

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Artesia, NM 88210

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. **30-025-34286**

5. Indicate Type of Lease

STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

HANSEN STATE

8. Well Number

9

9. OGRID Number

14021

10. Pool name or Wildcat

Eunice-Monument-Grayburg-San Andres

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: **Oil Well** ☒ Gas Well ☐ Other ☐

2. Name of Operator

Marathon Oil Company

3. Address of Operator

P.O. Box 3487 Houston, TX 77253-3487

Mail Stop #3308

4. Well Location

Unit Letter **H** : **2190'** feet from the **North** line and **460'** feet from the **East** line

Section **16** Township **20-S** Range **37-E** NMPM _____ County **Lea**

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

KB: 3557' , GL: 3544'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

DOWNHOLE COMMINGLE ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ P AND A ☐

CASING/CEMENT JOB ☐

OTHER: Plug back to: the Tubb / ☒

Re-complete to: Eunice-Monument-Grayburg-San Andres

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

***Marathon Oil Company has completed operations to plug back the Hansen State #9 to the Tubb formation, and re-complete the well to the Eunice-Monument-Grayburg-San Andres formations. Please see the attached well summary for details of well work done.**

***NOTE:** Fresh water used, no solids or waste generated.

Spud Date:

9/08/2008

Rig Release Date:

9/15/2008

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Rick R. Schell

TITLE: **Regulatory Compliance Rep.**

DATE: **08-OCT-2008**

Type or print name

Rick R. Schell

E-mail address

rrschell@MarathonOil.com

PHONE:

713-296-3412

For State Use Only

APPROVED BY:

[Signature]

TITLE

PETROLEUM ENGINEER

DATE

OCT 30 2008

Conditions of Approval (if any):

2A Monument Abo SE



MARATHON OIL COMPANY
MID-CONTINENT REGION
MIDLAND OPERATIONS NORTHWEST NEW MEXICO

FIELD: MONUMENT
LEASE: HANSEN STATE
COUNTY: LEA

COMPLETED: 04/10/98

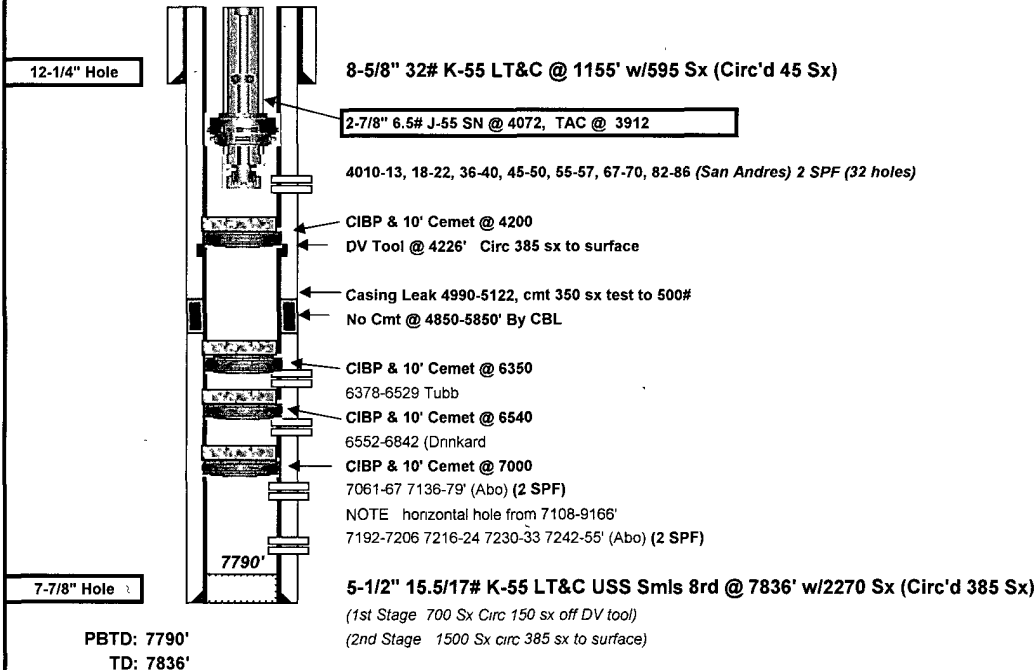
LOCATION: 2190' FNL & 460' FEL, SECTION 16, TOWNSHIP 20S, RANGE 37E, UNIT LETTER "H"

