

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**

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

		ZHI EICH	TOTT PORTIE	THO INC.	.0220		
	PURPOSE: Application qualif	X Secondary Reco		Pressure Maintenance Yes	Disposal No	Storage	
II.	OPERATOR:	COG Operating, LLC	<u>, </u>				
	ADDRESS:	500 W Texas Ave, S	uite 100, Mid	land, TX 79701			
	CONTACT PART	ΓΥ: <u>Kanicia Carrillo, Re</u>	egulatory Analys	t	PHONE:	_432-685-4332	
III.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.						
IV.	Is this an expansion of an existing project? X Yes No If yes, give the Division order number authorizing the project: R-12792						
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.						
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.						
VII.	Attach data on the	proposed operation, inclu	iding:				
	 Whether the sy Proposed aver Sources and an produced water If injection is a 	age and maximum daily raystem is open or closed; age and maximum injection appropriate analysis of iner; and, for disposal purposes into ysis of the disposal zone for	on pressure; njection fluid and a zone not produ	d compatibility with the rective of oil or gas at or v	vithin one mile of the pro	oposed well, attach a	
*VIII.	1. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.						
IX.	Describe the prope	osed stimulation program,	if any.				
*X.	Attach appropriate	e logging and test data on t	the well. (If wel	l logs have been filed wit	th the Division, they nee	d not be resubmitted)	
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.				nin one mile of any		
XII.		sposal wells must make an evidence of open faults or a greater.					
XIII.	Applicants must c	omplete the "Proof of Not	ice" section on th	ne reverse side of this for	rın.		
XIV.	Certification: I he and belief.	reby certify that the inforn	nation submitted	with this application is t	rue and correct to the be	st of my knowledge	
	NAME: Kanicia	a Carrillo		TITL	E: <u>Regulatory Analys</u>		
	SIGNATURE: _	K C			DATE: <u>1/05/10</u>		
*	E-MAIL ADDRE	SS: <u>kcarrillo@conchores</u> required under Sections V te and circumstances of the	sources.com I, VIII, X, and X	I above has been previou			



- 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.

OTICE: 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.

SUSPENSE

TYPE LUF X

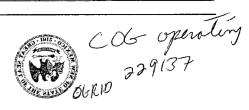
PTG-10 APP NO. 100 2153969

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

TH	HIS CHECKLIST IS MA	NDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FO WHICH REQUIRE PROCESSING AT THE DIVISI	R EXCEPTIONS TO DIVISION RUL ON LEVEL IN SANTA FE	ES AND REGULATIONS
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[1]	-	ified Enhanced Oil Recovery Certification] PLICATION - Check Those Which Apply for		
[,]	[A]	Location - Spacing Unit - Simultaneous Dedi NSL NSP SD	cation API# 3	30-015-04216 RIZ
	Check [B]	One Only for [B] or [C] Commingling - Storage - Measurement DHC CTB PLC PC	OLS OLM	s B Federal #3 30-015-04216 R12792 W 880 PSI
	[C]	Injection - Disposal - Pressure Increase - Enh. WFX PMX SWD IP		
1	[D]	Other: Specify		JAN 2
[2]	NOTIFICATI [A]	ON REQUIRED TO: - Check Those Which A Working, Royalty or Overriding Royalty		RECEIVED OCT 7
	[B]	☐ Offset Operators, Leaseholders or Surface	ce Owner	8 577
	[C]	Application is One Which Requires Pub	lished Legal Notice	12-10
	[D]	Notification and/or Concurrent Approva U.S. Bureau of Land Management - Commissioner of Public La	I by BLM or SLO ands, State Land Office	V
	[E]	For all of the above, Proof of Notificatio	n or Publication is Attached	d, and/or,
	[F]	Waivers are Attached		
[3]		CURATE AND COMPLETE INFORMATION INDICATED ABOVE.	ON REQUIRED TO PRO	OCESS THE TYPE
	al is accurate ar	CION: I hereby certify that the information sub- ad complete to the best of my knowledge. I als puired information and notifications are submitt	o understand that no action	
	Note:	Statement must be completed by an individual with ma	anagerial and/or supervisory ca	pacity.
Kanicia.		Simulation of the second of th	Regulatory Analyst	
Print or	Type Name	Signature .	Title <u>kcarrillo@conchoresource</u> e-mail Address	Date s.com

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.

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kcarrillo@conchoresources.com

e-mail Address

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DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.

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- Engineering Bureau -1220 South St. Francis Drive, Santa Fe, NM 87505



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Kanicia Carrillo

Print or Type Name

kcarrillo@conchoresources.com e-mail Address

12/10/09

Date

Regulatory Analyst

Title

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.

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- V. AOR Maps
- VI. AOR Well Tabulation & Summaries
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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

Jenkins B Federal #7 (Sec 20 E, T-17S R-30E), Loco Hills Field

Jenkins B Federal #11 (Sec 20 D, T-17S R-30E), Loco Hills Field

Jenkins B Federal #15 (Sec 20 F, T-17S, R-30E), Loco Hills Field

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

Jenkins B #7

Paddock OOIP/acreEstimated impacted area5 acres

• Estimated recovery 5% of OOIP

• Total estimated oil recovery 15 MBO

Jenkins B #11

Paddock OOIP/acreEstimated impacted area5 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 (Krw/Kro) 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



Jenkino B17R

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

IN THE MATTER OF THE BEARING 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, Ezeanvim.

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 (30-013-04214)	1650' FNL & 330' FWL	С	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	¢	4418-4667





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

- 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.
- 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.
- The submitted data on all plugged or active wells within the 1/2 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.
- Pursuant to General Rule 701.F, the proposed project should be classified as a (5) pressure maintenance project.
- 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".
- The proposed lease pressure maintenance project should result in the recovery of (7)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.
- As per request of the applicant, the project should not at this time be qualified as an enhanced oil recovery ("EOR") project cligible for the recovered oil tax rate.
- 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.
- 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:

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





JAMES BRUCE

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
Jonkins 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	С	4418-4667
Jenkins B Federal Well No. 12 (30-015-31559)	2310' FNL & 2310' FWL	F	4321-4748
Jenkins B Federal Well No. 13 (30-015-31550)	2310' FNL & 880' FWL	Ē	4312-4715
Jenkins B Federal Well No. 14 (30-015-32257)	745' FNI. & 990' FWI.	D	4250-4639
Jenkins B Federal Well No. 17R (30-015-34138)	330' FNL & 1525' FWL	Ċ.	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 Blinchry 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.

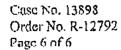
The operator shall provide written verification to the Engineering Bureau in the Santa Fe Office of the Division of the completion of this required remedial cementing work.



Case No. 13898 Order No. R-12792 Page 5 of 6

- (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 Poul times the number of proration units within the project area.
- (?) 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 B 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 of 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 easing in each of the subject wells shall be pressure tested to assure the integrity of such easing 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 Divisior 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





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.

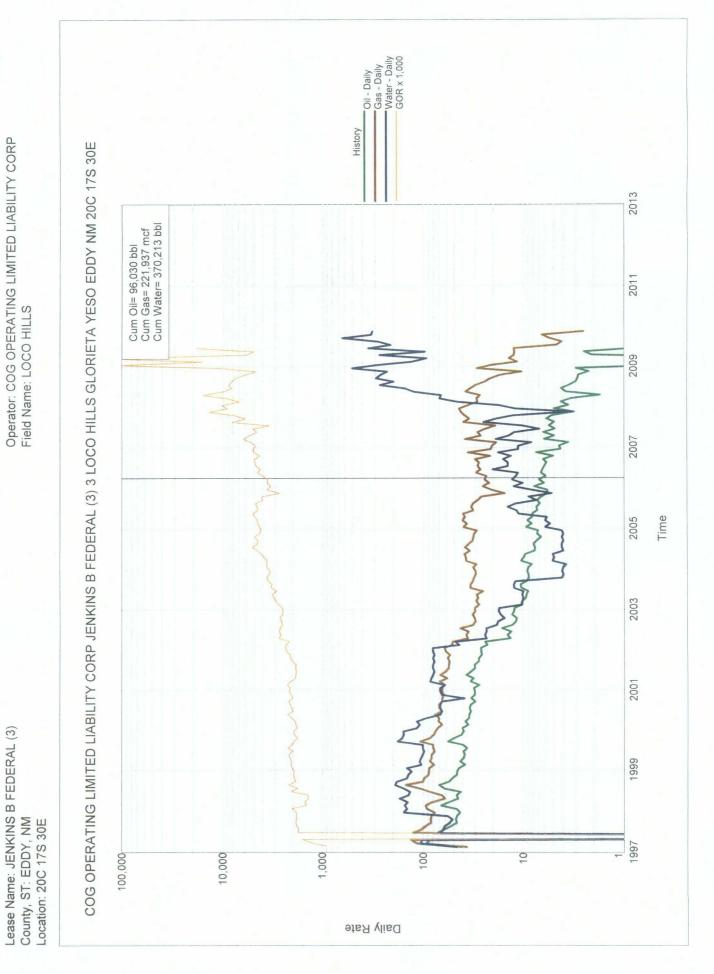
STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.

Director

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

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



Rate/Time Graph

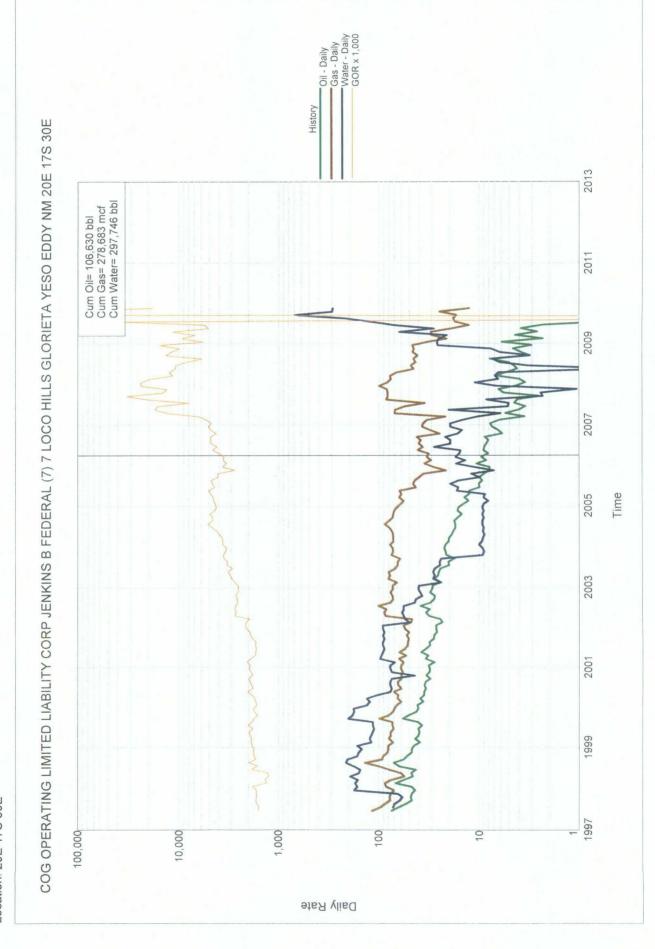
Project: u:\power tools\projects\dick\loco hills area 1.mdb

Time: 3:2

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

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

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



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

Project: u:\power tools\projects\area 1.mdb

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

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

OG OPERATING LIMITED LIABILITY CORP JENKINS B FEDERAL (11) 11 LOCO HILLS GLORIETA YESO EDDY NM 20D 17S 30E NE NW NW History 2013 Cum Oil= 68,268 bbl Cum Gas= 210,487 mcf Cum Water= 157,734 bbl 2011 2009 2007 Time 2005 2003 2001 1999 1,000 100 10,000 10 100,000 Daily Rate

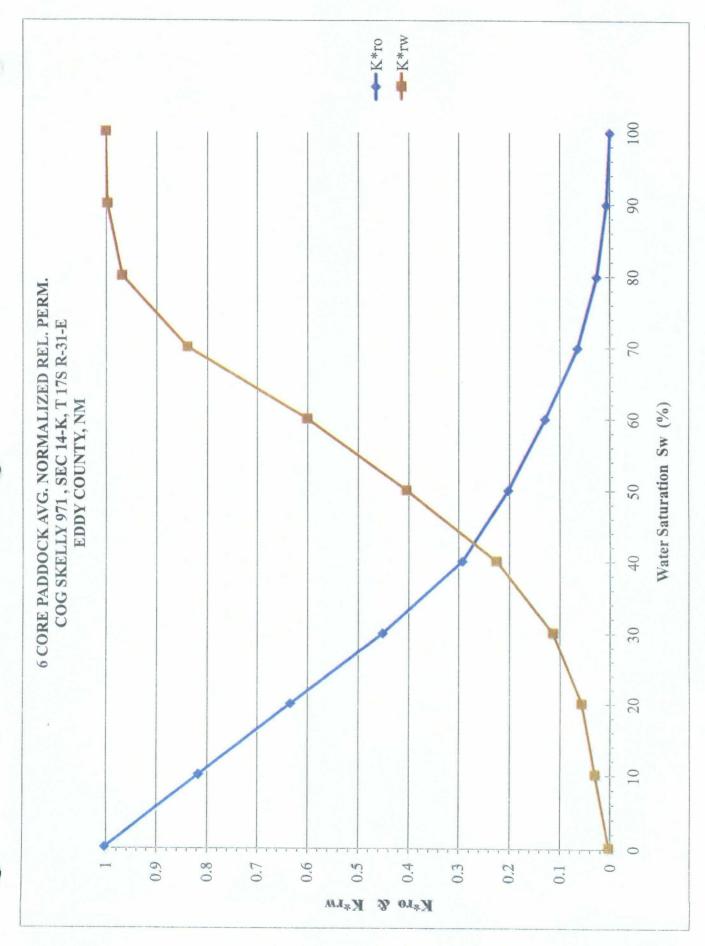
Lease Name: JENKINS B FEDERAL (15Q) County, ST: EDDY, NM

Location: 20F 17S 30E NE SE NW

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

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

Oil - Daily
Gas - Daily
Water - Daily
GOR × 1,000 3 OPERATING LIMITED LIABILITY CORP JENKINS B FEDERAL (15Q) 15Q LOCO HILLS GLORIETA YESO EDDY NM 20F 17S 30E NE SE NW History 2011 Cum Oil= 23,801 bbl Cum Gas= 92,636 mcf Cum Water= 54,900 bbl 2010 2009 Time 2008 2007 2006 2005 10,000 1,000 100,000 100 10 Daily Rate



	
WELL NAME:	Jenkins B#3
CSG PRESSURE:	20.8
FEET TO FLUID:	2616
JTS TO FLUID:	
GAS FREE LIQUID:	
COMMENTS:	SBHP 889.4 V
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 656.9c/
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 V
REMARKS: 24 Hr SIBHP 12/17/2009	

Jenkins B BHP Data 12/22/2009



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

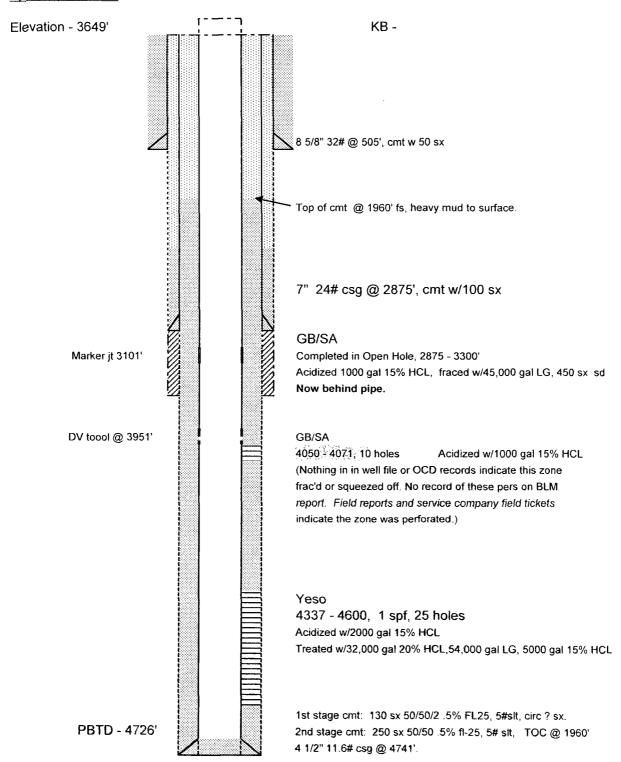
Tub	bing Size:	2-7/8"	Lining Material: <u>IPC</u>	
Тур	pe of Packer:	Model R Injection Pack	<u>cer</u>	
Pac	cker Setting Dep	th: 4,237'		
Oth	ner Type of Tubi	ng/Casing Seal (if ap	pplicable): <u>N/A</u>	
Ado	ditional Data			
1.	Is this a new	well drilled for injec	etion? Yes X No	
	If no, for wha		rell originally drilled? Producing oil well.	
2.	Name of the l		Paddock	
3.	Name of Field	d or Pool (if applicat	ble): Loco Hills; Glorieta, Yeso (96718) 4,337'-4	,600'
4.			l in any other zone(s)? List all such perforated, i.e. sacks of cement or plug(s) used. Yes. DHC-3	3511
	Grayburg	Jackson; SR-Q-G-S	SA 4,050' – 4,071'. See attached for plugging proced	ure.
5.			oil or gas zones underlying or overlying the proposed Grayburg 2,400' – 3,700' & Morrow 10,600' – 10,70	00'

COG Operating LLC



<u>Lease & Well #</u> API# 30-015-042**2**16 Spudded /19/1938 Jenkins B Federal #3

ACTIVE

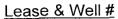


COG Operating, LLC
Jenkins B Federal #7
API# 30-015-29451
Lease # NMLC054988
Sec 20, T17S, R30E, Unit E
1650' FNL & 1090' FWL
Eddy County, NM

Tubi	ng Size:	2-7/8"	Lining Material:IPC
Туре	e of Packer:	Model R Injection Packe	or
Pack	er Setting De	pth: <u>4,189</u> '	·
Othe	r Type of Tul	oing/Casing Seal (if ap	plicable): <u>N/A</u>
Addi	itional Data		
	Is this a new	well drilled for inject	ion? Yes X No
	If no, for wh	nat purpose was the we	ell originally drilled? <u>Producing oil well.</u>
2.	Name of the	Injection Formation:	Paddock
3.	Name of Fie	eld or Pool (if applicab	le): Loco Hills; Glorieta, Yeso 96718 4,289'-4,634'
4.		-	in any other zone(s)? List all such perforated i.e. sacks of cement or plug(s) used. No
5.			oil or gas zones underlying or overlying the proposed Grayburg 2,400' – 3,700' & Morrow 10,600' – 10,700'

COG Operating LLC

ACTIVE



Jenkins B Federal #7

API# 3001529451 Spud: 4/3/97

Elevation - 3643' Marker jt @ 3,102' DV TOOL @ 3,968' PBTD - 4783'

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

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

Tubi	ng Size:	2-7/8 "	Lining Material:	IPC
Type	e of Packer:	Model R Injection Packe	r	
Pack	er Setting De	pth: <u>4,318'</u>		
Othe	r Type of Tul	bing/Casing Seal (if ap	plicable): <u>N/A</u>	
<u>Addi</u>	tional Data			
	Is this a new	well drilled for injects	ion? Yes	<u>X</u> No
	If no, for wh	nat purpose was the we	ll originally drilled? <u>Produc</u>	ing oil well.
2.	Name of the	Injection Formation:	Paddock	
3.	Name of Fig	eld or Pool (if applicab	le): Loco Hills; Glorieta,	Yeso (967(18) 4,418'-4,666')
4.			in any other zone(s)? List all s i.e. sacks of cement or plug(s)	<u> </u>
	Graybur	g Jackson; SR-Q-G-SA	3,013' – 3,556'. See attache	ed for plugging procedure.
5.			oil or gas zones underlying or of Grayburg 2,400' – 3,700' & M	

COG Operating LLC

Lease & Well # API# 3001530665

SPUD: 12/1/99

Jenkins B Federal # 11

ACTIVE

Elevation - 3642 KB -13 3/8" 54.5# K-55 STC csg @ 450', 425 sx. Circ 68 sx. 8 5/8" 24# 8rd J-55 STC @ 1042, 275 sx lite, 200 Cl C tail, circ. cmt. GB/SA 3013 - 3227 64 holes Acidized w/2500 gal 15% NEFE, frac 90,409 gal Ig, 101,706 # sd. 3341 - 3556' 56 holes Acidized w/2,000 gal 15% NEFE, frac 91,060 gal lg, 101,766 # sd DV tool -3873' Marker jt @ 4364' Yeso 4418 - 4665.5, 73 holes Acidized w/2,500 gal 15% HCL Trt w/32,000 gal 20% HCL, 54,000 gal LG, 5,000 gal 15% HCL 1st stage: 190 sx 50/50, circulated 73 sx. PBTD - 4681' 2nd stage: 450 sx lite, 250 sx tail, circulated 84 sx. 5 1/2" 17# J-55 LT&C csg @ 4694'.

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

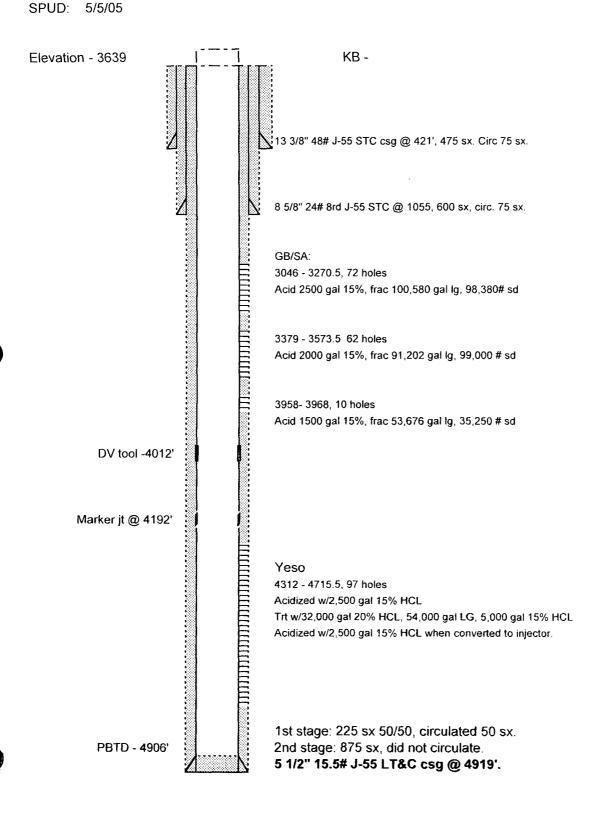
Tubi	ng Size:	2-7/8"	Lining Material: <u>IPC</u>
Туре	of Packer:	Model R Injection Packe	Ţ
Pack	er Setting D	epth: 4,212'	
Othe	r Type of Tu	ubing/Casing Seal (if ap	olicable): <u>N/A</u>
<u>Addi</u>	tional Data		
	Is this a ne	w well drilled for inject	on? Yes X No
)	If no, for w	hat purpose was the we	ll originally drilled? <u>Producing oil well.</u>
2.	Name of th	e Injection Formation:	<u>Paddock</u>
3.	Name of F	ield or Pool (if applicab	e): Loco Hills; Glorieta, Yeso (96718) 4,312'-4,716'
4.		_	n any other zone(s)? List all such perforated i.e. sacks of cement or plug(s) used. Yes. DHC-3521
	Gray	burg Jackson; SR-Q-G-	SA 3,046 '- 3968'. See attached for plugging procedure.
5.			il or gas zones underlying or overlying the proposed Grayburg 2,400' – 3,700' & Morrow 10,600' – 10,700'

