights PLUS on CD Well Summary Report**General Information**

| | | | | | |
|---------------------|---|---------------------|---------------------|---|--------------|
| State | : | NEW MEXICO | Final Status | : | OIL |
| County | : | EDDY | Drill Total Depth | : | 6000 |
| Field | : | LOCO HILLS | Log Total Depth | : | |
| Operator Name | : | MARBOB ENERGY CORP | True Vertical Depth | : | |
| Lease Name | : | THUNDERROAD FEDERAL | | | |
| Well Number | : | 7 | Spud Date | : | NOV 01, 2008 |
| API Number | : | 30015364170000 | Comp Date | : | DEC 19, 2008 |
| Regulatory API | : | | | | |
| Init Lahee Class | : | D | Hole Direction | : | VERTICAL |
| Final Lahee Class | : | DO | Reference Elevation | : | 3668 KB |
| Permit Number | : | | Ground Elevation | : | 3655 |
| Geologic Province | : | PERMIAN BASIN | KB Elevation | : | 3668 |
| Formation at TD | : | 452YESO | | | |
| Oldest Age Pen | : | 452 | | | |
| Producing Formation | : | 452YESO | | | |
| Township | : | 17 S | Section | : | 20 SEC |
| Range | : | 30 E | Spot | : | NW NW NE |
| Base Meridian | : | NEW MEXICO | | | |

Additional Location Information

| | | |
|--------------------|---|-----------------------------------|
| Footage Location | : | 330 FNL 2310 FEL CONGRESS SECTION |
| Latitude | : | 32.8262200 |
| Longitude | : | -103.9926600 |
| Lat./Long. Source | : | TS |
| Location Narrative | : | Type |
| | | SCALED_FOOT |
| | | IRREG_SECT |

Initial Potential Tests

| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
|------|----------|-----------|-----------|------------|-------|-----|----------|-------------|-------------|
| 001 | 452YESO | 452YESO | 4713 | 5670 | | | | PERF | PUMPING |

IP Volume

| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
|------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| 001 | 70 | BPD | | | | | 110 | MCFD | | 220 | BBL | |

IP Treatment

| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
|------|------|------|--------|------|--------|-----|-----|-----|------|-----|-------|------|
| 001 | 5245 | 5670 | 2000 | GAL | | | | | ACID | | | FECL |
| 001 | 5245 | 5670 | | | 300000 | LB | | | FRAC | | SAND | |
| 001 | 4713 | 5159 | 2000 | GAL | | | | | ACID | | | FECL |
| 001 | 4713 | 5159 | | | 287500 | LB | | | FRAC | | SAND | |

IP Perforation

| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001 | 4713 | 5159 | | PERF | 452YESO | 452YESO | | 20 | | |
| 001 | 5245 | 5670 | | PERF | 452YESO | 452YESO | | 20 | | |

Formations

| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
|-----------|--------------|-----------|---------|------------|----------|--------|-----------|
| 454RSLR | RUSTLER | 245 | | | | LOG | |
| 454SALT | SALT | 532 | | 973 | | LOG | |
| 453YTES | YATES | 1152 | | | | LOG | |
| 453SVRV | SEVEN RIVERS | 1424 | | | | LOG | |

PI/Dwights PLUS on CD Well Summary Report

| | | | |
|---------|------------|------|-----|
| 453BWRS | BOWERS SD | 1813 | LOG |
| 453QUEN | QUEEN | 2042 | LOG |
| 453SADR | SAN ANDRES | 2754 | LOG |
| 453LVNG | LOVINGTON | 2873 | LOG |
| 453GLRT | GLORIETA | 4178 | LOG |
| 452YESO | YESO | 4243 | LOG |

Log Data

| Run No | Log Type | Top | Base | Log MD | Max Temp |
|--------|----------|-----|------|--------|----------|
| 1 | DLL | | | | |
| 1 | DSN | | | | |

Casing Data

| Size | Base Depth | Cement | Unit |
|----------|------------|--------|------|
| 8 5/8 IN | 385 | 300 | SACK |
| 5 1/2 IN | 5977 | 1575 | SACK |

Tubing Data

| Size | Base Depth | Mixed String |
|----------|------------|--------------|
| 2 7/8 IN | 5770 | |

PI/Dwights PLUS on CD Well Summary Report

| | | | | | |
|----------------------------|---|----------------------|---------------------|---|--------------|
| General Information | | | | | |
| State | : | NEW MEXICO | Final Status | : | OIL |
| County | : | EDDY | Drill Total Depth | : | 5900 |
| Field | : | LOCO HILLS | Log Total Depth | : | |
| Operator Name | : | MARBOB ENERGY CORP | True Vertical Depth | : | |
| Lease Name | : | THUNDER ROAD FEDERAL | | | |
| Well Number | : | 8 | Spud Date | : | JUL 26, 2008 |
| API Number | : | 30015362800000 | Comp Date | : | SEP 02, 2008 |
| Regulatory API | : | | | | |
| Init Lahee Class | : | D | Hole Direction | : | VERTICAL |
| Final Lahee Class | : | DO | Reference Elevation | : | 3659 KB |
| Permit Number | : | | Ground Elevation | : | 3647 |
| Geologic Province | : | PERMIAN BASIN | KB Elevation | : | 3659 |
| Formation at TD | : | 452YESO | | | |
| Oldest Age Pen | : | 452 | | | |
| Producing Formation | : | 452YESO | | | |
| Township | : | 17 S | Section | : | 20 SEC |
| Range | : | 30 E | Spot | : | NW SW NE |
| Base Meridian | : | NEW MEXICO | | | |

| | | | | | |
|--|---|------------------------------------|-----------------------|---|--|
| Additional Location Information | | | | | |
| Footage Location | : | 1675 FNL 2310 FEL CONGRESS SECTION | | | |
| Latitude | : | 32.8225200 | Latitude (Bot) | : | |
| Longitude | : | -103.9926600 | Longitude (Bot) | : | |
| Lat./Long. Source | : | TS | | | |
| Location Narrative | : | Type | Remark | | |
| | | SCALED_FOOT | REGULATORY | | |
| | | IRREG_SECT | N | | |
| | | DST_TOWN | 0.5 MI LOCO HILLS, NM | | |

| | | | | | | | | | |
|--------------------------------|----------|-----------|-----------|------------|-------|-----|----------|-------------|-------------|
| Initial Potential Tests | | | | | | | | | |
| Test | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
| 001 | 452YESO | 452YESO | 4283 | 5460 | | | | PERF | PUMPING |
| IP Volume | | | | | | | | | |

| | | | | | | | | | | | | |
|------|--------|----------|------|--------|-----------|------|--------|----------|------|--------|----------|------|
| Test | Amount | Oil Unit | Desc | Amount | Cond Unit | Desc | Amount | Gas Unit | Desc | Amount | Wtr Unit | Desc |
| 001 | 94 | BPD | | | | | 207 | MCFD | | 364 | BBL | |

| | | | | | | | | | | | | |
|--------------|------|------|--------|------|--------|-----|-----|-----|------|-----|-------|------|
| IP Treatment | | | | | | | | | | | | |
| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
| 001 | 4283 | 4684 | 2000 | GAL | | | | | ACID | | | NECL |
| 001 | 5075 | 5460 | 2000 | GAL | | | | | ACID | | | NECL |

| | | | | | | | | | | | | |
|----------------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|--|--|
| IP Perforation | | | | | | | | | | | | |
| Test | Top | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per | | |
| 001 | 4283 | 4684 | | PERF | 452YESO | 452YESO | | 20 | | | | |
| 001 | 5075 | 5460 | | PERF | 452YESO | 452YESO | | 20 | | | | |

Formations

| | | | | | | | |
|-----------|--------------|-----------|---------|------------|----------|--------|-----------|
| Form Code | Form Name | Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
| 4RSLR | RUSTLER | 259 | | | | LOG | |
| 4SALT | SALT | 526 | | 985 | | LOG | |
| 453YTES | YATES | 1140 | | | | LOG | |
| 453SVRV | SEVEN RIVERS | 1462 | | | | LOG | |
| 453QUEN | QUEEN | 2064 | | | | LOG | |

PI/Dwights PLUS on CD Well Summary Report

453SADR SAN ANDRES

2799

LOG

453GLRT GLORIETA

4207

LOG

452YESO YESO

4281

LOG

Log Data

| Run No | Log Type | Top | Base | Log MD | Max Temp |
|--------|----------|-----|------|--------|----------|
| 1 | DLL | | | | |
| 1 | DSN | | | | |

Casing Data

| Size | Base Depth | Cement | Unit |
|----------|------------|--------|------|
| 8 5/8 IN | 353 | 325 | SACK |
| 5 1/2 IN | 5893 | 1750 | SACK |

Tubing Data

| Size | Base Depth | Mixed String |
|----------|------------|--------------|
| 2 7/8 IN | 5544 | |

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 |

Spot 10 sx to surface

332 - 532'

200' cmt plug

763 - 963'

200' cmt plug

1833 - 2033'

200' cmt plug

Set cmt retr @ 7493'

Squeezed 100 sx
30' on top of cmt retr

Squeezed 200 sx
From 8888 - 9046'

Squeezed 125 sx
From 9589 - 9598'

Set WL plug @ 10,921',
spot 5 sx sd, tag sd
@ 10,890'

Squeezed 100 sx
From 10828 - 11044'

Perforations

7609 - 17'

8888 - 05'

8918 - 36'

8969 - 74'

9032 - 46'

9589 - 98'

10828 - 36'

10840 - 48'

11003 - 10'

11028 - 44'

Set cmt ret
@ 8,830'

Set cmt ret
@ 9,484'

Set cmt ret
@ 10,716'

Total Depth 11,244 ft.

NOT TO SCALE

Created by Permits West, Inc. 11/21/06

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*

| | | | | | | | |
|--|-----------------|--|------------------------------------|---|------------------------------------|---|-------------|
| 1a. TYPE OF WELL: | | OIL WELL <input type="checkbox"/> | GAS WELL <input type="checkbox"/> | DRY <input checked="" type="checkbox"/> | Other _____ | | |
| b. TYPE OF COMPLETION: | | NEW WELL <input type="checkbox"/> | WORK OVER <input type="checkbox"/> | DEEP-EN <input type="checkbox"/> | PLUG BACK <input type="checkbox"/> | DIFF. RESVR. <input type="checkbox"/> | Other _____ |
| 2. NAME OF OPERATOR | | | | | | ARCO Oil & Gas Company | |
| 3. ADDRESS OF OPERATOR | | | | | | Division of Atlantic Richfield Company | |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* | | | | | | P. O. Box 1710, Hobbs, New Mexico 88240 | |
| At surface | | | | | | 1650' FSL & 1980' FWL | |
| At top prod. interval reported below | | | | | | As Above | |
| At total depth | | | | | | As Above | |
| 14. PERMIT NO. | | | | | | DATE ISSUED | |
| 15. DATE SPUDDED | | | | | | 7/29/80 | |
| 16. DATE T.D. REACHED | | | | | | 9/11/80 | |
| 17. DATE COMPL. (Ready to prod.) | | | | | | Dry | |
| 18. ELEVATIONS (DF, REB, RT, GR, ETC.)* | | | | | | 3660.1' GR | |
| 19. ELEV. CASINGHEAD | | | | | | | |
| 20. TOTAL DEPTH, MD & TVD | | | | | | 11,244' | |
| 21. PLUG BACK T.D., MD & TVD | | | | | | P & A | |
| 22. IF MULTIPLE COMPL., HOW MANY* | | | | | | | |
| 23. INTERVALS DRILLED BY | | | | | | 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 FILLED | | |
| 30" | | 38' | 36" | Redi-Mix to surf | | | |
| 13-3/8" OD | 54.5# K-55 | 446' | 17 1/2" | 425 sx Circ to surf | | | |
| 8-5/8" OD | 32# S-80 | 2652' | 11" | 1250 sx Circ to surf | | | |
| 5 1/2" 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 & 11,028-11,044' = 46 .50" holes | | | | | | | |
| 10,828-10,836 & 10,840-10,848' = 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. | |
| | | | | | | | |
| 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.) | | | | | | TEST WITNESSED BY | |
| | | | | | | DEC 10 1980 | |
| 35. LIST OF ATTACHMENTS | | | | | | | |
| Logs as listed in Item 26 above, DST & Inclination Report | | | | | | | |
| I hereby certify that the foregoing and attached information is complete and correct as determined from all available records. | | | | | | | |
| SIGNED | | TITLE | | | DATE | | |
| [Signature] | | Dist. Dirg. Supt. | | | 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 | | | 38. GEOLOGIC MARKERS | | | |
|---|-------|--------|---|---|--|------------------|
| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC. | NAME | MEAS. DEPTH | TRUE VERT. DEPTH |
| 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 1/4 psig in 30 mins. Opened 1 1/2" 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. | Upper Miss. Morrow Gas Atoka Strawn Gas Cisco Wolfcamp Queen SA T. Salt B. Salt | 11,153' 10,700' 10,400' 10,258' 9,332' 7,600' 2,020' 240' 950' | |