GL = 3544'
KB = 3557'

SPUD: 03/10/98 Reach TD: 03/31/98

API: 30-025-34286

DATE: 9/24/2008
BY: RS Bose
WELL: 9
STATE: NEW MEXICO



Formation Tops

Yates	2495'
Queen	3354'
Grayburg	3595'
San Andres	3877'
Gloneta	5126'
Paddock	5203'
Blinbry	5677'
Tubb	6272'
Drinkard	6592'
Abo	6926'

Well History

- Apr '98 Perf'd (Abo) w/2 SPF @ 7192-7206, 16-24 30-33 & 42-55' Acdd same w/3800 Gal 15% Ferchek w/100 BS's AIR=5 25 BPM, AIP=5000#, ISIP=2305#, 5min=Vacuum, Pmax=6480# Perfs broke down @ 6400# Perf'd (Abo) w/2 SPF @ 7061-67 & 7136-39' Acdd same w/5500 Gal 15% Ferchek w/100 BS's AIR=7 6 BPM, AIP=500#, ISIP=Vacuum, Pmin=90#, Pmax=1185# Acdd all Abo perfs 7061-7255' w/9000 Gal 15% Gelled Ferchek SC w/250 BS's AIR=11 87 BPM, Pmax=928#, 2210# on flush, on vacuum at end of job Turned to production flowing thru 1/4" choke @ 10 BOPD & 7 BWPD
- May '98 Installed pumping equipment Turned to production pumping thru 2-7/8" tubing
- May '99 Set CIBP @ 7120' Sqzd Abo perfs 7061-67' w/400 sx & 1000 gal flochek DOC to 7120' Cut window for horizontal drilling @ 7108-20' Drd 4-3/4" horizontal hole @ 7120-9166' Acid washed lateral open hole 7380-9166' w/25,000 gal 15% Hcl & 160 mcf nitrogen Well fldw 25 bbls fluid in one hour, then died
- July '99 Pushed CIBP in vertical hole from 7120' to 7790' Perf'd (Abo) w/2 SPF - 17 holes @ 7060-68' Acdd same w/2000 gal 20% Hcl in 70% nitrogen Installed pumping equipment & returned to production pumping
- Sep '01 Locate casing leak at 4990'-5112' Cement leak with 350 sx, rev out 112 sx Tst sqz to 500 psi
- Mar '08 Set CIBP @ 7000' Selectively perforate in acid the Tubb and Drinkard from 6378-6842 with 49 holes Acidize w/ diversion (perf ball sealers) using 80 bbls of 15% HCL Test Drinkard, no BHP Set CIBP @ 6540 with 10' cement and test Tubb No oil or gas Set CIBP @ 6350 w/ 10' cmt Set CIBP at 4200' w/ 10' cement
- Sep '08 Perf San Andres in acid 4010-86 (32 holes) @ 2 SPF PWOP

Recompletion Procedure

Hansen State Well No. 9
2190' FNL, 460' FEL
Section 16, 20S-37E, UL "H"
Lea County, New Mexico

WBS NO: RW.08.17851

Date: July 17, 2008

Purpose: Recomplete to San Andres

Elevation: **KB:** 3557' **PBTD:** 4200'
 GL: 3544' **TD:** 7836'

Estimated Cost: \$60,000

Estimated Rig Days: 6

WI: 100% **NRI:** 87.5%

Surface Casing: 8-5/8", 32#, K-55 casing set at 1155'. Cemented w/ 595 sx. Circulated cement to surface (45 sx).

Production Casing: 5-1/2", 15.5/17#, K-55 LT&C casing to 7836'.
Circulated 385 sx. TOC at surface'.
(1st stage: 700 Sx Circ 150 Sx off DV tool)
(2nd stage: 1500 Sx Circ 385 Sx to surface.)