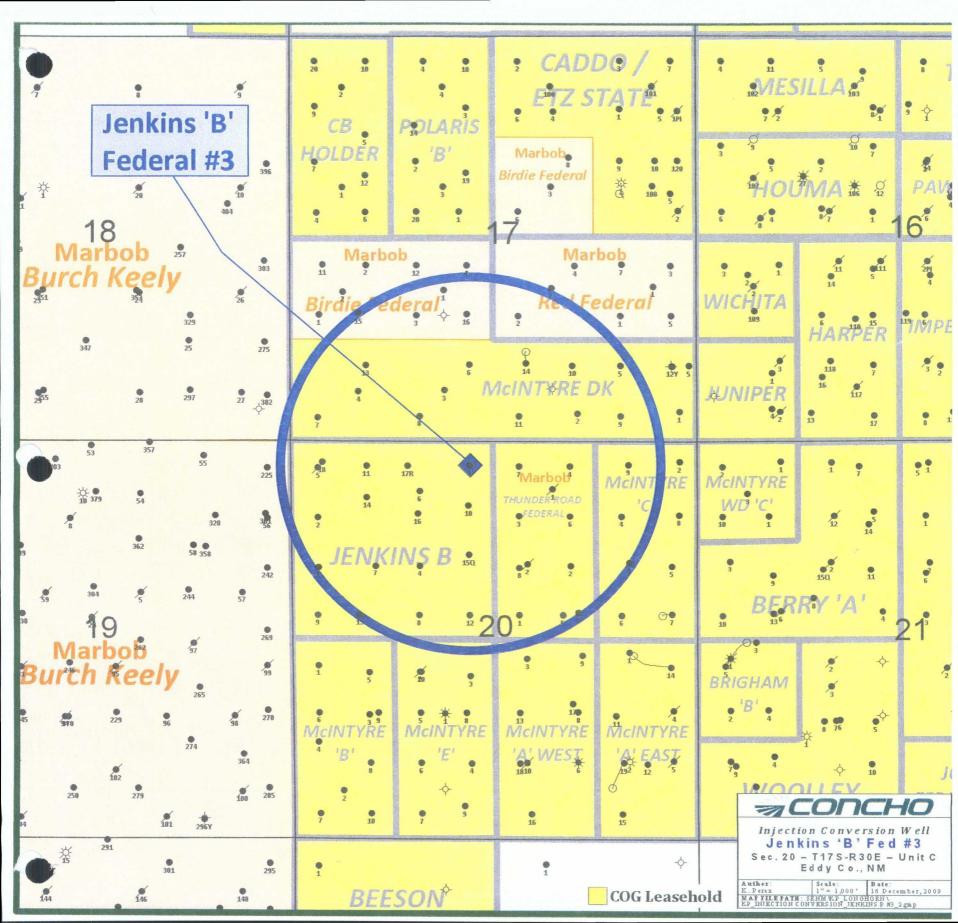
COG Operating LLC

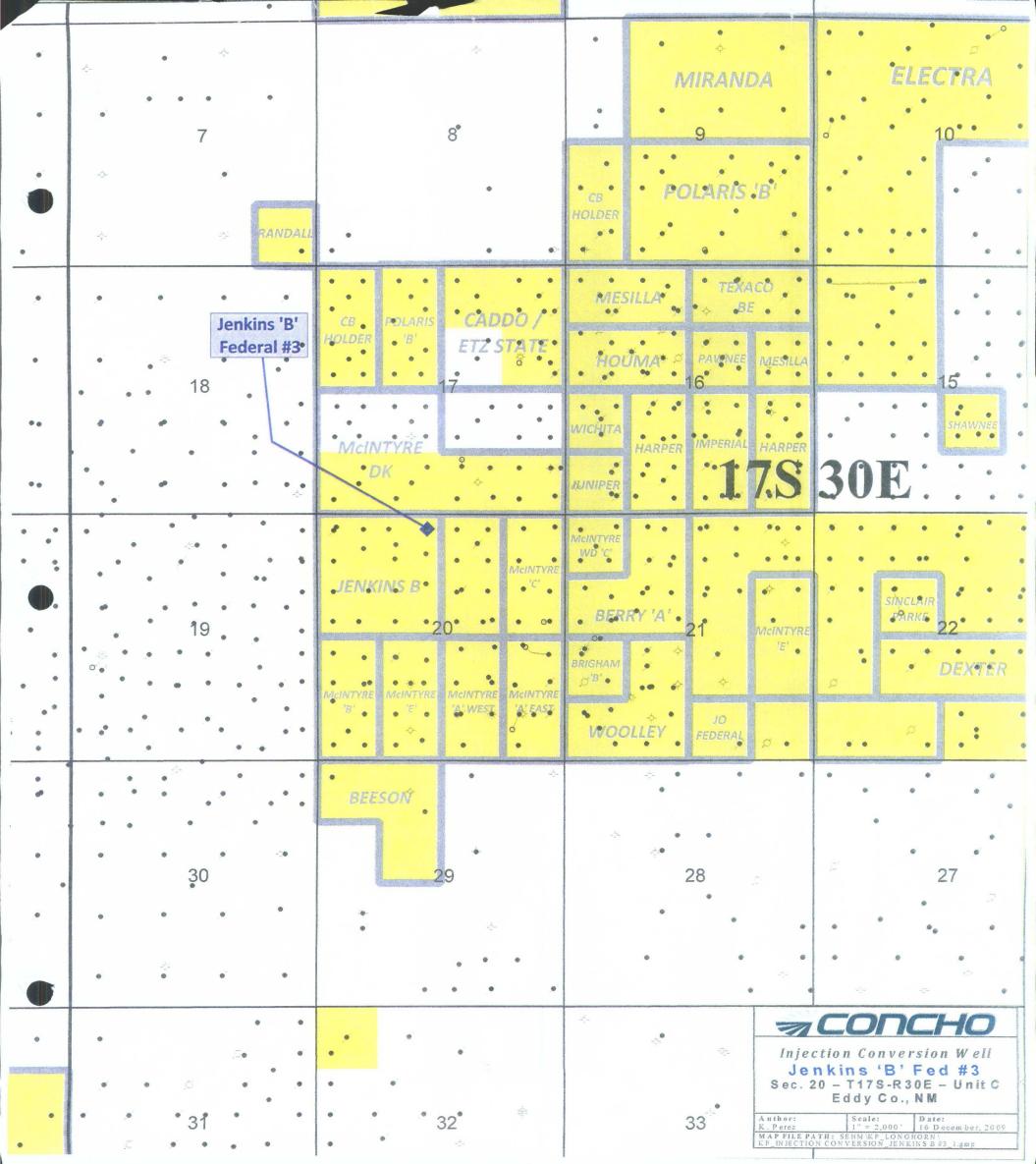
Lease & Well # API# 3001533472

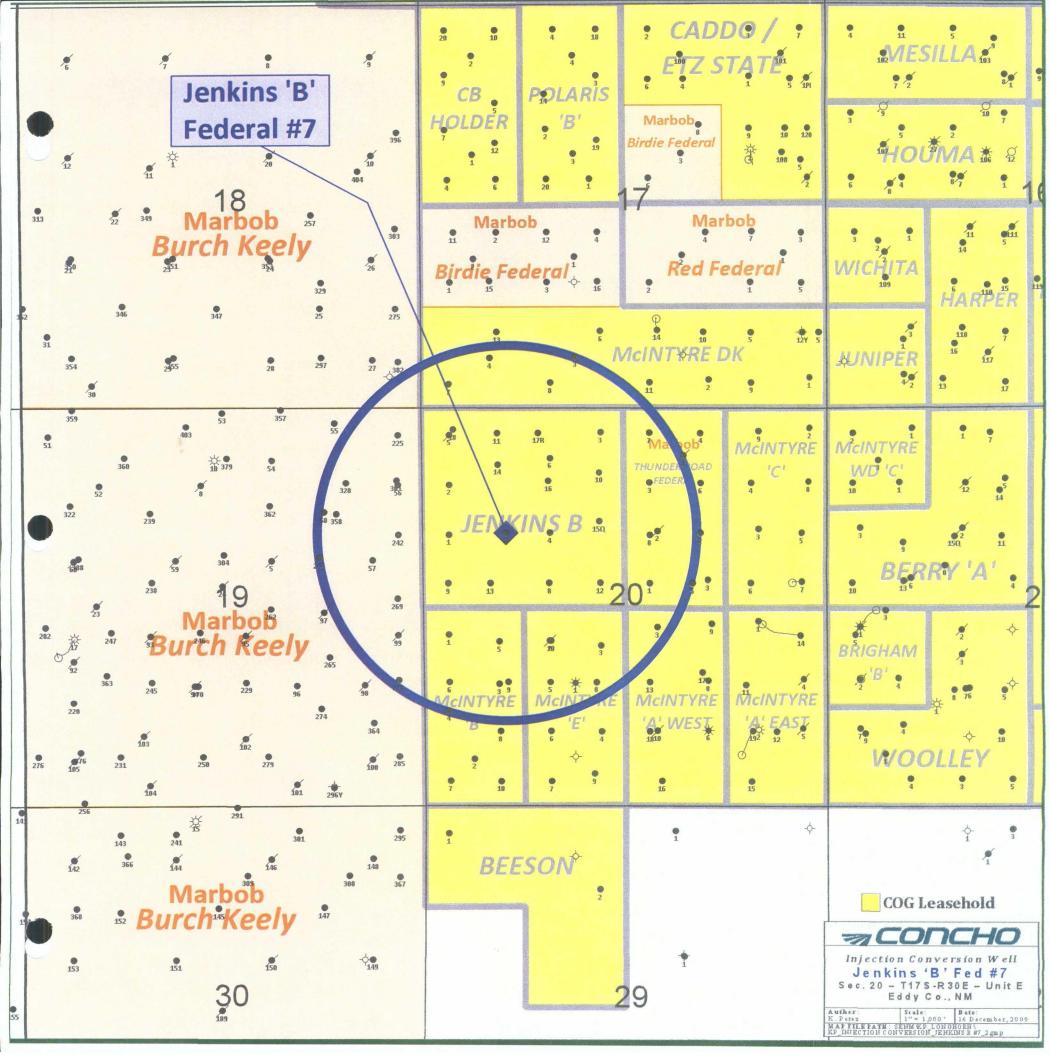
Jenkins B Federal # 15

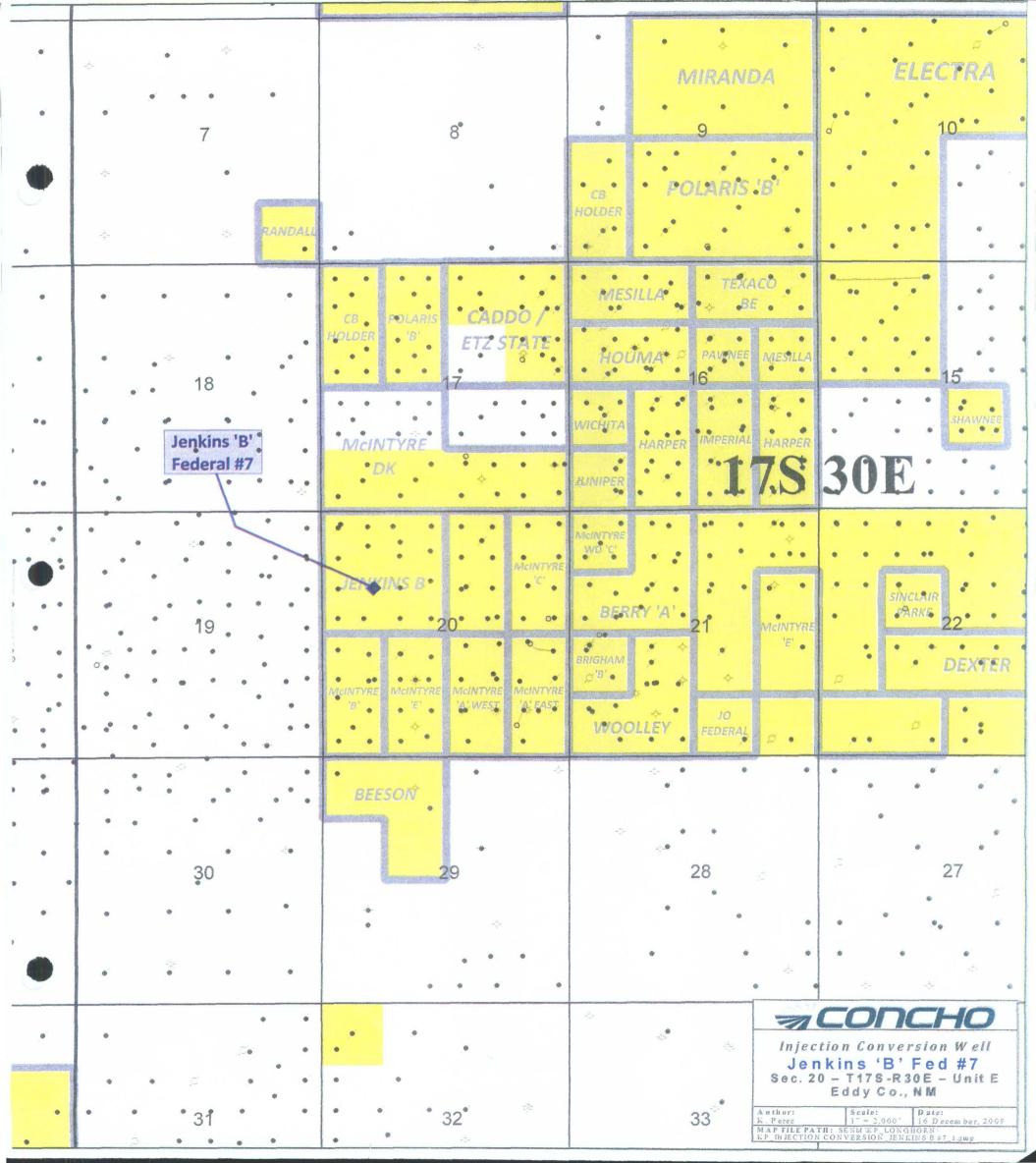
ACTIVE

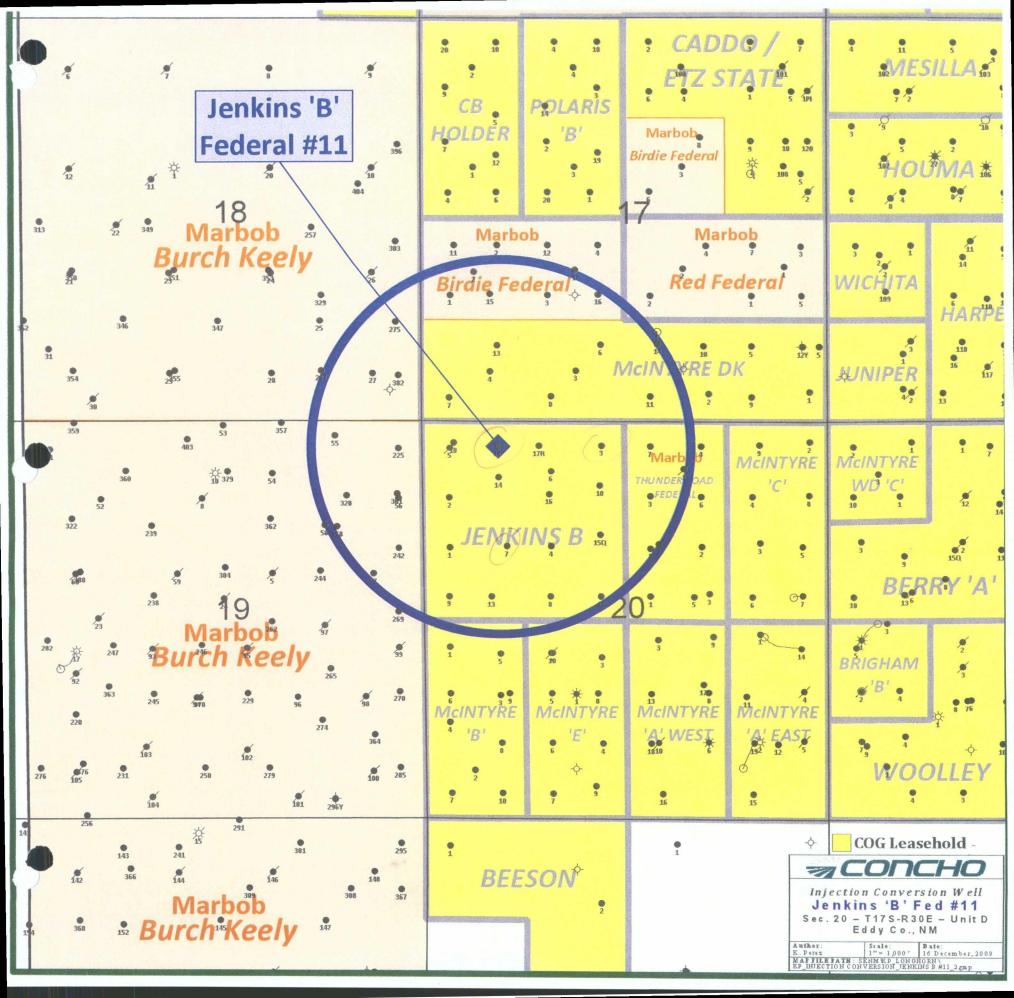


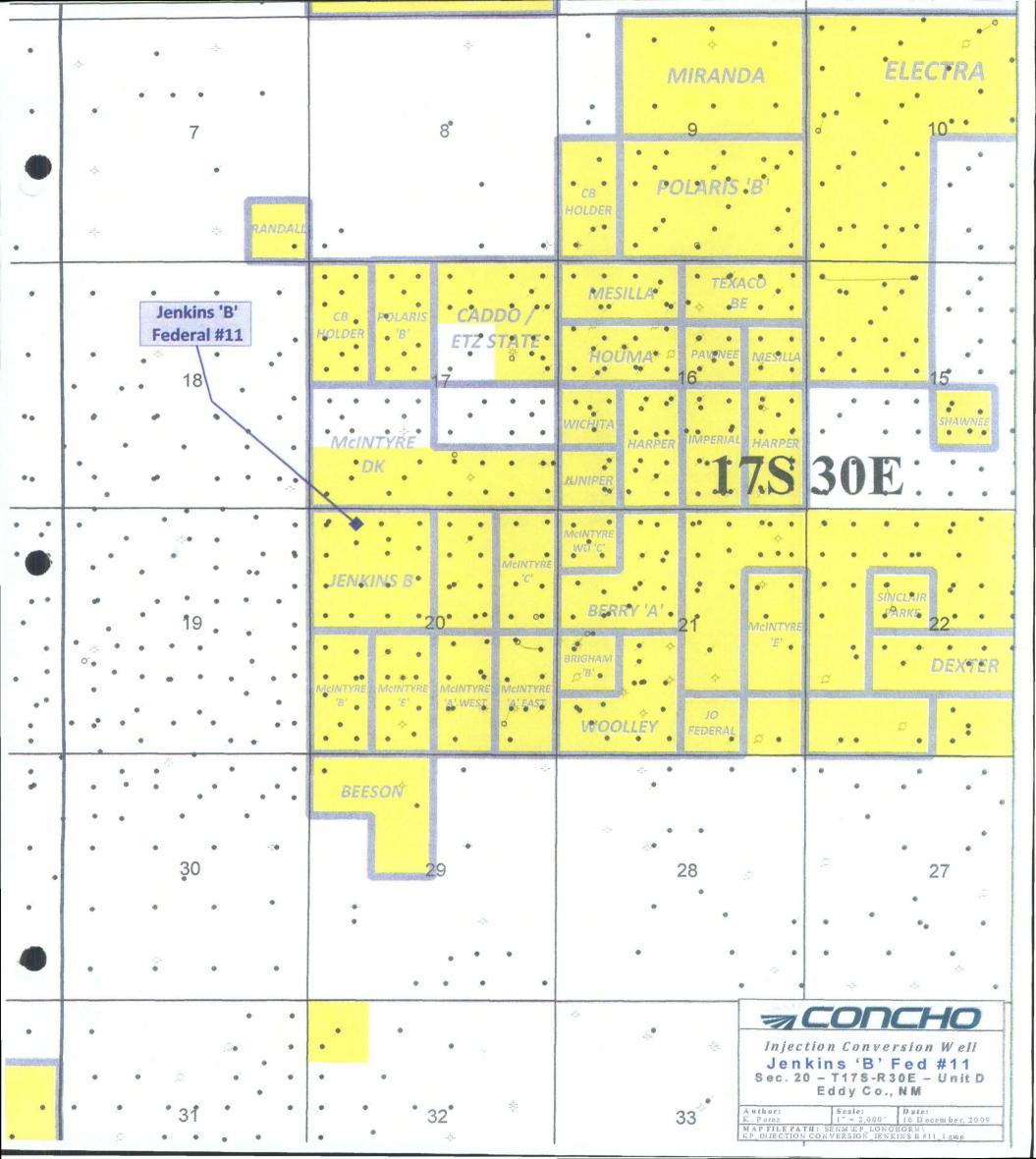


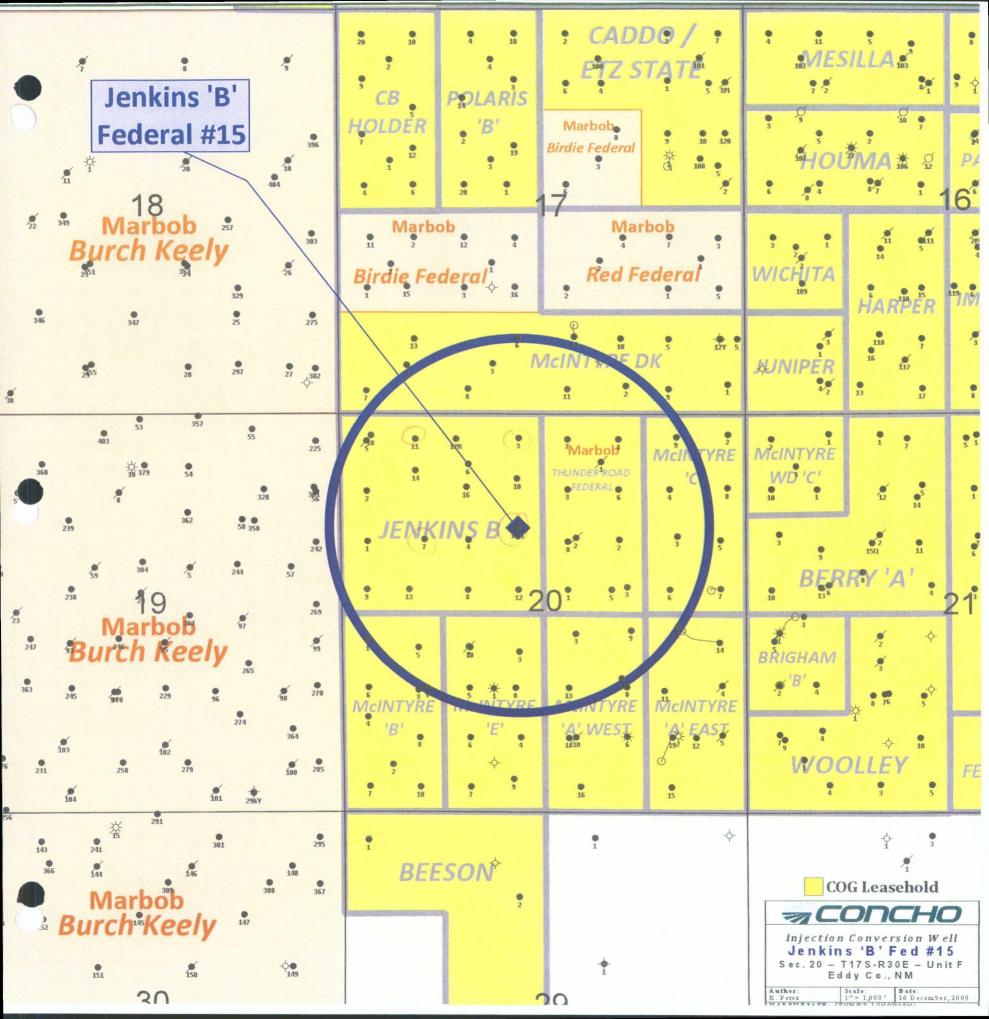


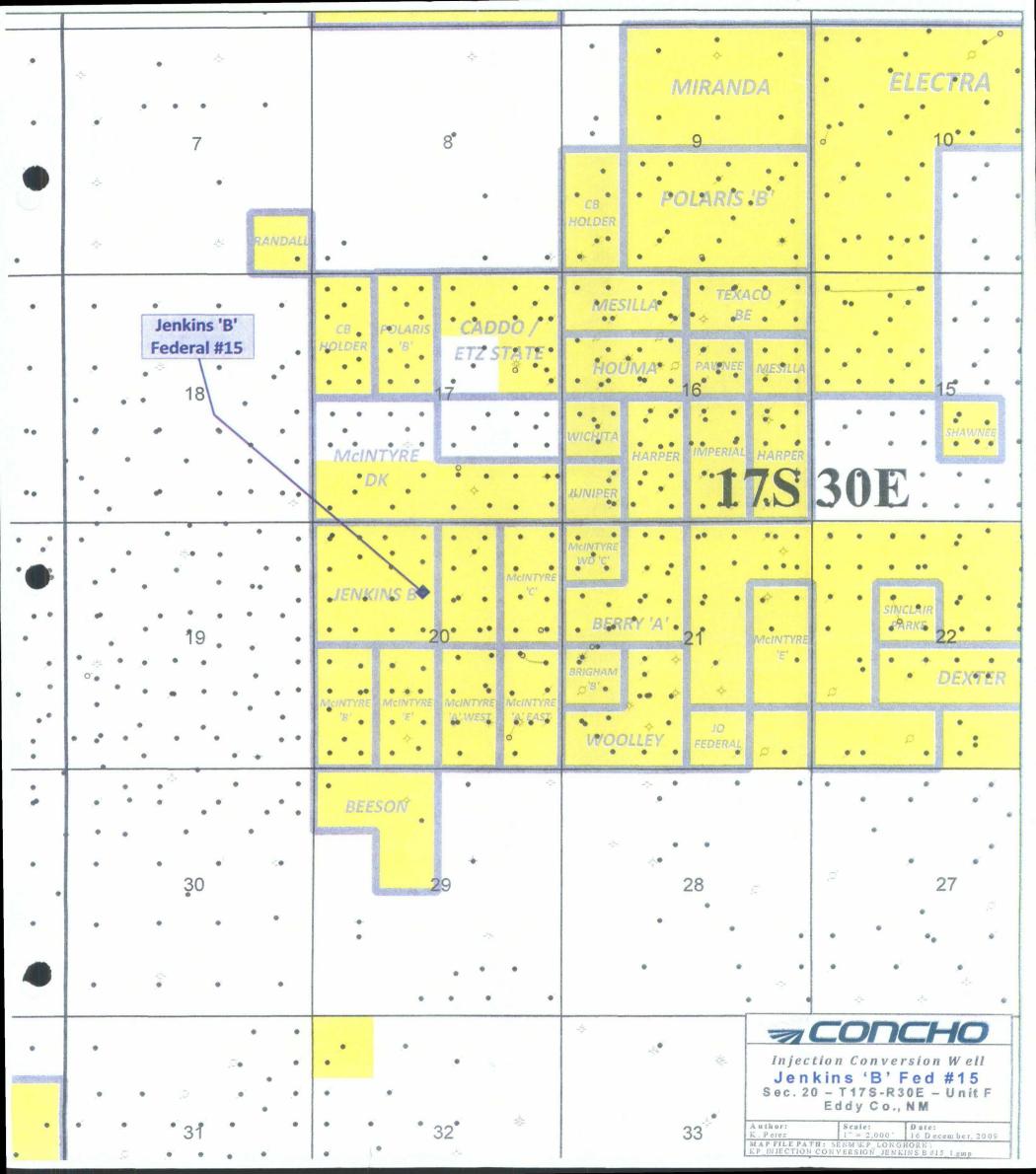












By Section
Wells
B AOR
Jenkins

Total Wells Penetrating the Injection Interval		75		 								
Total P&A'd Wells Penetrating the Injection Interval		1										
					Footage	Footage North South	Footage	Footage East West	Depth			
Operator Current Name	Lease Name	Name	Section Number	Unit	North South	Start	East West	Start	Total Driller	Field Name	State Name	County Name
30015232650000 ARCO OIL & GAS CORP	MCINTYRE-FEDERAL	8	17	×	1650	FSL	1980	FWL	11244	LOCO HILLS	NEW MEXICO	EDDY
30015206610000 COG OPERATING LLC	MCINTYRE	4	17	Σ	. 099	FSL	098	FWL	4277	GRAYBURG JACKSON	NEW MEXICO	EDDY
	MCINTYRE	5	17	Ы	066	FSL	066	FEL	4300	GRAYBURG JACKSON	NEW MEXICO	EDDY
30015209720000 COG OPERATING LLC	MCINTYRE	9	17	z	066	FSL	2310	FWL	4329	GRAYBURG JACKSON	NEW MEXICO	EDDY
COG OPERATING LLC	MCINIYRE DK FEDERAL	3	17	z	099	FSL	1980	FWL	4797	LOCO HILLS	NEW MEXICO	EDDY
COG OPERATING LLC	MCINTYRE 'DK' FEDERAL	7	17	Σ	330	FSL	330	FWL	5113	LOCO HILLS	NEW MEXICO	EDDY
COG OPERATING LLC	MCINITYBE DK FEDERAL	×	7	z	330	FSL	1650	FWL	5100	LOCO HILLS	NEW MEXICO	EDDY
30015294240000 COG OPERATING LLC	MCINTYRE DK FEDERAL	8 0	17	20	066	FSI	1610	FF	4810	LOCO HILLS	NEW MEXICO	EDDY
	MCINTYRE DK FEDERAL	Ξ	11	0	330	FSL	2310	E	4746	LOCO HILLS	NEW MEXICO	EDDY
П	MCINTYRE 'DK' FEDERAL	13	17	M	066	FSL	066	FWL	4668	LOCO HILLS	NEW MEXICO	EDDY
		14	17	0	1140	FSL	2310	FEL	5108	GRAYBURG JACKSON	NEW MEXICO	EDDY
		7	17	0	099	FSL	1980	FEL	470	GRAYBURG JACKSON	NEW MEXICO	EDDY
	ARCO		17	ϫ.	1980	FSL	1980	FWL	3685	GRAYBURG JACKSON	NEW MEXICO	EDDY
30015206320000 GEN AMER OIL CO 30015206140000 GEN AMER OIL CO	MCINTYRE /F/	2 0	17	7	0861	FSL	1980	FWL	3675	GRAYBURG JACKSON	NEW MEXICO	EDDY
30015041830000 KENNEDY OIL CO INC	MCINTYRE	C1	17	0	330	FSL	1650	FEL	3260	GRAYBURG JACKSON	NEW MEXICO	EDDY
		3	17	z	099	FSL	1980	FWL	3320	GRAYBURG JACKSON	NEW MEXICO	EDDY
		-	17	T	1650	FSL	380	FWL	4772	LOCO HILLS	NEW MEXICO	EDDY
30015302310000 MARBOB ENERGY CORP		m :	17	⋈,	1650	FSL	1650	FWL	4900	LOCO HILLS	NEW MEXICO	EDDY
3001536/600000 MARBOB ENERGY CORP	BIRDLE FEDERAL BIRDLE EEDER AT	13	17	7 2	1650	FSL	3210	FWL	0009	LOCO HILLS	NEW MEXICO	EDDY
		2 2	17	4 -	1650	FSL	2310	FEL	4815	LOCO HILLS	NEW MEXICO	EDDY
	GRAYBURG DEEP UNIT	3	18	а	099	FSL	099	FEL	11422	GRAYBURG	NEW MEXICO	EDDY
		-	18	Ь	440	FSL	440	FEL	3577	D&A'D	NEW MEXICO	EDDY
30015297740000 MARBOB ENERGY CORP	BURCH KEELY UNIT	275	8 2	<u>م</u> ا	1295	FSL	330	EE	4748	GRAYBURG JACKSON	NEW MEXICO	EDDY
		31	61		1650	FSL	760	E	3410	GRAYBURG JACKSON	NEW MEXICO	EDDY
30015041980001 GEN AMER OIL CO	BURCH A	9	19	H	1980	FNL	099	FEL	3702	GRAYBURG JACKSON	NEW MEXICO	EDDY
30015041980000 GEN AMER OIL CO	BURCH-FEDERAL A	9	19	H	1980	FNL	099	FEL	3195	GRAYBURG JACKSON	NEW MEXICO	EDDY
	BURCH-FEDERAL A	11	16	-	2310	FSL	330	FEL	3262	GRAYBURG JACKSON	NEW MEXICO	EDDY
\neg	BURCH-KEELY UNIT	225	19	¥	330	FNL	330	FEL	5050	GRAYBURG JACKSON	NEW MEXICO	EDDY
\neg		242	19	Η:	1650	FNL	330	EE	4820	GRAYBURG JACKSON	NEW MEXICO	EDDY
30015295100000 MARBOB ENERGY CORP	- 1	269	61	Ħ,	2515	FNL	330	EE	4800	GRAYBURG JACKSON	NEW MEXICO	EDDY
30015329160000 MARBOB ENERGY CORP	BURCH KEELY UNIT	358	61	Н	1400	FNL	1115	FEL	4823	GRAYBURG JACKSON	NEW MEXICO	EDDY
	T-	361	61	. A	965	FILE	330	田田	4812	GRAYBURG JACKSON	NEW MEXICO	EDDY
1-1	MCINTIRE 'A'	80	20	J	1650	FSL	1650	FEL	0069	LOCO HILLS	NEW MEXICO	EDDY
	MCINTYRE /B/	3	20	اد	1650	FSL	066	FWL	3465	GRAYBURG JACKSON	NEW MEXICO	EDDY
30015225710000 GEN AMER OIL CO	DEXTER/E/	7	20	g	2310	FNL	1650	FEL	3400	GRAYBURG JACKSON	NEW MEXICO	EDDY

County	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	FDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY						
State Name	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO
Field Name	GRAYBURG JACKSON	GRAYBURG JACKSON	GRAYBURG JACKSON	GRAYBURG	GRAYBURG JACKSON	LOCO HILLS	GRAYBURG	GRAYBURG	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	GRAYBURG JACKSON	GRAYBURG JACKSON	LOCO HILLS	TOCO HILLS	LOCO HILLS	LOCO HILLS	TOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS										
Depth Total Driller	3296	3275	3348	3270	3331	4788	4715	4745	4815	4810	4799	4744	4710	4900	4880	4780	4935	4775	4735	6401	4832	4840	4762	5110	4715	5050	4970	1984	4980	4820	4832	4865	6040	4840	5524	5020	4861	11400	4865	4900	4900	4800
Footage East West Start Line	FEL	FEL	FEL	FWL	FEL	FWL	FWL	FWL	FWL	FWL	FWL	FWL	FWL	FWL	FWL	FWL	FWL	FWL	FWL	FWL	FEL	FWL	FEL	EE	FEL	FEL	FEL	FWL	FWL	FFI	E	FEL	FEL	FWL	FWL	FWL	FWL	FWL	FEL	Æ	FEL	FEL
Footage East West	1980	2310	066	330	2310	330	330	2310	1650	1090	330	2310	066	2310	880	066	2310	1650	1525	430	066	2310	066	2310	1600	1625	1065	330	001	066	066	066	066	2310	1650	2250	1664	1980	2310	1650	7510	1650
Footage North South Start Line	FNL	FNL	FSL	_	FSL	FNL	FNL	-	_	- -	FN	+	FNL		FNL		_	FNL	I.S.		FNL	-	-	-	FSL			FSL	FSL	FNI	E E	FNL	FNL	FSL	FSL	FSL	FSL	FSL	EN EN	FNL	LNL	FNL
Footage North South	099	1650	2430	2310	2365	1650	066	330	1650	1650	2310	850	330	2310	2310	745	1500	965	330	330	066	2135	2430	2365	2400	1775	1615	2310	1650	1650	066	2310	330	2135	1650	1650	2190	1650	2310	1650	990	330
Unit	В	Ð	-	7	J	Э	D	၁	11.	[I	T [1	2 0	۵	F	Э	D	ഥ	В	C)	٠ م	∢;	₩,		5		5	ſ	۱,	7	1 =	¥	田	A	K	×	×	⊻;	*	٥	ء ا	20 6	B
Section Number	1 20	2 20	700		3 20	1 20					07 00		1 20											20			20	20		į_							20	20				70
Name					(-1				7			10		12	13	14	15	16	17	18	4 6	- 3		3	2 5	17	=		8 3	3 6	4	9	6	3	2	~	0]			7 2		3
Lease Name	DEXTER-FEDERAL E	DEXTER-FEDERAL E	MCINTYRE-FEDERAL A	MCINTYRE-FEDERAL B	MCINTYRE-FED-REPORT	JENKINS 'B' FEDERAL	JENKINS B FEDERAL	JENKINS 'B' FEDERAL	JENKINS 'B' FEDERAL	JENKINS B FEDERAL	JENNINS B FEDERAL	JENKINS 'B' FEDERAL	JENKINS B FEDERAL	JENKINS 'B' FEDERAL	JENKINS B FEDERAL	JENKINS B FEDERAL	MCDITATE W D C	MCINITYRE WD	MCINITKE A	MCINTYRE A	MCINTYRE A	MCINTYRE 'A'	MCINTYRE 'A' FEDERAL	MCINTYRE 'B'	MCINTYRE B	MCINTYRE W D .C.	MCINTYRE W D 'C'	MCINTYRE W D .C.	MCINTYRE W D 'C'	MCINTYRE W D'E'	MCINTYRE W D 'E'	MCINTYRE W D 'E'	MCINTYRE W D'E	LOCO SW	THUNDER ROAD FEDERAL	THUNDER ROAD FEDERAL	THIMDER BOAD FEDERAL	I HONDER KVAD FEDERAL				
Operator Current Name	GEN AMER OIL CO	GEN AMER OIL CO	FRANKLIN ASTN&FAIR I	FRANKLIN ASTNÆFAIR I	FRANKLIN ASTN&FAIR I	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OBED ATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	MACK ENERGY CORP	MARBOB ENERGY CORP	MARBOB ENERGY CORP	MARROE ENERGY COPP	MANDOD ENERGY COM					
API Number	\neg	\neg	- 1					Ti-	30015042310001		_	30015306680000			T)	_			30015341380000				_	30015042210001	_ ļ			30015042180001		30015042270001	\Box						_ _	30015222160001	_		7	7



County	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY	EDDY
State Name	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO
Field Name	LOCO HILLS	LOCO HILLS	LOCO HILLS	LOCO HILLS	GRAYBURG JACKSON	GRAYBURG JACKSON	GRAYBURG JACKSON	GRAYBURG JACKSON
Depth Total Driller	4920	4850	5900	0009	3693	3702	3280	3300
Footage East West Start Line	FEL	FEL	FEL	FEL	FWL	FWL	FWL	FEL
Footage East West	1750	1650	2310	2310	330	1650	1650	066
Footage North South Start Line	FNL	FNL	FNL	FNL	FNL	FNL	FSL	FNL
Footage North South	2310	066	1675	330	330	099	2210	1650
Unit	G	В	ß	В	۵	ပ	×	Ξ
Section Number	20	20	20	20	20	20	20	20
Name	5	9	∞	7	5	9	2	6
Lease Name	THUNDER ROAD FEDERAL	THUNDER ROAD FEDERAL	THUNDER ROAD FEDERAL	THUNDERROAD FEDERAL	JENKINS-B-FEDERAL	JENKINS-B-FEDERAL	MCINTYRE W D'E	MCINTYRE-FEDERAL C
Operator Current Name Lease Name	0015323840000 MARBOB ENERGY CORP THUNDER ROAD FEDERAL	0015323300000 MARBOB ENERGY CORP THUNDER ROAD FEDERAL	0015362800000 MARBOB ENERGY CORP THUNDER ROAD FEDERAL	0015364170000 MARBOB ENERGY CORP THUNDERROAD FEDERAL	0015219440000 PETROLEUM CORP OF TX JENKINS-B-FEDERAL	0015219450000 PETROLEUM CORP OF TX JENKINS-B-FEDERAL	0015042280000 SINCLAIR OIL & GAS C MCINTYRE W D'E	30015042270000 SINCLAIR OIL & GAS C MCINTYRE-FEDERAL C
API Number	30015323840000	30015323300000	30015362800000	30015364170000	30015219440000	30015219450000	30015042280000	30015042270000