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

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

- TEST WATER SHUT-OFF ☐
FRACTURE TREAT ☐
SHOOT OR ACIDIZE ☐
REPAIR WELL ☐
PULL OR ALTER CASING ☐
MULTIPLE COMPLETE ☐
CHANGE ZONES ☐
ABANDON* ☐
(other) ☐

SUBSEQUENT REPORT OF:

- ☐
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RECEIVED

DEC 3 1980

U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

5. LEASE
NM 074936
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME RECEIVED
8. FARM OR LEASE NAME
McIntyre Federal AUG 13 1981
9. WELL NO.
8 O.C.D.
ARTESIA, OFFICE
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

(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 1/4 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 N₂ per bbl. Flwd to pit 3 hrs, rec approx 30 BLW. Swbd 2 1/2 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 gal 40, w/36,000# 20/40 sd & 9,240 gals CO₂. 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 J. W. Schmidt TITLE Dist. Drlg. Supt. DATE 11/24/80

APPROVED

(This space for Federal or State office use)

APPROVED BY (Orig. Sgd.) PETER W. CHESTER TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY: _____

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 N₂. 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 wt. 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' 963- 763' 532- 332' | 200' cmt plug 200' cmt plug 200' cmt plug |

Form 9-331
Dec. 1973Form Approved.
Budget Bureau No. 42-R1424UNITED 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
AT TOP PROD. INTERVAL: As Above
AT TOTAL DEPTH: As Above

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

CHANGE ZONES ☐

ABANDON* ☐

(other) ☐

SUBSEQUENT REPORT OF:

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OCT 20 1980

U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

DST, run 5½" OD Prod csg & cmtg

5. LEASE
NM 074936

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

RECEIVED

8. FARM OR LEASE NAME
McINTYRE FEDERAL

OCT 23 1980

9. WELL NO.
8

O. C. D.
ARTESIA, NM

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, KOB, AND WD)
3660.1' GR

(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 _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

ACCEPTED FOR RECORD

OCT 21 1980

U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

*See Instructions on Reverse Side

Form 9-331
Dec. 1973Form Approved.
Budget Bureau No. 42-R1424UNITED 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

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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Run Intermediate & Cement

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

(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 1 1/4# 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

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED

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 ☐ O. C. D.
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
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

- TEST WATER SHUT-OFF ☐
FRACTURE TREAT ☐
SHOOT OR ACIDIZE ☐
REPAIR WELL ☐
PULL OR ALTER CASING ☐
MULTIPLE COMPLETE ☐
CHANGE ZONES ☐
ABANDON* ☐
(other) ☐

SUBSEQUENT REPORT OF:

- ☐
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Spud run conductor pipe,
surf csg & cmt.

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent data and the proposed dates, including estimated date of starting any proposed work. If well is directionally drilled, give substantial portions 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. Cmdt 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'. Cmdt 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 Don 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:

*See Instructions on Reverse Side

| | |
|--|--------------------|
| 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 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 | |

(NOTE: Report of well completion or zone change on Form 9-331-C)

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AUG 11 1980

U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

ACCEPTED FOR RECORD

AUG 13 1980

U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

VII.

COG Operating, LLC
Jenkins B Federal #3
Lease # NMLC054988
API# 30-015-042216
Sec 20, T17S, R30E, Unit C
330' FNL & 2310' FWL
Eddy County, NM

880

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
 - **Average daily rate/volume 500 BWPD, Maximum daily rate/volume 1,000 BWPD**
2. Whether the system is open or closed;
 - **Closed System**
3. Proposed average and maximum injection pressure;
 - **Average injection pressure 880 psi, Maximum injection pressure 880 psi**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water; and,
 - **Formation water analysis attached**
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.).
 - **Not for disposal purposes**



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Company: COG Operating LLC - NM Sample #: 7133
Area: Artesia Analysis ID #: 296
Lease: JENKINS B FED.
Location: 3 3001504216
Sample Point: Wellhead

| | | Anions | | Cations | |
|---------------------|---------------|-----------------------------------|----------|-------------------------------|---------|
| | | mg/l | meq/l | mg/l | meq/l |
| Sampling Date: | 4/3/2007 | Chloride: | 106617.0 | Sodium: | 67104.0 |
| Analysis Date: | 4/4/2007 | Bicarbonate: | 332.0 | Magnesium: | 503.0 |
| Analyst: | Mitchell Labs | Carbonate: | | Calcium: | 2106.0 |
| TDS (mg/l or g/m3): | 179193.9 | Sulfate: | 2530.0 | Strontium: | |
| Density (g/cm3): | 1.125 | | | Barium: | |
| | | | | Iron: | 1.4 |
| Hydrogen Sulfide: | 88 | | | Manganese: | 0.540 |
| Carbon Dioxide: | 37 | | | | |
| Comments: | | pH at time of sampling: | 6.8 | | |
| | | pH at time of analysis: | | | |
| | | pH used in Calculation: | 6.8 | | |
| | | Temperature @ lab conditions (F): | 66 | Conductivity (micro-ohms/cm): | 210700 |
| | | | | Resistivity (ohm meter): | .0475 |

| Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl | | | | | | | | | | |
|---|------------------------------|--------|--|--------|--------------------------------|--------|--------------------------------|--------|-----------------------------|--------|
| Temp | Calcite CaCO ₃ | | Gypsum CaSO ₄ *2H ₂ O | | Anhydrite CaSO ₄ | | Celestite SrSO ₄ | | Barite BaSO ₄ | |
| °F | Index | Amount | Index | Amount | Index | Amount | Index | Amount | Index | Amount |
| 80 | 0.40 | 13.26 | -0.30 | 0.00 | -0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 | 0.46 | 16.50 | -0.38 | 0.00 | -0.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120 | 0.52 | 20.04 | -0.45 | 0.00 | -0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140 | 0.57 | 23.87 | -0.50 | 0.00 | -0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

VII.

COG Operating, LLC
Jenkins B Federal #7
API# 30-015-29451
Lease # NMLC054988
Sec 20, T17S, R30E, Unit E
1650' FNL & 1090' FWL
Eddy County, NM

880

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
 - **Average daily rate/volume 500 BWPD, Maximum daily rate/volume 1,000 BWPD**
2. Whether the system is open or closed;
 - **Closed System**
3. Proposed average and maximum injection pressure;
 - **Average injection pressure 880 psi, Maximum injection pressure 880 psi**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water; and,
 - **Formation water analysis attached**
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.).
 - **Not for disposal purposes**



Catalyst Oilfield Services
 11999 E Hwy 158
 Gardendale, TX 79758
 (432) 563-0727
 Fax: (432) 224-1038

Water Analysis Report

Company: COG Operating LLC - NM Sample #: 7138
 Area: Artesia Analysis ID #: 290
 Lease: JENKINS B FED.
 Location: 7 3001529451
 Sample Point: Wellhead

| | | Anions | | Cations | |
|---------------------|---------------|-----------------------------------|----------|-------------------------------|---------|
| | | mg/l | meq/l | mg/l | meq/l |
| Sampling Date: | 4/3/2007 | Chloride: | 103414.0 | Sodium: | 65752.9 |
| Analysis Date: | 4/5/2007 | Bicarbonate: | 457.0 | Magnesium: | 278.0 |
| Analyst: | Mitchell Labs | Carbonate: | | Calcium: | 2123.0 |
| TDS (mg/l or g/m3): | 175126.8 | Sulfate: | 3100.0 | Strontium: | |
| Density (g/cm3): | 1.122 | | | Barium: | |
| | | | | Iron: | 1.6 |
| Hydrogen Sulfide: | 102 | | | Manganese: | 0.340 |
| Carbon Dioxide: | 37 | | | | |
| Comments: | | pH at time of sampling: | 6.8 | | |
| | | pH at time of analysis: | | | |
| | | pH used in Calculation: | 6.8 | | |
| | | Temperature @ lab conditions (F): | 66 | Conductivity (micro-ohms/cm): | 206800 |
| | | | | Resistivity (ohm meter): | .0484 |

| Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl | | | | | | | | | | |
|---|------------------------------|--------|--|--------|--------------------------------|--------|--------------------------------|--------|-----------------------------|--------|
| Temp | Calcite CaCO ₃ | | Gypsum CaSO ₄ ·2H ₂ O | | Anhydrite CaSO ₄ | | Celestite SrSO ₄ | | Barite BaSO ₄ | |
| °F | Index | Amount | Index | Amount | Index | Amount | Index | Amount | Index | Amount |
| 80 | 0.53 | 25.14 | -0.21 | 0.00 | -0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 | 0.59 | 29.88 | -0.29 | 0.00 | -0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120 | 0.65 | 35.20 | -0.35 | 0.00 | -0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140 | 0.70 | 40.52 | -0.41 | 0.00 | -0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

VII.

COG Operating, LLC
Jenkins B Federal #11
API# 30-015-30665
Lease # NMLC054988
Sec 20, T17S, R30E, Unit D
330' FNL & 990' FWL
Eddy County, NM

880

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
 - **Average daily rate/volume 500 BWPD, Maximum daily rate/volume 1,000 BWPD**
2. Whether the system is open or closed;
 - **Closed System**
3. Proposed average and maximum injection pressure;
 - **Average injection pressure 880 psi, Maximum injection pressure 880 psi**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water; and,
 - **Formation water analysis attached**
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.).
 - **Not for disposal purposes**



Catalyst Oilfield Services
 11999 E Hwy 158
 Gardendale, TX 79758
 (432) 563-0727
 Fax: (432) 224-1038

Water Analysis Report

Company: COG Operating LLC - NM
 Area: Artesia
 Lease: JENKINS B FED.
 Location: 11 3001530665
 Sample Point: Wellhead

Sample #: 7135
 Analysis ID #: 298

| | | Anions | | Cations | |
|---------------------|---------------|-----------------------------------|----------|-------------------------------|---------|
| | | mg/l | meq/l | mg/l | meq/l |
| Sampling Date: | 4/3/2007 | Chloride: | 105216.0 | Sodium: | 66124.2 |
| Analysis Date: | 4/4/2007 | Bicarbonate: | 561.0 | Magnesium: | 522.0 |
| Analyst: | Mitchell Labs | Carbonate: | | Calcium: | 2324.0 |
| TDS (mg/l or g/m3): | 177550.1 | Sulfate: | 2800.0 | Strontium: | |
| Density (g/cm3): | 1.124 | | | Barium: | |
| | | | | Iron: | 1.9 |
| Hydrogen Sulfide: | 95 | | | Manganese: | 0.980 |
| Carbon Dioxide: | 88 | | | | |
| Comments: | | pH at time of sampling: | 6.8 | | |
| | | pH at time of analysis: | | | |
| | | pH used in Calculation: | 6.8 | | |
| | | Temperature @ lab conditions (F): | 66 | Conductivity (micro-ohms/cm): | 209400 |
| | | | | Resistivity (ohm meter): | .0478 |

| Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl | | | | | | | | | | |
|---|------------------------------|--------|--|--------|--------------------------------|--------|--------------------------------|--------|-----------------------------|--------|
| Temp | Calcite CaCO ₃ | | Gypsum CaSO ₄ *2H ₂ O | | Anhydrite CaSO ₄ | | Celestite SrSO ₄ | | Barite BaSO ₄ | |
| °F | Index | Amount | Index | Amount | Index | Amount | Index | Amount | Index | Amount |
| 80 | 0.66 | 38.96 | -0.22 | 0.00 | -0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 | 0.72 | 45.16 | -0.30 | 0.00 | -0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120 | 0.78 | 51.35 | -0.36 | 0.00 | -0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140 | 0.83 | 58.14 | -0.42 | 0.00 | -0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

VII.