	Total Wells Penetrating the Injection Interval	75					:	
	Total P&A'd Wells Penetrating the Injection Interval	1						
					Date	Date	Date First	Date Last
API Number	API Number Operator Current Name	Lease Name	Name Formation Producing Name	Date Spud	Completion	Abandonment	Report	Activity
20010222300000	ANCO OFF & CAS CON	MCINI I KE-FEDEKAL	QUEEN / GRAYBURG / SAN	0/1/1980	0861/61/11	08/1/01/11	4/7/1900	0/10/2/01/0
30015206610000	COG OPERATING LLC	MCINTYRE		6/25/1972	7/22/1972		8/1/1973	8/16/2005
30015207490000	COG OPERATING LLC	MCINTYRE	5 GRAYBURG / SAN ANDRES	10/16/1972	11/13/1972		8/1/1973	8/16/2005
30015041860001	COG OPERATING LLC	MCINTYRE DK FEDERAL	3 PADDOCK	5/2/1997	12/20/1973		5/15/1998	8/15/2005
30015274760001	COG OPERATING LLC	MCINTYRE 'DK' FEDERAL	7 PADDOCK	9/19/1997	1/2/1998		3/16/1998	8/17/2005
30015274720001	COG OPERATING LLC	MCINTYRE 'DK' FEDERAL	8 PADDOCK	6/10/1997	8661/9/1		3/6/1688	8/17/2005
30015294230000	COG OPERATING LLC	MCINTYRE 'DK' FEDERAL	9 PADDOCK	4/30/1997	12/19/1997		2/10/1997	8/3/2006
30015294240000	COG OPERATING LLC	MCINTYRE 'DK' FEDERAL		11/10/1997	12/19/1997		2/10/1997	3/14/2006
30015309810000	COG OPERATING LLC	MCINTYRE 'DK' FEDERAL		4/3/2000	5/23/2000		1/14/2000	8/18/2005
30015345470000	COG OPERATING LLC	MCINITAE DA FEDERAL	13 PADDOCK 14 SAN ANDRES	5/76/7006	7/8/7000		10/27/2005	\$/18/2003
30015059420000	DANCIGER OIL & REFININ	THRNER B	7 I&A'D	1/29/1942	2/4/1942	2/4/1942	8/1/1973	8/16/2005
30015206310000	GEN AMER OIL CO	ARCO	I GRAYBURG / SAN ANDRES	4/26/1972	6/23/1972	1	8/1/1973	8/16/2005
30015206320000	GEN AMER OIL CO	ARCO		4/22/1972	6/11/1972		6/1/1977	8/16/2005
30015206140000	GEN AMER OIL CO	MCINTYRE /F/	2 GRAYBURG / SAN ANDRES	4/2/1972	4/21/1972		6/1/1977	8/16/2005
30015041830000	KENNEDY OIL CO INC	MCINTYRE		10/3/1935	12/28/1935		8/1/1973	8/15/2005
30015041860000	MAPROB ENERGY CORD	MCINTYRE BIB NIE EEDED A I	3 GRAYBURG	4/21/1956	8/3/1956		8/1/1973	8/15/2005
- 1	MARROR ENERGY CORP	BIRDIE FEDERAL	3 PADDOCK	5/10/1998	6/16/1998		4/7/1998	8/18/2002
1	MARBOB ENERGY CORP	BIRDIE FEDERAL	15 YESO	12/31/2008	3/5/2009		11/21/2008	9/23/2009
30015365760000	MARBOB ENERGY CORP	BIRDIE FEDERAL	16 YESO	9/24/2008	11/4/2008		7/18/2008	9/23/2009
30015301430000	MARBOB ENERGY CORP	RED FEDERAL	2 PADDOCK	4/10/1998	8/8/1998		2/9/1998	8/18/2005
30015041890000	GREAT WESTERN DRL CO GRAYBURG DEEP UNIT	GRAYBURG DEEP UNIT	3 GLORIETA	2/29/1956	5/1/1957	1/8/1030	8/1/1973	8/15/2005
30015297740000	MARROR ENERGY CORP	BURCH KEELY UNIT	275 SAN ANDRES D	11/20/1997	12/9/1997	0001001	7/7/1997	8/18/2005
30015338110000	MARBOB ENERGY CORP	BURCH KEELY UNIT	382 GLORIETA	\$/21/2005	8/3/2005		8/19/2004	8/25/2006
30015213660000	GEN AMER OIL CO	BURCH /A/	31 GRAYBURG / SAN ANDRES	9/5/1974	10/8/1974		2/1/1975	8/16/2005
30015041980001	GEN AMER OIL CO	BURCH A	6 GRAYBURG / SAN ANDRES	5/27/1972	8/1/1972		8/1/1973	11/30/2006
30015041980000	GEN AMER OIL CO	BURCH-FEDERAL A	9	2/4/1935	4/23/1935	-	8/1/1973	8/15/2005
30015042030000	GEN AMER OIL CO	BURCH-FEDERAL A	11 Stadies is a second	2/8/1938	4/11/1938		8/1/1973	8/15/2005
30015276450000	MARROB ENERGY CORP	BURCH-KEELY UNIT	242 SAN ANDRES D	8/8/1994	9/20/1994		7/14/1993	1/23/2007
30015295100000	MARBOB ENERGY CORP	BURCH KEELY UNIT	269 SAN ANDRES D	6/8/1997	7/1/1997		3/17/1997	8/18/2005
30015324250000	MARBOB ENERGY CORP	BURCH KEELY UNIT	328 GLORIETA	10/19/2002	12/4/2002		7/26/2002	8/18/2005
30015329160000	MARBOB ENERGY CORP	BURCH KEELY UNIT	358 SAN ANDRES	9/25/2003	10/29/2003		8/4/2003	8/18/2005
30015329910000	MARBOB ENERGY CORP	BURCH KEELY UNIT	361 GLORIETA	2/4/2004	3/25/2004		6/6/2003	8/25/2006
30015232700000	HOLLY ENERGY	MCINTIRE 'A'	8 ABO /SH/	6/4/1980	9/12/1980		4/9/1980	8/16/2005
30015224440000	HOLLY ENERGY		3 GRAYBURG	4/19/1978	6/1/1978		9/1/1978	8/16/2005
30012222710000	GEN AMER OIL CO	DEALER/E/	SOKATBURG/ SAIN ANDRES	0/30/19/8	123/19/19		3/1/19/9	8/10/2007

API Number	Operator Current Name	Lease Name	Name Formation Producing Name	Date Spud	Date Completion	Date Abandonment	Date First Report	Date Last Activity
30015042250000 C	GEN AMER OIL CO	DEXTER-FEDERAL E		3/18/1925	6/11/1925		8/1/1973	8/15/2005
	GEN AMER OIL CO	DEXTER-FEDERAL E	2	2/26/1936	6/12/1936	5/13/1994	8/1/1973	8/15/2005
	FRANKLIN ASTN&FAIR I	MCINTYRE-FEDERAL A	1	7/13/1938	12/6/1938		8/1/1973	8/15/2005
	FRANKLIN ASTN&FAIR I	MCINTYRE-FEDERAL B	1	10/21/1937	2/5/1938		8/15/1999	8/15/2005
30015042210000 F	FRANKLIN ASTN&FAIR I	MCINTYRE-FED-REPORT	3	3/28/1940	6/29/1940		8/1/1973	8/15/2005
30015042140001 C	COG OPERATING LLC	JENKINS 'B' FEDERAL	1 PADDOCK	7/31/1999	6661/61/6		10/20/1999	8/15/2005
	COG OPERATING LLC	JENKINS B FEDERAL	2 PADDOCK	1/28/1997	3/6/1997		5/23/1997	8/15/2005
	COG OPERATING LLC		3 PADDOCK	1/21/1997	2/18/1997		3/31/1997	8/15/2005
	COG OPERATING LLC			1/10/1997	2/12/1997		3/31/1997	8/15/2005
- 10	COG OPERATING LLC	-	7 PADDOCK	4/3/1997	5/17/1997		2/3/1997	8/18/2005
	COG OPERATING LLC	-	8 PADDOCK	10/10/1997	2/15/1998		1/29/1997	8/18/2005
_	COG OPERATING LLC		9 PADDOCK	10/27/1997	7/17/1998		7/2/1997	8/18/2005
	COG OPERATING LLC		10 PADDOCK	8/3/1999	9/14/1999		5/20/1999	8/18/2005
-	COG OPERATING LLC	- 1	11 PADDOCK	12/1/1999	1/7/2000		5/20/1999	8/18/2005
1	COG OPERATING LLC		12 PADDOCK	2/21/2001	3/26/2001		11/22/2000	8/18/2005
	COG OPERATING LLC	JENKINS 'B' FEDERAL	13 PADDOCK	2/23/2001	5/2/2001		11/22/2000	8/18/2005
	COG OPERATING LLC	JENKINS 'B' FEDERAL	14 PADDOCK	6/9/2002	7/28/2002		3/5/2002	8/18/2005
	COG OPERATING LLC	_	15 GLORIETA	8/26/2005	10/6/2005		12/12/2005	8/25/2006
	COG OPERATING LLC	JENKINS 'B' FEDERAL	16 PADDOCK	9/8/2002	11/4/2002		7/19/2002	8/18/2005
	COG OPERATING LLC	JENKINS B FEDERAL	17 SAN ANDRES	11/10/2005	1/25/2006		4/27/2005	1/23/2007
	COG OPERATING LLC	JENKINS B FEDERAL	18 PADDOCK	2/6/2006	3/20/2006		10/27/2005	1/23/2007
	COG OPERATING LLC	MCINTYRE W D 'C'		3/25/2006	4/3/2006		6/12/2006	6/12/2006
	COG OPERATING LLC	MCINTYRE WD	3 PADDOCK	2/1/2006	3/6/2006		4/25/2006	10/6/2009
	COG OPERATING LLC	MCINTYRE 'A'		2/20/1997	11/26/1997		5/15/1998	8/15/2005
\neg	COG OPERATING LLC	MCINTYRE 'A'	3 PADDOCK	3/10/1997	1/1/1998		5/15/1998	8/15/2005
	COG OPERATING LLC	MCINTYRE 'A'	9 PADDOCK	11/15/1999	12/17/1999		1/26/2000	8/16/2005
- 1	COG OPERATING LLC	MCINTYRE 'A'	13 PADDOCK	6/27/1998	8/16/168		4/16/1998	8/18/2005
	COG OPERATING LLC	MCINTYRE 'A'	17 PADDOCK	6/23/2001	8/15/2001		4/13/2001	8/18/2005
	COG OPERATING LLC	MCINTYRE 'A' FEDERAL	11 PADDOCK	4/28/2000	7/12/2000		2/24/2000	8/18/2005
	COG OPERATING LLC	MCINIYRE B	PADDOCK	4/15/1997	1/29/1998		9/24/1998	8/15/2005
	COG OPERATING LLC	MCINI YKE B		7/9/2001	8/14/2001		4/11/2001	8/18/2005
30015293890000	COG OPERATING LLC	MCINITRE B FEDERAL	2 PADDOCK	3/21/1997	3/16/1998		1/3/1997	8/25/2006
	COG OPERATING LLC	MCINTVRE W. D. C.	A PAPIDOCK	4/17/1007	12/20/1998		7/10/1997	6/12/2005
7	COG OPERATING LLC	MCINTYRE W.D. C.	K PADDOCK	3/23/1999	4/28/1999		4/16/1998	8/18/2005
-1-	COG OPERATING 11 C	MCINTYREW D.C.		12/22/2005	3/1/2006		10/27/2005	1/23/2007
1	COG OPERATING LLC	MCINTYRE W.D. E.		5/13/1997	2/74/1998		2/10/1997	4/25/2006
	COG OPERATING LLC	MCINTYRE W D 'E'	S PADDOCK	7/26/1998	9/17/1998		4/16/1998	8/18/2005
30015317870000 C	COG OPERATING LLC	MCINTYRE W D 'E'	8 PADDOCK	7/9/2001	8/28/2001		4/9/2001	8/18/2005
30015322170000 C	COG OPERATING LLC	MCINTYRE W D 'E'	10 PADDOCK	4/9/2002	5/20/2002		1/17/2002	8/18/2005
30015222160001 N	MACK ENERGY CORP	LOCO SW	1 ABO /SH/	8/28/2001	10/18/2001		12/3/2001	8/16/2005
30015299100000 N	MARBOB ENERGY CORP	THUNDER ROAD FEDERAL	1 PADDOCK	12/4/1997	1/25/1998		10/1/1997	8/18/2005
_	MARBOB ENERGY CORP		2 PADDOCK	11/10/1997	12/23/1997		10/1/1997	8/18/2005
	MARBOB ENERGY CORP		3 PADDOCK	11/30/1997	12/23/1997		10/1/1997	8/18/2005
30015299520000 IN	MARBOB ENERGY CORP	THUNDER ROAD FEDERAL	4 PADDOCK	3/30/1998	4/22/1998		10/1/1997	8/18/2005

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

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General Information NEW MEXICO : D&A-OG State Final Status **EDDY** Drill Total Depth 11244 County Field LOCO HILLS Log Total Depth ARCO OIL & GAS CORP True Vertical Depth Operator Name Lease Name MCINTYRE-FEDERAL AUG 01, 1980 Well Number Spud Date 30015232650000 Comp Date API Number NOV 15, 1980 Regulatory API D Init Lahee Class Hole Direction **VERTICAL** Final Lahee Class D Reference Elevation Permit Number Ground Elevation 3660 Geologic Province PERMIAN BASIN **KB** Elevation Formation at TD 402MRRW **MORROW** Oldest Age Pen 402 PENNSYLVANIAN MORROWAN S Township 17 Section SEC 17 Range 30 Ė Spot Base Meridian **NEW MEXICO Additional Location Information** 1650 FSL 1980 FWL CONGRESS SECTION Footage Location 32.8316900 Latitude Latitude (Bot) -103.9958100 Longitude Longitude (Bot) Lat./Long. Source TS ocation Narrative Type Remark **LOCATION** 1 MI NW/LOCO HILLS **Production Tests** Top Base Top Base Oil Prod Test Form Form Depth Depth Choke GOR Grav Test Method Method 402MRRW 11003 48/64 001 402MRRW 11044 **PERF FLOWING** 11003 11044 002 402MRRW 402MRRW **PERF SWABBING** 003 10848 402MRRW 402MRRW 10828 PERF **SWABBING** 004 405CNYN 405CNYN 9589 9598 **PERF SWABBING** 005 9032 9046 451WFMP 451WFMP **PERF SWABBING** 451WFMP 006 **451WFMP** 8969 8974 **PERF SWABBING** 451WFMP 007 451WFMP 8888 8936 **PERF SWABBING Production Shutoff** Shutoff Top Base Plugback Depth Test Type Depth Depth 003 **SQZD** 10828 11044 9598 **SQZD** 9589 004 **Production Volume** Oil Cond Gas Wtr Test Unit Desc Unit Desc Amount Amount Unit Desc Desc Amount Amount Unit 001 249 **MCFD** UO 002 003 004 005 UO 06 120 BBL **Production Pressure FTP FCP** SITP SICP Test

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002 004 005 006 007															
			Pr	oduction	on Tr	eatment									
Test	Top	Base	Volu	ne Me	as A	mount	T/P	PSI	Inj	Type	Nbr	Agent	Add		
001	11003	11044	300) GA	L					ACID		-			
003	10828	10848	2000	GA	L					ACID					
005	9032	9046	2000	GA	L					ACID					
006	8969	8974	1000	GA	L					ACID					
007	8888	8936	500	GA	L					ACID					
			Pro	duction	n Perf	oration									
Test	Top	Base	Typ	e	Meth	od	Top F	orm	Base	Form	Status	Cour	nt	Density	Per
001	11003	11010			PERI	7	402M	RRW	402M	RRW	C		1		
001	11028	11044			PERI	7	402M	RRW	402M	RRW	C		1		
002	11003	11044			PERI	3	402M	RRW	402M	RRW			2		
003	10828	10836			PERI	7	402M	RRW	402M	RRW	C		1		
003	10840	10848			PERI	7	402M	RRW	402M	RRW	C		1		
004	9589	9598			PERI	7	405Cl	NYN	405C	NYN	C		1		
005	9032	9046			PERI		451W	FMP	451 W	FMP	C		2		
006	8969	8974			PERI		451W		451W	'FMP	C		2		
007	8888	8905			PERI		451W		451W		C		1		
07	8918	8936			PERI	7	451W	FMP	451W	FMP	C		1		
				Form	ation	Tests									
		То	p	Base	7	Гор		Тор	Botto	n					
Test	Type	Dep		Depth		form		Choke	Chok	te Sh	ow				
001	DST	756		7767		51WFM	P			S					
				ssure a											
		Hydro			Flow		Final F			Shut-in	Op	en Time		Shut-in Ti	me
Test	Init	Final		Init	Fina			inal	Init	Final	Init	Final			nal
001	3666	3621				4	35 2	2118	2791	2769		75		60	120
			_	e Reco	-										
Test	Amount		Desc	Rec	Type		Method								
001	4761		GCM			PIPE									
001			G					MBER							
001	2100	CC	W			SMP	L CHA	MBER							
				Log D	ata		_					-			
Run N		Log Type CB	e	Тор		Base		og ID	Max Temp						
				Cooin	n Das	·~									
	Size	Race	Depth	Casin	g Dai nent										
,	3/8 IN	Dase	446	Cei		SACK									
	8 5/8 IN		2652	1		SACK									
	5 1/2 IN		11244	1	230	SACK									
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8:46 AM

PI/Dwights PLUS on CD Well Summary Report

General Information NEW MEXICO : OIL Final Status State **EDDY** Drill Total Depth : 4277 County Field GRAYBURG JACKSON Log Total Depth (06 KENNEDY OIL CO INC True Vertical Depth Operator Name MCINTYRE Lease Name Well Number 4 Spud Date : JUN 25, 1972 30015206610000 Comp Date JUL 22, 1972 API Number Regulatory API Init Lahee Class D Hole Direction **VERTICAL** DO Reference Elevation Final Lahee Class 3649 Permit Number Ground Elevation 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 E Range Spot **NEW MEXICO** Base Meridian **Additional Location Information** Footage Location 660 FSL 860 FWL CONGRESS SECTION Latitude 32.8289400 Latitude (Bot) -103.9994500 Longitude (Bot) Longitude Lat./Long. Source **Initital Potential Tests** Top Base Top Base Prod Test Oil Test Form Form Depth Depth Choke GOR Grav Method Method 2016 **PERF** 001 4530GSA 4530GSA 4094 19/64 2595 36 **FLOWING** IP Volume Oil Cond Wtr Gas Test Unit Desc Unit Desc Amount Amount Desc Amount Unit Desc Amount Unit BPD 001 99 **IP Pressure FTP** Test SITP **FCP SICP** 001 200 400 **IP** Treatment Test Top Base Volume Meas Amount T/P **PSI** Type Nbr Agent Add 001 2016 4094 8250 GAL **ACID** 001 2016 4094 170000 GAL 170000 LB **FRAC** SAND GELA IP Perforation Top Form Test Top Base Type Method Base Form Status Count Density Per 001 2016 2042 PERF 453QGSA 453QGSA Α 001 2472 2492 **PERF** 453QGSA 453QGSA Α 001 2564 2612 453QGSA 453QGSA PERF Α 001 2664 2728 **PERF** 453QGSA 453QGSA Α 3003 453QGSA 453QGSA 001 3036 **PERF** Α 001 3078 3196 **PERF** 453QGSA 453QGSA Α 001 3559 3568 **PERF** 453QGSA 453QGSA A 4093 4094 **PERF** 453QGSA 453QGSA Α **Formations** Top Top Base Base Form Code Form Name Depth **TVD** Depth TVD Source Lithology

Date: 1/8/2010 Time: 8:46 AM

454SALT 453QUEN 453SADRD	SALT QUEEN SAN ANDRES	D			505 2015 2718	LOG LOG LOG
		Log Data				
				Log	Max	
Run No	Log Type	Тор	Base	MD	Temp	
01	EL					
10	NEES					
		Casing Da	ta			
S	ize Base Depth	Cement	Unit			
8 5/8	IN 515	225	SACK			
5 1/2	IN 4263	200	SACK			

Date: 1/8/2010 Time: 8:47 AM

			G	Seneral Info	rmatio	o n								
State				NEW MEXIC				Fi	nal St	atus	:	OIL		
County				DDY						tal Depth	:	4300		
Field			: G	RAYBURG						al Depth	:			
	or Name			ENNEDY			ص)ں ر			ertical Dep	th :			
Lease N				ICINTÝRE						•				
Well No			: 5					Sr	oud D	ate	:	OCT 1	6, 1972	
API Nu			: 3	0015207490	000			•	omp [:	NOV 1	3, 1972	
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_	nee Class		: D)				H	ole Di	irection	:	VERT	ICAL	
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_	ion at TD			53SADRD		SAN A	ANDRE	ES D						
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Latitude				2.8299600						e (Bot)	:			
Longitu	ide			103.9880200	,			L	ongitu	ide (Bot)	•			
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			ĭ	nitital Poter	itial T	ests								
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001	453GB	SA	453GB	SSA 25	82	3218			1936	37	PERF		PUMPIN	٧G
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001	2582	2590		PERF		453GBS		453GI		Α				
001	2695	2700		PERF		453GB		453GI		Α				
001	2784	2788		PERF		453GB		453GI		Α				
001	3004	3053		PERF		453GBS		453GI		Α				
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			C	Casing Data										

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Date: 1/8/2010 Time: 8:47 AM

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

Date: 1/8/2010 Time: 8:47 AM

PI/Dwights PLUS on CD Well Summary Report

General Information : OIL State **NEW MEXICO** Final Status **EDDY** Drill Total Depth 4329 County Field **GRAYBURG JACKSON** Log Total Depth KENNEDY OIL CO INC True Vertical Depth Operator Name MCINTYRE Lease Name NOV 16, 1973 Well Number Spud Date 30015209720000 Comp Date NOV 30, 1973 API Number Regulatory API D Init Lahee Class Hole Direction VERTICAL DO Final Lahee Class Reference Elevation Permit Number Ground Elevation 3657 Geologic Province PERMIAN BASIN KB Elevation Formation at TD 453SADRD SAN ANDRES D Oldest Age Pen 453 PERMIAN GUADALUPIAN **Producing Formation** 453SADRD SAN ANDRES D **SEC Township** 17 S Section : 17 Range 30 \mathbf{E} Spot **NEW MEXICO** Base Meridian Additional Location Information 990 FSL 2310 FWL CONGRESS SECTION Footage Location Latitude 32.8298900 Latitude (Bot) Longitude -103.9947300 Longitude (Bot) Lat./Long. Source TS **Initital Potential Tests** Top Base Top Base Oil Prod Test Depth Test Form Form Depth Choke GOR Grav Method Method 453SADRD 001 453SADRD 3300 4042 PERF **FLOWING** IP Volume Oil Cond Gas Wtr . Unit Unit Test Amount Desc Amount Desc Amount Unit Desc Amount Unit Desc 001 30 **BPD IP Pressure** FTP SITP **FCP** SICP Test 001 **IP** Treatment Test Top Base Volume Meas Amount T/P **PSI** Nbr Agent Add Inj Type 2000 3300 4042 GAL 001 **ACID IP** Perforation Test Top Base Type Method Top Form Base Form Status Count Density Per 3300 4042 **PERF** 453SADRD 001 453SADRD 48 Α **Formations** Top Top Base Base Form Name Form Code TVD Depth Depth TVD Source Lithology **453QUEN OUEEN** 2025 LOG 453SADRD SAN ANDRES D 2725 LOG **Casing Data** Cement Unit Size Base Depth 8 5/8 IN

496 200 SACK 5 1/2 IN 4329 850 SACK

Type: PRODUCTION TEST

Type: PRODUCTION TEST

Type: PRODUCTION TEST

#: 5 Formation Top

#: 6 Formation Top

#: 7 Formation Top

UWI: 30015041860000 API #: 30-015-04186 Status: Active Type: Oil Surface: 660 FSL 1980 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico Section: Bottom Hole: (,06 Operator: MACK ENERGY CORP Lease Name: MCINTYRE 'DK' FEDE Well #: Field: LOCO HILLS Geologic Province: PERMIAN BASIN Depth Total Driller: 4797 Depth Total Logger: Depth True Vertical: Producing Formation: PADDOCK Formation at TD: PADDOCK Date of Abandonment: GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name; MCINTYRE DK FEDERAL 003 GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK GO-TECH - Plug Date: 100 sx Size: 10 3/4 IN Depth Base: 532 Top of Cement: CASING Cement Amount: 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: 27/8 IN Depth Base: 4609 Cement Amount: Top of Cement: SX 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: 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 2645 Type: PRODUCTION TEST #: 3 Formation Top: Depth Top: 2470 Depth Base: Type: PRODUCTION TEST #: 4 Formation Top: Depth Base: Depth Top: Type: PRODUCTION TEST #: 5 Formation Top: Depth Base: 3256 Depth Top: 3194 Type: PRODUCTION TEST 3112 Depth Base: #: 6 Formation Top: Depth Top: 3142 Type: PRODUCTION TEST 7 Formation Top: Depth Base: 2645 Depth Top: 2470 Test_Perf_Report: Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4226 Depth Base: 4590 Type: INITIAL POTENTIAL 1 Formation Top 2470 Depth Base: 2645 Depth Top: 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

Depth Top:

Depth Top:

Depth Top:

3194

3112

2470

Depth Base:

Depth Base:

Depth Base:

3256

3142

2645

UWI: 30015274760000 API #: 30-015-27476 300157014898 IC# Type: Oil Status: Active Surface: 330 FSL 330 FWL Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

Section: مان ح

Operator: MACK ENERGY CORP Lease Name: MCINTYRE 'DK' FEDE

Well #:

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:

CASING Size: 8 5/8 IN

Depth Base: 1036 Cement Amount:

300 sx Top of Cement: Surface 700 sx Top of Cement: Surface

CASING Size: 5 1/2 IN Depth Base: 5099 Cement Amount: 3965

1320 sx Top of Cement: Surface

TUBING Size: 27/8 IN TUBING Size: 27/8 IN

Depth Base: Cement Amount: Depth Base: 4541 Cement Amount:

Top of Cement: SX Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: **PADDOCK** #: 1 Formation Top:

#: 1 Formation Top

Depth Base: Depth Top: 4202 Depth Top: 2995

4491

Type: INITIAL POTENTIAL Type: PRODUCTION TEST

Type: PRODUCTION TEST

SAN ANDRES D #: 1 Formation Top: SAN ANDRES D

Depth Base: Depth Top: 2995 Depth Base:

3951 3951

4491

3951

Test_Perf_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Type: INITIAL POTENTIAL #: 1 Formation Top Type: INITIAL POTENTIAL #: 1 Formation Top

Depth Top: Depth Base: 4202 Depth Top: 3771 Depth Base:

Depth Top: Depth Base: 2995

3610 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: Section: 600 Operator: MACK ENERGY CORP Lease Name: MCINTYRE 'DK' FEDE Well #: Field: LOCO HILLS Geologic Province: PERMIAN BASIN Depth Total Driller: 5100 Depth Total Logger: Depth True Vertical: Producing Formation: PADDOCK Formation at TD: 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 Top of Cement: 290' From Surf Cement Amount: 625 sx Size: 5 1/2 IN Depth Base: 5089 CASING Cement Amount: 1320 sx Top of Cement: Circ to Surf TUBING Size: 27/8 IN Depth Base: 3942 Cement Amount: sx Top of Cement: TUBING Size: 27/8 IN Depth Base: 5022 Cement Amount: Top of Cement: sx Test_Report: Type: INITIAL POTENTIAL #: 1 Formation Top: **PADDOCK** Depth Top: 4217 Depth Base: 5004 Type: INITIAL POTENTIAL #: 1 Formation Top: SAN ANDRES D 3909 Depth Top: 3012 Depth Base: 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: Depth Base: 5004 4217 Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 3763 Depth Base: 3909

Depth Top:

Depth Top:

3012 Depth Base:

3012 Depth Base:

3627

3909

#: 1 Formation Top

#: 1" Formation Top



Type: INITIAL POTENTIAL

Type: PRODUCTION TEST

UWI: 30015294230000

API #: 30-015-29423

1C#

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 #:

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 - Oné_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING Size: 85/8 IN

Depth Base: 456 Cement Amount: 300 sx

Top of Cement: Circ

CASING Size: 5 1/2 IN

Depth Base: 4722 1435 sx

Top of Cement: Circ

TUBING Size: 27/8 IN

Cement Amount: Depth Base: 4605

Cement Amount:

Top of Cement:

TUBING Size: 27/8 IN

Depth Base: 4639

Cement Amount:

Test_Report:

Top of Cement: SX

Type: INITIAL POTENTIAL #: 1 Formation Top: PERMIAN UPPER Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK

Depth Top:

4609

2771 Depth Base: 4246 Depth Base:

4609

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top:

4246 Depth Base:

4609 4014

4609

Type: INITIAL POTENTIAL Type: INITIAL POTENTIAL

#: 1 Formation Top #: 1 Formation Top Depth Top:

2771 Depth Base:

Depth Top:

Depth Top:

4246 Depth Base:

UWI: 30015294240000 990 FSL API#: 30-015-29424

Status: Active

Type: Oil

Surface:

1610 FEL

Section:

17 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

600

Section:

Operator: MACK ENERGY CORP

Lease Name: MCINTYRE DK FEDER

Well #: 10

Field: GRAYBURG JACK

Geologic Province: PERMIAN BASIN

Depth True Vertical:

Depth Total Driller:

4761 Depth Total Logger:

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: 85/8 IN

Depth Base: 453 Cement Amount: 325 sx Top of Cement: Circ to Pit

Size: 5 1/2 IN CASING

Depth Base: 4722 Cement Amount:

1450 sx Top of Cement: Circ

Size: 27/8 IN TUBING

Depth Base: 4617

Cement Amount:

Top of Cement:

TUBING Size: 27/8 IN

Depth Base:

4617 Cement Amount: Top of Cement:

Test Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top:

PADDOCK SAN ANDRES Depth Top: 4410 Depth Base:

Type: INITIAL POTENTIAL Type: PRODUCTION TEST

#: 3 Formation Top: #: 1 Formation Top:

Depth Top: 3007 Depth Base: 4603

Type: PRODUCTION TEST

#: 2 Formation Top:

SAN ANDRES SAN ANDRES

Depth Top: Depth Base: 3322 Depth Top: 3007 Depth Base:

3520 3219

4603

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Type: INITIAL POTENTIAL #: 3 Formation Top Type: INITIAL POTENTIAL #: 3 Formation Top

Type: PRODUCTION TEST #: 1 Formation Top Type: PRODUCTION TEST #: 2 Formation Top Depth Top: 4410 Depth Base: 4603 Depth Base: 4603 Depth Top: 4410

Depth Base: Depth Top: 3007 3520 Depth Top: 3322 Depth Base: 3520

Depth Top: 3007 Depth Base: 3219

Date: 1/7/2010 Time:

5:25 PM

PI/Dwights PLUS on CD Well Summary Report

General Information : 201L **NEW MEXICO** State Final Status **EDDY** Drill Total Depth 4746 County **GRAYBURG JACKSON** Log Total Depth Field COG OPERATING LLC True Vertical Depth Operator Name MCINTYRE DK FEDERAL Lease Name Well Number Spud Date : FEB 18, 2006 30015309810001 Comp Date MAR 13, 2006 API Number Regulatory API Init Lahee Class D X Hole Direction **VERTICAL** DO Final Lahee Class Reference Elevation 3672 KB Permit Number Ground Elevation 3659 Geologic Province PERMIAN BASIN **KB** Elevation : 3672 Formation at TD 452PDCK **PADDOCK** Oldest Age Pen 452 PERMIAN LEONARDIAN **Producing Formation** 453GBSA GRAYBURG / SAN ANDRES 452PDCK **PADDOCK** Township 17 S Section : 17 SEC Range 30 E : SW SW SE Spot Base Meridian **NEW MEXICO Additional Location Information** 330 FSL 2310 FEL CONGRESS SECTION Footage Location Latitude 32.8280300 Latitude (Bot) ongitude -103.9926600 Longitude (Bot))./Long. Source TS Location Narrative Type Remark SCALED FOOT REGULATORY. IRREG SECT DST_TOWN 1 MI N LOCO HILLS, NM **Initital Potential Tests** Top Base Top Base Test Oil Prod Depth Depth Test Form Form Choke **GOR** Grav Method Method 2978 001 453GBSA 453GBSA 4077 1590 **PERF PUMPING** 38 002 452PDCK 452PDCK 4216 4600 PERF **UNDESIGNATED** IP Volume Oil Cond Wtr Gas Test Amount Unit Desc Amount Unit Desc Amount Unit Desc Amount Unit Desc 001 61 **BPD** 97 **MCFD** 388 BBL UO 002 **IP** Treatment Top Volume Meas Amount T/P **PSI** Type Test Base Nbr Inj Agent Add 001 2978 3222 3000 **GAL ACID NEFE** 3451 3000 **GAL** 001 3317 **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 Method Test Top Base Type Top Form Base Form Status Count Density Per 10) 2978 3222 **PERF** 453GBSA 453GBSA **301** 3317 3451 PERF 453GBSA 453GBSA 001 3956 4077 **PERF** 453GBSA 453GBSA 002 4216 4600 **PERF** 452PDCK 452PDCK

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Date: 1/7/2010 Time: 5:25 PM

PI/Dwights PLUS on CD Well Summary Report

Size Base Depth Mixed String 2 7/8 IN 4627

UWI: 30015306790000

API#: 30-015-30679

IC# 300157010499

Status: Active

Section: 17 Township 17 South Range 30 East Eddy County New Mexico

Surface:

Bottom Hole:

990 FSL

990 FWL

Section:

600 Operator: MACK-ENERGY CORP

Lease Name: MCINTYRE 'DK' FEDE

Well #: 13

Field: LOCO HILLS Depth Total Driller:

Geologic Province: PERMIAN BASIN

Depth Total Logger: 4668

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

Depth Base: 364 Cement Amount:

325 sx

Top of Cement: Circ

CASING Size: 13 3/8 IN 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:

Cement Amount:

860 sx

Top of Cement: Circ

TUBING Size: 27/8 IN

4663 4594 Depth Base:

Cement Amount:

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:

Date: 1/8/2010 Time: 8:29 AM

			C	onoral	Informati	on Su		<u> </u>						
State				EW MI		1011		Eine	al Stat			: OIL		
				EW MI	EXICO							: 5108		
County Field					URG JAC	RCON				l Depth Depth		. 3106		
	or Nama				ERATINO					ical Dep	th			
Lease N	or Name				RE DK F			114	e ven	icai Dep	ui	•		
Well N			: 14		KE DK I	EDEKAL		Snu	id Date	3		· MAV	26, 200	16
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	ic Provinc	ce	: PI	ERMIA	N BASIN				Eleva			: 3683		
	ion at TD			3GLR		GLOR	IETA							
Oldest .	Age Pen		: 45					ONARI	DIAN					
	ing Forma	ition	: 45	3SADI	R		NDRE							
Townsł	_		: 17	7 S				Sec	tion			: 17	SEC	
Range	•		: 30) E				Spo	ot			: NW S	W SE	
Base M	leridian		: N.	EW ME	EXICO			-						
			A .	ddition	al Locatio	an Inform	ation							
Footage	e Location	1			SL 2310			SS SEC	TION					
Latitude		•		2.83030		I DD	JITOILL			(Bot)		32.8298	3900	
Longitu				03.992						e (Bot)	:			
_	ng. Sourc	e	: TS						-6	(- + -)				
M-1	n Narrati		: Ty	ype				Ren	nark					
			SC	CALED	FOOT			REG	GULA	TORY				
			IR	REG_S	SECT			N						
			D	ST_TO	WN			1 M	II N L	OCO HI	LLS, NM			
		In	itital P	otential T	ests									
	Top	Base		Top	Base				Oil	Prod		Test		
Test		Form		Depth	Depth	Chok		OR	Grav	Method		Metho		
001	st Form F 01 453SADR 4			CK	2766	4597		1	961		PERF		PUMI	PING
	est Form F D1 453SADR 4			lume	_							_		
7174	A	Oil	D		Con			Gas				√tr		
Test 001	Amoun 7'			Amou	unt Unit	Desc		nt Uni 51 MC		esc A	mount U		sc	
001	,	/ DIL		eatmen	ıt		15	, i ivic	,Г <i>О</i>		407 B	DL		
Test	Тор	Base	Volume			T/P	PSI	Inj 7	Гуре	Nbr	Agent	Add		
001	4275	4597	3000	GAL					ACID	1101	1 180111	NEFE		
001	4275	4597	94416	GAL	99092	LB			FRAC		SAND	1,212		
001	3746	3937	2500	GAL					ACID			NEFE		
100	3746	3937	95466	GAL	98272	LB			FRAC		SAND			
001	3064	3232	1900	GAL					ACID			NEFE		
001	3064	3232	98759	GAL	98826	LB		F	FRAC		SAND			
001	2766	2917	2000	GAL					ACID			NEFE		
001	2766	2917	75000	GAL	98380	LB		F	FRAC		SAND			
001	3332	3558	2000	GAL				Ā	ACID			NEFE		
100	3332	3558	94836	GAL	98220	LB		F	FRAC		SAND			
	_			foration										
l'est	Top	Base	Type	Me	thod	Top For	m	Base For	rm	Status	Cou	nt D	ensity	Per
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001	2766	2917	• •	PE		453SAD		453SAD)R			2		
	-		••	PEI PEI PEI	RF	453SAD 453SAD 453SAD	R	453SAD 453SAD 453SAD	OR OR		5	52 54 52		

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. 001	3740		PER		453SADR	453SADR			66		
001	427	5 4597	PERI	₹ .	452PDCK	452PDCK			68		
			Formation	ıs							
						Top	Top	Base	Base		
Form (Code	Form Name				Depth	TVD	Depth	TVD	Source	Lithology
453YT	ES	YATES				1146				LOG	
453SV	RV	SEVEN RIVERS	S			1440				LOG	
453QL	JEN	QUEEN .				2057				LOG	
453GR		GRAYBURG				2452				LOG	
453SA		SAN ANDRES				2760				LOG	
453GL	RТ	GLORIETA				4191				LOG	
			Log Data								
			•		Log	Max					
Run N	No	Log Type	Тор	Base	\overline{MD}	Temp	•				
	1	GR	•			•					
	1	N									
	1	DENL									
	1	LATL									
	1	SPCT									
			Casing Da	ta							
	Si	ze Base Depth	_								
	13 3/8 I	•		SACK							
	8 5/8 I			SACK							
	5 1/2 I			SACK							
			Tubing Da	ta							
	Size	Base Depth	Mixed Strin								
	/8 IN	4682	Wince Stri	' 5							
			4 4 1 1 1 1 2		F 6 6	Y					
Ma	т	 				ace Location					
	True		Polar	Y				C1	_		
Depth 5108		Depth Offset	Azimuth	Offset	t Offse		MEXICO	County EDDY			

Date: 1/8/2010 Time: 8:37 AM

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:

Date: Time: 8:36 AM

1/8/2010

PI/Dwights PLUS on CD Well Summary Report

General Information

NEW MEXICO Final Status : J&A State 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** D Final Lahee Class 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 #:

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 - Plug Date:

GO-TECH - One_Producing Pool Name: LOCO HILLS; PADDOCK

GO-TECH - Well Name: BIRDIE FEDERAL 001

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:

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:

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 #:

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 Top of Cement: Circ to Surf

CASING Size: 5 1/2 IN TUBING Size: 27/8 IN

Depth Base: 4884 Depth Base: 4183

Cement Amount: Cement Amount: 1300 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

Date: 1/7/2010 4:50 PM Time:

LOG

PI/Dwights PLUS on CD Well Summary Report

General Information State **NEW MEXICO Final Status** : OIL 6000 **EDDY** Drill Total Depth County Log Total Depth LOCO HILLS Field Operator Name MARBOB ENERGY CORP True Vertical Depth Lease Name BIRDIE FEDERAL DEC 31, 2008 Well Number 15 Spud Date Comp Date MAR 05, 2009 API Number 30015367600000 Regulatory API 3001536760 Init Lahee Class Hole Direction **VERTICAL** D Final Lahee Class DO Reference Elevation 3661 KB Ground Elevation 3649 Permit Number Geologic Province PERMIAN BASIN **KB** Elevation : 3661 Formation at TD 452TUBB **TUBB** Oldest Age Pen 452 PERMIAN LEONARDIAN **Producing Formation** 452YESO YESO SEC Township 17 S Section : 17 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) -103.9994200 Longitude (Bot) Longitude at./Long. Source TS ation Narrative Type Remark SCALED FOOT REGULATORY IRREG SECT N **Initital Potential Tests** Top Base Top Oil Base Prod Test Form Depth Depth Choke Grav Method Test Form GOR Method 001 452YESO 452YESO 4265 5595 **PUMPING PERF** IP Volume Oil Cond Gas Wtr Test Amount Unit Desc Unit Amount Unit Desc Amount Desc Amount Unit Desc 001 170 **BPD** 125 MCFD 443 BBL **IP** Treatment Volume Meas Amount Test Top Base T/P **PSI** Nbr Add Inj Type Agent 5395 5595 2000 GAL 001 **ACID NEFE** 001 5395 5595 149916 GAL 184555 LB 49 FRAC **SAND** 001 4824 5216 3000 **GAL ACID NEFE** 4824 GAL 337779 001 5216 273807 LB **FRAC** 88 SAND 4265 4545 2500 001 GAL **NEFE ACID** 4265 4545 169195 GAL 217229 001 LB 75 **FRAC** SAND **IP** Perforation Method Test Top Type Top Form Base Count Base Form Status Density Per 001 4265 4545 PERF 452YESO 452YESO 25 4824 001 5216 **PERF** 452YESO 452YESO 25 001 5395 5595 **PERF** 452YESO 20 452YESO **Formations** Top Top Base Base Form Code Form Name Depth **TVD** Depth TVD Source Lithology 454RSLR RUSTLER 258

2 7/8 IN

5655

Date: 1/7/2010

Time: 4:50 PM

454SALT	SALT				507	956	LOG	
453YTES	YATES				1140		LOG	
453SVRV	SEVEN RIVER	S			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						
				Log	Max			
Run No	Log Type	Тор	Base	MD	Temp			
1	DSN							
1	DLL							
		Casing Da	ta					
9	Size Base Depth	-						
8 5/8	380 380	325	SACK					
5 1/2	2 IN 5996	1550	SACK					
		Tubing Da	ıta					
Size	Base Depth	Mixed Stri						

Date: 1/7/2010 Time: 4:35 PM

W \			(General Info	ormati	on								
State				NEW MEXI					Final St	tatus		: OIL		
County	/			EDDY						otal Depth		: 5900		
Field				LOCO HILL	.S					tal Depth		:		
	or Name			MARBOB E		Y CORP				ertical Dep	oth	:		
Lease N				BIRDIE FEI										
Well N				16					Spud D	ate		: SEP 2	24, 2008	
API Nu			: 3	3001536576	0000				Comp I				04, 2008	;
Regula	tory API		:						•					
	hee Class		: [Hole D	irection		: VERT	ΓICAL	
Final L	ahee Class	;	; I	00					Referer	nce Elevati	ion	:		
Permit	Number		:						Ground	l Elevation	ı	: 3664		
Geolog	Geologic Province :		: F	PERMIAN BASIN				KB Elevation			:			
Format	tion at TD		: 4	52TUBB		TUBB								
	Age Pen		: 4	152				EONA	ARDIA	N				
	ing Forma	tion		152YESO		YESO								
Townsl	hip			17 S				Section						
Range				30 E				Spot			: SE N	: SE NE SW		
Base M	1eridian		: 1	NEW MEXICO										
			4	Additional I	Locatio	n Inforn	ation							
	e Location			1650 FSL				ESS S	FCTIC	N				
Latitud				32.8316700		. ,, ,),,, 0,1 d			e (Bot)	:			
Longitu				103.994830	0					ide (Bot)	:			
_	ng. Source	•		ΓS						(
-0.	on Narrativ		: 1	Гуре					Remark					
				SCALED FO	TOC					LATORY				
			I	RREG_SEC	T				N					
			I	nitital Pote	ntial T	ests								
	Top		Base	,	Гор	Base				Oil	Prod		Test	
Test	Form		Form	De	epth	Depth	Chok	ke	GOR	Grav	Method		Method	1
001	452YE	SO	452YE		836	5547					PERF		PUMP	ING
			IP Vo	olume					·		=			
		Oil			Cond	1			C			1/4m		
Tr. 4						ı		(Gas			Vtr		
Test	Amount			Amount	Unit		Amou	int	Unit		Amount (Jnit De	esc	
001	Amount 175)					int				Jnit De	esc	
001	175	BPE) IP T	reatment	Unit	Desc	2	34 :	Unit MCFD		Amount (145 I 	Jnit De BBL	esc	
001 Test	175 Top	BPE Base) IP T Volume	reatment Meas Am	Unit			int	Unit MCFD Type	Nbr	Amount (145 I 	Jnit De BBL Add	esc	
001 Test 001	Top 5257	BPE Base 5546	IP T Volume 2000	reatment Meas Am GAL	Unit nount	Desc	2	34 :	Unit MCFD Type ACII	 e Nbr D	Amount U 145 I Agent	Jnit De BBL Add HCL	sc	
Test 001 001	Top 5257 5257	Base 5546 5546	IP T Volume 2000 202735	Creatment e Meas Am GAL GAL 25	Unit nount	Desc	2	34 :	Unit MCFD Type ACII FRA	 > Nbr D .C	Amount (145 I 	Jnit De BBL Add HCL	sc	
Test 001 001 001	Top 5257 5257 4836	Base 5546 5546 5084	IP T Volume 2000 202735 2000	Preatment Meas Am GAL GAL 25 GAL	Unit nount 2990	Desc T/P LB	2	34 :	Unit MCFD Type ACII FRA ACII	Nbr D C	Amount U 145 H Agent SAND	Jnit De BBL Add HCL HCL	esc	
Test 001 001	Top 5257 5257	Base 5546 5546 5084	IP T Volume 2000 202735 2000 145225	reatment Meas Am GAL GAL 25 GAL GAL 19	Unit nount 2990	Desc	2	34 :	Unit MCFD Type ACII FRA	Nbr D C	Amount U 145 I Agent	Jnit De BBL Add HCL HCL	esc	
Test 001 001 001 001	Top 5257 5257 4836 4836	BPE 5546 5546 5084 5084	P T Volume 2000 202735 2000 145225 IP Pe	Freatment Meas Am GAL GAL GAL GAL GAL 19 rforation	Unit nount 2990 8343	Desc T/P LB LB	PSI	Int	Unit MCFD Type ACII FRA ACII FRA	Nbr D .C D	Amount U 145 H Agent SAND SAND	Jnit De BBL Add HCL HCL		Do.
Test 001 001 001 001 Test	Top 5257 5257 4836 4836 Top	Base 5546 5546 5084 5084 Base	IP T Volume 2000 202735 2000 145225	Freatment Meas Am GAL GAL GAL GAL 19 rforation Method	Unit nount 2990 8343	Desc T/P LB LB Top For	PSI m	Int 34Inj	Unit MCFD Type ACII FRA ACII FRA	Nbr D C	Amount U 145 H Agent SAND SAND	Jnit De BBL Add HCL HCL	ensity	Per
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Test 001 001 001 001 Test 001	Top 5257 5257 4836 4836 Top 4836 5258	Base 5546 5584 5084 Base 5084 5547	P T Volume 2000 202735 2000 145225 IP Pe Type	Freatment Meas Am GAL GAL GAL GAL 19 rforation Method PERF PERF	Unit nount 2990 8343 d	Desc T/P LB LB Top Ford 452YES	PSI m	Int 34Inj	Unit MCFD Type ACII FRA ACII FRA PORT FORM YESO P	Nbr D C D C Status	Amount U 145 H Agent SAND SAND Cou	Jnit De BBL Add HCL HCL nt D 20 25 Base	ensity	
Test 001 001 001 001 Test 001 001	Top 5257 5257 4836 4836 Top 4836 5258	BASE 5546 5584 5084 Base 5084 5547	P T Volume 2000 202735 2000 145225 IP Pe Type	Freatment Meas Am GAL GAL GAL GAL 19 rforation Method PERF PERF	Unit nount 2990 8343 d	Desc T/P LB LB Top Ford 452YES	PSI m	Int 34 Inj Base 452Y Top Depti	Unit MCFD Type ACII FRA ACII FRA PROPER FORM YESO PP	Nbr D C D C Status	Amount U 145 H Agent SAND SAND	Jnit De BBL Add HCL HCL nt D 20 25 Base	ensity Source	
Test 001 001 001 001 Test 001 001	Top 5257 5257 4836 4836 Top 4836 5258	BASE 5546 5584 5084 Base 5084 5547	P T Volume 2000 202735 2000 145225 IP Pe Type	Freatment Meas Am GAL GAL GAL GAL 19 rforation Method PERF PERF	Unit nount 2990 8343 d	Desc T/P LB LB Top Ford 452YES	PSI m	Base 452Y 452Y Depth 300	Unit MCFD Type ACII FRA ACII FRA FORM YESO YESO P h	Nbr D C D C Status	Amount U 145 H Agent SAND SAND Cou Base Depth	Jnit De BBL Add HCL HCL nt D 20 25 Base	ensity Source LOG	
Test 001 001 001 001 Test 001 001	Top 5257 5257 4836 4836 Top 4836 5258 Code For	BASE 5546 5584 5084 Base 5084 5547	P T Volume 2000 202735 2000 145225 IP Pe Type	Freatment Meas Am GAL GAL GAL GAL 19 rforation Method PERF PERF	Unit nount 2990 8343 d	Desc T/P LB LB Top Ford 452YES	PSI m	Base 452Y 452Y 51'	Unit MCFD Type ACII FRA ACII FRA FRA FORM YESO YESO P h 0 7	Nbr D C D C Status	Amount U 145 H Agent SAND SAND Cou	Jnit De BBL Add HCL HCL nt D 20 25 Base	Source LOG LOG	
Test 001 001 001 001 Test 001 001	Top 5257 5257 4836 4836 Top 4836 5258 Code For	BASE 5546 5546 5084 5084 Base 5084 5547 Finn Nam JSTLEF LT ATES	P T Volume 2000 202735 2000 145225 IP Pe Type	Freatment Meas Am GAL GAL GAL GAL 19 rforation Method PERF PERF	Unit nount 2990 8343 d	Desc T/P LB LB Top Ford 452YES	PSI m	Base 452Y 452Y Depth 300	Unit MCFD Type ACII FRA ACII FRA FORM YESO YESO P h 0 7	Nbr D C D C Status	Amount U 145 H Agent SAND SAND Cou Base Depth	Jnit De BBL Add HCL HCL nt D 20 25 Base	ensity Source LOG	

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Date: 1/7/2010

Time: 4:35 PM

453QUEN QUEEN				2044	LOG		
453SADR SAN ANDRES				2729	LOG		
453GLRT GLORIETA				4168	LOG		
452YESO YESO				4229	LOG		
452TUBB TUBB				5712	LOG		
	Log Data						
			Log	Max			
Run No Log Type	Top	Base	MD	Temp			
1 DLL				•			
1 DSN							
	C						
	Casing Dat	a					
Size Base Depth	Cement	Unit					
8 5/8 IN 379	597	SACK					
5 1/2 IN 5877	1800	SACK					
******	Tubing Da	ta					
Size Base Depth	Mixed Strin			_	•		
2.7/8 IN 5217	ca Sun	'5					

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 - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

GO-TECH - Well Name: RED FEDERAL 002

GO-TECH - Plug Date:

Depth Base: 398 Cement Amount: 400 sx

CASING Size: 85/8 IN CASING Size: 5 1/2 IN

Depth Base: 4805

Top of Cement: Circ to Surf Top of Cement: Circ to Surf

TUBING Size: 27/8 IN

Depth Base: 4242

Cement Amount: Cement Amount: 1175 sx .

Top of Cement: SX

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK

4299 Depth Base: 4557

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top:

Depth Top:

4299 Depth Base:

Type: Oil UWI: 30015041890000 API #: 30-015-04189 IC# Status: Active 660 FEL : Section: 18 Township 17 South Range 30 East Eddy County New Mexico Surface: 660 FSI Bottom Hole: Section: Operator: GREAT WESTERN DRL CO Lease Name: GRAYBURG DEEP UNI Well #: 3 Field: GRAYBURG Geologic Province: PERMIAN BASIN Depth Total Driller: Depth Total Logger: 11422 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 - One Producing Pool Name: GRAYBURG JACKSON; SR-Q-G-SA GO-TECH - Plug Date: 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: 7528 Depth Top: 7520 Depth Base: 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 Depth Base: Type: PRODUCTION TEST #: 6 Formation Top: Depth Top: 7516 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 Base: 4240 Depth Top: 4209 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 Base: Depth Top: 7520 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

4278

4240

Depth Top:

Depth Top:

4209

4209

Depth Base:

Depth Base:

Type: PRODUCTION TEST

Type: PRODUCTION TEST

#: 8 Formation Top

#: 9 Formation Top

6 5/8 IN

2828

Date: 1/8/2010 Time: 9:16 AM

PI/Dwights PLUS on CD Well Summary Report

General Information State **NEW MEXICO** Final Status : D&A-G **EDDY** County Drill Total Depth 3577 Field Log Total Depth Operator Name LOCKHART & COMPANY True Vertical Depth PARKE PERMIT Lease Name 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** D Final Lahee Class Reference Elevation Permit Number Ground Elevation 3644 PERMIAN BASIN Geologic Province **KB** Elevation Formation at TD 000UNKWN **UNKNOWN** Oldest Age Pen Township 17 S Section SEC 18 30 E Range Spot Base Meridian **NEW MEXICO Additional Location Information** 440 FSL 440 FEL CONGRESS SECTION Footage Location 32.8283000 Latitude Latitude (Bot) Longitude -104.0036800 Longitude (Bot) TS Lat./Long. Source **Formation Tests** Top Base Top Top **Bottom** Depth Depth Type Form Test Choke Choke Show 2000 2000 001 DST 002 **DST** 3310 3314 **DST** 3383 3383 003 3570 3575 004 **DST** Pressure and Time Init Flow Final Flow Open Time Hydro Shut-in Shut-in Time Test Init Final Init Final Init Final Final Init Final Init Final Init 001 002 003 004 180 Pipe Recovery Test Amount Unit Desc Rec Type Rec Method 002 900 FT O PIPE O 003 1300 FT PIPE W **PIPE** 004 100 FT Material to Surface Fluid Type Time Test Amount Unit 100 570 MCFD **GAS Casing Data** Cement Unit Base Depth Size 15 1/2 IN 157 12 1/2 IN 460 10 IN 1250

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:

Depth Total Logger: 4748

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 - Plug Date:

GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

GO-TECH - Well Name: BURCH KEELY UNIT 275

CASING Size: 8 5/8 IN

Depth Base: 415 Cement Amount:

350 sx1370 sx

Top of Cement: Circ to Surf

CASING Size: 5 1/2 IN

Depth Base: 4743

Cement Amount:

Top of Cement: Circ to Surf

Depth Top: 4288 Depth Base:

TUBING Size: 27/8 IN

Depth Base: 4231 Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: SAN ANDRES D

4547

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top:

4288 Depth Base:

API#: 30-015-33811

IC# 3001574881200

Status: Active 18 · Township 17 South Range 30 East Eddy County New Mexico

Type: Oil

Surface:

Bottom Hole:

600 FSL

Operator: MARBOB ENERGY CORP

330 FEL

Section:

Lease Name: BURCH KEELY UNIT

382 Well #:

Field: GRAYBURG JACK

Geologic Province: PERMIAN BASIN

Depth Total Driller:

4760

Depth Total Logger:

Depth True Vertical:

Formation at TD: GLORIETA

Producing Formation: GLORIETA

Section:

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

Depth Base:

395 Cement Amount:

400 sx

Top of Cement: Ready Mix to Surf

CASING Size: 8 5/8 IN CASING Size: 5 1/2 IN

Depth Base:

4753 Cement Amount:

Top of Cement: Circ to Pit

TUBING Size: 27/8 IN

Depth Base:

4246 Cement Amount:

1350 sx

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: GLORIETA

Depth Top: 4247 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top:

4247 Depth Base:

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 - Plug Date:

GO-TECH - Operator: MARBOB ENERGY CORP

GO-TECH - Well Name: BURCH KEELY UNIT 225

Depth Base:

Cement Amount: 427

350 sx

Top of Cement: Circ to Pit

CASING Size: 8 5/8 IN CASING Size: 5 1/2 IN

Depth Base: 5050

Cement Amount:

1540 sx

GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

Top of Cement: Circ to Pit

Depth Top: 4160 Depth Base:

TUBING Size: 27/8 IN

Depth Base: 4647

Cement Amount:

Top of Cement: sx

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: SAN ANDRES D

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:

UWI: 30015276460000 API #: 30-015-27646 Type: Oil IC# Status: Active 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 Top of Cement: Circ Cement Amount: 400 sx CASING Size: 5 1/2 IN Depth Base: 4799 Cement Amount: 1450 sx Top of Cement: Circ to Pit TUBING Size: 27/8 IN Depth Base: 4496 Cement Amount: Top of Cement: SX TUBING Size: 27/8 IN Depth Base: 4665 Cement Amount: 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

Depth Top:

4434

Depth Base:

4608

#: 1 Formation Top

Type: INITIAL POTENTIAL

Date: 1/8/2010 Time: 9:33 AM

PI/Dwights PLUS on CD Well Summary Report

General Information NEW MEXICO Final Status : OIL State Drill Total Depth 4800 **EDDY** County 4809 **GRAYBURG JACKSON** Log Total Depth Field MARBOB ENERGY CORP True Vertical Depth Operator Name **BURCH KEELY UNIT** Lease Name : JUN 08, 1997 269 Spud Date Well Number Comp Date : JUL 01, 1997 API Number 30015295100000 Regulatory API Hole Direction VERTICAL Init Lahee Class D Final Lahee Class DO Reference Elevation 3634 Ground Elevation 3621 Permit Number Geologic Province PERMIAN BASIN **KB** Elevation : 3634 SAN ANDRES D Formation at TD 453SADRD PERMIAN GUADALUPIAN 453 Oldest Age Pen **Producing Formation** 453SADRD SAN ANDRES D Township 17 S Section 19 SEC Range 30 Е Spot **NEW MEXICO** Base Meridian **Additional Location Information** Footage Location 2515 FNL 330 FEL CONGRESS SECTION Latitude 32.8202700 Latitude (Bot) -104.0033500 Longitude (Bot) Longitude at./Long. Source TS ation Narrative Type Remark LOCATION 21 MI E ARTESIA, NM **Initital Potential Tests** Top Base Top Base Oil Prod Test Test Form Form Depth Depth Choke GOR Grav Method Method 453SADRD 453SADRD 4290 4630 001 1480 PERF **PUMPING** IP Volume Oil Wtr Cond Gas Test Amount Unit Desc Amount Unit Desc Amount Unit Desc Amount Unit Desc 001 75 **BPD** 111 **MCFD** 646 BBL IP Pressure Test FTP SITP **FCP** SICP 001 **IP** Perforation Test Base Type Method Top Form Top Base Form Status Count Density PERF 453SADRD 001 4290 4630 453SADRD 20 **Production Tests** Base Top Top Base Oil Prod Test Test Form Form Depth Depth Choke GOR Grav Method Method 4290 4630 453SADRD 453SADRD 001 **PERF PUMPING** Production Volume Oil Cond Gas Wtr Test Amount Unit Desc Amount Unit Desc Unit Desc Amount Unit Desc Amount 75 **BPD** 646 BBL **MCFD** 111 **Production Pressure** _____ FTP **FCP** Test SITP SICP 001

Production Treatment

Date: 1/8/2010

Time: 9:33 AM

PI/Dwights PLUS on CD Well Summary Report

Test	Top	Base	Volume	e Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add		
001	4290	4630	5000	GAL					ACID					
			Prod	action P	erforation									
Test	Top	Base	Type	Me	ethod	Top Fo	rm	Base	Form	Status	Cour	nt	Density	Per
001	4290	4630		PE	RF	453SA	DRD	453SA	ADRD					
			I	og Dat	a									•
						Lo	g	Max						
Run No)	Log Type	;	Гор	Base	M	D	Temp						
01	l	DNCP	1	175	4805									
01	l	NED	1	175	4805									
01	i	GRS	1	175	4805									
01	İ	EL		100	4806	480	6	110						
01	l	MFSF		100	4806									
Casing Data														
	Siz	e Base I	Depth	Cemer	nt Unit									
8	8 5/8 IN	1	422	35	0 SACK									
	5 1/2 IN	١	4791	125	0 SACK									
Tubing Data														
Size Base Depth Mixed String			ring											
2 7/8	IN	42			-									

Åhts 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

Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP

Producing Formation: GLORIETA

GO-TECH - Plug Date:

GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN

355 Depth Base:

Cement Amount:

Top of Cement: Ready Mix to Surf

CASING Size: 5 1/2 IN

Depth Base:

4822 Cement Amount:

 $300 \, sx$ 1325 sx

Top of Cement: Circ to Pit

TUBING Size: 27/8 IN

Depth Base: 4222

Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: GLORIETA

GO-TECH - Well Name: BURCH KEELY UNIT 328

Depth Top: 4226 Depth Base:

4523

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top: 4226 Depth Base:

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 #:

Field: GRAYBURG JACK

Geologic Province: PERMIAN BASIN

Depth Total Driller:

4822 Depth Total Logger: Depth True Vertical:

Formation at TD: GLORIETA

Producing Formation: SAN ANDRES

Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP

GO-TECH - Well Name: BURCH KEELY UNIT 358

GO-TECH - Plug Date:

GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN

Depth Base: 355 Cement Amount: 300 sx Top of Cement: Circ to Pit

CASING Size: 5 1/2 IN

Depth Base: 4818 Cement Amount: 1235 sx Top of Cement: Circ to Pit

TUBING Size: 27/8 IN

Depth Base: 4227

Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: SAN ANDRES

Depth Top: 4237 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top: 4237 Depth Base:

API#: 30-015-32991

IC# 3001578670200

Status: Active

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

361 Well #:

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:

Depth Base: 380 Cement Amount:

GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA

CASING Size: 8 5/8 IN CASING Size: 5 1/2 IN

Depth Base: 4811

Cement Amount:

1150 sx

300 sx

Top of Cement: Circ to Pit

Top of Cement: Ready Mix to Surf

TUBING Size: 27/8 IN

Depth Base: 4245 Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: GLORIETA

Depth Top: 4252 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top:

4252 Depth Base:

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 #:

Field: LOCO HILLS

Geologic Province: PERMIAN BASIN

Depth Total Driller:

Depth Total Logger: 6900

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: 85/8 IN CASING Size: 4 1/2 IN Depth Base: 1598 Cement Amount: 6898

800 sx 2517 sx Top of Cement: Circ to Surf Top of Cement: Circ to Surf

TUBING Size: 23/8 IN

Depth Base: Depth Base: 6565

Cement Amount: Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: ABO /SH/

6632 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top:

Depth Top:

6824 Depth Base:

Type: INITIAL POTENTIAL Type: INITIAL POTENTIAL #: 1 Formation Top

Depth Top: 6698 Depth Base: 6710

#: 1 Formation Top

Depth Top: 6632 Depth Base:

Type: PRODUCTION TEST

Type: PRODUCTION TEST

#: 1 Formation Top

#: 2 Formation Top

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 Section: Bottom Hole: 106 Operator: MACK-ENERGY CORP Lease Name: JENKINS 'B' FEDERA Well #: Field: LOCO HILLS Geologic Province: PERMIAN BASIN Depth Total Driller: 4788 Depth Total Logger: Depth True Vertical: Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment: GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 001 GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK CASING Size: 10 3/4 IN Depth Base: 480 Cement Amount: 500 sx Top of Cement: 156 (Estimated) 3003 Top of Cement: 2663 (Estimated) CASING Size: 7 IN Depth Base: Cement Amount: 100 sx CASING Size: 4 1/2 IN Depth Base: 4788 Cement Amount: 275 sx Top of Cement: Top of Cement: TUBING Size: 23/8 IN Depth Base: 4737 Cement Amount: Test Report: Type: INITIAL POTENTIAL #: 1 Formation Top: **PADDOCK** Depth Top: 4282 Depth Base: 4736 Type: INITIAL POTENTIAL #: 1 Formation Top: Depth Top: 3003 Depth Base: 3258 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: Type: PRODUCTION TEST #: 2 Formation Top: Depth Top: 3003 Depth Base: 3258 Test_Perf_Report: Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4282 Depth Base: 4736 3258 Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 3003 Depth Base: Type: PRODUCTION TEST #: 1 Formation Top Depth Base: 3258 Depth Top: 3003

Depth Top:

Depth Top:

3003

3003

Depth Base:

Depth Base:

3258

UWI: 30015042150000 API #: 30-015-04215 Status: Active Surface: 990 FNL 330 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico Bottom Hole: Section: (OG Operator: MACK ENERGY CORP Lease Name: JENKINS B FEDERAL Well #: Field: GRAYBURG Geologic Province: PERMIAN BASIN Depth Total Driller: 4715 Depth Total Logger: Depth True Vertical: Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment: GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B.FEDERAL 002 GO-TECH - Plug Date: GO-TECH - One Producing Pool Name: LOCO HILLS: PADDOCK CASING Size: 8 IN Depth Base: 500 Cement Amount: 50 sx Top of Cement: CASING Size: 7 IN Depth Base: 2910 Cement Amount: 100 sx Top of Cement: CASING Size: 4 1/2 IN Depth Base: 4704 Cement Amount: 380 sx Top of Cement: 3136 TUBING Size: 27/8 IN Depth Base: 4583 Cement Amount: Top of Cement: SX Test_Report: Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: Depth Base: 4258 Type: INITIAL POTENTIAL #: 1 Formation Top: Depth Top: 2910 Depth Base: 3265 Type: PRODUCTION TEST #: 1 Formation Top: QUEEN-SAN Depth Top: 2910 Depth Base: 3265 **ANDRES** Type: PRODUCTION TEST #: 1 Formation Top: Depth Top: Depth Base: 2910 3265 Type: PRODUCTION TEST #: 2 Formation Top: Depth Top: 2910 Depth Base: 3265 Type: PRODUCTION TEST #: 3 Formation Top: Depth Top: 2910 Depth Base: 3265 Test_Perf_Report: Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4258 Depth Base: 4570 Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 2910 Depth Base: 3265 Type: PRODUCTION TEST #: 1 Formation Top Depth Top: Depth Base: 3265 2910 Type: PRODUCTION TEST #: 1 Formation Top Depth Top: 2910 Depth Base: 3265

Depth Top:

Depth Top:

2910

2910

Depth Base:

Depth Base:

3265

3265

Type: PRODUCTION TEST

Type: PRODUCTION TEST

#: 2 Formation Top

#: 3 Formation Top

Field: GRAYBURG Geologic Province: PERMIAN BASIN

Depth Total Driller: 4745 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 003

GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK CASING Size: 8 1/4 IN Depth Base: 505 Cement Amount: 50 sx Top of Cement: CASING Size: 7 IN Depth Base: 2875 Cement Amount: 100 sx Top of Cement: CASING Size: 4 1/2 IN Depth Base: 4741 Cement Amount: 2340 sx Top of Cement: 1960 TUBING Size: 27/8 IN Depth Base: 4615 Cement Amount: Top of Cement:

Test_Report: Type: INITIAL POTENTIAL #: 1 Formation Top: **PADDOCK** Depth Top: 4600 4337 Depth Base: Type: INITIAL POTENTIAL #: 1 Formation Top: Depth Top: 3300 2875 Depth Base: Type: PRODUCTION TEST #: 1 Formation Top: SAN ANDRES D 3300 Depth Top: 2875 Depth Base: Type: PRODUCTION TEST #: 1 Formation Top: Depth Top: 2875 3300 Depth Base:

Test_Perf_Report: Type: INITIAL POTENTIAL #: 1 Formation Top 4600 Depth Top: 4337 Depth Base: Type: INITIAL POTENTIAL #: 1 Formation Top 3300 Depth Top: 2875 Depth Base: Type: PRODUCTION TEST #: 1 Formation Top 3300 Depth Top: 2875 Depth Base: Type: PRODUCTION TEST #: 1 Formation Top Depth Top: 2875 Depth Base: 3300

UWI: 30015042310000 API #: 30-015-04231 IC# 300157023497 Type: Oil Status: Active Surface: 1650 FNL 1650 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico Bottom Hole: کا ن یا Section: Operator: MACK ENERGY CORP Lease Name: JENKINS 'B' FEDERA Field: LOCO HILLS Geologic Province: PERMIAN BASIN Depth Total Driller: 4815 Depth Total Logger: Depth True Vertical: Formation at TD: PADDOCK Producing Formation: PADDOCK Date of Abandonment: GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 004 GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK CASING Size: 8 1/4 IN Cement Amount: Depth Base: 506 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: 27/8 IN Depth Base: 4650 Cement Amount: Top of Cement: SX Test_Report: Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK Depth Top: 4286 Depth Base: 4637 Type: INITIAL POTENTIAL #: 1 Formation Top: Depth Top: 2843 Depth Base: 3253 Type: PRODUCTION TEST #: 1 Formation Top: SAN ANDRES D Depth Top: 2843 Depth Base: 3253 Type: PRODUCTION TEST Depth Top: #: 1 Formation Top: 2843 Depth Base: 3253 Test Perf Report: Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4286 Depth Base: 4637 Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 2843 Depth Base: 3253 Type: PRODUCTION TEST #: 1 Formation Top Depth Top: 2843 Depth Base: 3253

Depth Top:

2843 Depth Base:

3253

Type: PRODUCTION TEST

#: 1 Formation Top

UWI: 30015294510000 API #: 30-015-29451 IC # 300157005797 Status: Active Type: C

Surface: 1650 FNL 1090 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Depth True Vertical:

Bottom Hole: COG Section:

4810

Operator: MACK ENERGY CORP Lease Name: JENKINS 'B' FEDERA Well #: 7

Field: LOCO HILLS Geologic Province: PERMIAN BASIN

Depth Total Logger:

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:

Depth Total Driller:

Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4289 Depth Base: 4634

Type: PRODUCTION TEST #: 1 Formation Top Depth Top: 4289 Depth Base: 4634

API #: 30-015-29388

IC# 300157004497

Status: Active

Type: Oil

Surface:

2310 FNL

Operator: MACK ENERGY CORP

1650 FWL

Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

606

Section:

Lease Name: JENKINS 'B' FEDERA

Well #:

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 - Plug Date:

GO-TECH - Well Name: JENKINS B FEDERAL 008

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING Size: 8 5/8 IN

CASING Size: 5 1/2 IN

Depth Base: 470 Cement Amount:

350 sx 1150 sx

Top of Cement: Circ Top of Cement: Circ to Pit

TUBING Size: 27/8 IN

Depth Base: 4783 Cement Amount:

Depth Base: 4743 Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: PADDOCK

Depth Top: 4331 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top: 4331 Depth Base:

API #: 30-015-29755

IC# 300157046797

Status: Active

Surface:

2310 FNL

330 FWL

Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

しじじ

Section:

Operator: MACK ENERGY CORP

Lease Name: JENKINS 'B' FEDERA

Well #:

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:

Depth Base: 459

Cement Amount:

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK Top of Cement: Circ to Pit

CASING Size: 8 5/8 IN CASING Size: 5 1/2 IN

Cement Amount:

350 sx 1125 sx Top of Cement: Circ

Depth Base: 4854

TUBING Size: 27/8 IN

Depth Base: 4730

Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: PADDOCK

Depth Top:

4296 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top:

4296 Depth Base:

API #: 30-015-30668

2310 FWL

300157011199

Status: Active

Type: Oil

Surface:

Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

Section:

Operator: MACK ENERGY CORP

850 FNL

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:

Depth Base: 417 Cement Amount:

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK 400 sx

CASING Size: 13 3/8 IN CASING Size: 8 5/8 IN

1037 Cement Amount: Depth Base:

Top of Cement: Circ to Pit 475 sx Top of Cement: Circ

CASING Size: 5 1/2 IN

Cement Amount: Depth Base: 4714

1000 sx Top of Cement: Circ

TUBING Size: 27/8 IN

Depth Base: 4685

Cement Amount:

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:



UWI: 30015306650000 API #: 30-015-30665 Status: Active Type: Oil 990 FWL 20 Township 17 South Range 30 East Eddy County New Mexico Surface: 330 FNL Section:

Bottom Hole:

10G

Section:

Lease Name: JENKINS B FEDERAL

Well #: 11

Field: GRAYBURG JACK

Operator: MACK ENERGY CORP

Geologic Province: PERMIAN BASIN

Depth Total Driller:

4710 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK

Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC

Producing Formation: SAN ANDRES

GO-TECH - Well Name: JENKINS B FEDERAL 011

GO-TECH - Plug Date:

Cement Amount: 425 sx

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

Top of Cement: Circ

CASING Size: 13 3/8 IN CASING Size: 8 5/8 IN

Depth Base: 450 Depth Base: 1042

Cement Amount: 475 sx 890 sx

Top of Cement: Circ Top of Cement: Circ

CASING Size: 5 1/2 IN TUBING Size: 27/8 IN Depth Base: 4694 4193 Depth Base:

Cement Amount: Cement Amount:

Top of Cement: SX

TUBING Size: 27/8 IN

Depth Base: 4681

Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top:

Type: INITIAL POTENTIAL

PADDOCK #: 3 Formation Top:

SAN ANDRES

Depth Top: 4259 Depth Base: 3013 Depth Base: Depth Top:

4632 4632 3561

Type: PRODUCTION TEST Type: PRODUCTION TEST

Type: PRODUCTION TEST

SAN ANDRES #: 1 Formation Top: #: 2 Formation Top: SAN ANDRES

Depth Top: 3341 Depth Base: Depth Top: 3013 Depth Base:

3227

4632

4632

3561

Test_Perf_Report: Type: INITIAL POTENTIAL Type: INITIAL POTENTIAL

#: 1 Formation Top #: 3 Formation Top

#: 2 Formation Top

Type: INITIAL POTENTIAL #: 3 Formation Top Type: PRODUCTION TEST #: 1 Formation Top Depth Top:

4259 Depth Base:

Depth Top: 4259 Depth Base: Depth Top: 3013 Depth Base:

Depth Top: 3341 Depth Base:

3561 Depth Top: 3013 Depth Base: 3227

API #: 30-015-31559

IC# 3001579515200

Status: Active

Type: Oil

Surface:

2310 FNL 2310 FWL

Section:

20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

606

Section:

Operator: MACK ENERGY CORP

Lease Name: JENKINS 'B' FEDERA Geologic Province: PERMIAN BASIN Well #: 12

Field: LOCO HILLS Depth Total Driller:

Depth Total Logger:

Depth True Vertical:

Formation at TD: PADDOCK

4900

Producing Formation: PADDOCK

Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC

GO-TECH - Plug Date:

GO-TECH - Well Name: JENKINS B FEDERAL 012

Depth Base: 427 Cement Amount: 450 sx

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK Top of Cement: Circ to Pit-

CASING Size: 13 3/8 IN 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: 27/8 IN

Depth Base: 4781

Cement Amount:

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:



Type: PRODUCTION TEST

#: 3 Formation Top

IC# UWI: 30015315600000 Type: Oil API#: 30-015-31560 Status: Active Surface: 880 FWL 20 Township 17 South Range 30 East Eddy County New Mexico 2310 FNL Section: Bottom Hole: Section: しひら Operator: MACK EMERGY CORP Lease Name: JENKINS B FEDERAL Well #: 13 Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN Depth Total Driller: 4880 Depth Total Logger: Depth True Vertical: Formation at TD: PADDOCK Producing Formation: SAN ANDRES Date of Abandonment: GO-TECH - Operator: COG OPERATING LLC GO-TECH - Well Name: JENKINS B FEDERAL 013 GO-TECH - Plug Date: GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK CASING Size: 13 3/8 IN Depth Base: 465 Cement Amount: 450 sx Top of Cement: Circ CASING Size: 8 5/8 IN Depth Base: 1090 Cement Amount: 600 sx Top of Cement: Circ CASING Size: 5 1/2 IN Depth Base: 4874 Cement Amount: Top of Cement: Circ 710 sx TUBING Size: 27/8 IN Depth Base: 4741 Cement Amount: Top of Cement: TUBING Size: 27/8 IN Depth Base: 4741 Cement Amount: 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 4716 Depth Top: 3106 Depth Base: Type: PRODUCTION TEST #: 1 Formation Top: SAN ANDRES Depth Top: 3928 3912 Depth Base: 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

Depth Top:

3106

Depth Base:

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: (206 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

do-reon-ling pale. do-reon-line roughly roughly reconstruction

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 Type: Oil IC# Status: Active Surface: 1500 FNL 2310 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico Section: Bottom Hole: しゅん Operator: MACK ENERGY CORP Lease Name: JENKINS B FEDERAL Well #: 15 Field: LOCO HILLS Geologic Province: PERMIAN BASIN Depth Total Logger: Depth Total Driller: 4935 Depth True Vertical: Formation at TD: GLORIETA Producing Formation: GLORIETA Date of Abandonment: GO-TECH - Well Name: JENKINS B FEDERAL 015Q GO-TECH - Operator: COG OPERATING LLC GO-TECH - One_Producing_Pool_Name: GRAYBURG JACKSON;SR-Q-G-SA GO-TECH - Plug Date: 475 sx 421 Cement Amount: Top of Cement: Circ CASING Size: 13 3/8 IN Depth Base: 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: 27/8 IN Depth Base: 3992 Cement Amount: Top of Cement: sx TUBING Size: 27/8 IN Depth Base: 4691 Cement Amount: Top of Cement: sx Test_Report: Type: INITIAL POTENTIAL #: 1 Formation Top: GLORIETA Depth Base: 4686 Depth Top: 4272 Type: INITIAL POTENTIAL #: 4 Formation Top: SAN ANDRES Depth Base: 3968 Depth Top: 3046 Type: PRODUCTION TEST SAN ANDRES #: 1 Formation Top: 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 3046 Depth Base: 3271 Depth Top: 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

Depth Top:

Depth Top:

Depth Top:

3958

3379

3046

Depth Base:

Depth Base:

Depth Base:

3968

3574

3271

#: 1 Formation Top

#: 2 Formation Top

#: 3 Formation Top

Type: PRODUCTION TEST

Type: PRODUCTION TEST

API #: 30-015-32371

Status: Active

Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Type: Oil

Surface:

Bottom Hole:

965 FNL 1650 FWL

106 Section:

Operator: MACK ENERGY CORP

Lease Name: JENKINS 'B' FEDERA

Well #: 16

Field: LOCO HILLS

Geologic Province: PERMIAN BASIN

Depth Total Driller:

Depth Total Logger: 4775

Depth True Vertical:

Formation at TD: PADDOCK

Producing Formation: PADDOCK

Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC

GO-TECH - Plug Date:

GO-TECH - Well Name: JENKINS B FEDERAL 016

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING Size: 13 3/8 IN

Depth Base: 425 1067

Cement Amount. 450 sx Top of Cement: 0

CASING Size: 8 5/8 IN

Depth Base:

Cement Amount:

575 sx Top of Cement: 0

CASING Size: 5 1/2 IN

4768 Depth Base:

Cement Amount:

995 sx Top of Cement: 0

TUBING Size: 27/8 IN

Depth Base: 4674

Cement Amount:

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:

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: (CG 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

CACING Circ. 40 0/0 N. Frank Base. 440 Correct Amounts. 440 ... Tag 4 Corrects Circ.

CASING Size: 13 3/8 IN Cement Amount: Depth Base: 448 448 sx Top of Cement: Circ CASING Size: 85/8 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:

Depth Top: Type: INITIAL POTENTIAL #: 1 Formation 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

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:

Depth Total Logger: 6401

Depth True Vertical:

Formation at TD: PADDOCK

GO-TECH - Operator: COG OPERATING LLC

Producing Formation: PADDOCK

Date of Abandonment:

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

GO-TECH - Well Name: JENKINS B FEDERAL 018

GO-TECH - Plug Date:

Depth Base: 425 Cement Amount: Top of Cement:

CASING Size: 13 3/8 IN CASING Size: 85/8 IN

Depth Base: 1047 Cement Amount: 449 sx 525 sx

Top of Cement:

CASING Size: 5 1/2 IN

Depth Base: 6389 Cement Amount:

1505 sx Top of Cement:

TUBING Size: 27/8 IN

Depth Base: 6203

Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: PADDOCK

Depth Top: 5082 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top: 5082 Depth Base:

API #: 30-015-29426

Status: Active

Type: Oil

Surface:

990 FNL

990 FEL

20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

Section: Section:

Operator: COG OPERATING LLC

Lease Name: MCINTYRE W D 'C'

Well #1

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 - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

GO-TECH - Well Name: W D MCINTYRE C 004

GO-TECH - Plug Date:

Depth Base: 464 Cement Amount:

Top of Cement: 30

CASING Size: 8 5/8 IN CASING Size: 5 1/2 IN

Depth Base: 4722

Cement Amount:

400 sx

1265 sx Top of Cement: Circ

TUBING Size: 27/8 IN Depth Base: 4255

Cement Amount:

Top of Cement: sx

TUBING Size: 27/8 IN

Depth Base: 4667

Cement Amount:

Top of Cement: SX

Test_Report:

Type: INITIAL POTENTIAL Type: INITIAL POTENTIAL .

#: 1 Formation Top:

#: 1 Formation Top: PADDOCK

SAN ANDRES

4106

Depth Top: 3358 Depth Base: 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:

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Date: 1/8/2010 Time: 10:03 AM