COG Operating, LLC
Jenkins B Federal #15
API# 30-015-33472
Lease # NMLC054988
Sec 20, T17S, R30E, Unit F
1650' FNL & 1090' FWL
Eddy County, NM

880

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
 - **Average daily rate/volume 500 BWPD, Maximum daily rate/volume 1,000 BWPD**
2. Whether the system is open or closed;
 - **Closed System**
3. Proposed average and maximum injection pressure;
 - **Average injection pressure 880 psi, Maximum injection pressure 880 psi**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water; and,
 - **Formation water analysis attached**
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.).
 - **Not for disposal purposes**



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Company: COG Operating LLC - NM
Area: Artesia
Lease: JENKINS B FED.
Location: 15 3001533472
Sample Point: Wellhead

Sample #: 7137
Analysis ID #: 289

| | | Anions | | Cations | |
|---------------------|---------------|-----------------------------------|----------|-------------------------------|---------|
| | | mg/l | meq/l | mg/l | meq/l |
| Sampling Date: | 4/3/2007 | Chloride: | 108018.0 | Sodium: | 68187.5 |
| Analysis Date: | 4/4/2007 | Bicarbonate: | 457.0 | Magnesium: | 586.0 |
| Analyst: | Mitchell Labs | Carbonate: | | Calcium: | 1970.0 |
| TDS (mg/l or g/m3): | 182020.9 | Sulfate: | 2800.0 | Strontium: | |
| Density (g/cm3): | 1.127 | | | Barium: | |
| Hydrogen Sulfide: | 122 | | | Iron: | 1.8 |
| Carbon Dioxide: | 44 | | | Manganese: | 0.560 |
| Comments: | | pH at time of sampling: | 6.8 | | |
| | | pH at time of analysis: | | | |
| | | pH used in Calculation: | 6.8 | | |
| | | Temperature @ lab conditions (F): | 66 | Conductivity (micro-ohms/cm): | 212200 |
| | | | | Resistivity (ohm meter): | .0471 |

| Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl | | | | | | | | | | |
|---|------------------------------|--------|--|--------|--------------------------------|--------|--------------------------------|--------|-----------------------------|--------|
| Temp | Calcite CaCO ₃ | | Gypsum CaSO ₄ ·2H ₂ O | | Anhydrite CaSO ₄ | | Celestite SrSO ₄ | | Barite BaSO ₄ | |
| °F | Index | Amount | Index | Amount | Index | Amount | Index | Amount | Index | Amount |
| 80 | 0.51 | 23.81 | -0.29 | 0.00 | -0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 | 0.57 | 28.51 | -0.37 | 0.00 | -0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120 | 0.63 | 33.50 | -0.44 | 0.00 | -0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140 | 0.68 | 38.79 | -0.49 | 0.00 | -0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Exhibit VIII
Geological Review
Ground Water Sources
Empire, Empire East, and Loco Hills Fields
Eddy County, New Mexico

The intervals under consideration for secondary recovery operations include the Glorieta/Paddock and Blinberry formations collectively referred to as the Yeso. Both intervals are in the Leonardian Group of the Lower Permian Age located on the Northwest Shelf of the Delaware Basin in the western part of the Permian Basin.

The injection intervals are the following:

Jenkins B Federal #3 (Loco Hills Field)

- Paddock 4,337'-4,600'

Jenkins B Federal #7 (Loco Hills Field)

- Paddock 4,289'-4,634'

Jenkins B Federal #11 (Loco Hills Field)

- Paddock 4,418'-4,666'

Jenkins B Federal #15 (Loco Hills Field)

- Paddock 4,312'-4,716'

Produced water from Lower Permian Age rocks is too mineralized to be potable or useable for live stock.

Ground water in Eddy County is obtained from porous and permeable aquifers in consolidated rocks of the Upper Permian and Triassic age and in relatively unconsolidated sediments of Tertiary and Quaternary age.

The area east of the Pecos River is a large area and includes half of Eddy County, generally from T 16 S R 27 E to T 26S R 31E, extending from the Chaves County line south to the Texas State line and east to the Lea County line.

The Triassic System overlies the Rustler formation in Eddy County and is composed of red beds and sandstones of the Dockum group. The lower part of these beds is considered Permian and correlated with Dewey Lake red beds by some geologists. The total thickness of the Dockum group east of Artesia is about 1,000'. Formations of the Dockum group exposed in Eddy County are the Pierce Canyon red beds, the Santa Rosa sandstone and red beds possibly from the Chinle formation.

In the Empire, Empire East, Loco Hills, and Fren Fields, the sandstone beds in the Triassic Dockum group and possibly in the Dewey Lake red beds are the chief sources of ground water. The depth to water in this area is generally less than 300'. Most of the wells in the outcrop area of the Dockum group yield water of better quality than the wells to the west that produce from the Rustler formation. Analyses were made of 21 samples of water from wells probably taking all or part of their water from the Triassic red beds. The hardness of calcium carbonate in the 21 samples ranged from 201 to 3,590 ppm and was more than 1,000 ppm in 14 of the 21 samples. The chloride content ranged from 17 to 785 ppm and was more than 200 ppm in 10 of the samples. Probably about half the wells in the Triassic red beds produce water that is considered usable for domestic purposes. None of the wells in the Triassic red beds produce water too highly mineralized for stock.

A review of all geologic map data and well as visual searches by field personnel did not indicate the presence of any windmills in the areas of review for the proposed conversions. Fresh water for domestic uses is pumped approximately 10 miles from Maljamar.

In summary, ground water in the Empire, Empire East, Loco Hills, and Fren areas for stock and domestic use can be obtained from wells in the Triassic red beds at depths up to 300'. Water is generally of fair quality but locally impotable. The injection intervals for the proposed conversions are in the Yeso group in the lower Permian age rocks at about 4,300' to almost 4,700'. No contamination of the known shallow potable ground waters is expected from the proposed deeper secondary operations due to over 4,000' of vertical separation between the them. There was no indication of any use of ground water aquifers in the areas of reviews for the proposed conversions.

From Geology and Ground-Water Resources of Eddy County, New Mexico by G. E. Hendrickson and R. S. Jones. Ground-Water Report 3, New Mexico Bureau of Mines and Mineral Resources, 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.
NMLC054988B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
JENKINS B FEDERAL 39. API Well No.
30-015-0421610. Field and Pool, or Exploratory
LOCO HILLS; GLORIETA, YESO11. County or Parish, and State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
COG OPERATING LLCContact: KANICIA CARRILLO
E-Mail: kcarrillo@conchoresources.com3a. Address
550 WEST TEXAS AVE STE 1300
MIDLAND, TX 797013b. Phone No. (include area code)
Ph: 432-685-4332

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

Sec 20 T17S R30E 330FNL 2310FWL

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|--|--|---|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment Notice | <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input type="checkbox"/> Other |
| | <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | |
| | <input checked="" type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Objective: Convert the well from a producer to a Paddock water injection well. (Pumping unit will be moved prior to conversion.)

1. MIRU POH w/ rods & tbg.
2. PU & RIH w/ 3-3/4" bit & scraper on 2-3/8" WS, CO to PBTD @ 4726', Circ clean. POOH & LD bit and scraper.
3. RIH w/ WS & 4-1/2" pkr. & CBP. Set CBP @ +/- 4290', set pkr @ +/- 4000'.
4. Dump 3 sxs (1 sx= 100#) of sand on CBP. Test annulus to 500 psi for 30 min.
5. Establish injection rate into perfs.
6. POOH & LD pkr.
7. TIH w/ composite cmt retainer & set @ +/- 4000'.
8. Mix and pump lead 250 sxs Class ?C? cmt + 2% CaCl + 5 #/sx Gilsonite, tail end w/ 200 sx class

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #79560 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Carlsbad**

Name (Printed/Typed) KANICIA CARRILLO

Title PREPARER

Signature (Electronic Submission)

Date 01/05/2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____

Title _____

Date _____

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office _____

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #79560 that would not fit on the form

32. Additional remarks, continued

?C? neat.

9. Hesitate as necessary to obtain a squeeze of 2500psi.

10. Sting out of retainer & circ tbg & annulus clean. POOH. WOC overnight.

11. Test to 500psi for 30 min. PU & RIH w/ 3-3/4" bit, bit sub, 6- 2-7/8" DC"s on 2-3/8" WS and DO cmt retainer and CBP. CO to PBTD @ 4726", circ clean. POOH & LD drilling assembly.

12. RIH w/ WS & 4-1/2" treating pkr, set pkr @ +/- 4300".

13. RU acid company

14. Pump 2500 gals 15% HCl while dropping 50 bioballs as a diverter. Displace w/ 50bbls FW. Monitor backside as job is being pumped.

15. RD & RIs acid company.

16. RIs pkr & POOH w/ pkr & WS.

17. RIH w/ 2-7/8" inj tbg w/ turndown collars & inj pkr. Set pkr @ 4250".

18. RIs on/off tool, Circ annulus w/ pkr fluid, latch onto on/off tool.

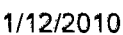
19. Test csg to 500psi.

20. Begin Injection as permitted on the C108.



Elevation - 3649'

KB -



COG Operating LLC

Lease & Well #

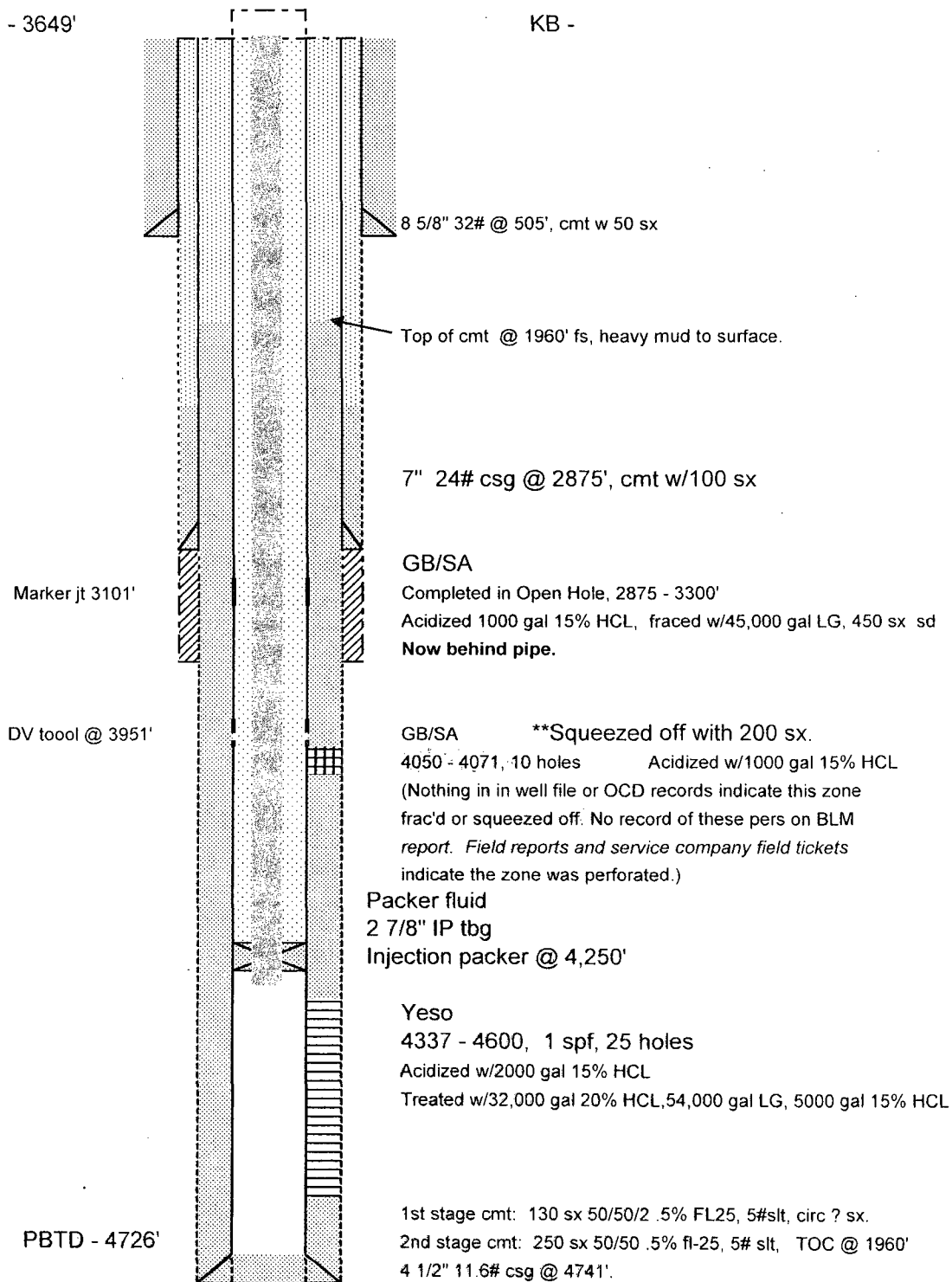
Jenkins B Federal #3

30-015-042216

Spudded /19/1938

Elevation - 3649'

KB -



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

| | | |
|--|---|--|
| 1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other | | 5. Lease Serial No. NMLC054988B |
| 2. Name of Operator COG OPERATING LLC Contact: KANICIA CARRILLO E-Mail: kcarrillo@conchoresources.com | | 6. If Indian, Allottee or Tribe Name |
| 3a. Address 550 WEST TEXAS AVE STE 1300 MIDLAND, TX 79701 | 3b. Phone No. (include area code) Ph: 432-685-4332 | 7. If Unit or CA/Agreement, Name and/or No. |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 20 T17S R30E 1650FNL 1090FWL | | 8. Well Name and No. JENKINS B FEDERAL 7 |
| | | 9. API Well No. 30-015-29451 |
| | | 10. Field and Pool, or Exploratory LOCO HILLS;GLORIETA,YESO |
| | | 11. County or Parish, and State EDDY COUNTY, NM |

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|--|--|---|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment Notice | <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input type="checkbox"/> Other |
| | <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | |
| | <input checked="" type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Objective: Convert the well from a producer to a Paddock water injection well. (Pumping unit will be moved prior to conversion.)

1. MIRU POH w rods & tbq.
2. PU & RIH w/ 4-3/4" bit & 5-1/2" csg scraper on 2-7/8" WS, CO to PBTD @ 4783', Circ clean. POOH & LD bit.
3. RIH w/ WS & 5-1/2" treating pkr, set pkr @ +/- 4240'. Test annulus to 500 psi for 30 min.
4. RU acid company.
5. Pump 2500 gals 15% HCl while dropping 50 bioballs as a diverter. Displace w/ 50bbls FW. Monitor backside as job is being pumped.
6. RD & Rls acid company.
7. Rls pkr & POOH w/ 5-1/2" pkr and WS.
8. RIH w/ 2-7/8" inj tbq & inj pkr. Set pkr @ 4200'.

| | |
|---|-----------------|
| 14. I hereby certify that the foregoing is true and correct. Electronic Submission #79562 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad | |
| Name (Printed/Typed) KANICIA CARRILLO | Title PREPARER |
| Signature (Electronic Submission) | Date 01/05/2010 |

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

| | | |
|---|-------------|--------------|
| Approved By _____ | Title _____ | Date _____ |
| Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. | | Office _____ |

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #79562 that would not fit on the form

32. Additional remarks, continued

9. Rls on/off tool, Circ annulus w/ pkr fluid, latch onto on/off tool.
10. Test csg to 500psi.
11. Begin Injection as permitted on the C108.

COG Operating LLC

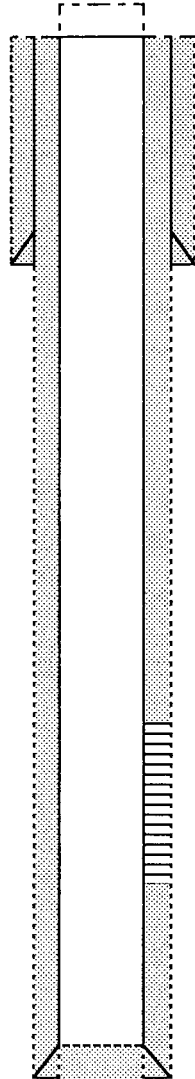
Lease & Well #
API # 30-015-29451
Spud: 4/3/97

Jenkins B Federal #7

Sec 20E T17S R30E

Elevation - 3643'

KB -



8 5/8" 24# @ 415', 300 sx cmt, circ. 121 sx

Paddock
4289 - 4634'
Acidized w/2,000 gal 15% NEFE
Hot acid job: 32,000/54,000/5,000

PBTD - 4783'

1st stage: 165 sx 50/50/c circ 32 sx.
2nd stage: 900 sx lite, 350 sx 50/50/2 c, circ 225 sx.
5 1/2" 17# csg @ 4796'.

COG Operating LLC

30 015 29451

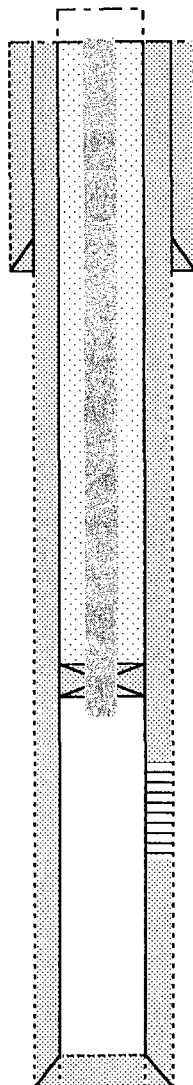
Lease & Well #

Jenkins B Federal #7

Spud: 4/3/97

Elevation - 3643'

KB -



8 5/8" 24# @ 415', 300 sx cmt, circ. 121 sx

Packer fluid
2 7/8" IP tbg
Injection packer @ 4,200'

Paddock

4289 - 4634'

Acidized w/2,000 gal 15% NEFE

Hot acid job: 32,000/54,000/5,000

**Reacidized with 2,500 ggl 15% HCL

1st stage: 165 sx 50/50/c circ 32 sx.

2nd stage: 900 sx lite, 350 sx 50/50/2 c, circ 225 sx.

5 1/2" 17# csg @ 4796'.

PBTD - 4783'

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

| |
|--|
| 5. Lease Serial No. NMLC054988B |
| 6. If Indian, Allottee or Tribe Name |
| 7. If Unit or CA/Agreement, Name and/or No. |
| 8. Well Name and No. JENKINS B FEDERAL 11 |
| 9. API Well No. 30-015-30665 |
| 10. Field and Pool, or Exploratory LOCO HILLS; GLORIETA, YESO |
| 11. County or Parish, and State EDDY COUNTY, NM |

| | |
|--|---|
| 1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other | |
| 2. Name of Operator COG OPERATING LLC | |
| Contact: KANICIA CARRILLO E-Mail: kcarrillo@conchoresources.com | |
| 3a. Address 550 WEST TEXAS AVE STE 1300 MIDLAND, TX 79701 | 3b. Phone No. (include area code) Ph: 432-685-4332 |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 20 T17S R30E 330FNL 990FWL | |

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|--|--|---|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment Notice | <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input type="checkbox"/> Other |
| | <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | |
| | <input checked="" type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Objective: Convert the well from a producer to a Paddock water injection well. (Pumping unit will be moved prior to conversion.)

1. MIRU POH w/ rods & tbg.
2. PU & RIH w/ 4-3/4" bit & scraper on 2-7/8" WS, CO to PBTD @ 4681', Circ clean. POOH & LD bit and scraper.
3. RIH w/ WS & 5-1/2" pkr & CBP. Set CBP @ +/- 4400', set pkr @ +/- 2985'.
4. Dump 3 sxs (1 sx= 100#) of sand on CBP.
5. Establish injection rate into perfs.
6. POOH & LD pkr.
7. TIH w/ composite cmt retainer & set @ +/- 2970'
8. Mix and pump lead 500 sxs Class 2C? cmt + 2% CaCl + 5 #/sx Gilsonite, tail end w/ 200 sx class

| | |
|---|-----------------|
| 14. I hereby certify that the foregoing is true and correct. Electronic Submission #79561 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad | |
| Name (Printed/Typed) KANICIA CARRILLO | Title PREPARER |
| Signature (Electronic Submission) | Date 01/05/2010 |

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

| | | |
|---|-------------|--------------|
| Approved By _____ | Title _____ | Date _____ |
| Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. | | Office _____ |

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #79561 that would not fit on the form

32. Additional remarks, continued

?C? neat.

9. Hesitate as necessary to obtain a squeeze of 2500psi.

10. Sting out of retainer & circ tbg & annulus clean. POOH, WOC overnight.

11. Test to 500psi for 30 min. PU & RIH w/ WS & 5-1/2? cmt retainer & set @ 2965?. Test annulus to 500 psi for 30 min.

12. Establish injection rate into perms.

13. Mix and pump lead 250 sxs Class ?C? cmt + 2% CaCl + 5 #/sx Gilsonite, tail end w/ 200 sx class ?C? neat.

14. Hesitate as necessary to obtain a squeeze of 2500psi.

15. Sting out of retainer & circ tbg & annulus clean. POOH, WOC overnight.

16. Test to 500 psi for 30 min. PU & RIH w/ 4-3/4? bit, bit sub, 6- 3-1/4? DC?s on 2-7/8? WS and DO cmt plugs and CBP. CO to PBTD @ 4681?, circ clean. POOH & LD drilling assembly.

17. RIH w/ WS & 5-1/2? treating pkr, set pkr @ +/- 4390?.

18. RU acid company

19. Pump 2500 gals 15% HCl while dropping 50 bioballs as a diverter. Displace w/ 50bbls FW.

Monitor backside as job is being pumped.