PI/Dwights PLUS on CD Well Summary Report

	~~~~~~		G	eneral Inform	ation			**					
State							Final S	Final Status					
County				DDY					otal Deptl	h :	201LWO 4840		
Field				RAYBURG JA	CKS	NC			otal Depth				
	or Name			OG OPERATII				_	ertical De				
Lease N				CINTYRE WI									
Well No			: 3	· · · · · · · · · · · · · · · · · · ·				Spud I	Date	:	FEB 01, 2	006	
API Nu				015294250001				Comp		:	MAR 06,		
	ory API			0.023 .20000	•			- JP	2 4.10	•			
_	nee Class		: D	X				Hole I	Direction		VERTICA	J.	
	ahee Class		: D						nce Eleva	tion ·	· Dittion		
Permit 1			: -						d Elevatio		3623		
	ic Provinc	e	: PF	ERMIAN BAS	IN				evation	:	30 <b>2</b> 3		
_	ion at TD			2PDCK		PADD	OCK	21	• ration	•			
	Age Pen		: 45					ONARDIA	N				
	ing Format	tion		2PDCK		PADD							
rioudei	ing romini			3SADR			NDRES						
Townsh	nin		: 17		•	31 11 1	DICE	Section	n		20 SEC	ı	
Range	''.P		: 30					Spot	11		NE NE SV		
Base M	eridian			EW MEXICO				орог		•	TIE TIE O	•	
				dditional Loca	tion I	nform	ation						
	Location			135 FSL 231				SS SECTIO	ON	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	· <b>-</b>		
_				.8185400			or corte.		de (Bot)	•			
Latitude ngitu /Loi	ide			03.9947400					ude (Bot)	•			
/Lo	ng. Source	<u>.</u>	: TS					201.61	(201)	•			
Locatio	n Narrativ			ре				Remar	·k				
200400		•		CALED FOOT	~				 JLATORY	7			
				REG SECT	•			N	Entroiti				
				ST TOWN					NW LOO	CO HILLS, N	M		
				– itital Potentia	I Test	c				,			
	Тор		Base	Тор		Base			Oil	Prod	Te	st	
Test	Form		Form	Depth		epth	Choke	GOF	-			ethod	
001	452PD	CK	452PDC	-		·769	Choke	001	Colav	PERF			SIGNATED
002	453SAI		453SAE			188		6600	0	PERF		IMPI	
002	133071		IP Vol			.00			·		1 0	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
		Oil			ond			Gas		Wt	r		
Test	Amount	Unit	Desc			Desc	Amoun		Desc	Amount Un			
001			UO								2000		
002	25	BPD					16	5 MCFE	)	318 BB	SL.		
			IP Peri	foration									
Test	Top	Base	Type	Method	To	op Fon	m ]	Base Form	Statı	ıs Count	Densi	ty f	Per
001	4344	4769	• •	PERF		S2PDC		452PDCK				•	
002	2997	4188		PERF	45	53SAD	R 4	453SADR					
			Fo	rmations									
								Top	Top	Base	Base		
Form Co	ode For	rm Name	3				1	Depth	TVD	Depth	TVD So	urce	Lithology
453QUI	EN QL	JEEN						2086			LC	)G	
3SAE	OR SA	N AND	RES					2850			LC	)G	
GLF	RT GL	ORIET	Ą					4270			LC	)G	
			Tu	ıbing Data									
5	Size B	ase Dep		ixed String									
2 7/8		47		Č									

Date: 1/8/2010 Time: 10:03 AM

### PI/Dwights PLUS on CD Well Summary Report

**General Information NEW MEXICO** Final Status : OIL State 4840 **EDDY** Drill Total Depth County Log Total Depth Field LOCO HILLS True Vertical Depth MACK ENERGY CORP Operator Name Lease Name MCINTYRE W D 'E' 3 Spud Date : MAY 13, 1997 Well Number Comp Date : FEB 24, 1998 API Number 30015294250000 Regulatory API Init Lahee Class D Hole Direction **VERTICAL** Final Lahee Class DO Reference Elevation 3635 KB Permit Number Ground Elevation 3623 **KB** Elevation Geologic Province PERMIAN BASIN : 3635 Formation at TD 452PDCK **PADDOCK** Oldest Age Pen 452 PERMIAN LEONARDIAN **Producing Formation** 452PDCK **PADDOCK** Township 17 S Section : 20 SEC Spot : NE NE SW Range 30 E Base Meridian **NEW MEXICO Additional Location Information** 2135 FSL 2310 FWL CONGRESS SECTION **Footage Location** Latitude 32.8185400 Latitude (Bot) Longitude -103.9947400 Longitude (Bot) TS at./Long. Source ation Narrative Type Remark SCALED FOOT REGULATORY IRREG SECT DST TOWN .25 MI NW LOCO HILLS, NM **Initital Potential Tests** Top Base Top Prod Test Base Oil Grav Test Form Form Depth Depth Choke **GOR** Method Method 001 452PDCK 452PDCK 4344 4769 753 38 **PERF PUMPING** IP Volume Oil Cond Wtr Gas Test Amount Unit Desc Amount Unit Desc Amount Unit Desc Amount Unit Desc 001 136 **BPD** 102 **MCFD** 544 BBL **IP Pressure FTP** Test SITP **FCP** SICP 001 **IP** Treatment Test Top Base Volume Meas Amount T/P PSI Type Nbr Agent Add 001 4344 2000 4769 GAL **ACID** 4344 GAL 001 4769 32000 **ACID IP** Perforation Test Top Base Type Method Top Form Base Form Status Count Density Per 001 4344 4769 **PERF** 452PDCK 452PDCK 68 Α Log Data Log Max Тор Log Type MD Base Temp 01 GR NE 01 01 DN

Date: 1/8/2010 Time: 10:03 AM

## PI/Dwights PLUS on CD Well Summary Report

01	EL			
01	GRS			
	-	Casing Dat	ta	
Size	Base Depth	Cement	Unit	
8 5/8 IN	454	325	SACK	
5 1/2 IN	4835	1025	SACK	
	-	Tubing Da	ta	
Size	Base Depth	Mixed Strir	ıg	
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

API #: 30-015-04219

IC#

Status: Active

Type: Oil

Surface:

2430 FSL 990 FEL

20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

(06

Section: Section:

Operator: MACK-ENERGY CORP

Lease Name: MCINTYRE 'A'

Well #:

Field: LOCO HILLS

Geologic Province: PERMIAN BASIN

Depth Total Driller:

4762 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK

Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC

Producing Formation: PADDOCK

GO-TECH - Well Name: MCINTRYE A EAST 001

GO-TECH - Plug Date:

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

548

Cement Amount:

50 sx Top of Cement:

CASING Size: 10 3/4 IN CASING Size: 7 IN

Depth Base: 2675 Depth Base:

Cement Amount:

100 sx

CASING Size: 4 1/2 IN Depth Base: 4762 Cement Amount: 360 sx

Top of Cement: Top of Cement: 2670

Size: 23/8 IN TUBING

Depth Base:

4709 Cement Amount: Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top:

PADDOCK

4700

Type: INITIAL POTENTIAL

Depth Top: Depth Top: 4423 Depth Base:

Depth Base: 3348

Type: PRODUCTION TEST

#: 1 Formation Top: #: 1 Formation Top:

Depth Top:

2675 2675 Depth Base:

3348

GRAYBURG-SAN **ANDRES** 

Test_Perf_Report:

Type: INITIAL POTENTIAL:

#: 1 Formation Top

Depth Top:

4423 Depth Base:

Type: INITIAL POTENTIAL Type: PRODUCTION TEST

#: 1 Formation Top #: 1 Formation Top

Depth Top: Depth Top: 2675 Depth Base: 2675 Depth Base:

API #: 30-015-04221

Status: - Active

Type: Oil

Surface:

2365 FSL

2310 FEL

Section:

20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

006

Section:

Operator: MACK-ENERGY CORP

Lease Name: MCINTYRE 'A'

Well #:

Field: LOCO HILLS

Geologic Province: PERMIAN BASIN

Depth Total Driller:

5110 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK

GO-TECH - Operator: COG OPERATING LLC

Producing Formation: PADDOCK

Date of Abandonment:

GO-TECH - Plug Date:

GO-TECH - One_Producing_Pool_Name: LOCO HILLS: PADDOCK

CASING Size: 8 1/4 IN

Depth Base: 559 Cement Amount: 2606

100 sx Top of Cement:

CASING Size: 7 IN CASING

Depth Base: Depth Base:

Cement Amount: 5082 Cement Amount: 100 sx Top of Cement: 450 sx Top of Cement: 2500

Size: 4 1/2 IN TUBING Size: 23/8 IN

Depth Base: 4807

Cement Amount:

**PADDOCK** 

Top of Cement: SX

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top:

Depth Top:

GO-TECH - Well Name: MCINTYRE A WEST 003

4336 Depth Base: 4784

Type: INITIAL POTENTIAL

#: 1 Formation Top:

#: 4 Formation Top:

#: 4 Formation Top

Depth Top: 2606 Depth Base: Depth Top: 2606 Depth Base:

3331 3331

2724

4784

3331

Type: PRODUCTION TEST

Type: PRODUCTION TEST

Type: PRODUCTION TEST

#: 1 Formation Top:

GRAYBURG-SAN ANDRES

Depth Top: 2606 Depth Base: Depth Top: 2606 Depth Base:

4336

2606

2606

2606

Type: PRODUCTION TEST #: 1 Formation Top: Type: PRODUCTION TEST #: 2 Formation Top: Type: PRODUCTION TEST #: 3 Formation Top:

3331 Depth Top: 2606 Depth Base: 3331 Depth Top: 2606 Depth Base: 3331

Depth Base:

Depth Base:

Test Perf Report:

Type: INITIAL POTENTIAL #: 1 Formation Top Type: INITIAL POTENTIAL #: 1 Formation Top Type: PRODUCTION TEST

#: 1 Formation. Top Type: PRODUCTION TEST #: 1 Formation Top Type: PRODUCTION TEST #: 2 Formation Top Type: PRODUCTION TEST #: 3 Formation Top

Depth Top: Depth Top: Depth Top: Depth Top:

Depth Top:

Depth Top:

Depth Top:

2606 Depth Base: 3331 2606 Depth Base: 2724 2606 Depth Base: 3331

> Depth Base: 3331 Depth Base: 3331

Type: Oil API #: 30-015-23407 IC # Status: Active UWI: 30015234070000 Township 17 South Range 30 East Eddy County New Mexico Surface: 2400 FSL 1600 FEL Section: Section: Bottom Hole: Operator: MACK ENERGY CORP Lease Name: MCINTYRE 'A' Well #: 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 2150 sx CASING Size: 4 1/2 IN Depth Base: 4715 Cement Amount: Top of Cement: 1150 **TUBING** Size: 2 3/8 IN Depth Base: 3355 Cement Amount: Top of Cement: SX TUBING Size: 23/8 IN Depth Base: 4671 Cement Amount: Top of Cement: Test_Report: Type: INITIAL POTENTIAL SAN ANDRES D #: 1 Formation Top: 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 3372 Depth Top: 2901 Depth Base: 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: Depth Base: 3372 2901 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 Base: 3372 Depth Top: 2901 Type: PRODUCTION TEST 1 Formation Top Depth Top: Depth Base: 3883 3883 Type: PRODUCTION TEST 1 Formation Top 3879 Depth Top: 3879 Depth Base: Type: PRODUCTION TEST #: 1 Formation Top Depth Top: 3867 Depth Base: 3867 Type: PRODUCTION TEST #: 1 Formation Top 3859 Depth Top: 3859 Depth Base: Type: PRODUCTION TEST #: 1 Formation Top 3855 Depth Top: 3855 Depth Base: Type: PRODUCTION TEST 1 Formation Top 3851 #: Depth Top: 3851 Depth Base: Type: PRODUCTION TEST 1 Formation Top Depth Top: 3841 Depth Base: 3841 Type: PRODUCTION TEST #: 1 Formation Top Depth Top: 3836 3836 Depth Base: 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 Depth Base: #: 2 Formation Top Depth Top: 3223 3223 Type: PRODUCTION TEST #: 2 Formation Top Depth Base: 3228 Depth Top: 3228 Type: PRODUCTION TEST #: 2 Formation Top Depth Top: 3257 Depth Base: 3257 Type: PRODUCTION TEST #: 2 Formation Top Depth Base: Depth Top: 3263 3263 Type: PRODUCTION TEST #: 2 Formation Top Depth Top: 3268 Depth Base: 3268 Type: PRODUCTION TEST #: 2 Formation Top Depth Base: Depth Top: 3334 3334 Type: PRODUCTION TEST #: 2 Formation Top Depth Top: 3372 Depth Base: 3372 Type: PRODUCTION TEST #: 2 Formation Top Depth Top: Depth Base: 3362 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

3329

Depth Top:

3329

Depth Base:

#### UWI: 30015234070000 API #: 30-015-23407 CONTINUATION SHEET

Type: PRODUCTION TEST	#: 2 Formation Top	Depth Top:	3325 Depth Base:	3325
Type: PRODUCTION TEST	#: 2 Formation Top	Depth Top:	3318 Depth Base:	3318
Type: PRODUCTION TEST	#: 2 Formation Top	Depth Top:	3311 Depth Base:	3311
Type: PRODUCTION TEST	#: 2 Formation Top	Depth Top:	3301 Depth Base:	3301
Type: PRODUCTION TEST	#: 2 Formation Top	Depth Top:	3296 Depth Base:	3296
Type: PRODUCTION TEST	#: 2 Formation Top	Depth Top:	3291 Depth Base:	3291
Type: PRODUCTION TEST	#: 2 Formation Top	Depth Top:	3347 Depth Base:	3347
Type: PRODUCTION TEST	#: 3 Formation Top	Depth Top:	2901 Depth Base:	2904
Type: PRODUCTION TEST	#: 3 Formation Top	Depth Top:	2911 Depth Base:	2915
Type: PRODUCTION TEST	#: 3 Formation Top	Depth Top:	2976 Depth Base:	2978
Type: PRODUCTION TEST	#: 3 Formation Top	Depth Top:	2982 Depth Base:	2988

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:

(06

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:

Depth Base: 426 Cement Amount:

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING Size: 13 3/8 IN CASING Size: 8 5/8 IN

Depth Base: 1049 525 sx 600 sx Top of Cement: Circ to Pit 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: 27/8 IN

4892 Depth Base:

Cement Amount:

Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: PADDOCK

4422 Depth Base: 4875

Test_Perf_Report: Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top: 4422 Depth Base:

Depth Top:

API#: 30-015-31789

IC# 3001572045200

Status: Active

Type: Oil

Surface:

1775 FSL 1625 FEL

Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

Section:

Operator: MACK ENERGY CORP

Lease Name: MCINTYRE 'A'

Well #: 17

Field: LOCO HILLS

Geologic Province: PERMIAN BASIN

Depth Total Driller:

5050 Depth Total Logger: Depth True Vertical:

Formation at TD: PADDOCK

Producing Formation: PADDOCK

Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC

GO-TECH - Well Name: MCINTYRE A WEST 017

GO-TECH - Plug Date:

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING Size: 13 3/8 IN CASING Size: 85/8 IN

Depth Base: 422 Cement Amount: 1231 Cement Amount: Depth Base:

450 sx Top of Cement: Circ 625 sx

CASING Size: 5 1/2 IN Depth Base: 5029 Cement Amount: Top of Cement: Circ Top of Cement: Circ

TUBING Size: 27/8 IN

Depth Base: 4898 Cement Amount: Top of Cement:

975 sx

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:

API #: 30-015-31071

IC# 3001577795200

Status: Active

Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Surface:

Bottom Hole:

1615 FSL 1065 FEL

LC6

4970

Section:

Operator: MACK ENERGY CORP

Lease Name: MCINTYRE `A` FEDER

Well #: 11

Field: LOCO HILLS Depth Total Driller:

Geologic Province: PERMIAN BASIN

Depth Total Logger:

Depth True Vertical:

Formation at TD: PADDOCK

Producing Formation: PADDOCK

GO-TECH - Operator: COG OPERATING LLC

Date of Abandonment:

GO-TECH - Well Name: MCINTRYE A EAST 011

GO-TECH - Plug Date:

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

Top of Cement: Circ

CASING Size: 13 3/8 IN CASING Size: 8 5/8 IN

454 Cement Amount: Depth Base:

450 sx 500 sx

Top of Cement: Circ

CASING Size: 5 1/2 IN Depth Base: 1120 Cement Amount:

Depth Base: 4961 Cement Amount: 1100 sx

Top of Cement: Circ

TUBING Size: 27/8 IN Depth Base: 4922 Cement Amount:

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

0	

Bottom Hole: CCG Section:

Operator: MACK_ENERGY CORP Lease Name: MCINTYRE `B` Well #:

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: #: 1 Formation Top: Type: INITIAL POTENTIAL **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 Depth Top: 2640 Depth Base: 3270 **ANDRES** 

Type: PRODUCTION TEST 2640 Depth Base: 3270 #: 1 Formation Top: Depth Top: 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 Depth Base: #: 4 Formation Top: Depth Top: 2640 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 Depth Base: #: 1 Formation Top Depth Top: 2640 3270 Type: PRODUCTION TEST #: 1 Formation Top Depth Top: 2640 Depth Base: 3270 Depth Base: Type: PRODUCTION TEST #: 2 Formation Top Depth Top: 2640 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 #:

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 20 Township 17 South Range 30 East Eddy County New Mexico Surface: 2183 FSL 990 FWL Section: Bottom Hole: 100 Section: Lease Name: MCINTYRE B FEDERA Well #: 5 Operator: MACK ENERGY CORP Field: GRAYBURG JACK Geologic Province: PERMIAN BASIN Depth Total Logger: Depth True Vertical: Depth Total Driller: 4845 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 - One_Producing_Pool_Name: LOCO HILLS; PADDOCK GO-TECH - Plug Date: CASING Size: 8 5/8 IN Depth Base: 443 Cement Amount: 350 sx Top of Cement: Circ to Surf 4835 Cement Amount: 1270 sx Top of Cement: Circ CASING Size: 5 1/2 IN Depth Base: 4742 **TUBING** Size: 27/8 IN Depth Base: Cement Amount: SX Top of Cement: **TUBING** Size: 23/8 IN Depth Base: 4745 Cement Amount: Top of Cement: Test Report: #: 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: INITIAL POTENTIAL 3963 Type: PRODUCTION TEST #: 1 Formation Top: SAN ANDRES Depth Top: 3940 Depth Base: Type: PRODUCTION TEST #: 2 Formation Top: SAN ANDRES Depth Top: 3406 Depth Base: 3566 SAN ANDRES Depth Top: 3138 Depth Base: 3315 Type: PRODUCTION TEST #: 3 Formation Top: Test Perf Report: Type: INITIAL POTENTIAL #; 1 Formation Top Depth Top: 4423 Depth Base: 4423 4338 Depth Base: Type: INITIAL POTENTIAL Formation Top Depth Top: 4338 Depth Top: 4501 Depth Base: 4501 Type: INITIAL POTENTIAL 1 Formation Top Type: INITIAL POTENTIAL Depth Base: 4479 1 Formation Top Depth Top: 4479 Depth Base: 4477 Type: INITIAL POTENTIAL Formation Top Depth Top: 4477 Depth Top: 4475 Depth Base: 4475 Type: INITIAL POTENTIAL 1 Formation Top Depth Top: 4474 Depth Base: 4474 Type: INITIAL POTENTIAL 1 Formation Top #: 4471 Type: INITIAL POTENTIAL Formation Top Depth Top: 4471 Depth Base: Depth Base: 4469 Type: INITIAL POTENTIAL Formation Top Depth Top: 4469 Formation Top Depth Base: 4463 Depth Top: 4463 Type: INITIAL POTENTIAL Type: INITIAL POTENTIAL Formation Top Depth Top: 4461 Depth Base: 4461 Type: INITIAL POTENTIAL Formation Top Depth Top: 4440 Depth Base: 4440 4437 Type: INITIAL POTENTIAL Formation Top Depth Top: 4437 Depth Base: Type: INITIAL POTENTIAL 1 Formation Top Depth Top: 4531 Depth Base: 4531 Depth Base: 4426 Type: INITIAL POTENTIAL 1 Formation Top Depth Top: 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 Depth Base: 4380 Type: INITIAL POTENTIAL Formation Top Depth Top: 4380 Type: INITIAL POTENTIAL Formation Top Depth Top: 4362 Depth Base: 4362 4356 Type: INITIAL POTENTIAL #: 1 Formation Top Depth Top: 4356 Depth Base: 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 Depth Top: 4345 Depth Base: 4345 Formation Top 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

4637

Depth Top:

4637

Depth Base:

#### UWI: 30015293890000 API #: 30-015-29389 CONTINUATION SHEET



Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4709 Depth Base:	4709
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4699 Depth Base:	4699
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4691 Depth Base:	4691
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4689 Depth Base:	4689
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4687 Depth Base:	4687
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4670 Depth Base:	4670
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4667 Depth Base:	4667
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4662 Depth Base:	4662
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4661 Depth Base:	4661
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4528 Depth Base:	4528
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4639 Depth Base:	4639
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4583 Depth Base:	4583
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4559 Depth Base:	4559
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4560 Depth Base:	4560
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4562 Depth Base:	4562
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4659 Depth Base:	4659
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4579 Depth Base:	4579
Type: INITIAL POTENTIAL	#:, 1 Formation Top	Depth Top:	4634 Depth Base:	4634
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4586 Depth Base:	4586
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4600 Depth Base:	4600
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4617 Depth Base:	4617
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4621 Depth Base:	4621
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4632 Depth Base:	4632
Type: INITIAL POTENTIAL	#: 1 Formation Top	Depth Top:	4577 Depth Base:	4577
Type: INITIAL POTENTIAL	#: 4 Formation Top	Depth Top:	3138 Depth Base:	3963
Type: INITIAL POTENTIAL	#: 4 Formation Top	Depth Top:	4338 Depth Base:	4709
Type: PRODUCTION TEST	#: 1 Formation Top	Depth Top:	3940 Depth Base:	3963
Type: PRODUCTION TEST	#: 3 Formation Top	Depth Top:	3138 Depth Base:	3315



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:

606 Operator: MACK ENERGY CORP Section:

Lease Name: MCINTYRE W D 'C'

Well #: - 3

Field: LOCO HILLS

Depth Total Logger:

Depth True Vertical:

Depth Total Driller: Formation at TD: YESO 4820

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

Geologic Province: PERMIAN BASIN

CASING Size: 8 1/4 IN

506 Depth Base: Cement Amount: 50 sx

Top of Cement:

CASING Size: 7 IN

2903 Depth Base:

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: 27/8 IN Depth Base: 4763

Cement Amount:

Top of Cement: sx

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top:

**PADDOCK** 

Depth Top: 4301 Depth Base:

Type: INITIAL POTENTIAL

1 Formation Top:

Depth Top: 2903 Depth Base:

4726 3300

Type: PRODUCTION TEST

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 Type: INITIAL POTENTIAL Type: PRODUCTION TEST

#: 1 Formation Top #: 1 Formation Top #: 1 Formation Top

Depth Top: Depth Top:

Depth Base: 4301 2903 Depth Base:

3300 3300

Depth Top: 2903 Depth Base: Depth Top: 2903 Depth Base:

3300

4726

Date: 1/8/2010 Time: 11:13 AM

PI/Dwights PLUS on CD Well Summary Report

Mixed String

**General Information** State **NEW MEXICO** Final Status : OIL-WO County **EDDY** Drill Total Depth 4832 Log Total Depth Field **GRAYBURG JACKSON** True Vertical Depth Operator Name COG OPERATING LLC Lease Name MCINTYRE W D 'C' Well Number Spud Date : MAR 25, 2006 4 Comp Date API Number 30015294260001 APR 03, 2006 Regulatory API Init Lahee Class DXHole Direction **VERTICAL** Final Lahee Class DO Reference Elevation Ground Elevation 3651 Permit Number Geologic Province **KB** Elevation PERMIAN BASIN Formation at TD 452PDCK **PADDOCK** PERMIAN LEONARDIAN Oldest Age Pen 452 **Producing Formation** 453SADR SAN ANDRES Township 17 Section SEC S : 20 Range 30 E Spot Base Meridian **NEW MEXICO Additional Location Information** Footage Location 990 FNL 990 FEL CONGRESS SECTION Latitude Latitude (Bot) 32.8243800 Longitude -103.9883600 Longitude (Bot) t./Long. Source TS ation Narrative Type Remark DST TOWN .25 MI W LOCO HILLS, NM **Initital Potential Tests** Top Base Top Oil Prod Test Base Form Depth Method Test Form Depth Choke **GOR** Grav Method 001 3358 4106 **PUMPING** 453SADR 453SADR PERF IP Volume Oil Cond Gas Wtr Amount Unit Test Amount Unit Desc Amount Unit Desc Amount Unit Desc Desc 001 **BPD** 311 BBL 64 132 **MCFD** IP Perforation Test Top Top Form Base Type Method Base Form Status Count Density Per 001 3358 4106 **PERF** 453SADR 453SADR **Tubing Data** 



Size

2 7/8 IN

Base Depth

4255

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 Operator: MACK-ENERGY CORP Section:

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

451

Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC

GO-TECH - Plug Date:

GO-TECH - Well Name: W D MCINTYRE C 006 GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

CASING Size: 13 3/8 IN Depth Base: Cement Amount:

450 sx

Top of Cement: Circ

CASING Size: 85/8 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: 27/8 IN

Depth Base: 4797

Cement Amount:

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:

API#: 30-015-34473

3001570798200

Status: Active

Type: Oil

Surface:

330 FNL

990 FEL

Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

000

Section:

Operator: MAÇK-ENERGY CORP

Lease Name: MCINTYRE W D 'C'

Geologic Province: PERMIAN BASIN

Field: LOCO HILLS

415

Depth True Vertical:

Depth Total Driller:

Depth Total Logger: 6040

Formation at TD: PADDOCK

Producing Formation: PADDOCK

Date of Abandonment:

GO-TECH - Operator: COG OPERATING LLC

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

GO-TECH - Well Name: W D MCINTYRE C 009

GO-TECH - Plug Date:

Cement Amount:

628 sx Top of Cement:

CASING Size: 13 3/8 IN CASING Size: 8 5/8 IN

1123 Depth Base:

Cement Amount: Cement Amount: 900 sx Top of Cement:

CASING Size: 5 1/2 IN

Depth Base: 6031 1245 sx

Top of Cement:

TUBING Size: 27/8 IN

Depth Base: 5696

Depth Base:

Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: PADDOCK

Depth Top: 5033 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top: 5431 Depth Base:

5680

Type: INITIAL POTENTIAL

#: 1 Formation Top

5033 Depth Base: Depth Top:

5295

2 7/8 IN

4765

1/8/2010 Date: Time: 11:17 AM

#### PI/Dwights PLUS on CD Well Summary Report

**General Information NEW MEXICO** Final Status : 20ILWO State County **EDDY** Drill Total Depth 4840 Field **GRAYBURG JACKSON** Log Total Depth True Vertical Depth COG OPERATING LLC Operator Name Lease Name MCINTYRE WD Well Number 3 Spud Date FEB 01, 2006 Comp Date API Number 30015294250001 MAR 06, 2006 Regulatory API Init Lahee Class Hole Direction **VERTICAL** DXFinal Lahee Class DO Reference Elevation Permit Number Ground Elevation 3623 Geologic Province PERMIAN BASIN **KB** Elevation **PADDOCK** Formation at TD 452PDCK Oldest Age Pen 452 PERMIAN LEONARDIAN **Producing Formation** 452PDCK **PADDOCK** SAN ANDRES 453SADR Township 17 S Section : 20 SEC E Range 30 Spot : NE NE SW **NEW MEXICO** Base Meridian **Additional Location Information** 2135 FSL 2310 FWL CONGRESS SECTION Footage Location Latitude 32.8185400 Latitude (Bot) ngitude -103.9947400 Longitude (Bot) Long. Source TS Location Narrative Type Remark SCALED FOOT REGULATORY IRREG SECT Ν DST TOWN .25 MI NW LOCO HILLS, NM **Initital Potential Tests** Top Base Top Base Oil Prod Test Test Form Form Depth Depth Choke GOR Grav Method Method 4344 4769 001 452PDCK 452PDCK **PERF UNDESIGNATED** 2997 002 453SADR 453SADR 4188 **PERF PUMPING** 6600 IP Volume Oil Cond Gas Wtr Unit Unit Desc Unit Test Amount Desc Amount Amount Desc Amount Unit Desc 001 U.O BPD 002 25 165 MCFD 318 BBL **IP Perforation** Test Top Type Method Top Form Base Base Form Status Count Density Per 001 4344 4769 **PERF** 452PDCK 452PDCK 002 2997 4188 **PERF** 453SADR 453SADR **Formations** Top Top Base Base Form Code Form Name Depth TVD Depth TVD Source Lithology **453QUEN** 2086 **QUEEN** LOG BSADR SAN ANDRES 2850 LOG **GLRT GLORIETA** 4270 LOG **Tubing Data** Size Base Depth Mixed String

API #: 30-015-30291

IC# 300157022298

Status: Active

Surface:

Bottom Hole:

1650 FSL

600

1650 FWL Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Section:

Operator: MACK-ENERGY CORP

Lease Name: MCINTYRE W D 'E'

Well #:

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 - Plug Date:

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

GO-TECH - Well Name: W D MCINTYRE E 005

Depth Base: 412 Cement Amount: 450 sx Top of Cement: 355

CASING Size: 13 3/8 IN 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

Cement Amount: 1180 sx

Top of Cement: Circ

Depth Base: 5517

TUBING Size: 2 7/8 IN

Depth Base: 4861

Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL #: 1 Formation Top: PADDOCK

Depth Top: 4390 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top: 4390 Depth Base:

API #: 30-015-31787

IC# 3001571822200

Status: Active

Surface:

1650 FSL

c ca

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`

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 - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

GO-TECH - Well Name: W D MCINTYRE E 008

GO-TECH - Plug Date:

425 Cement Amount:

CASING Size: 13 3/8 IN CASING Size: 85/8 IN

Depth Base: Depth Base: 1224 450 sx 625 sx Top of Cement: Ready Mix to Surf Top of Cement: Circ

CASING Size: 5 1/2 IN

Cement Amount: Cement Amount:

Depth Base: 4967

1030 sx Top of Cement: Circ

TUBING Size: 27/8 IN

Depth Base:

4879 Cement Amount: Top of Cement:

Test Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: PADDOCK

Depth Top: 4415 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top: 4415 Depth Base:

4863

API #: 30-015-32217

IC# 3001576903200

Status: Active

Surface:

2190 FSL

1664 FWL

Section: 20 Township 17 South Range 30 East Eddy County New Mexico

Bottom Hole:

Section:

Operator: MACK-ENERGY CORP

Lease Name: MCINTYRE W D 'E'

Well #:

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: Depth Base: 1210

461 Cement Amount: Cement Amount: 450 sx Top of Cement: Circ

CASING Size: 8 5/8 IN CASING Size: 5 1/2 IN

Depth Base: 4850

Cement Amount:

575 sx Top of Cement: Circ

TUBING Size: 27/8 IN

Depth Base: 4802

Cement Amount:

985 sx 1 Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: PADDOCK

Top of Cement:

Depth Top: 4354 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top: 4354 Depth Base:

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Date: 1/8/2010 Time: 10:14 AM

	W ISII	USIR		eneral Info		on.	ARE EE	41	y recp	OIC				
Stata				EW MEXIC		)II			Final State				OIL-WO	
State				EW MEAN DDY									11400	
County					C				Drill Tota Log Total			•	11400	
Field	or Name			OCO HILL ACK ENE		ODD			True Vert	•	+h			
Lease N				ACK ENE DCO SW	KG1 C	UKF			True vert	ісаі Бер	ш	•		
Well N			: L	JCO 3 W					Spud Date				AUG 28, 20	0.1
API Nu				0015222160	0001				Comp Da				OCT 18, 20	
	ory API		. 50	013222100	7001				Comp Da	i.C		•	001 10, 20	01
	iee Class		: D	X					Hole Dire	ction			VERTICAL	
	ahee Class	3	: D						Reference		on		, Elettoria	•
	Number	-	: ~	~					Ground E			:	3637	
	ic Provinc	e	: PI	ERMIAN B	BASIN				KB Eleva					
_	on at TD			9MSSP		MISSI	SSIPPL	AN						
Oldest .	Age Pen		: 35			MISSI	SSIPPL	AN I	UNDIFFE	RENTIA	TED			
	ng Forma	tion	: 45	S2ABO		ABO /	SH/							
Townsh	nip		: 17	S					Section			:	20 SEC	
Range			: 30	) E					Spot			:	S2 NE SW	
Base M	eridian		: N	EW MEXI	CO									
			<b>A</b> .	dditional L	ocatio	n Inform	ation							
Footna	Location			650 FSL				100 0	 NOITON					
Latitude	Location			2.8171900	1900 1	WL CO	JNUKE	200 1	Latitude (	(Pat)				
Longitu				8171 <del>3</del> 00 03.9958300	n				Longitude					
_	ng. Source	<b>a</b>	: TS		J				Longitude	(DOI)		•		
	n Narrativ			ype					Remark					
				CALED_FO	ТОС				REGULA	TORY				
				REG_SEC					N					
				ST_TOWN					1 MI W L	осо н	ILLS, N	M		
			In	itital Pote	ntial T	ests								
	Тор		Base		Гор	Base				Oil	Prod		Test	
Test	Form		Form		pth	Depth	Chok	e	GOR	Grav	Metho	d	Met	hod
001	452AB	Ю	452AB0		941	6942			5394	38	PERF		PUN	<b>APING</b>
			IP Vol	lume										
		Oil			Cond				Gas			Wtr		
Test	Amount	t Unit	Desc	Amount	Unit	Desc	Amou	nt	Unit De	esc A	Amount	Unit	Desc	
001	76	BPD					4	10	MCFD		135	BBL	,	
				reatment										
Test	Top		Volume	Meas Am	ount	T/P	PSI	In	ј Туре	Nbr	Ager	it A	dd	
001	6941	6942							U					
<b></b>	m.	ъ		foration	•	70 YO				~			<b>~</b>	_
Test	Top	Base	Type	Method	1	Top For			e Form	Status	Co	ount	Density	Per
001	6941	6942		PERF		452ABC	,	452	ABO			8		
			Pı	roduction [	<b>Tests</b>									
	Top		Base	]	Гор	Base				Oil	Prod		Test	
Test	Form		Form		pth	Depth	Chok	e	GOR	Grav	Metho	d	Met	
001	402MF	RRW	402MR	RW 11	101	11129					PERF			
				ction Shuto	ff									
	Shutof	f	Тор		Plugb	ack								
est	Type		Depth		De									
001	BRPG		11101	11129	11	020								
			Produc	ction Volun	ne									
		Oil			Cond				Gas			Wtr		

Date: 1/8/2010 Time: 10:14 AM

Test 001	Amo	unt	Unit	Desc	Amount	Unit	Desc	Amou	nt Unit	Desc	Amount Unit	Desc	
				Produ	ction Perfor	ation							
Test	Top	) ]	Base	Type	Method	i	Top For		Base Form	Stati	us Count	Density I	Per
001	11101	1.	1129		PERF		402MRI	RW	402MRRV	V			
				F	ormations								
									Top	Top	Base	Base	
Form Co	de	Forn	n Name						Depth	TVD	Depth	TVD Source	Lithology