20. RD & RIs acid company.

21. RIs pkr & POOH w/ pkr & WS.

22. RIH w/ 2-7/8? inj tbg & inj pkr. Set pkr @ 4350?.

23. RIs on/off tool, Circ annulus w/ pkr fluid, latch onto on/off tool.

24. Test csg to 500psi.

25. Begin Injection as permitted on the C108.

COG Operating LLC

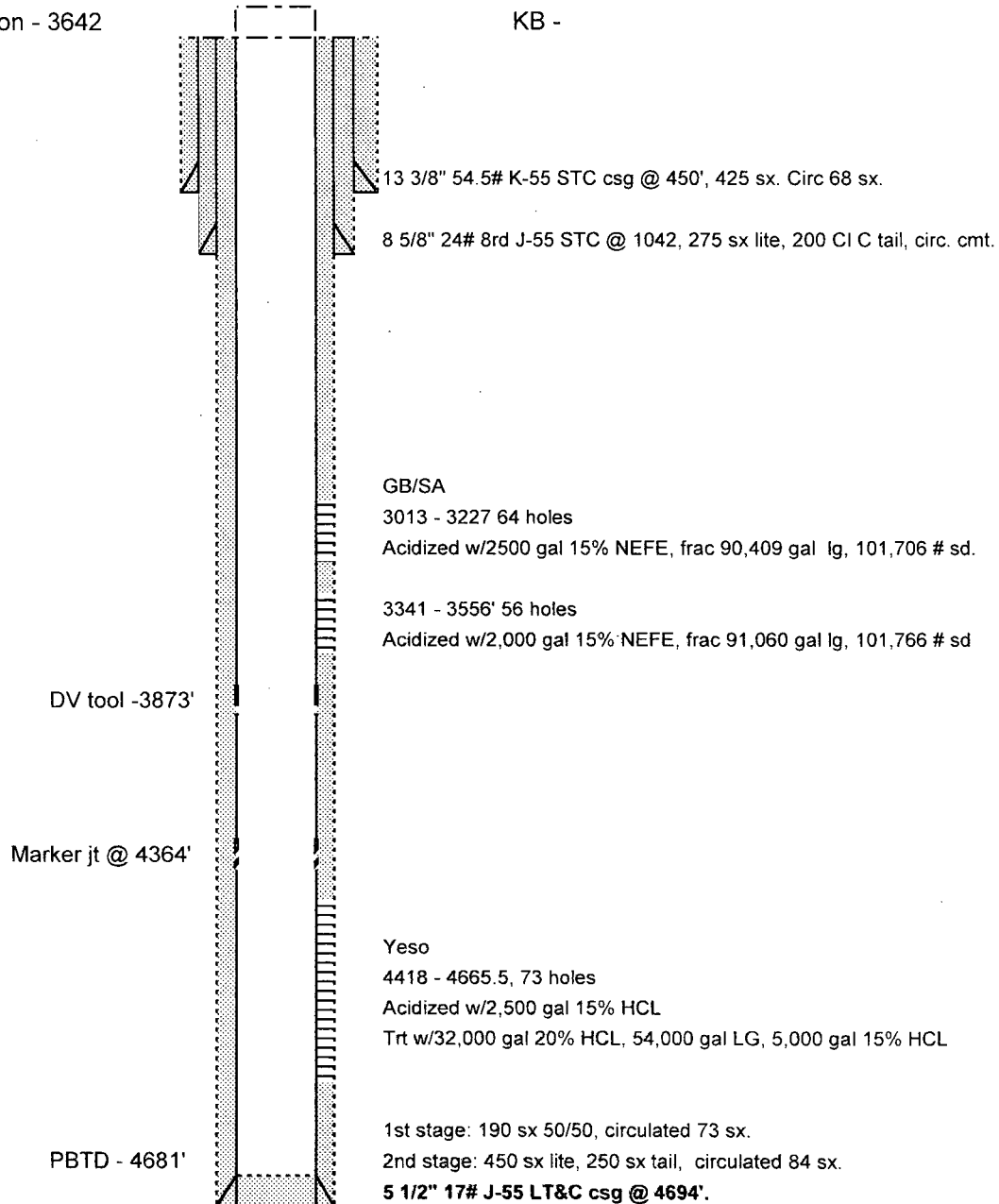
Lease & Well #
API # 30-015-30665
SPUD: 12/1/99

Jenkins B Federal # 11

Sec 20D T17S R30E

Elevation - 3642

KB -



COG Operating LLC

Lease & Well #

Jenkins B Federal # 11

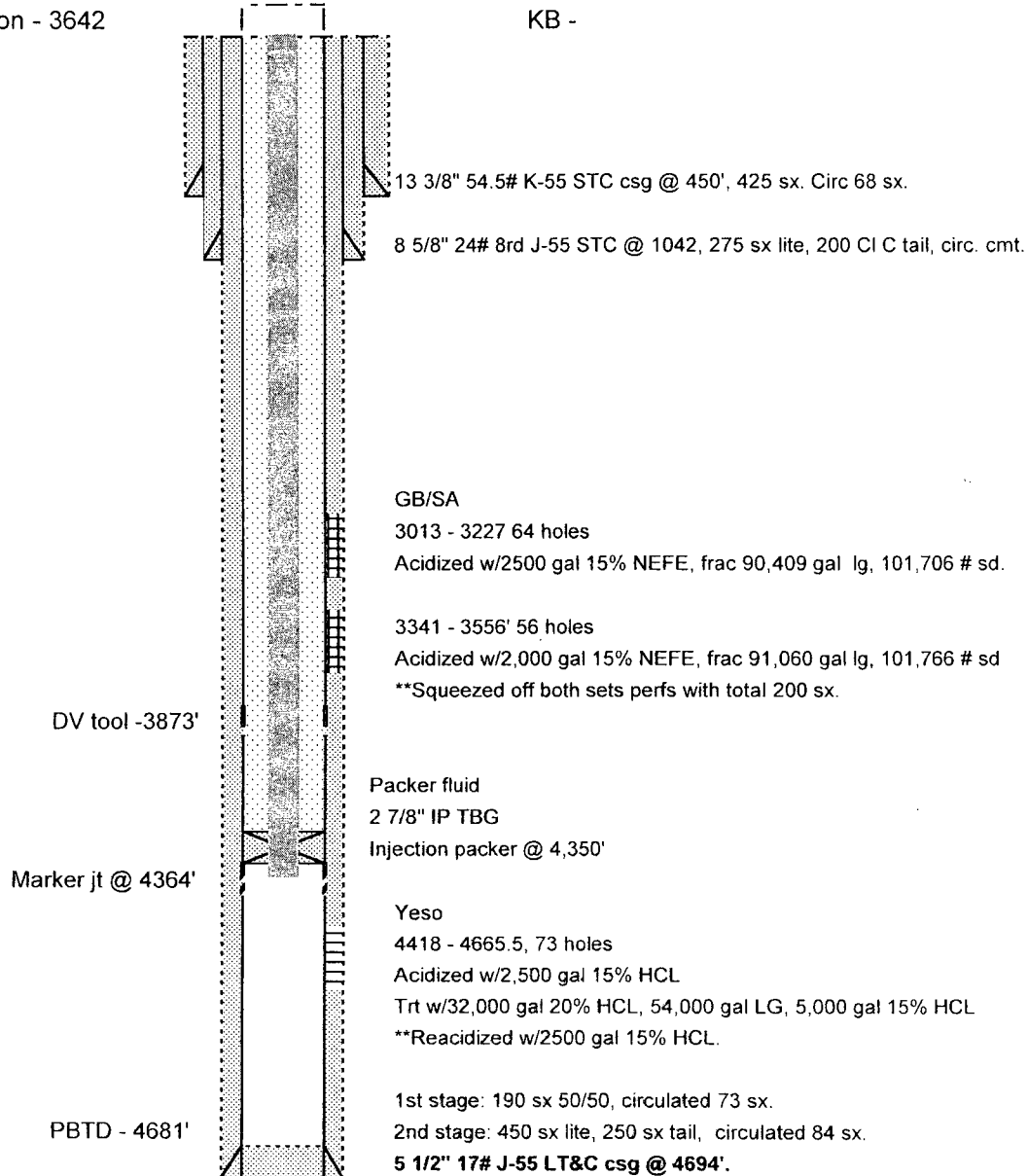
WIW

30 015 30665

SPUD: 12/1/99

Elevation - 3642

KB -



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

| | | |
|--|---|--|
| 1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other | | 5. Lease Serial No. NMLC054988B |
| 2. Name of Operator COG OPERATING LLC Contact: KANICIA CARRILLO E-Mail: kcarrillo@conchoresources.com | | 6. If Indian, Allottee or Tribe Name |
| 3a. Address 550 WEST TEXAS AVE STE 1300 MIDLAND, TX 79701 | 3b. Phone No. (include area code) Ph: 432-685-4332 | 7. If Unit or CA/Agreement, Name and/or No. |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 20 T17S R30E 1650FNL 1090FWL | | 8. Well Name and No. JENKINS B FEDERAL 15 |
| | | 9. API Well No. 30-015-33472 |
| | | 10. Field and Pool, or Exploratory LOCO HILLS; GLORIETA, YESO |
| | | 11. County or Parish, and State EDDY COUNTY, NM |

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|--|--|---|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment Notice | <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input type="checkbox"/> Other |
| | <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | |
| | <input checked="" type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Objective: Convert the well from a producer to a Paddock water injection well. (Pumping unit will be moved prior to conversion.)

1. MIRU POH w/ rods & tbg.
2. PU & RIH w/ 4-3/4" bit & scraper on 2-7/8" WS, CO to PBTD @ 4906', Circ clean. POOH & LD bit and scraper.
3. RIH w/ WS & 5-1/2" sqz pkr, & CBP. Set CBP @ +/- 4290', set pkr @ +/- 3910'.
4. Dump 3 sxs (1 sx= 100#) of sand on CBP.
5. Establish injection rate into perfs.
6. POOH & LD pkr.
7. TIH w/ composite cmt retainer & set @ +/- 3900'
8. Mix and pump lead 200 sxs Class ?C? cmt + 2% CaCl + 5 #/sx Gilsonite, tail end w/ 200 sx class

| | |
|---|-----------------|
| 14. I hereby certify that the foregoing is true and correct. Electronic Submission #79567 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad | |
| Name (Printed/Typed) KANICIA CARRILLO | Title PREPARER |
| Signature (Electronic Submission) | Date 01/05/2010 |

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

| | | |
|---|-------------|--------------|
| Approved By _____ | Title _____ | Date _____ |
| Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. | | Office _____ |

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #79567 that would not fit on the form

32. Additional remarks, continued

?C? neat.

9. Hesitate as necessary to obtain a squeeze of 2500psi.

10. Sting out of retainer & circ tbg & annulus clean. POOH, WOC overnight.

11. Test to 500psi for 30 min. PU & RIH w/ WS & 5-1/2? cmt retainer & set @ 3000?. Test annulus to 500 psi for 30 min.

12. Establish injection rate into perfs.

13. Mix and pump lead 500 sxs Class ?C? cmt + 2% CaCl + 5 #/sx Gilsonite, tail end w/ 200 sx class ?C? neat.

14. Hesitate as necessary to obtain a squeeze of 2500psi.

15. Sting out of retainer & circ tbg & annulus clean. POOH, WOC overnight.

16. Test to 500 psi for 30 min. PU & RIH w/ 4-3/4? bit, bit sub, 6- 3-1/4? DC?s on 2-7/8? WS and DO cmt plugs and CBP. CO to PBTD @ 4906?, circ clean. POOH & LD drilling assembly.

17. RIH w/ WS & 5-1/2? treating pkr, set pkr @ +/- 4285?.

18. RU acid company

19. Pump 2500 gals 15% HCl while dropping 50 bioballs as a diverter. Displace w/ 50bbbls FW. Monitor backside as job is being pumped.

20. RD & RIs acid company.

21. RIs pkr & POOH w/ pkr & WS.

22. RIH w/ 2-7/8? inj tbg & inj pkr. Set pkr @ 4250?.

23. RIs on/off tool, Circ annulus w/ pkr fluid, latch onto on/off tool.

24. Test csg to 500psi.

25. Begin Injection as permitted on the C108.

COG Operating LLC

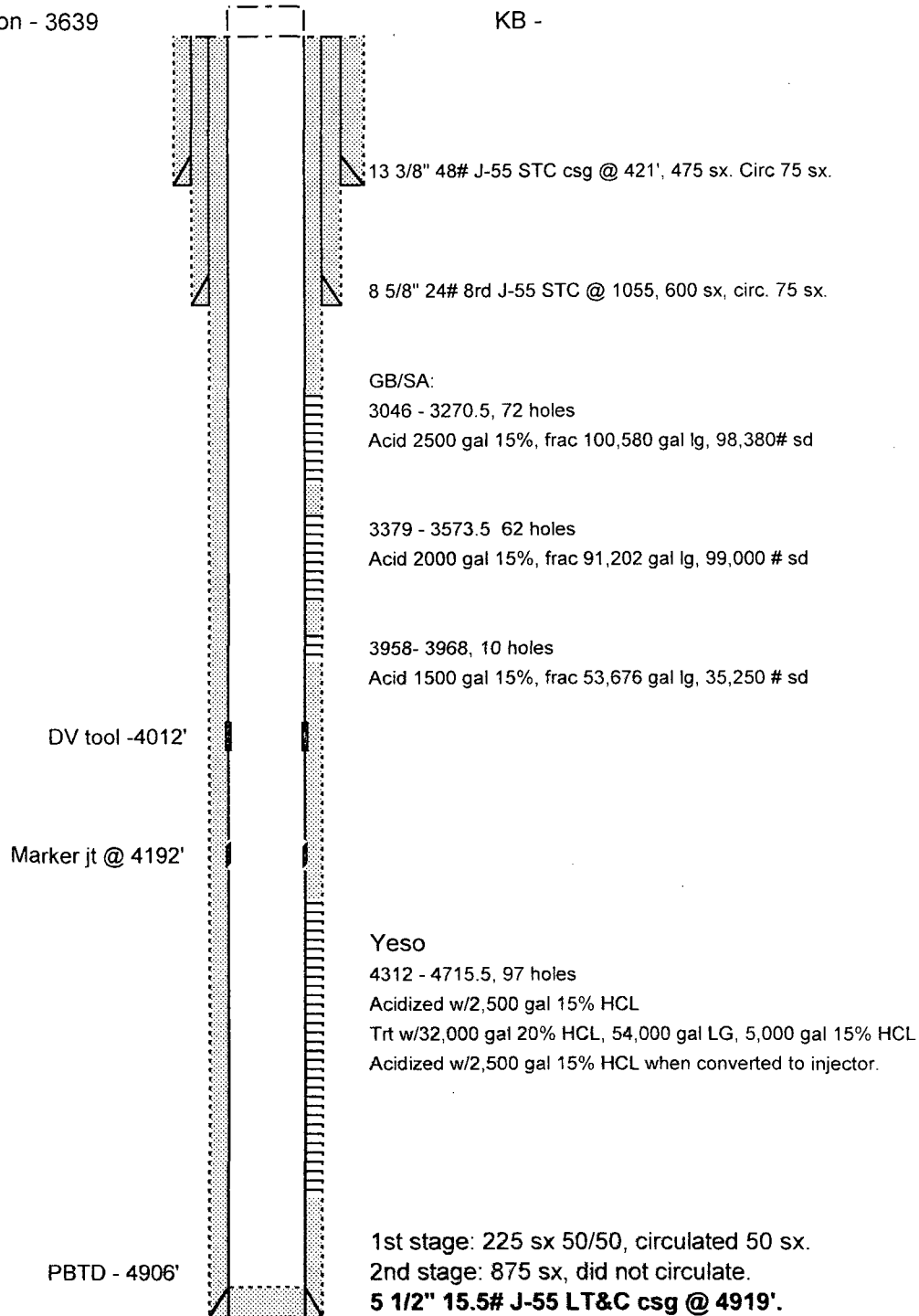
Lease & Well #
API # 30-015-33472
SPUD: 5/5/05

Jenkins B Federal # 15

Sec 20F T17S R30E

Elevation - 3639

KB -



COG Operating LLC

Lease & Well #

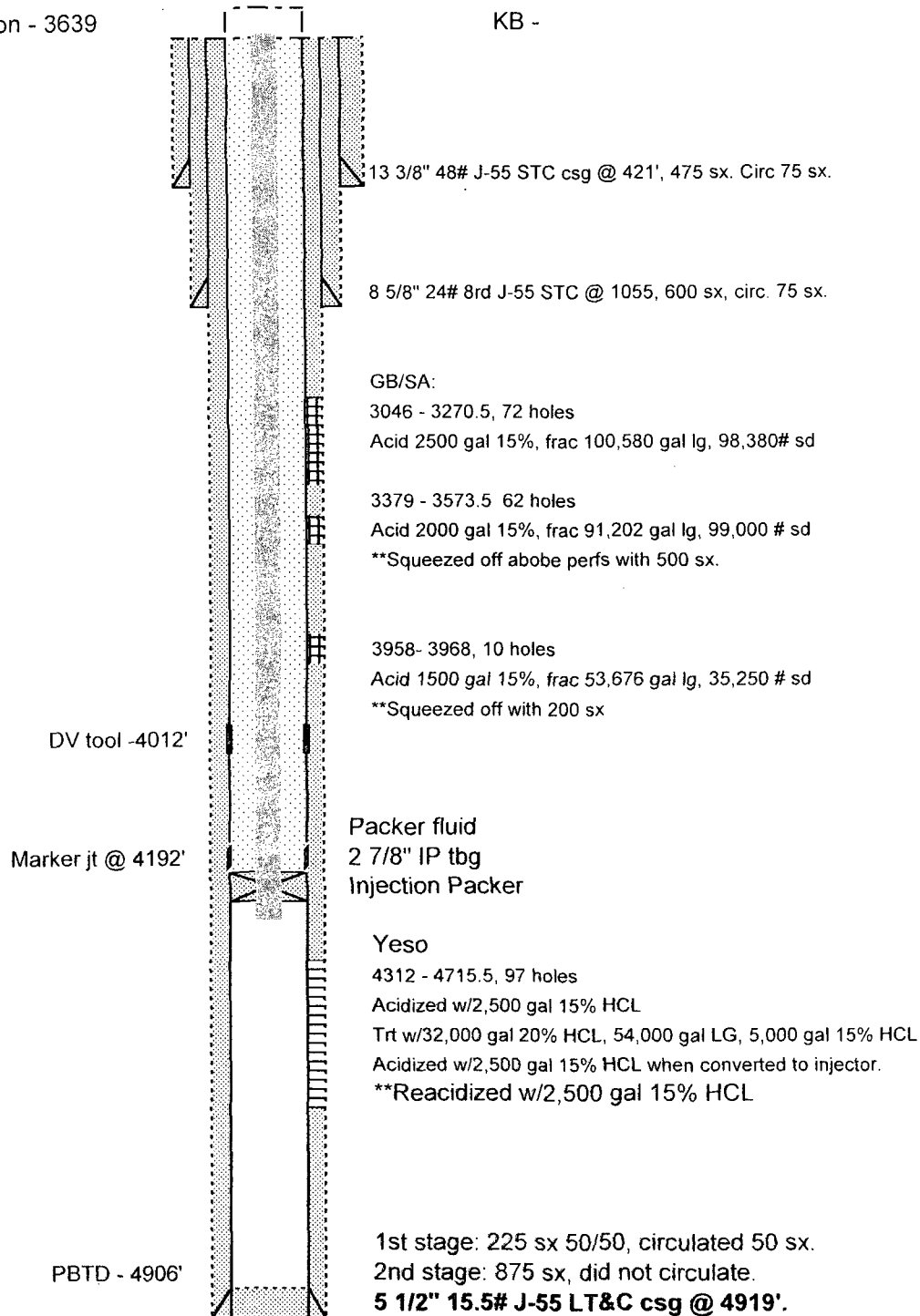
Jenkins B Federal # 15

30 015 37288

SPUD: 5/5/05

Elevation - 3639

KB -



X.

Well Test - Oil, Gas, Water

| Begin Date/Time | End Date/Time | Test Hours | Oil/Cond Volume | Frm Gas Volume | Water Volume | Info Only | Remarks |
|---------------------|------------------|---------------|--------------------|----------------------|-----------------|--------------|---------|
| Jenkins B Federal 3 | | | | | | | |
| 11/29/2009 | 11/30/2009 | 24 | 0.00 | 3 | 325.00 | No | |
| 12/8/2009 | 12/9/2009 | 24 | 0.00 | 6 | 281.00 | No | |

Logs on file.

X.

Well Test - Oil, Gas, Water

| Begin Date/Time | End Date/Time | Test Hours | Oil/Cond Volume | Frm Gas Volume | Water Volume | Info Only | Remarks |
|---------------------|------------------|---------------|--------------------|----------------------|-----------------|--------------|---------|
| Jenkins B Federal 7 | | | | | | | |
| 11/29/2009 | 11/30/2009 | 24 | 0.00 | 12 | 295.00 | No | |
| 12/8/2009 | 12/9/2009 | 24 | 0.00 | 12 | 322.00 | No | |

Logs on file.

X.

Well Test - Oil, Gas, Water

| Begin Date/Time | End Date/Time | Test Hours | Oil/Cond Volume | Frm Gas Volume | Water Volume | Info Only | Remarks |
|-------------------------------------|------------------|---------------|--------------------|----------------------|-----------------|--------------|---------|
| Jenkins B Federal 11 (Glorieta Yeso | | | | | | | |
| 11/29/2009 | 11/30/2009 | 24 | 0.00 | 4 | 388.00 | Yes | |
| 12/29/2009 | 12/30/2009 | 24 | 0.00 | 4 | 388.00 | No | |

Logs on file.

X.

Well Test - Oil, Gas, Water

| Begin Date/Time | End Date/Time | Test Hours | Oil/Cond Volume | Frm Gas Volume | Water Volume | Info Only | Remarks |
|-------------------------------------|------------------|---------------|--------------------|----------------------|-----------------|--------------|---------------------|
| Jenkins B Federal 15 (Glorieta Yeso | | | | | | | |
| 9/27/2007 | 9/28/2007 | 24 | 22.00 | 58 | 12.00 | Yes | test for both zones |
| 9/28/2007 | 9/29/2007 | 24 | 33.00 | 87 | 26.00 | Yes | test for both zones |

Logs on file.



XI.

COG Operating, LLC
Jenkins B Federal #3, 7, 11, 15
Lease # NMLC054988
Sec 20, T17S, R30E
Eddy County, NM

There are no fresh water wells in this area.



Exhibit XII
Geological Statement

Concho Resources has examined available geological, seismic, and engineering data and finds no evidence of open faults or any other hydrologic connection between the water flood zone and any underground source of drinking water.



January 13, 2010

Marbob Energy Corporation
2208 W Main Street
Artesia, NM 88211

Certified Mail Article Number: 7009 2250 0001 0942 3530

Re: Application for injection well on the:

Jenkins B Federal #3
API# 30-015-042216
Sec 20, 17S, R30E, Unit C
330' FNL & 2310' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #7
API# 30-015-29451
Sec 20, 17S, R30E, Unit E
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #11
API# 30-015-30665
Sec 20, 17S, R30E, Unit D
330' FNL & 990' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #15
API# 30-015-33472
Sec 20, 17S, R30E, Unit F
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

To Whom It May Concern:

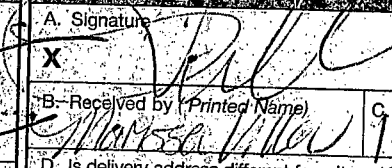
This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well and add it to an existing waterflood(R-12792). We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinebry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinebry perfs are 4336.5 – 4573.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

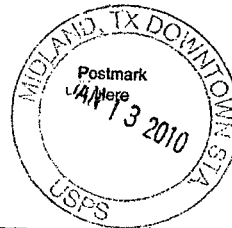
Sincerely,

COG Operating LLC

Kanicia Carrillo
Regulatory Analyst

| SENDER: COMPLETE THIS SECTION | | COMPLETE THIS SECTION ON DELIVERY | |
|---|--|---|--|
| <p><input checked="" type="checkbox"/> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</p> <p><input checked="" type="checkbox"/> Print your name and address on the reverse so that we can return the card to you.</p> <p><input checked="" type="checkbox"/> Attach this card to the back of the mailpiece, or on the front if space permits.</p> | | <p>A. Signature  <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> | |
| <p>1. Article Addressed to:</p> <p>Marbob Energy Corporation 2208 West Main Street Artesia, NM 88211</p> | | <p>B. Received by (Printed Name) MARISA VILLAN</p> | <p>C. Date of Delivery 1-15-10</p> |
| | | <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> | |
| | | <p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> | |
| <p>2. Article Number (Transfer from service label)</p> | | <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p> | |
| <p>PS Form 3811, February 2004</p> | | <p>Domestic Return Receipt</p> | |
| | | <p>102595-02-M-1540</p> | |

| U.S. Postal Service [®] | |
|---|---------|
| <p>CERTIFIED MAIL[®] RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)</p> | |
| <p>For delivery information visit our website at www.usps.com</p> | |
| <p>OFFICIAL USE</p> | |
| Postage | \$.44 |
| Certified Fee | 2.80 |
| Return Receipt Fee (Endorsement Required) | 2.30 |
| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | \$ 5.54 |
| <p>Sent To: Marbob Energy Corporation</p> | |
| <p>Street, Apt. No., or PO Box No.: 2208 West Main Street</p> | |
| <p>City, State, ZIP+4: Artesia, NM 88211</p> | |
| <p>PS Form 3800, August 2006</p> | |
| <p>See Reverse for Instructions</p> | |



7009 2250 0001 0942 3530

Kanicia Castillo

From: U.S._Postal_Service_ [U.S._Postal_Service@usps.com]
Sent: Friday, January 15, 2010 8:46 PM
To: Kanicia Castillo
Subject: USPS Shipment Info for 7009 2250 0001 0942 3530

This is a post-only message. Please do not respond.