453YTE	S	YAT	ΓES						1200			LOG	
453SVR	V	SEV	EN RIV	ERS					1480			LOG	
453QUE	N	QUE	EEN						2130			LOG	
453SAD	R	SAN	I ANDRI	ES					2904			LOG	
453GLR	T	GLC	ORIETA						4322			LOG	
452ABO	)	ABC	)/SH/						6580			LOG	
				L	og Data								
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Run No	)	Log	g Type	T	op	Base	ME	) ]	Гетр				
1		GR	L										
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	ize	Ва	se Depth		lixed String								
2 3/8	IN		7947										

Date: 1/8/2010 Time: 10:13 AM

PI/Dwights PLUS on CD Well Summary Report

General Information : GAS State **NEW MEXICO** Final Status 11400 County **EDDY** Drill Total Depth Field LOCO HILLS Log Total Depth True Vertical Depth Operator Name HOLLY ENERGY 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 MISSISSIPPIAN Oldest Age Pen 359 MISSISSIPPIAN UNDIFFERENTIATED **Producing Formation** 402MRRW **MORROW** Township 17 S Section : 20 **SEC** E Range 30 : S2 NE SW Spot Base Meridian **NEW MEXICO Additional Location Information** Footage Location 1650 FSL 1980 FWL CONGRESS SECTION Latitude 32.8171900 Latitude (Bot) -103.9958300 Longitude (Bot) Longitude t./Long. Source TS ation Narrative Type Remark SCALED FOOT REGULATORY IRREG SECT DST TOWN 1 MI W LOCO HILLS, NM **Initital Potential Tests** Top Base Top Oil Prod Test Base Test Form Form Depth Depth Choke **GOR** Grav Method Method 001 402MRRW 402MRRW 11101 11129 PERF **FLOWING** 79250 58.3 IP Volume Oil Cond Gas Wtr Test Amount Unit Desc Amount Unit Desc Unit Desc Amount Unit Desc Amount 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** Top Base Top Base Oil Prod Test Test Form Form Depth Depth Choke GOR Grav Method Method 001 402MRRW 402MRRW 11101 11129 16/64 PERF **FLOWING** Production Volume Oil Cond Gas Wtr Unit Amount Desc Amount Unit Desc Amount Unit Desc Amount Unit Desc 001 140 **MCFD Production Pressure** Test FTP SICP SITP **FCP** 

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Date: 1/8/2010 Time: 10:13 AM

001														
			Prod	uction 7	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			
			Produ	ction Pe	rforation									
Test	Top	Base	Type	Me	thod	Top For	rm	Base l	Form	Status	Coun	ıt	Density	Per
001	11101	11111		PE	RF	402MR	RW	402M	RRW	A	1	7		
001	11122	11129		PE	RF	402MR	RW	402M	RRW	A	1	7		
			L	og Data	1									
						Lo	g	Max						
Run N	lo	Log Type	e T	ор	Base	MI	)	Temp						
0	1 (	ILDL												
0	)1	NEC												
C	)1	DN												
			C	asing D	ata									
	Size	e Base	Depth	Cemer	ıt Unit									
1	13 3/8 IN	1	500	48	7 SACK									
	8 5/8 IN	1	3487	133	5 SACK									
	5 1/2 IN	1	11371	79	0 SACK									



API #: 30-015-29910

IC # 300157063697

Status: Active

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:

Depth Total Logger: 4865

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 CASING Size: 5 1/2 IN Depth Base: Depth Base: 4850

420 Cement Amount: Cement Amount:

350 sx Top of Cement: Circ to Surf Top of Cement: Circ to Surf

1300 sx :

TUBING Size: 27/8 IN

Depth Base: 4374

Cement Amount:

Top of Cement:

Test_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top: PADDOCK

Depth Top: 4317 Depth Base:

Test_Perf_Report:

Type: INITIAL POTENTIAL

#: 1 Formation Top

Depth Top: 4317 Depth Base:



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 #:

Field: LOCO HILLS

Geologic Province: PERMIAN BASIN

Depth Total Driller:

Depth Total Logger: 4900

4897

Depth True Vertical:

Formation at TD: PADDOCK

Producing Formation: PADDOCK

Date of Abandonment:

GO-TECH - Operator: MARBOB ENERGY CORP

GO-TECH - Plug Date:

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

GO-TECH - Well Name: THUNDER ROAD FEDERAL 002

Depth Base: 405

Cement Amount:

400 sx

Top of Cement: Ready Mix to Surf

CASING Size: 8 5/8 IN CASING Size: 5 1/2 IN

Depth Base: 4871

Cement Amount:

1550 sx

Top of Cement: Circ to Surf

Depth Top: 4301 Depth Base:

TUBING Size: 27/8 IN

Depth Base: 4234 Cement Amount:

Top of Cement:

Test_Report;

Type: INITIAL POTENTIAL

#: 1 Formation Top: PADDOCK

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 #:

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

API #: 30-015-29952

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 #:

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

GO-TECH - One_Producing_Pool_Name: LOCO HILLS; PADDOCK

GO-TECH - Operator: MARBOB ENERGY CORP

Date of Abandonment:

GO-TECH - Well Name: THUNDER ROAD FEDERAL 004

GO-TECH - Plug Date:

Depth Base: 390 Cement Amount: 400 sx Top of Cement: Circ to Surf

CASING Size: 8 5/8 IN CASING Size: 5 1/2 IN

Depth Base: 4780 Cement Amount:

1300 sx

Top of Cement: Circ to Surf

TUBING Size: 27/8 IN

Depth Base: 4190

Cement Amount:

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



1/8/2010 Date: 3:49 PM Time:

#### PI/Dwights PLUS on CD Well Summary Report

**General Information** : OIL **NEW MEXICO** Final Status State **EDDY** Drill Total Depth 4920 County Log Total Depth Field LOCO HILLS True Vertical Depth MARBOB ENERGY CORP Operator Name Lease Name THUNDER ROAD FEDERAL Well Number 5 Spud Date SEP 15, 2002 30015323840000 Comp Date NOV 18, 2002 API Number Regulatory API **VERTICAL** Init Lahee Class D Hole Direction Final Lahee Class DO Reference Elevation **Ground Elevation** 3643 Permit Number KB Elevation Geologic Province PERMIAN BASIN Formation at TD 452PDCK **PADDOCK** Oldest Age Pen 452 PERMIAN LEONARDIAN 452PDCK **Producing Formation PADDOCK** : 20 SEC Township 17 Section S 30 Ē Spot : SE SW NE Range Base Meridian **NEW MEXICO Additional Location Information** 2310 FNL 1750 FEL CONGRESS SECTION Footage Location Latitude (Bot) Latitude 32.8207700 Longitude -103.9908400 Longitude (Bot) ./Long. Source TS ation Narrative Type Remark SCALED FOOT REGULATORY IRREG_SECT **Initital Potential Tests** Top Oil Prod Test Base Top Base Depth Depth Grav Method Method Test Form Form Choke GOR **PUMPING** 001 452PDCK 452PDCK 4338 4698 **PERF** IP Volume Oil Wtr Cond Gas Amount Unit Amount Test Unit Desc Unit Desc Amount Unit Desc Desc Amount **BBL** 285 **MCFD** 463 BBL 001 211 **IP** Treatment Test Top Base Volume Meas Amount T/P **PSI** Type Nbr Agent Add Inj 001 4338 4698 2000 GAL **ACID HCL IP Perforation** Top Form Base Form Test Top Base Type Method Status Count Density Per 4338 PERF 452PDCK 20 001 4698 452PDCK Α **Formations** Top Base Base Top Form Name Depth **TVD** Depth TVD Source Form Code Lithology **453YTES YATES** 1178 LOG **4530UEN OUEEN** 2084 LOG 453SADR SAN ANDRES 2826 LOG **GLRT** 4236 **GLORIETA** LOG Log Data Max Log Run No Log Type Top Base MD Temp DLL 1

Date: 1/8/2010

Time: 3:49 PM

1	CSNG			
 		Casing Da	ta	
Siz	e Base Depth	Cement	Unit	·
8 5/8 II	N 373	300	SACK	
5 1/2 N	N 4919	1275	SACK	
 		Tubing Da	ta	
Size	Base Depth	Mixed Strir	ıg	
2 7/8 IN	4315			•

Date: 1/8/2010 Time: 3:49 PM

PI/Dwights PLUS on CD Well Summary Report

**General Information** NEW MEXICO Final Status : OIL State County **EDDY** Drill Total Depth 4850 Log Total Depth LOCO HILLS Field True Vertical Depth Operator Name MARBOB ENERGY CORP Lease Name THUNDER ROAD FEDERAL Well Number Spud Date AUG 31, 2002 6 Comp Date SEP 30, 2002 API Number 30015323300000 Regulatory API Init Lahee Class D Hole Direction **VERTICAL** DO Final Lahee Class Reference Elevation Permit Number Ground Elevation 3655 Geologic Province PERMIAN BASIN KB Elevation Formation at TD 452PDCK **PADDOCK** Oldest Age Pen 452 PERMIAN LEONARDIAN **Producing Formation** 452PDCK **PADDOCK** Township 17 Section : 20 SEC S 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) ./Long. Source TS ation Narrative Remark Type SCALED FOOT REGULATORY IRREG SECT **Initital Potential Tests** Top Base Top Base Oil Prod Test Depth Depth Choke GOR Method Method Test Form Form Grav 001 452PDCK 452PDCK 4277 4624 **PERF PUMPING** IP Volume Oil Cond Gas Wtr Test Unit Desc Unit Desc Unit Desc Amount Unit Desc Amount Amount Amount 001 80 BBL. 85 MCFD 114 BBL **IP** Treatment Volume Meas Amount T/P **PSI** Test Top Base Type Nbr Agent Add Inj 001 4277 4624 2000 GAL **ACID HCL IP Perforation** Per Test Top Base Type Method Top Form Base Form Status Count Density 001 4277 4624 **PERF** 452PDCK 452PDCK Α 20 **Formations** Top Top Base Base Form Code Form Name Depth **TVD** Depth TVD Source Lithology **453YTES YATES** 1157 LOG **4530UEN QUEEN** 2050 LOG 453SADR SAN ANDRES 2777 LOG GLRT **GLORIETA** 4176 LOG Log Data Log Max Run No Log Type Top Base MD Temp DLL 1

Date: 1/8/2010 Time: 3:49 PM

1	CSNG			
	- <b>-</b>	Casing Da	ta	
Size	e Base Depth	Cement	Unit	
8 5/8 IN	373	275	SACK	
5 1/2 IN	J 4848	1360	SACK	
	. <b>-</b>	Tubing Da	ita	
Size	Base Depth	Mixed Strip	ng	
2 7/8 IN	4252			

Date: 1/8/2010 Time: 3:50 PM

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	
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	
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	
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	
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	
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	
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	
Regulatory API : Init Lahee Class : D Hole Direction : VERTICAL Final Lahee Class : DO Reference Elevation : 3668 KB	
Init Lahee Class: DHole Direction: VERTICALFinal Lahee Class: DOReference Elevation: 3668 KB	
Final Lahee Class : DO Reference Elevation : 3668 KB	
Permit Number : Ground Elevation : 3655	
Geologic Province : PERMIAN BASIN KB Elevation : 3668	
Formation at TD : 452YESO YESO	
Oldest Age Pen : 452 PERMIAN LEONARDIAN	
Producing Formation : 452YESO YESO	
Township : 17 S Section : 20 SEC	
Range : 30 E Spot : NW NW NE	
Base Meridian : NEW MEXICO	
Additional Foundation To Comments	
Additional Location Information	
Footage Location : 330 FNL 2310 FEL CONGRESS SECTION Latitude : 32.8262200 Latitude (Bot) :	
2411144 (150)	
Longitude : -103.9926600 Longitude (Bot) : TS	
ation Narrative : Type Remark	
SCALED_FOOT REGULATORY	
IRREG_SECT N	
Top Base Top Base Oil Prod Test	
Test Form Form Depth Depth Choke GOR Grav Method Method	
• •	
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001 452YESO 452YESO 4713 5670 PERF PUMPING IP Volume	
001 452YESO 452YESO 4713 5670 PERF PUMPING IP Volume	
001         452YESO         4713         5670         PERF         PUMPING           IP Volume	
001 452YESO 452YESO 4713 5670 PERF PUMPING  IP Volume	
001         452YESO         4713         5670         PERF         PUMPING           IP Volume           Oil         Cond         Gas         Wtr           Test Amount Unit Desc Amount Unit Desc Amount Unit Desc Amount Unit Desc Only           001         70         BPD         110         MCFD         220         BBL           IP Treatment           Test Top Base Volume Meas Amount T/P         PSI         Inj         Type         Nbr         Agent         Add	
001         452YESO         4713         5670         PERF         PUMPING           IP Volume	
O01   452YESO   452YESO   4713   5670   PERF   PUMPING	
O01   452YESO   452YESO   4713   5670   PERF   PUMPING	
O01   452YESO	
O01	thology
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O1	thology

2 7/8 IN

5770

Date: 1/8/2010 Time: 3:50 PM

453BWRS 453QUEN 453SADR 453LVNG 453GLRT 452YESO	QU SA LC GI YI	OWERS SD JEEN AN ANDRES OVINGTON LORIETA ESO	Log Data			1813 2042 2754 2873 4178 4243	LOG LOG LOG LOG LOG
			Lug Data		Log	Max	
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1	Γ	DLL				•	
1		DSN					
			Casing Da	ta			
	Size	Base Depth	Cement	Unit	•		
8 5/	8 IN	385	300	SACK			
5 1/	2 IN	5977	1575	SACK			
			Tubing Da	ta			
Size	F	Base Depth	Mixed Strip	ng			



Date: 1/8/2010 Time: 3:49 PM

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State				EW MEX	ICO				Final S			:	OIL		
County	•			DDY						otal Depth		:	5900		
Field				OCO HIL		** ~~~~				tal Depth		:			
-	or Name			IARBOB					True V	ertical Dep	oth	:			
Lease N				HUNDER	ROAD	FEDERA	AL		6 15					< <b>2</b> 000	
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API Nu			: 30	00153628	00000				Comp. 1	Date		:	SEP 0	2, 2008	
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Footage	e Location	1	: '	675 FNI	2310	FEL C	ONGRI	ESS	SECTIC	N					
Latitud	e		: 32	2.8225200	)				Latitud	e (Bot)		:			
Longitu				03.99266	00				Longitu	ude (Bot)		:			
t./Lo	ng. Sourc	e	: T	S											
atio	n Narrati	ve		ype					Remark						
				CALED_I						LATORY					
				RREG_SE					N						
			D	ST_TOW	N				0.5 MI	LOCO HI	LLS, NN	Л			
			Iı	nitital Pot	ential T	ests									
	Top		Base		Top	Base				Oil	Prod			Test	
Test	Form		Form		Depth	Depth	Chol	ke	GOR	Grav	Metho	d		Method	
001	452YE	ESO	452YES		4283	5460					PERF			PUMP	ING
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<b></b>	-	ь.		reatment		00 /m	DOL		·						
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ISAI		LT						- 52			985			LOG	
453YTE		ATES						114						LOG	
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453QUI	en Qi	JEEN						200	54					LOG	

Date: 1/8/2010

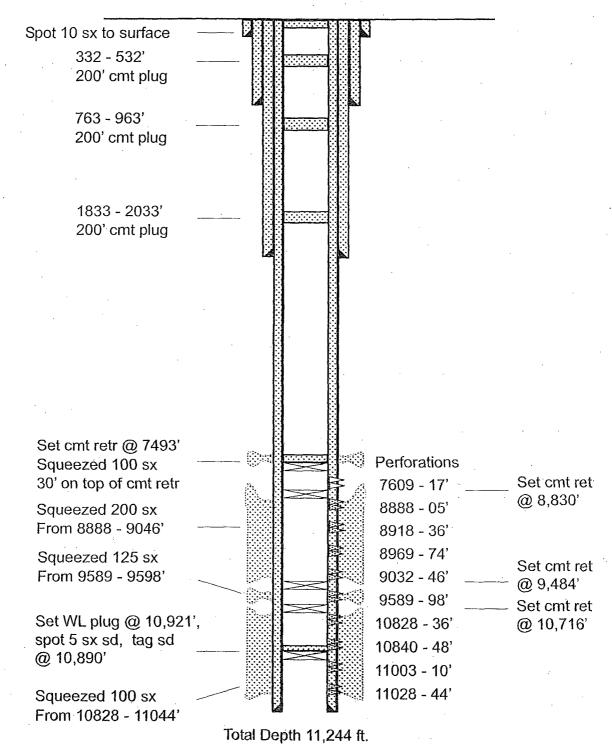
Time: 3:49 PM

453SADR 453GLRT 452YESO	SAN ANDRES GLORIETA YESO				2799 4207 4281	LOG LOG LOG
		Log Data				
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Run No	Log Type	Тор	Base	MD	Temp	
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	•	Cement 325	Unit			
	/8 IN 353	Cement 325	Unit SACK SACK			
	/8 IN 353 /2 IN 5893	Cement 325 1750	Unit SACK SACK			

#### 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

C/	ASING	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



#### N.M.O.C.D. COPY

Jile V

UN. FED STATES

SUBMIT IN DUPL

(SI

STATES

GEOLOGICAL SURVEY

(See other instructions on reverse side) Form approved. Budget Bureau No. 42-R355,5

5. LEASE DESIGNATION AND SERIAL NO. NM -074936

							A	
WELL CON	APLETION C	OR RECOM	PLETION	REPORT			6. IF INDIAN,	ALLOTTED OR TRUE NAME
1a. TYPE OF WELL	oit. WELL	GAS WELL	DRY X	Other	REC	JEWED-	7. UNIT AGREE	MENT NAME
b. TYPE OF COMP	A TYPE OF COMPLETION.							
WEW	WORK DEEP-	BACK BACK	DIFF. EESVR.	Other P	& ADEC 1	6 198r	S. FARM OR LE	ASE NAME
2. NAME OF OPERATO	OR ARCO Oil	& Gas Comp	any	/		100	McIntyre	e Federal
Division	of Atlantic				0. (		9. WELL NO.	
3. ADDRESS OF OPER	ATOR			المهالية الله	- ARIFSIA	OFFICE.	8	
P. O. Box	1710, Hobbs	s, New Mex	cico 88240	Maria Company			South AND	POOL, OR WILDCAT
4. LOCATION OF WELL	L (Report location c	dearly and in ac	cordance with a	ny State requi		and		lls Morrow Gas
1.6	At surface 1650' FSL & 1980' FWL DEC 5 1000 II. SEC., T., R., M., ON BLOCK AND SURVEY OR AREA							
At top prod. inte	At top prod. interval reported below As Above							
Åt total depth		As Above	A	RTECIA NO	AL SUNVEY		17-175-	30E
·			14. PERMIT NO		DATE ALGOD		12. COUNTY OR	13. STATE
		•		A. 1	•	1	PARISH Eddy	NM
15. DATE SPUDDED	16. DATE T.D. REAC	HED   17. DATE	COMPL. (Ready	to prod.)   18	. ELEVATIONS (	DF, REB, R		19. ELEV. CASINGHEAD
7/29/80	9/11/80	Dr	у		3660.	1' GR		
20. TOTAL DEPTH, MD &	TVD 21. PLUG, B	ACK T.B., MD & T	70   22. IF MU HOW 1	LTIPLE COMPL		ERVALS LLED BY	ROTARY TOOLS	CABLE TOOLS
11,244'	P &	Α			1 -		0-11,244'	
24. PRODUCING INTERV	TAL(S), OF THIS CO.	IPLETION-TOP,	BOTTOM, NAME (	MD AND TVD)				25. WAS DIRECTIONAL SURVEY MADE
. None					:			
:		· · · · · · · · · · · · · · · · · · ·		·	· ·		1 9	7. WAS WELL CORED
26. TYPE ELECTRIC AN	FDC-CNL w/C		∷ Sonic lo	or CRT &	Corr log		2	No
<del></del>	TDC CNL W/G		G RECORD (Re			<u>.</u>	<u></u>	NO
2S. CASINO SIZE	WEIGHT, LB./FT.	DEPTH SET		OLE SIZE		MENTING R	ECORD : 75 ~	AMOUNT PELLED
30"			38	36"	Redi-Mi	x to s		7
13-3/8" OD	54.5# K-55	- 4	461	171/2"	425 sx	Circ to	o surf	THE NOW
8-5/8" OD	32# S-80		52'	11"	1250 sx			- 177 /A
5½" OD	17# L-80	11,2	42'	7-7/8"	2035 sx			1,3
29.	LIN	ER RECORD			30.	T	UBING RECOR	D
SIZE	TOP (MD) BO	TTOM (MD) S	ACKS CEMENT	SCREEN (M	D) SIZE	Q D	epth set (MD)	PACKER SET (MD)
31. PERFORATION RECO	ing (futamet size o	and name have	· .	1				
11,003-11,01	0 & 11028-11	044' =46	.50" holes	32.				SQUEEZE, ETC.
10,828-10,83	6 & 10840-10	)848' =32·		S DEPTH IN	TERVAL (MD)	-		OF MATERIAL USED
9589-9598' = 10 .44" holes   11,003-11,010'   3000 gals 5% acid, flushed w/45								
8969-8974' =	9032-9046' = 29 .44" holes   11,028-11,044'   bb1s 3% KCL wtr & 900 SCF N2/bi   8969-8974' = 11 .25" holes   27,720 gals Titan-2 gel 40 w							
8888-8905,&	$1888-8905 \times 8918-8936' = 37.26'' \text{ holes}$							
<del>1609-1611</del>	<del>-17 .50" ho</del> 1	.es	PRO	DUCTION		<u></u>	- '	
DATE FIRST PRODUCTIO	N PRODUCTI	ON METHOD (Flo	ioing, gas lift, p	oumping—size	and type of pu	nip)	WELL ST	PATUS (Producing or
none		Hole						P&A
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS)[	CF.	WATER-BELL	GAS-OIL RATIO
LOW, TUBING PRESS.	CASING PRESSURE	CALCULATED	OIL—BBL.	1	MOS	1	201	LICER SCRUE
LOW. TOBING PASSS.	CASING TRUSSORD	24-HOUR DATE	1	cva	MICE.	WATER		AL GRAVITY-AFT (CORR!)
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)								
"DEC 1'0 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								
<b>′</b> . ∩	201	312			,		-	20100100
SIGNED 12	ville Son	WIG Z	TITLE I	Dist. Drl	g, Supt.		DATE	12/02/80



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 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. both, pursuant to applicable Federal and/or

Consult local State should be listed on this form, see item 35.

or Federal office for specific Instructions.

or rederationce for special instructions.

Hern 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.

Herns 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 38. Submit a separate report (page) on this form, adequately identified, additional interval to be separately produced, showing the additional data pertinent to such interval. for each

"Sacks Coment": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool. Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.) Item 29: Item 33:

		TOP :	TRUE VERT. DEPTH		. •
MARY OF POROUS ZONES; SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERPALS; AND ALL DRILL-STEM TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES	MRAS. DEPTH		11,153 10,700 10,700 10,258 9,332 7,600 2,020 950	. ,	
	  -  -	100	Man Man	Upper Miss. Morrow Gas Atoka Strawn Gas Cisco Wolfcamp Queen SA T. Salt B. Salt	
	TS THERROF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING IN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES	DESCRIPTION, CONTRINTS, RTC.	0200 F001 @ 6.30 AM 8/22/80/f01 21	incr to good. Press build was 3 psig in 15 mins. Closed tool for 30 mins, no gas to surf. Opened tool w/good blow, press incr to 3-3/4 psig in 30 mins. Opened 12" 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 drig mud & fm fluid.	
	SELTY AND CONTENSED, TIME TOOL O	BOTTOM	17357		
	OUS ZONES;	TOP	75661		
	37, SUMMARY OF POROUS ZONES SHOW ALL IMPORTANT ZONES DEPTH INTERNAL TESTED, CUS.	FORMATION	1701 F 0.2mm		•

Form 9-331 Dec. 1973

## UNITED STATES

Form F	pproved	٠.		
Budget	Bureau	No.	42-R1	424

	J. LEASE				
DEPARTMENT OF THE INTERIOR	NM_074936				
GEOLOGICAL SURVEY	6. IF INDIAN, ALLOTTEE OR TRIBE	NAME			
020200101121	the state of the s				
CUMPRY NOTICES AND DEPORTS ON WELLS	7. UNIT AGREEMENT NAME				
SUNDRY NOTICES AND REPORTS ON WELLS	7. OHI NOREEMENT HAME				
(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.)	0.54	THE TO COL			
105217017, 030 1 01111 3 001 0 101 proposalis.	8. FARM OR LEASE NAME AUG 13 1- McIntyre Federal				
1. oil gas other Dry Hole - P & A	·····				
	9.8WELL NO.	0. C. g			
2. NAME OF OPERATOR ARCO Oil & Gas Company	0	ARTESIA, OFFICE			
Division of Atlantic Richfield Company	10. FIELD OF WILDCAT NAME				
3. ADDRESS OF OPERATOR	Loco Hills Morrow Gas				
Box 1710, Hobbs, New Mexico 88240	11. SEC., T., R., M., OR BLK. AND S	URVEY OR			
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17	AREA 17-17S-30E				
below.)					
AT SURFACE: 1650 FSL & 1980 FWL	12. COUNTY OR PARISH 13. STATE				
AT TOP PROD. INTERVAL: As above	1				
AT TOTAL DEPTH: As above	Eddy N M	<del></del>			
16 OUTOU ADDDODDIATE DOV TO INDICATE NATURE OF MOTION	14. API NO.				
<ol> <li>CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</li> </ol>	· · ·	· · · · · · · · · · · · · · · · · · ·			
REPORT, OR OTHER DATA	15. ELEVATIONS (SHOW DF, KDB,	AND WD)			
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:	3660.1' GR				
FRACTURE TREAT  SHOOT OF ACIDIZE	d'Airmin				
SHOOT OR ACIDIZE	VIII)	•			
REPAIR WELL	(NOTE: Report results of multiple compl-				
	1000 change on Form 9-330.)	etion or zone			
MULTIPLE COMPLETE ( )					
CHANGE ZONES   ABANDON*  U.S. GEOLOGICA  ARTESIA NEW	1 Curas				
	L SURVEY	·			
(other)	MEXICO.	•			
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state including estimated date of starting any proposed work. If well is d	e all pertinent details, and give pertinectionally drilled give subsurface for	nent dates,			
including estimated date of starting any proposed work. If well is d measured and true vertical depths for all markers and zones pertinen	t to this work.)*				
On 9/22/80, drld out cmt 11,148' to 11,166' PBD.	Spotted 200 gals 10% Ad	etic 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	nomf and a scare (AA	•			
.50" holes). GTS in 10 mins. Flwd to pit 6 hr.	peri w/ 2 Jorr (40-	<b>C3. 3.3</b>			
2 5 % Above 40/6/11 ale Don over the Day of					
3.5# thru 48/64" ck. Ran swab, rec \( \frac{1}{4} \) BFW. On 9	126/80 SITP 2200#. Flwd	to pit 7 hrs			
rec 249 MCFGPD, OBF, FTP 4# on 48/64" ck. 9/30/8	O acidized Morrow perfs 1	1,003-11,044'			
w/3,000 gals $5%$ acid, flushed $w/45$ bbl trtd $3%$ K	CL wtr. All fluid contg	900 SCF N2 per			
bbl. Flwd to pit 3 hrs, rec approx 30 BLW. Swb	d 2½ hrs rec 20 BLW. FFL	dry. FTP 3#			
on 48/64" ck, 235 MCFGPD. SITP 2000# 72 hr SITP	2700#. 10/9/80 fraced M	orrow perfs			
11,003-11,044 $^{\circ}$ w/ 27,720 gal Titan 2 gel 40, w/30	6,000# 20/40 sd & 9,240 g	als CO, Flwd			
to pit 14 hrs, rec 100 BLW, well died. Swbd Mor	row perfs 11 003-11 044'	3 hrs roa 22			
BLW. Set WL plug in the recept @ 10,921'. Spot	5 ex sd on nkr & recut	Taccad ad 0			
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	Tab act plus act along 0 1	· rerra			
10110W 10,020 030 & 20,040 40 W/2 3311. Kill W/	rlok-set pkr, set pkr e 1	0,716'.			
Subsurface Safety Valve: Manu. and Type	Set @	Ft.			
·					
18. I hereby certify that the foregoing is true and correct  Dist. Drlg. St		•			
Dist. Drlg. St	upt. 11/24/80				



APPROVED(This space for Federal or State office use)

APPROVED BIS Sgd.) PETER W. CHESTER THE CONDITIONS OF APPROVAL. IF ANY:

AUG 1 1 1901

FOR

JAMÉS A. GILLHAM DISTRICT SUPERVISOR See Instructions on Reverse Side

Form 9-331 McIntyre Federal #8 1650' FSL & 1980' FWL Sec 17-17S-30E, Eddy Co, N. M. Page 2

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 C1 "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 & O BO, no gas. POH w/ tbg & pkr. Set cmt retr @ 9484'. Cmt squeezed perfs 9589-98' w/ 125 sx C1 "H" cmt, RO 10 sx cmt. Spot 200 gals 10% acetic acid @ 9080'. On 10/30/8 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 bb1 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 C1 "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 CO2.

10,828-10,836' & 10,840-10,848'

2000 gals Mor-Flo BC acid flushed w/31 bbls 3% KCL wtr & 900 SCF N2.

10,828-11,044'

Squeezed w/l gal Morflow II in 10 BFW, 100 sx C1 H cmt w/8/10 of 1% Halad-9.

9589-95981

Squeezed w/125 sx C1 H cmt.

9032-90461

Acidized w/2000 gals 15% HCL-NEFE acid. flushed w/41 bbls 2% KCL wtr.

8969-89741

Acidized w/1000 gals 15% HCL-NE-FE acid, flushed w/38 bbls 2% KCL wtr.

8888-8905*

8918-8936' 8969-89741

9032-90461

7609-7617

Squeezed w/200 sx Cl H cmt w/.8% CF9.

Acidized w/500 gals 15% NE-FE acid, flushed w/32 bbls 3% KCL wtr. Squeezed w/100 sx C1 C cmt, 30' on top of cmt retr @ 7493'.

2033-18331

963- 7631

532- 3321

200' cmt plug

200' cmt plug

2001 cmt plug

Form 9-331 Dec. 1973

APPROVED BY .

CONDITIONS OF APPROVAL, IF ANY:

Form Approved. Budget Bureau No. 42--R1424

UNITED STATES	5. LEASE
DEPARTMENT OF THE INTERIOR	NM 074936
GEOLOGICAL SURVEY	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
SUNDRY NOTICES AND REPORTS ON WELLS  (On 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.)	7. UNIT AGREEMENT NAME  8. FARM OR LEASE NAME  10.T 2 2 1000
1. oil gas well other	McINTYRE FEDERAL
	9. WELL NO. O. C. D
2. NAME OF OPERATOR ARCO Oil & Gas Company Division of Atlantic Richfield Company ✓	19, FIELD OR WILDCAT NAME
3. ADDRESS OF OPERATOR	Loco Hills Morrow Gas
P. O. Box 1710, Hobbs, New Mexico 88240	11. SEC., T., R., M., OR BLK. AND SURVEY OR
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)	AREA 17-17S-30E
AT SURFACE: 1650' FSL & 1980' FWL AT TOP PROD. INTERVAL: As Above	12. COUNTY OR PARISH 13. STATE Eddy N M
AT TOTAL DEPTH: As Above	14. API NO.
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE,	14. AT NO.
REPORT, OR OTHER DATA	15. ELEVATIONS (SHOW DF, KDB, AND WD) 3660.1' GR
REQUEST FOR APPROVAL TO:  SUBSEQUENT REPORT OF:  FRACTURE TREAT  SHOOT OR 'ACIDIZE  PULL OR ALTER CASING  MULTIPLE COMPLETE  CHANGE ZONES  ABANDON*  (other)  SUBSEQUENT REPORT OF:  OCT 20  OCT 20  ARTESIA, NE  DST, run 5½" OD P1	1980 1980: Report results of multiple completion or zone change on Form 9-330.) CAL SURVEY W MEXICO
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly stat including estimated date of starting any proposed work. If well is d measured and true vertical depths for all markers and zones pertiner	e all pertinent details, and give pertinent dates, lirectionally drilled, give subsurface locations and at to this work.)*
On 8/23/80 ran DST #1 Wolfcamp 7566-7767' Openeding to good. Pressure build was 3 PSIG in 15 mto surface. Open tool w/ good blow, press increchoke to pit w/fair blow & press for 30 mins. Consider the control of the c	dins. Closed tool for 60 mins, no gas reased to 3-3/4 PSIG in 30 mins, opened 2" closed tool 120 mins, no gas to surf. 761' (65 bbls) of slightly gas cut to 11,244' TD @ 10:30 PM 9/11/80. Ran CH w/5½" OD 17# L-80 csg @ 11,242', SC a, 385 sx Cl H HOWCO light contg .3% tg .75% CFR-2 & 5# KCL, Opened stage we w/1000 gal mud flush followed by a, followed by 300 sx Cl H neat. Circ 120 hrs. Press tested csg to 1600#
18. I hereby certify that the foregoing is true and correct	
SIGNED John & Schmicht TITLE Bist. Drlg.	Supt. De+17, 1980
(This space for Federal or State off	

*See Instructions on Reverse Side

OCT  $\tilde{2}$  1 1980

DATE _

U.S. GEOLOGICAL SURVEY ROSWELL, NEW MEXICO

Form 9-331 Dec. 1973 Form Approved.

### UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

	Buoge	t Bureau No. 42-R1424
5	. LEASE	
	NM 074936	
6	. IF INDIAN, ALLOTTEE	
l		RECE
7	. UNIT AGREEMENT NA	
		SED
8	. FARM OR LEASE NAM	• •
<b>.</b>	McIntyre Federa	1
9	. WELL NO.	The state of the s
	8	Atratia, o
ļ 10	FIELD OR WILDCAT N.	AME
su	Loco Hills Mor	row Gas
11	. SEC., T., R., M., OR B	LK. AND SURVEY OR
1	AREA 17-17S-30E	
		· · · · · · · · · · · · · · · · · · ·
12	. COUNTY OR PARISH	
l	Eddy !	New Mexico
14	API NO.	•
		· · · · · · · · · · · · · · · · · · ·
15	ELEVATIONS (SHOW	DF, KDB, AND WD
	3660.1 GR	

SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this form for proposals to drill or to deepen or plug back to a differ reservoir. Use Form 9–331–C for such proposals.) gas Xwell other well 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 below.) . 1650' FSL & 1980' FWL (Unit Letter" AT SURFACE: AT TOP PROD. INTERVAL: AT TOTAL DEPTH: As Above 16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTIC REPORT, OR OTHER DATA REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF: TEST WATER SHUT-OFF FRACTURE TREAT SHOOT OR ACIDIZE REPAIR WELL (NOTE: Report results of multiple completion or zone PULL OR ALTER CASING change on Form 9-330.) MULTIPLE COMPLETE CHANGE ZONES ABANDON* (other) Run Intermediate & Cement

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 14 cello seal/sk followed by 200 sx C1 "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.

AUG 1 4 1980

U.S. GEOLUGICAL SURVEY ARTESIA, NEW MEXICO

Subsurface Safety Valve: Manu.	and Type	Set @ Ft.
18. I hereby certify that the fore		9/11/90
SIGNED D. W. W. W.	(This space for Federal or State office use)	processor and the second
APPROVED BY	THTLE DA	ACCEPTED FOR RECORD
		AUG 2,7,1980
	*See Instructions on Reverse Side	U.S. GEOLOGICAL SURVEY ROSWELL, NEW MEXICO

Form 9-331 Dec. 1973

Form A	pproved		
Budget	Bureau	No.	42-R14

UNITED STATES	5. LEASE
DEPARTMENT OF THE INTERIOR	NM 074936
GEOLOGICAL SURVEY	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
SUNDRY NOTICES AND REPORTS ON WELLS	7. UNIT AGREEMENT NAME
(Do not use this form for proposals to drill or to deepen or plug back to a diffe 30 reservoir. Use Form 9–331–C for such proposals.)	8. FARM OR LEASE NAME
1. oil gas x other O. C. D.	Mc Intyre Federal
Well won	9. WELL NO. 8
2. NAME OF OPERATOR ARCO Oil & Gas Company Division of Atlantic Richfield Company	10,, FIELD OR WILDCAT NAME
3. ADDRESS OF OPERATOR  D. O. Bor 1710 Habba New Marriag 28240	Loco Hills Morrow Gas
P. O. Box 1710, Hobbs, New Mexico 88240	11. SEC., T., R., M., OR BLK. AND SURVEY OR
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17	AREA
below.) 1650' FSL & 1980' FWL Unit Letter "K" AT SURFACE:	17-17S-30E
AT TOP PROD. INTERVAL:	12. COUNTY OR PARISH 13. STATE
AT TOTAL DEPTH: As above	Eddy N. M.
6. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE,	WITH THE PROPERTY OF THE PROPE
REPORT, OR OTHER DATA	15. ELEVATIONS (SHOW DF, KDB, AND WD) 3660.1' GR
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:	
FEST WATER SHUT-OFF [] []	
FRACTURE TREAT	
REPAIR WELL	(NOTE: Report Re
PULL OR ALTER CASING [	(NOTE: Report change on the change of the control of the change of the c
MULTIPLE COMPLETE	
ABANDON*	AUG 1 1 1980
(other) Spud run conductor pip	
surf csg & cmt.  17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state including estimated date of starting any proposed work. If well is dimeasured and true vertical depths for all markers and zones pertinen	all pertinent dates, rectionally drilled, give subsulvate and the subs
On 7-29-80 ran 38' of 30" conductor pipe. Cmtd hole @ 1:00 PM 7-31-80. Drld to 450'. RIH w/ 1 Cmtd w/ 425 sx C1 "C" cmt w/ 2% CaCl. Circ 38 stested csg to 1000# for 30 mins, OK. Volume of w/ 2% CaCl. Circ 50 cut ft cmt to surf. Approx Estimated minimum formation temperature in zone strength @ time of test was 1200 PSIG. Actual tocsg was 11 hrs.	w/ Redi-mix to surf. Spudded 17½" 3-3/8" OD K-55 54.5# csg set @ 446 x cmt to surf. WOC 11 hrs. Pressurnt slurry was 561 cu ft of C1 "C" imate cmt slurry when mixed was 79 of interest was 67°. Estimate of G