Kanicia Castillo has requested that you receive a Track & Confirm update, as shown below.

Track & Confirm e-mail update information provided by the U.S. Postal Service.

Label Number: 7009 2250 0001 0942 3530

Service Type: Certified Mail(TM)

| Shipment Activity | Location | Date & Time |
|---------------------------------|------------------|-----------------|
| Delivered | ARTESIA NM 88210 | 01/15/10 2:18pm |
| Processed through Sort Facility | MIDLAND TX 79701 | 01/13/10 3:21pm |

Reminder: Track & Confirm by email

Date of email request: 01/14/10

Future activity will continue to be emailed for up to 2 weeks from the Date of Request shown above. If you need to initiate the Track & Confirm by email process again at the end of the 2 weeks, please do so at the USPS Track & Confirm web site at <http://www.usps.com/shipping/trackandconfirm.htm>

USPS has not verified the validity of any email addresses submitted via its online Track & Confirm tool.

For more information, or if you have additional questions on Track & Confirm services and features, please visit the Frequently Asked Questions (FAQs) section of our Track & Confirm site at <http://www.usps.com/shipping/trackandconfirmfaqs.htm>



January 13, 2010

ConocoPhillips
3300 North A Street
Building 6
Midland, TX 79705

Certified Mail Article Number: 7009 2250 0001 0942 3769

Re: Application for injection well on the:

Jenkins B Federal #3
API# 30-015-042216
Sec 20, 17S, R30E, Unit C
330' FNL & 2310' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #7
API# 30-015-29451
Sec 20, 17S, R30E, Unit E
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #11
API# 30-015-30665
Sec 20, 17S, R30E, Unit D
330' FNL & 990' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #15
API# 30-015-33472
Sec 20, 17S, R30E, Unit F
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well and add it to an existing waterflood(R-12792). We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinebry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinebry perfs are 4336.5 – 4573.

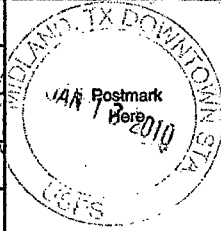
Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

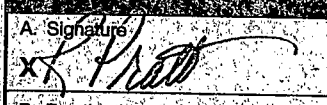
Sincerely,

COG Operating LLC

Kanicia Carrillo
Regulatory Analyst

7009 2250 0001 0942 3769

| | |
|--|---------------------------------|
| U.S. Postal Service | |
| CERTIFIED MAIL RECEIPT | |
| (Domestic Mail Only, No Insurance Coverage Provided) | |
| For delivery information visit our website at www.usps.com | |
| OFFICIAL USE | |
| Postage | \$.44 |
| Certified Fee | 2.80 |
| Return Receipt Fee (Endorsement Required) | 2.30 |
| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | \$ 5.54 |
|  | |
| Sent To | ConocoPhillips |
| Street, Apt. No., or PO Box No. | 3300 North A Street |
| City, State, ZIP+4 | Building 6 Midland, TX 79705 |
| PS Form 3811, August 2003 See Reverse for Instructions | |

| SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY |
|--|--|
| <ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete Item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. | <p>A. Signature </p> <p><input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) K. PRATT</p> <p>C. Date of Delivery 1-14-09</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> |
| <p>1. Article Addressed to:</p> <p>ConocoPhillips 3300 North A Street Building 6 Midland, TX 79705</p> | <p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> |
| <p>2. Article Number (Transfer from service label)</p> <p>7009 2250 0001 0942 3769</p> | <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p> |

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

Kanicia Castillo

From: U.S._Postal_Service_ [U.S._Postal_Service@usps.com]
Sent: Thursday, January 14, 2010 8:06 PM
To: Kanicia Castillo
Subject: USPS Shipment Info for 7009 2250 0001 0942 3769

This is a post-only message. Please do not respond.

Kanicia Castillo has requested that you receive a Track & Confirm update, as shown below.

Track & Confirm e-mail update information provided by the U.S. Postal Service.

Label Number: 7009 2250 0001 0942 3769

Service Type: Certified Mail(TM)

| Shipment Activity | Location | Date & Time |
|-------------------|------------------|------------------|
| Delivered | MIDLAND TX 79705 | 01/14/10 10:52am |

| | | |
|---------------------------------|------------------|-----------------|
| Processed through Sort Facility | MIDLAND TX 79701 | 01/13/10 3:21pm |
|---------------------------------|------------------|-----------------|

Reminder: Track & Confirm by email

Date of email request: 01/14/10

Future activity will continue to be emailed for up to 2 weeks from the Date of Request shown above. If you need to initiate the Track & Confirm by email process again at the end of the 2 weeks, please do so at the USPS Track & Confirm web site at <http://www.usps.com/shipping/trackandconfirm.htm>

USPS has not verified the validity of any email addresses submitted via its online Track & Confirm tool.

For more information, or if you have additional questions on Track & Confirm services and features, please visit the Frequently Asked Questions (FAQs) section of our Track & Confirm site at <http://www.usps.com/shipping/trackandconfirmfaqs.htm>



January 13, 2010

BP America Production Company
600 N Marienfeld
Suite 800
Midland, TX 79702

Certified Mail Article Number: 7009 2250 0001 0942 5008

Re: Application for injection well on the:

Jenkins B Federal #3
API# 30-015-042216
Sec 20, 17S, R30E, Unit C
330' FNL & 2310' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #7
API# 30-015-29451
Sec 20, 17S, R30E, Unit E
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #11
API# 30-015-30665
Sec 20, 17S, R30E, Unit D
330' FNL & 990' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #15
API# 30-015-33472
Sec 20, 17S, R30E, Unit F
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

To Whom It May Concern:

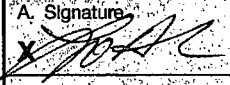
This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well and add it to an existing waterflood(R-12792). We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinbry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinbry perfs are 4336.5 – 4573.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

Sincerely,

COG Operating LLC

Kanicia Carrillo
Regulatory Analyst

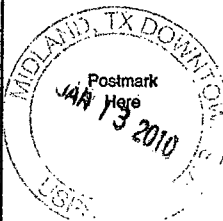
| SENDER: COMPLETE THIS SECTION | | COMPLETE THIS SECTION ON DELIVERY | |
|---|--|--|---|
| <p>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</p> <p>■ Print your name and address on the reverse so that we can return the card to you.</p> <p>■ Attach this card to the back of the mailpiece, or on the front if space permits.</p> | | <p>A. Signature </p> <p><input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> | |
| <p>1. Article Addressed to:</p> <p>BP America Production Company 600 N Marienfeld Suite 600 Midland, TX 79702</p> | | <p>B. Received by (Printed Name) <u>LORENZO N. RAMIREZ</u></p> | <p>C. Date of Delivery <u>1-14-10</u></p> |
| | | <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p><u>600 N. MARIENFELD ST 800</u></p> | |
| | | <p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> | |
| <p>2. Article Number (Transfer from service label)</p> | | <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p> | |
| <p>7009 2250 0001 0942 5008</p> | | | |

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

| U.S. Postal Service | |
|---|----------------|
| <p>CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)</p> | |
| <p>For delivery information visit our website at www.usps.com</p> | |
| <p>OFFICIAL USE</p> | |
| Postage | \$ <u>.44</u> |
| Certified Fee | <u>2.80</u> |
| Return Receipt Fee (Endorsement Required) | <u>2.30</u> |
| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | \$ <u>5.54</u> |
| <p>Sent To BP America Production Company</p> <p>Street, Apt. No., or PO Box No. 600 N Marienfeld</p> <p>City, State, ZIP+4 Suite 600</p> <p>Midland, TX 79702</p> | |
| <p>PS Form 3800, August 2006 See Reverse for Instructions</p> | |



7009 2250 0001 0942 5008

Kanicia Castillo

From: U.S._Postal_Service_ [U.S._Postal_Service@usps.com]
Sent: Thursday, January 14, 2010 8:52 PM
To: Kanicia Castillo
Subject: USPS Shipment Info for 7009 2250 0001 0942 5008

This is a post-only message. Please do not respond.

Kanicia Castillo has requested that you receive a Track & Confirm update, as shown below.

Track & Confirm e-mail update information provided by the U.S. Postal Service.

Label Number: 7009 2250 0001 0942 5008

Service Type: Certified Mail(TM)

| Shipment Activity | Location | Date & Time |
|---------------------------------|------------------|------------------|
| Delivered | MIDLAND TX 79701 | 01/14/10 10:53am |
| Processed through Sort Facility | MIDLAND TX 79701 | 01/13/10 3:21pm |

Reminder: Track & Confirm by email

Date of email request: 01/14/10

Future activity will continue to be emailed for up to 2 weeks from the Date of Request shown above. If you need to initiate the Track & Confirm by email process again at the end of the 2 weeks, please do so at the USPS Track & Confirm web site at <http://www.usps.com/shipping/trackandconfirm.htm>

USPS has not verified the validity of any email addresses submitted via its online Track & Confirm tool.

For more information, or if you have additional questions on Track & Confirm services and features, please visit the Frequently Asked Questions (FAQs) section of our Track & Confirm site at <http://www.usps.com/shipping/trackandconfirmfaqs.htm>



January 13, 2010

Cimarex Energy Company
600 N Marienfeld
Suite 600
Midland, TX 79701

Certified Mail Article Number: 7009 2250 0001 0942 4995

Re: Application for injection well on the:

Jenkins B Federal #3
API# 30-015-042216
Sec 20, 17S, R30E, Unit C
330' FNL & 2310' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #7
API# 30-015-29451
Sec 20, 17S, R30E, Unit E
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #11
API# 30-015-30665
Sec 20, 17S, R30E, Unit D
330' FNL & 990' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #15
API# 30-015-33472
Sec 20, 17S, R30E, Unit F
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well and add it to an existing waterflood(R-12792). We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinebry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinebry perfs are 4336.5 – 4573.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

Sincerely,

COG Operating LLC

Kanicia Carrillo
Regulatory Analyst

| SENDER: COMPLETE THIS SECTION | | COMPLETE THIS SECTION ON DELIVERY | |
|---|--|---|--|
| <p><input checked="" type="checkbox"/> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</p> <p><input checked="" type="checkbox"/> Print your name and address on the reverse so that we can return the card to you.</p> <p><input checked="" type="checkbox"/> Attach this card to the back of the mailpiece, or on the front if space permits.</p> | | <p>A. Signature X <i>Sadul Garcia</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> | |
| <p>1. Article Addressed to:</p> <p>Cimarex Energy Company 600 N Marienfeld, Suite 600 Midland, TX 79701</p> | | <p>B. Received by (Printed Name) <i>Sadul Garcia</i></p> <p>C. Date of Delivery 1/14/10</p> | |
| | | <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> | |
| | | <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> | |
| | | <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p> | |
| <p>2. Article Number: 7009 2250 0001 0942 4995</p> <p>(Transfer from service label)</p> | | | |
| <p>PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540</p> | | | |

| U.S. Postal Service TM | |
|---|---------|
| CERTIFIED MAIL TM RECEIPT | |
| (Domestic Mail Only; No Insurance Coverage Provided) | |
| For delivery information visit our website at www.usps.com | |
| OFFICIAL USE | |
| Postage | \$.44 |
| Certified Fee | 2.80 |
| Return Receipt Fee (Endorsement Required) | 2.30 |
| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | \$ 5.54 |
| <p>Sent To</p> <p>Cimarex Energy Company</p> <p>Street, Apt. No., or PO Box No. 600 N Marienfeld, Suite 600</p> <p>City, State, ZIP+4 Midland, TX 79701</p> | |
| <p>PS Form 3800, August 2006 See Reverse for Instructions</p> | |

Kanicia Castillo

From: U.S._Postal_Service_ [U.S._Postal_Service@usps.com]
Sent: Thursday, January 14, 2010 8:52 PM
To: Kanicia Castillo
Subject: USPS Shipment Info for 7009 2250 0001 0942 4995

This is a post-only message. Please do not respond.

Kanicia Castillo has requested that you receive a Track & Confirm update, as shown below.

Track & Confirm e-mail update information provided by the U.S. Postal Service.

Label Number: 7009 2250 0001 0942 4995

Service Type: Certified Mail(TM)

| Shipment Activity | Location | Date & Time |
|---------------------------------|------------------|------------------|
| Delivered | MIDLAND TX 79701 | 01/14/10 10:55am |
| Processed through Sort Facility | MIDLAND TX 79701 | 01/13/10 3:21pm |

Reminder: Track & Confirm by email

Date of email request: 01/14/10

Future activity will continue to be emailed for up to 2 weeks from the Date of Request shown above. If you need to initiate the Track & Confirm by email process again at the end of the 2 weeks, please do so at the USPS Track & Confirm web site at <http://www.usps.com/shipping/trackandconfirm.htm>

USPS has not verified the validity of any email addresses submitted via its online Track & Confirm tool.

For more information, or if you have additional questions on Track & Confirm services and features, please visit the Frequently Asked Questions (FAQs) section of our Track & Confirm site at <http://www.usps.com/shipping/trackandconfirmfaqs.htm>



January 13, 2010

Read & Stevens Inc
400 N Penn
Suite 1000
Roswell, NM 88201

Certified Mail Article Number: 7009 2250 0001 0942 3561

Re: Application for injection well on the:

Jenkins B Federal #3
API# 30-015-042216
Sec 20, 17S, R30E, Unit C
330' FNL & 2310' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #7
API# 30-015-29451
Sec 20, 17S, R30E, Unit E
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #11
API# 30-015-30665
Sec 20, 17S, R30E, Unit D
330' FNL & 990' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #15
API# 30-015-33472
Sec 20, 17S, R30E, Unit F
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well and add it to an existing waterflood(R-12792). We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinbry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinbry perfs are 4336.5 – 4573.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

Sincerely,

COG Operating LLC

Kanicia Carrillo
Regulatory Analyst

7009 2250 0001 0942 3561

| | |
|--|---------------------------------|
| U.S. Postal Service™ | |
| CERTIFIED MAIL™ RECEIPT | |
| <i>(Domestic Mail Only; No Insurance Coverage Provided)</i> | |
| For delivery information visit our website at www.usps.com | |
| OFFICIAL USE | |
| Postage | \$.44 |
| Certified Fee | 2.80 |
| Return Receipt Fee (Endorsement Required) | 2.30 |
| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | \$ 5.54 |
| | |
| Sent To | Read & Stevens Inc |
| Street, Apt. No., or PO Box No. | 400 N Penn |
| City, State, ZIP+4 | Suite 1000 Roswell, NM 88201 |
| PS Form 3800, August 2006 | |
| See Reverse for Instructions | |

| | | | |
|--|--|---|--|
| SENDER: COMPLETE THIS SECTION | | COMPLETE THIS SECTION ON DELIVERY | |
| <input checked="" type="checkbox"/> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. <input checked="" type="checkbox"/> Print your name and address on the reverse so that we can return the card to you. <input checked="" type="checkbox"/> Attach this card to the back of the mailpiece, or on the front if space permits. | | A. Signature <i>Cassie Holloway</i> <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee | |
| 1. Article Addressed to: Read & Stevens Inc 400 N Penn Suite 1000 Roswell, NM 88201 | | B. Received by (Printed Name) <i>Cassie Holloway</i> C. Date of Delivery <i>1/14/10</i> | |
| 2. Article Number (Transfer from service label) | | D. Is delivery address different from item 1? If YES, enter delivery address below: | |
| PS Form 3811, February 2004 | | 3. Service Type <input type="checkbox"/> Certified Mail <input type="checkbox"/> Registered <input type="checkbox"/> Insured Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> C.O.D. | |
| Domestic Return Receipt | | 4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes | |
| 102595-02-M-1540 | | 7009 2250 0001 0942 3561 | |

Kanicia Castillo

From: U.S. Postal Service [U.S. Postal Service@usps.com]
Sent: Thursday, January 14, 2010 9:48 PM
To: Kanicia Castillo
Subject: USPS Shipment Info for 7009 2250 0001 0942 3561

This is a post-only message. Please do not respond.

Kanicia Castillo has requested that you receive a Track & Confirm update, as shown below.

Track & Confirm e-mail update information provided by the U.S. Postal Service.

Label Number: 7009 2250 0001 0942 3561

Service Type: Certified Mail(TM)

| Shipment Activity | Location | Date & Time |
|---------------------------------|------------------|-----------------|
| Delivered | ROSWELL NM 88201 | 01/14/10 9:22am |
| Processed through Sort Facility | MIDLAND TX 79701 | 01/13/10 3:21pm |

Reminder: Track & Confirm by email

Date of email request: 01/14/10

Future activity will continue to be emailed for up to 2 weeks from the Date of Request shown above. If you need to initiate the Track & Confirm by email process again at the end of the 2 weeks, please do so at the USPS Track & Confirm web site at <http://www.usps.com/shipping/trackandconfirm.htm>

USPS has not verified the validity of any email addresses submitted via its online Track & Confirm tool.

For more information, or if you have additional questions on Track & Confirm services and features, please visit the Frequently Asked Questions (FAQs) section of our Track & Confirm site at <http://www.usps.com/shipping/trackandconfirmfaq.htm>



January 13, 2010

EOG Resources, Inc
4000 N Big Spring
Suite 500
Midland, TX 79702

Certified Mail Article Number: 7009 2250 0001 0942 3776

Re: Application for injection well on the:

Jenkins B Federal #3
API# 30-015-042216
Sec 20, 17S, R30E, Unit C
330' FNL & 2310' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #7
API# 30-015-29451
Sec 20, 17S, R30E, Unit E
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #11
API# 30-015-30665
Sec 20, 17S, R30E, Unit D
330' FNL & 990' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

Jenkins B Federal #15
API# 30-015-33472
Sec 20, 17S, R30E, Unit F
1650' FNL & 1090' FWL
Loco Hills Glorieta Yeso Field
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well and add it to an existing waterflood(R-12792). We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinebry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinebry perfs are 4336.5 – 4573.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

Sincerely,

COG Operating LLC

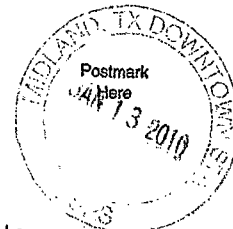
Kanicia Carrillo
Regulatory Analyst

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

| | |
|---|---------|
| Postage | \$.44 |
| Certified Fee | 2.80 |
| Return Receipt Fee (Endorsement Required) | 2.30 |
| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | \$ 5.54 |



Sent To **EOG Resources Inc**
 Street, Apt. No., or PO Box No. **4000 N Big Spring**
Suite 500
 City, State, ZIP+4 **Midland, TX 79702**

PS Form 3800, August 2005 See Reverse for Instructions

7009 2250 0001 0942 3776

SENDER: COMPLETE THIS SECTION

- ☒ Complete Items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- ☒ Print your name and address on the reverse so that we can return the card to you.
- ☒ Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

EOG Resources Inc
 4000 N Big Spring
 Suite 500
 Midland, TX 79702

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☒ Agent ☐ Addressee
 X *[Signature]*

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
 (Transfer from service label)

7009 2250 0001 0942 3776

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

Kanicia Castillo

From: U.S. Postal Service [U.S. Postal Service@usps.com]
Sent: Saturday, January 16, 2010 12:15 AM
To: Kanicia Castillo
Subject: USPS Shipment Info for 7009 2250 0001 0942 3776

This is a post-only message. Please do not respond.

Kanicia Castillo has requested that you receive a Track & Confirm update, as shown below.

Track & Confirm e-mail update information provided by the U.S. Postal Service.

Label Number: 7009 2250 0001 0942 3776

Service Type: Certified Mail(TM)

| Shipment Activity | Location | Date & Time |
|---------------------------------|------------------|------------------|
| Delivered | MIDLAND TX 79705 | 01/15/10 11:00am |
| Processed through Sort Facility | MIDLAND TX 79701 | 01/13/10 3:21pm |

Reminder: Track & Confirm by email

Date of email request: 01/14/10

Future activity will continue to be emailed for up to 2 weeks from the Date of Request shown above. If you need to initiate the Track & Confirm by email process again at the end of the 2 weeks, please do so at the USPS Track & Confirm web site at <http://www.usps.com/shipping/trackandconfirm.htm>

USPS has not verified the validity of any email addresses submitted via its online Track & Confirm tool.

For more information, or if you have additional questions on Track & Confirm services and features, please visit the Frequently Asked Questions (FAQs) section of our Track & Confirm site at <http://www.usps.com/shipping/trackandconfirmfaqs.htm>

Affidavit of Publication

NO. 20963

Copy of Publication:

STATE OF NEW MEXICO

County of Eddy:

GARY D. SCOTT being duly

sworn, says: That he is the **PUBLISHER** of The

Artesia Daily Press, a daily newspaper of general

circulation, published in English at Artesia, said county

and county and state, and that the here to attached

Legal Notice

was published in a regular and entire issue of the said

Artesia Daily Press, a daily newspaper duly qualified

for that purpose within the meaning of Chapter 167 of

the 1937 Session Laws of the state of New Mexico for

1 Consecutive week/days on the same

day as follows:

First Publication December 24, 2009

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Subscribed and sworn to before me this

24 Day

December

2010



OFFICIAL SEAL
Jo Morgan
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 2/26/2012

Jo Morgan
Notary Public, Eddy County, New Mexico

COG Operating, LLC is applying to convert four existing oil wells to water injection wells in Eddy County, New Mexico. These wells will be added to an existing Jenkins B Federal water flood permit, R-12792. The four wells, details, and locations are the following:

Jenkins B Federal #3, located in the northwest quarter of section 20, T17S, R30E, Unit C, 330'FNL & 2310'FWL, Loco Hills Field, Glorieta, Yeso oil pool.

Jenkins B Federal #7, located in the northwest quarter of section 20, T17S, R30E, Unit

E, 1650'FNL 1090'FWL, Loco Hills, Glorieta, Yeso oil pool.

Jenkins B Federal #11, located in the northwest quarter of section 20, T17S, R30E, Unit D, 330'FNL & 990'FWL, Loco Hills, Glorieta, Yeso oil pool.

Jenkins B Federal #15, located in the northwest quarter of section 20, T17S, R30E, Unit F, 1500'FNL & 2310'FWL, Loco Hills, Glorieta, Yeso oil pool.

Water injection will be in the Paddock and Blinberry formations from approximately 4,289' to 4,716' at a maximum rate of 1,000 barrels of water per day and at a maximum surface pressure of 880 psig per well. Average injection rate and pressure is estimated to be 500 BWPD @ 880 PSIG surface pressure. Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days. Additional information can be obtained by contacting Kanicia Carrillo, COG Operating, 550 W Texas Ave, Suite 100, Midland, TX 79701. Phone number is 432-685-4332.

Published in the Artesia Daily Press, Artesia, NM December 24, 2009
Legal No. 20963