Subsurface Safety Valve: Manu. and Type	Set @ Ft.
18. I hereby certify that the foregoing is true and correct	
SIGNED TO ME THE Dist. Drlg. S	upt. date 8/6/80
(This space for Federal or State offi	ACCEPTED FOR RECORD
APPROVED BY TITLE	DATE
CONDITIONS OF APPROVAL, IF ANY:	·
	AUG 1 3 1980



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

85°

- 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**

Com	pany:

COG Operating LLC - NM

Sample #:

7133

Area:

Artesia

Analysis ID #:

296

Lease:

JENKINS B FED.

Location:

3

3001504216

Sample Point:

Wellhead

Sampling Date:	4/3/2007	Anions	mg/l	meq/I	Cations	mg/l	meq/l
Analysis Date:	4/4/2007	Chloride:	106617.0	3007.28	Sodium:	67104.0	2918.86
Analyst:	Mitchell Labs	Bicarbonate:	332.0	5.44	Magnesium:	503.0	41.38
TDS (mg/l or g/m3):	179193.9	Carbonate:			Calcium:	2106.0	105.09
Density (g/cm3):	1.125	Sulfate:	2530.0	52.67	Strontium:		
Density (g/cmo).	1.125				Barium:		
					Iron:	1.4	0.05
Hydrogen Sulfide:	88				Manganese:	0.540	, 0.02
Carbon Dioxide:	37						
_		pH at time of sampl	ing:	6.8			
Comments:		pH at time of analys	sis:				
		pH used in Calcula	ation:	6.8	Conductivity (mi	ero ohme/em):	210700
		Temperature @ lat	conditions (F):	66	Resistivity (ohm	•	.0475

		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl									
Гетр	Calcite CaCO ₃				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	





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**

Cam	pany:
COIL	рану.

COG Operating LLC - NM

Sample #:

7138

Area:

Artesia

Analysis ID #:

290

Lease:

JENKINS B FED.

Location:

7

3001529451

Sample Point:

Wellhead

Sampling Date:	4/3/2007	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date: Analyst:	4/5/2007 Mitchell Labs	Chloride:	103414.0	2916.93	Sodium:	65752.9	2860.09
•		Bicarbonate: Carbonate:	457.0	7.49	Magnesium: Calcium:	278.0 2123.0	22.87 105.94
TDS (mg/l or g/m3): Density (g/cm3):	175126.8 1.122	Sulfate:	3100.0	64.54	Strontium: Barium:		
				ļ	Iron:	1.6	0.06
Hydrogen Sulfide:	102				Manganese:	0.340	0.01
Carbon Dioxide:	37						
0		pH at time of sampl	ing:	6.8			
Comments:		pH at time of analysis:					
		pH used in Calcula	ation:	6.8	Canduativity (mi	<b>h</b>	200200
		Temperature @ lat	conditions (F):	66	Conductivity (mi- Resistivity (ohm	•	206800 .0484

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Гетр	Calcite CaCO ₃			sum 4*2H ₂ 0	1	nydrite aSO ₄		estite rSO ₄		rite ISO 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





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



- 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 #:

7135

Area:

Artesia

Analysis ID #:

298

Lease:

JENKINS B FED.

Location:

11

3001530665

Sample Point:

Wellhead

Sampling Date:	4/3/2007	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	4/4/2007	Chloride:	105216.0	2967.76	Sodium:	66124.2	2876.24
Analyst:	Mitchell Labs	Bicarbonate:	561.0	9.19	Magnesium:	522.0	42.94
TDS (mg/l or g/m3): Density (g/cm3):	177550.1 1.124	Carbonate: Sulfate:	2800.0	58.3	Calcium: Strontium:	2324.0	115.97
Density (g/cms).	1.124				Barium:		
					Iron:	1.9	0.07
Hydrogen Sulfide:	95				Manganese:	0.980	0.04
Carbon Dioxide:	88						
		pH at time of sampl	ling:	6.8			
Comments:		pH at time of analys	sis:				
		pH used in Calcula	ation:	6.8	Conductivity (mi	oro obmolom):	209400
		Temperature @ lai	b conditions (F):	66	Resistivity (ohm	•	.0478

Temp	Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl									
	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ 0		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





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



- 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**

Com	pany:

COG Operating LLC - NM

Sample #:

7137

Area:

Artesia

Analysis ID #:

289

Lease:

JENKINS B FED.

Location:

15

3001533472

Sample Point:

Wellhead

Sampling Date:	4/3/2007	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	4/4/2007	Chloride:	108018.0	3046.79	Sodium:	68187.5	2965.99
Analyst:	Mitchell Labs	Bicarbonate:	457.0	7.49	Magnesium:	586.0	48.21
TDS (mg/l or g/m3): Density (g/cm3):	182020.9 1.127	Carbonate: Sulfate:	2800.0	58.3	Calcium: Strontium:	1970.0	98.3
					Barium: Iron:	1.8 0.560	0.07
Hydrogen Sulfide:	122				Manganese:	0.560	0.02
Carbon Dioxide:	44						
		pH at time of sampl	ing:	6.8			
Comments:		pH at time of analys	sis:				
		pH used in Calcula	ation:	6.8	0	L ()	24222
		Temperature @ lal	b conditions (F):	66	Conductivity (mic Resistivity (ohm	•	212200 .0471

_	Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl									
Гетр		alcite CaCO ₃		sum 4 ^{*2H} 2 0		ydrite aSO ₄		estite rSO ₄		rite aSO 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 Blinebry 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:

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



Form 3160-5 (August 2007)

# **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APP	ROV	EL
OMB NO. 19	004-0	113
Expires: July	31.2	201

	Expires: July	
5.	Lease Serial No.	
	NIMIL COE LOCOD	



SUNDRY NOTICES AND REPORTS ON WELLS

	is form for proposais to II.  Use form 3160-3 (API		6. If Indian, Allott	ee or Tribe Name
SUBMIT IN TRI	PLICATE - Other instruc	ctions on reverse side.	7. If Unit or CA/A	greement, Name and/or No.
1. Type of Well		<del></del>	8. Well Name and JENKINS B FE	
Ø Oil Well ☐ Gas Well ☐ Ot 2. Name of Operator	Contact:	KANICIA CARRILLO	9. API Well No.	
COG OPERATING LLC	E-Mail: kcarrillo@d	conchoresources.com	30-015-0421	
3a. Address 550 WEST TEXAS AVE STE MIDLAND, TX 79701	1300	3b. Phone No. (include area Ph: 432-685-4332		, or Exploratory S;GLORIETA,YESO
4. Location of Well (Footage, Sec., 7	C., R., M., or Survey Description	)	11. County or Pari	sh, and State
Sec 20 T17S R30E 330FNL 2	2310FWL		EDDY COUN	NTY, NM
12. CHECK APP	ROPRIATE BOX(ES) TO	) INDICATE NATURE	OF NOTICE, REPORT, OR OTI	HER DATA
TYPE OF SUBMISSION		TYP	E OF ACTION	
S Nation of lates t	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☑ Notice of Intent	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	■ Well Integrity
☐ Subsequent Report	☐ Casing Repair	■ New Construction	n Recomplete	Other
☐ Final Abandonment Notice	☐ Change Plans	□ Plug and Abando	n	
		Plug Back	■ Water Disposal	
Objective: Convert the well fr be moved prior to conversion  1. MIRU POH w/ rods & tbg. 2. PU & RIH w/ 3-3/4? bit & si scraper. 3. RIH w/ WS & 4-1/2? pkr, & 4. Dump 3 sxs (1 sx= 100#) o 5. Establish injection rate into 6. POOH & LD pkr. 7. TIH w/ composite cmt retai 8. Mix and pump lead 250 sxs	final inspection.)  from a producer to a Paddo.  craper on 2-3/8? WS, CO  CBP. Set CBP @ +/- 429  f sand on CBP. Test ann perfs.  ner & set @ +/- 4000?.  s Class ?C? cmt + 2% Cal	ock water injection well. ( to PBTD @ 4726?, Circ of 90?, set pkr @ +/- 4000? ulus to 500 psi for 30 min	clean. POOH & LD bit and end w/ 200 sx class	
Name (Brinted Coned) - IVANICIA	For COG C	PERATING LLC, sent to the	he Carlsbad	
Name (Printed/Typed) KANICIA	CARRILLO	Title PR	EPARER	
Signature (Electronic	Submission)	Date 01/	05/2010	
	THIS SPACE FO	OR FEDERAL OR STA	TE OFFICE USE	
Approved By		Title		Date
onditions of approval, if any, are attache rtify that the applicant holds legal or eq- nich would entitle the applicant to condi-	uitable title to those rights in the			



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.

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

### 32. Additional remarks, continued

?C? neat.

?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% HCI while dropping 50 bioballs as a diverter. Displace w/ 50bbls FW.

Monitor backside as job is being pumped.

15. RD & Rls acid company.

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

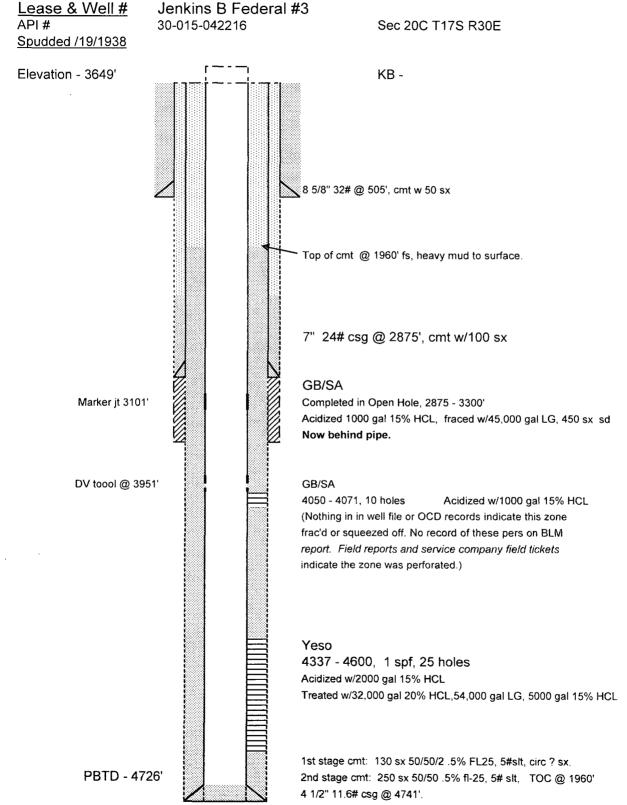
17. RIH w/ 2-7/8? inj tbg w/ turndown collars & inj pkr. Set pkr @ 4250?.

18. Rls 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.











Lease & Well #

Jenkins B Federal #3 30-015-042216

### Spudded /19/1938

Elevation - 3649' KB -8 5/8" 32# @ 505', cmt w 50 sx Top of cmt @ 1960' fs, heavy mud to surface. 7" 24# csg @ 2875', cmt w/100 sx GB/SA Marker jt 3101' Completed in Open Hole, 2875 - 3300' Acidized 1000 gal 15% HCL, fraced w/45,000 gal LG, 450 sx sd Now behind pipe. **Squeezed off with 200 sx. DV toool @ 3951' GB/SA 4050 - 4071, 10 holes Acidized w/1000 gal 15% HCL (Nothing in in well file or OCD records indicate this zone frac'd or squeezed off. No record of these pers on BLM report. Field reports and service company field tickets indicate the zone was perforated.) Packer fluid 2 7/8" IP tbg Injection packer @ 4,250' Yeso 4337 - 4600, 1 spf, 25 holes Acidized w/2000 gal 15% HCL Treated w/32,000 gal 20% HCL,54,000 gal LG, 5000 gal 15% HCL 1st stage cmt: 130 sx 50/50/2 .5% FL25, 5#slt, circ ? sx. PBTD - 4726 2nd stage cmt: 250 sx 50/50 .5% fl-25, 5# slt, TOC @ 1960' 4 1/2" 11.6# csg @ 4741'.



Form 3160-5 (August 2007)

### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

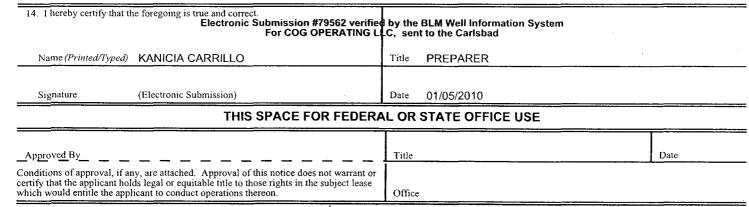
Expires: July 31, 2010
OMB NO. 1004-0135
FORM APPROVED

# 5. Lease Serial No. NMLC054988B

/ 1

**SUNDRY NOTICES AND REPORTS ON WELLS** Do not use this form for proposals to drill or to re-enter an

abandoned we	6. If Indian, Allottee o	r Tribe Name			
SUBMIT IN TRI	PLICATE - Other instruc	ctions on reverse side.		7. If Unit or CA/Agree	ement, Name and/or No.
Type of Well	8. Well Name and No. JENKINS B FEDE	ERAL 7			
Name of Operator     COG OPERATING LLC	9. API Well No. 30-015-29451				
3a. Address 550 WEST TEXAS AVE STE MIDLAND, TX 79701	1300	3b. Phone No. (include area code) Ph: 432-685-4332		10. Field and Pool, or LOCO HILLS;G	Exploratory LORIETA,YESO
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description	n)		11. County or Parish,	and State
Sec 20 T17S R30E 1650FNL	1090FWL			EDDY COUNTY	/, NM
12. CHECK APPI	ROPRIATE BOX(ES) TO	O INDICATE NATURE OF N	NOTICE, RE	PORT, OR OTHE	R DATA
TYPE OF SUBMISSION		TYPE OF	ACTION		
Notice of Intent	☐ Acidize	□ Deepen	☐ Production	on (Start/Resume)	□ Water Shut-Off
_	☐ Alter Casing	☐ Fracture Treat	☐ Reclama	tion	☐ Well Integrity
☐ Subsequent Report	□ Casing Repair	☐ New Construction	☐ Recompl	lete	☐ Other
☐ Final Abandonment Notice	☐ Change Plans	□ Plug and Abandon	☐ Tempora	rily Abandon	
		☐ Plug Back	□ Water D	isposal	
Attach the Bond under which the wo following completion of the involved testing has been completed. Final Al determined that the site is ready for f Objective: Convert the well fr be moved prior to conversion.  1. MIRU POH w rods & tbg.  2. PU & RIH w/ 4-3/4? bit & 5-& LD bit.  3. RIH w/ WS & 5-1/2? treatin 4. RU acid company.	ally or recomplete horizontally rk will be performed or provide to perations. If the operation repaid on the performent Notices shall be final inspection.)  om a producer to a Padd )  -1/2? csg scraper on 2-7/ g pkr, set pkr @ +/- 4240  while dropping 50 bioballs ng pumped.	nt details, including estimated starting, give subsurface locations and measure the Bond No. on file with BLM/BIA soults in a multiple completion or recolled only after all requirements, including the control ock water injection well. (Pum 8? WS, CO to PBTD @ 4783?)  17. Test annulus to 500 psi for sas a diverter. Displace w/ 50	red and true ver Required sub- mpletion in a n- ing reclamation  ping unit will  , Circ clean.  30 min.	tical depths of all pertir sequent reports shall be ew interval, a Form 316 , have been completed,	nent markers and zones. filed within 30 days 50-4 shall be filed once





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.

### 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.







### Lease & Well #

Jenkins B Federal #7

API # 30-015-29451 Spud: 4/3/97 Sec 20E T17S R30E

Elevation - 3643'

PBTD - 4783'

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

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'.



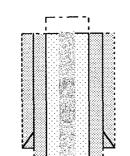
30 015 29451

### Lease & Well # J

Jenkins B Federal #7

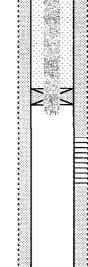
Spud: 4/3/97

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 gql 15% HCL

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'.

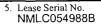


Form 3160-5 (August 2007)

### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OMB NO. 1004-013
Expires: July 31, 20
 0 : 131

FORM APPROVED



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Æ.	30	
13	120	

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an

			_	
6.	If Indian,	Allottee or	Tribe	Name

abandoned wei						
SUBMIT IN TRI	7. If Unit or CA/Agre	ement, Name and/or No.				
Type of Well     ☐ Gas Well ☐ Oth	8. Well Name and No JENKINS B FED					
2. Name of Operator	Contact: KAN	IICIA CARRILLO	9. API Well No.			
COG OPERATING LLC	E-Mail: kcarrillo@conch	oresources.com	30-015-30665			
3a. Address 550 WEST TEXAS AVE STE MIDLAND, TX 79701		Phone No. (include area code) : 432-685-4332	10. Field and Pool, or LOCO HILLS;G	Exploratory SLORIETA,YESO		
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description)		11. County or Parish,	and State		
Sec 20 T17S R30E 330FNL 9	90FWL		EDDY COUNT	Y, NM		
12. CHECK APPI	ROPRIATE BOX(ES) TO IN	DICATE NATURE OF 1	NOTICE, REPORT, OR OTHE	ER DATA		
TYPE OF SUBMISSION		TYPE OI	FACTION			
■ Notice of Intent	☐ Acidize	□ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off		
	☐ Alter Casing	☐ Fracture Treat	□ Reclamation	■ Well Integrity		
☐ Subsequent Report	Casing Repair	■ New Construction	☐ Recomplete	□ Other		
☐ Final Abandonment Notice	☐ Change Plans	Plug and Abandon	☐ Temporarily Abandon			
		☐ Plug Back	■ Water Disposal			
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 ?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 #79561 verified by the BLM Well Information System  For COG OPERATING L.C, sent to the Carlsbad						
Name (Printed/Typed) KANICIA	CARRILLO	Title PREPA	RER			
Signature (Electronic S	Submission)	Date 01/05/2	010			
	THIS SPACE FOR F	EDERAL OR STATE	OFFICE USE			
Approved By		Title		Date		
Conditions of approval, if any, are attache certify that the applicant holds legal or equivalent would entitle the applicant to conduct the conduction of th	ritable title to those rights in the subj					



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.

### 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 perfs.

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?.

RIH w/ WS & 5-1/2? treating pkr, set pkr @ +/- 4390?.
 RU acid company
 Pump 2500 gals 15% HCl while dropping 50 bioballs as a diverter. Displace w/ 50bbls FW. Monitor backside as job is being pumped.
 RIB & RIs acid company.
 RIS pkr & POOH w/ pkr & WS.
 RIH w/ 2-7/8? inj tbg & inj pkr. Set pkr @ 4350?.
 RIS on/off tool, Circ annulus w/ pkr fluid, latch onto on/off tool.
 Test csg to 500psi.
 Begin Injection as permitted on the C108.



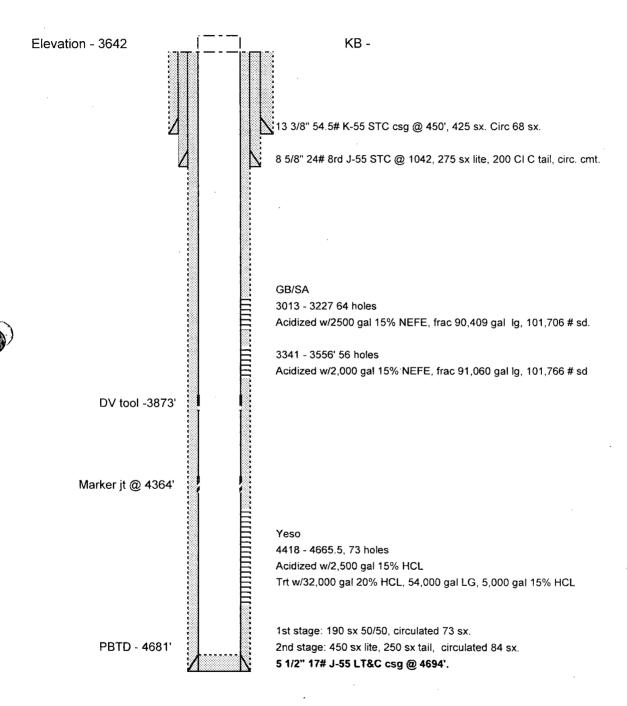


Lease & Well # API # 30-015-30665

Jenkins B Federal # 11

SPUD: 12/1/99

Sec 20D T17S R30E





30 015 30665

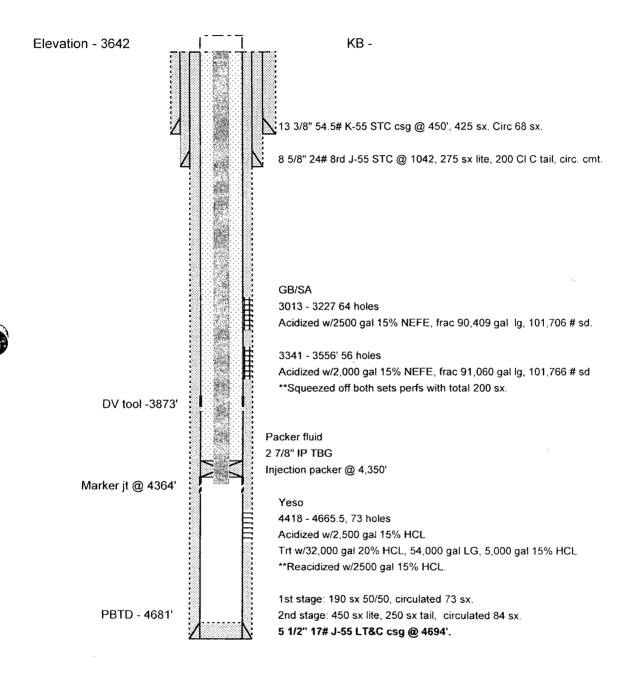


Lease & Well #

Jenkins B Federal # 11

WIW

SPUD: 12/1/99





Form 3160-5 (August 2007)

### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FURM	APP	ĸΟ	ΛĘĐ
OMB N	0.10	004-	0135
Expires:	July	31,	2010

# Lease Serial No

NMLC054988B

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1

SUNDRY NOTICES AND REPORTS ON WELLS ab

abandoned well. Use form 3160-3 (APD) for such proposals.	6. If Indian, Allottee or Tribe Name
SUBMIT IN TRIPLICATE - Other instructions on reverse side.	7. If Unit or CA/Agreement, Name and/or No

1. Type of Well		8. Well Name and No.
Oil Well Gas Well Other		JENKINS B FEDERAL 15
2. Name of Operator	Contact: KANICIA CARRILLO	9. API Well No.
COG OPERATING LLC	E-Mail: kcarrillo@conchoresources.com	30-015-33472
3a. Address 550 WEST TEXAS AVE STE 1300 MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 432-685-4332	10. Field and Pool, or Exploratory LOCO HILLS;GLORIETA,YESO
4. Location of Well (Footage, Sec., T., R., M.,	11. County or Parish, and State	

Sec 20 T17S R30E 1650FNL 1090FWL EDDY COUNTY, NM

### 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION ☐ Acidize □ Production (Start/Resume) ■ Water Shut-Off Deepen Notice of Intent ■ Well Integrity ☐ Alter Casing ☐ Fracture Treat ■ Reclamation ☐ Subsequent Report □ Casing Repair ☐ New Construction □ Recomplete □ Other ☐ Final Abandonment Notice ☐ Change Plans ☐ Plug and Abandon ☐ Temporarily Abandon ☐ Plug Back ■ 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 recomplete 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 @ 4906?, Circ clean. POOH & LD bit and scraper.
- 3. RIH w/ WS & 5-1/2? sqz pkr, & CBP. Set CBP @ +/- 4290?, set pkr @ +/- 3910?.
- 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

4. I hereby certify that the	ne foregoing is true and correct. Electronic Submission #79567 veri For COG OPERATING	fied by the	e BLM Well Information System nt to the Carlsbad	
Name (Printed/Typed)	KANICIA CARRILLO	Title	PREPARER	
Signature	(Electronic Submission)	Date	01/05/2010	
***	THIS SPACE FOR FEDE	RAL 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.			e	



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

### 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/ 50bbls FW. Monitor backside as job is being pumped.

20. RD & Rls acid company.
21. Rls pkr & POOH w/ pkr & WS.
22. RlH w/ 2-7/8? inj tbg & inj pkr. Set pkr @ 4250?.
23. Rls on/off tool. Circ annulus w/ pkr fluid, latch onto on/off tool.

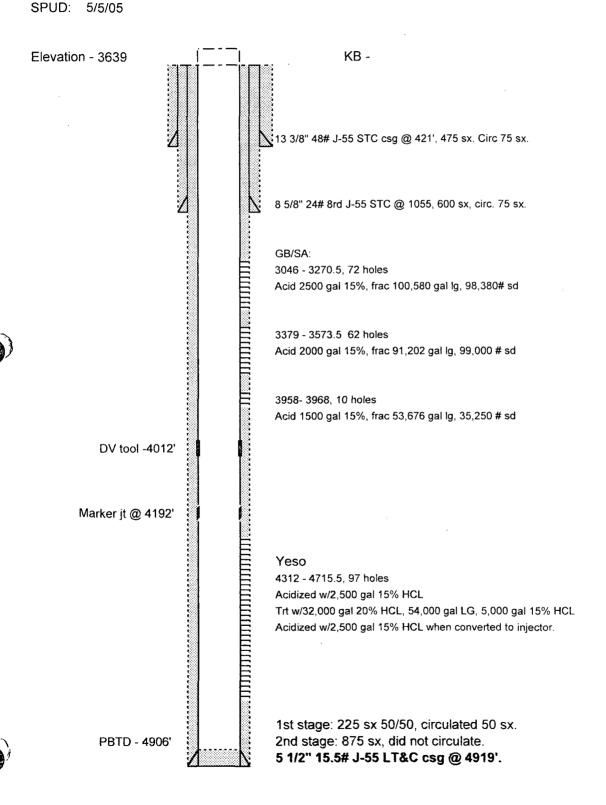
24. Test csg to 500psi.

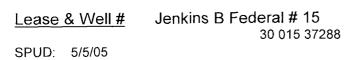
25. Begin Injection as permitted on the C108.

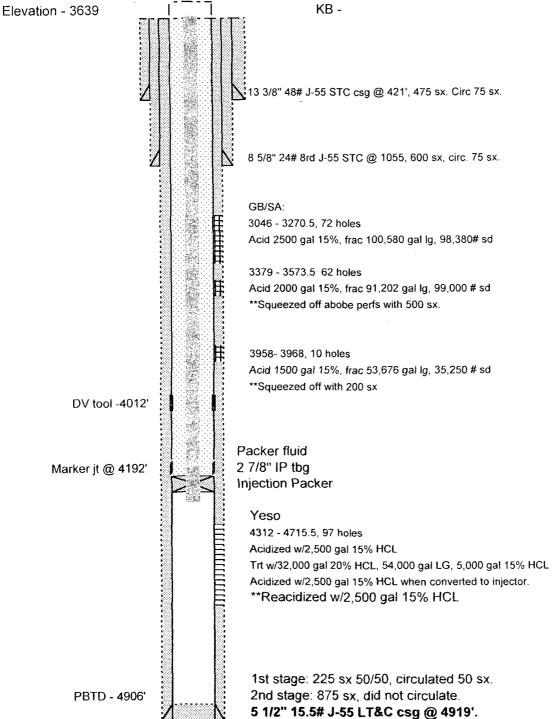


<u>Lease & Well #</u> API # 30-015-33472 Jenkins B Federal # 15

Sec 20F T17S R30E







# Well Test - Oil, Gas, Water



Х.

Begin Date/Time	End Date/Time	Test Hours	Oil/Cond Volume	Frm Gas Volume	Water Volume	info Only	Remarks	
Jenkins B Fed	deral 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		



### Х.

# 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 Fed	deral 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		







Begin Date/Time	End Date/Time	Test Hours	Oil/Cond Volume	Frm Gas Volume	Water Volume	Info Only	Remarks	
Jenkins B Fed	deral 11 (Glorie	ta 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		



# 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 Fed	deral 15 (Glorie	eta 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





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
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.	A. Signature  Agent  Addressee
Attach this card to the back of the mailpiece, or on the front if space permits.	B. Received by (Printed Name) C. Date of Delivery
1. Article Addressed to:	D: is delivery address different from item 1? Yes
Marbob, Energy Corporation 2208 West Main Street Artesia, NM.88211	
	3. Service Type
2. Article Number	4. Restricted Delivery? (Extra Fee) ☐ Yes
(Transfer from service label) 7009 225	0001 0942 3530
PSiForm 3811, February 2004 Domestic Retu	mirioceipt 102595-02-M-1540

دا دا ما حدم ۱۹		***************************************
2 3530	U.S. Postal Servicem. CERTIFIED MAIL RECEIPT Conceile Met Cody No Insurance Covered Provided Cordinary Information visit cur websited www.neps.com OFFICIAL USE	
450 000 0522	Postage \$ .44  Certifled Fee 280  Return Receipt Fee (Endorsement Required)  Restricted Delivery Fee (Endorsement Required)  Total Postage & Fees \$ 5.54	NOWINGS
7009	Sent To Marbob Energy Corporation  Sireet, Apt. No.; 2208 West Main Street  Thy, State, ZiP+4 Artesia, NM-88211  SForm 8900, August 2003 Scellevase for Instruction	

From: Sent: U.S._Postal_Service_[U.S._Postal_Service@usps.com]

Friday, January 15, 2010 8:46 PM

▼≀o: Subject: Kanicia Castillo 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 MIDLAND TX 79701

01/13/10 3:21pm

Facility

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 reatures, please visit the Frequently Asked Questions (FAQs) section of our Track & Confirm site at <a href="http://www.usps.com/shipping/trackandconfirmfaqs.htm">http://www.usps.com/shipping/trackandconfirmfaqs.htm</a>



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

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

Jenkins B Federal #15

#### To Whom It May Concern:

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Sincerely,

COG Operating LLC

Postage S	<u></u>		ervice ) MAIL RECEIPT nly: No insurance Coverage Provided)
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Certified Fee Return Receipt Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required) Total Postage & Fees \$ 5,54  Sent To ConocoPhillips Sirest, Apt. No.; or PO Box No. City State TRAC  Building 6	7	Postage	8 ,44 SOJX DO
Hestricted Delivery Fee (Endorsoment Required)  Total Postage & Fees \$5,57  Total Postage & Fees \$5,57  Sent To ConocoPhillips  Street, Apt. No.; 3300 North A Street or PO Box No. Building 6		Certified Fee	280
Hestricted Delivery Fee (Endorsement Required)  Total Postage & Fees \$5,54  Total Postage & Fees \$5,54  Sent To ConocoPhillips  3300 North A Street  Or PO Box No.  Building 6			2-30 Perent 2
Total Postage & Fees \$ 5 , 5 , 5 , 5 , 5 , 5 , 5 , 5 , 5 , 5		Restricted Delivery Fee (Endorsement Required)	
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Gry State 7/8-4	3		1
Midland, TX 79705	K.		Building 6
	4	City, State, ZIP44	Midland, TX 79705
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SENDER	
SENDER: COMPLETETHIS 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 mailplece, or on the front if space permits:	A. Signature  A. Signature  A. Signature  Addressee  B. Raceived by (Printed Marret)  C. Date of Delivery
1. Article Addressed to:  ConocoPhillips 3300 North A Street Building 6	D. Is delivery address different from item 1? Yes If YES, enter delivery address below: No
Midland, TX 79705	3. Service Type  Discretified Mail □ Express Mail □ Registered □ Receipt for Merchandise □ Insured Mail □ C.O.D.  4. Restricted Delivery? (Extra Fee) □ Yes
2. Article Number (Transfer from service label)	See Address of the Control of the Co
PS Form 3811, February 2004 Domestic Retu	urn Receipt 102595-02-M-1540

From: To:

U.S._Postal_Service_[U.S._Postal_Service@usps.com]

Thursday, January 14, 2010 8:06 PM

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

Confirm tool

Delivered MIDLAND TX 79705

01/14/10 10:52am

Processed through Sort MIDLAND TX 79701

01/13/10 3:21pm

Facility

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 &

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/trackandconfirmfags.htm



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 #11
API# 30-015-30665
Sec 20, 17S, R30E, Unit D
330' FNL & 990' FWL 1
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 #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:

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Sincerely,

COG Operating LLC

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY		
© Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery Is desired.  © Print your name and address on the reverse	A Signature ☐ Agent ☐ Addressee		
so that we can return the card to you.  Attach this card to the back of the mallpiece, or on the front if space permits.	B. Received by (Printed Name) G. Date of Delivery  LO Ren 20 6: RAMLEO		
Article Addressed to:	D. is delivery address different from item 1?  Yes if YES, enter delivery address below:  No		
BP America Production Company 600 N Marienfeld	GOO N. MANIELFALD 8th 800		
Suite 600 Midland, TX 79702	3. Service Type		
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	4. Restricted Delivery? (Extra Fee) ☐ Yes		
2. Article Number (Transfer from service label) 7009 22	50  0001  0942  \$008		
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2250	Total Postage & Fees \$ 5.54
-{	Sent To BP America Production Company
7009	Street, Apt. No.; 600 N Marienfeld
尼	or PO Box No. Suite 600
	City, State, ZIP+4 Midland, TX 79702
1	PS Form 2000. August 2003

From:

U.S._Postal_Service_[U.S._Postal_Service@usps.com]

Thursday, January 14, 2010 8:52 PM

Subject:

Kanicia Castillo 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 MIDLAND TX 79701

01/13/10 3:21pm

Facility

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 <a href="http://www.usps.com/shipping/trackandconfirmfags.htm">http://www.usps.com/shipping/trackandconfirmfags.htm</a>



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

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 #15

Jenkins B Federal #7

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

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:

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Sincerely,

COG Operating LLC

SENDER::COMPLETE THIS SECTION.	COMPLETE THIS SECTION ON DELIVERY.  A. Signature
<ul> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	X Addressee  B. Received by (Printed Name) C. Date of Delivery  Call Call 114/10
1. Article Addressed to:  Cimarex Energy Company 600 N Marienfeld, Suite 600 Midland, TX 79701	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)
2. Article Number       {	(QQQX Q942 4995[
PS Form 3811, February 2004 Domestic Retu	urn Recelpt 102595-02-M-1540

	U.Š. Postal S CERTIFIED	MAII	_™ RE	CEIPT		
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HOO,	Street, Apt. No.; COO N. Martin fold Suite 600					
7[	or PO Box No. 600 N Marienfeld, Suite 600  City, State, ZIP+4 Midland, TX 79701					
1	PS Form 3800: August 2	006		See Reve	rse for Instructions	

From:

U.S._Postal_Service_[U.S._Postal_Service@usps.com]

Sent:

Thursday, January 14, 2010 8:52 PM

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 MIDLAND TX 79701

01/13/10 3:21pm

Facility

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 Reguest 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/trackandconfirmfags.htm



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 1
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

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Sincerely,

COG Operating LLC

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

For delivery Information visit our website at www.usps.come

Postage \$ ,444

Certified Fee 2.80

Return Receipt Fee (Endorsement Required)

Restricted Delivery Fee (Endorsement Required)

Total Postage & Fees \$ 5.54

Sent To Read & Stevens Inc

Street, Apr. No.; 400 N Penn or PO Box No.

City, State, ZiP+4

Roswell, NM 88201

Roswell, NM 88201

Receipt Fee (Endorsement Required)

Roswell, NM 88201

Complete items 1, 2, and item 4 if Restricted Delive Print your name and address that we can return the attach this card to the bacor on the front if space per 1. Article Addressed to:  Read & Stevens Inc 400 N Penn Suite 1000 Roswell, NM 88201	3 Also comple by is desired, ess on the reve card to you.	rse	A. Signa X. CV B. Recei D. Is deli If YES	ved by (Rin S   2 H /ery addres , enter deliv	COUCH (COUCH) (MOUCH) S different from It very address bel	Address C. Date of Delive
		·	☐ Regi ☐ Insui	ified Mail istered red Mail	LJ C.O.D.	ail eipt for Merchandise
2. Article Number (Transfer from service label)	2000	2250		ed Delivery	? (Extra Fee)	☐ Yes

From:

U.S._Postal_Service_[U.S._Postal_Service@usps.com]

Sent:

Thursday, January 14, 2010 9:48 PM Kanicia Castillo

Subject:

USPS Shipment Info for 7009 2250 0001 0942 3561

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

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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 MIDLAND TX 79701

01/13/10 3:21pm

Facility

Reminder: Track & Confirm by email

Date of email request: 01/14/10

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or 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/trackandconfirmfags.htm



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 #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 #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 #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

	2000		
:	, U.S. Postal		
7	CERTIFIE	D MAIL RE	CEIPT Coverage Provided)
37.	Fordelivery inform	ation visit our website	at www.usps.com
LT.	LOFF	ICIAI	USE
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1000	Return Receipt Fee (Endorsement Required)	2.30	Postmark (A)
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225	Total Postage & Fees	\$ 5,54	
]	Sent To	EOG Resources	Inc
7009	Street, Apt. No.; or PO Box No.	- 4000 N Big Spr	ing
r~	City, State, ZIP+4	Suite 500	***************************************
	PS Form 3800: August 20	Midland, TX 79	
امود دیدا :		U6	See Reverse for Instructions:
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مقارحات	أأبراء والمساؤد الدسيكه فرود وفائك فسلم	أأنحت بالمأبيلية وأوندة عدماندعك سأسهد ماليا	وروبد المتحاجب بالمنابية بم مجسدتهم والمسائلية

SENDER GOMPLE 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 mailplece, or on the front if space permits:	A. Signature  A. Signature  A. Signature  A. Signature  A. Signature  C. Date of Delivery  C. Date of Delivery
1. Article Addressed to:  EOG Resources Inc 4000 N Big Spring Suite 500	D. Is delivery address different from item 1?
Midland, TX 79702	3. Service Type  Gertified Mail Express Mall Registered Return Receipt for Merchandise Insured Mail C.O.D.
2. Article Number (Transfer from service label) 7001 225	14. Restricted Delivery? (Extra Fee)

From:

 $\hbox{U.S._Postal_Service}_[\hbox{U.S._Postal_Service@usps.com}]$ 

Sent:

Saturday, January 16, 2010 12:15 AM

Kanicia Castillo

Subject:

USPS Shipment Info for 7009 2250 0001 0942 3776

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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 MIDLAND TX 79701

01/13/10 3:21pm

Facility

Reminder: Track & Confirm by email

Date of email request: 01/14/10

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# Affidavit of Publication

NO.

20963

RTATE	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:.

Notary Public, Eddy County, New Mexico

# Copy of Publication:

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 Blinebry 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. December 24, 2009

Legal No. 20963