Production Tubing: 2-7/8", 6.5#, J-55, EUE @4092, SN.

Safety Issues: High Concentration Of H₂S Gas

Tubular Performance/Capacities:

	ID (in.)	Drift (in.)	Burst (psi)	Collapse (psi)	Capacity (bbl/ft)
2-7/8" 6.5# J-55	2.441	2.347	5808	7680	.00579
5-1/2" 15.5# K-55	4.95	4.825	3848	4040	.0238
Tbg/Csg Annulus	-----	-----	-----	-----	.0158

WORKOVER PROCEDURE

Hansen State Well No. 9

Lea County, New Mexico

Procedure:

1. MIRU WSU. Install and test BOPE. Load wellbore full w/freshwater and test to 500 psi. PU end of tubing to 4090' and circulate a balance 3-bbl slug of acid from 4090' to 3950' using 15% NEFEHCL inhibited for 48-hours at 100 deg F. POOH with tubing and tools.
2. RU Baker Atlas electric line. Install and test pack-off to 1000psi. RU CBL/CCL logging tools and run cement bond log in well from CIBP to 2400'. Hold 1000 psi on well while running CBL. POOH with logging tools. Install pack-off. RIH with 3-1/8" slick gun with 311T charges loaded 2 SPF, phasing is not critical. Perforate from top-down to maximize benefit of acid. For depth control use newly ran CBL and correlate new CBL to Schlumberger Compensated Neutron Three Detector Density/NGT log dated 03/29/1998.

4010'-4013' (3', 4 holes)

4018'-4022' (4', 5 holes)

4036'-4040' (4', 5 holes)

4045'-4050' (5', 6 holes)

4055'-4057' (2', 3 holes)

4067'-4070' (3', 4 holes)

4082'-4086' (4', 5 holes)

San Andres 25 Net Feet – 32 Holes

After last gun has been shot, pump 5 bbls of fresh water down casing to flush excess acid.

3. RIH w/TBG and PKR. Set packer @ +/-3990' and establish injection into new perforations. Pump +/- 10 bbls of fresh water at maximum rate not to exceed 5000 psi using reverse unit or kill truck. Load and test backside to 500 psi. Swab test perforations for 1/2 day. If the perforations are not giving up fluid and not productive, plans will be to acidize as listed below. Otherwise, PWOP.
4. RU acid company. Need a minimum of 500 HHP on location. Pump +/- 35 bbls of 15% NEFEHCL inhibited for 4 hours at 100 deg F. Use a ball injector loaded with 50 (1.1 SG) ball sealers for acid diversion. Start off pumping 5 bbls of acid, then drop 1 ball for each 1/2-bbl of acid pumped. After last ball, pump remaining 5-bbls of acid. Pump at maximum rate (4-5 BPM is desired) not to exceed 5000 psi surface pressure. Displace acid with 30-bbls of fresh water.
5. Release packer and lower past bottom perforation to knock ball sealers off perforations. POOH.
6. RIH with production equipment, set pump intake +/- 10' off bottom, set tubing anchor above top perforation and PWOP.

Marathon Oil Company
Operations Summary Report

Page 1 of 2

Legal Well Name: HANSEN STATE NO 9
Common Well Name: HANSEN STATE NO 9
Event Name: RECOMPLETION
Contractor Name: KEY ENERGY SERVICES
Rig Name: KEY ENERGY SERVICES

Spud Date: 9/15/2008
Start: 9/8/2008
End: 9/15/2008
Rig Release: 9/15/2008
Group:
Rig Number: 340

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
9/8/2008	07:30 - 08:30	1.00	RURD	RIG	CMRUN	TGSM, MIRU PU, RU Reverse Unit Blow down Tubing pressure
	08:30 - 10:00	1.50	NUND	BOPE	CMRUN	ND WH, NU BOP. Rig up floor and tongs.
	10:00 - 12:00	2.00	PUMP	ACID	CMRUN	Loaded hole w/ 65 bls water. Tested to 500 psi. Held good. Pooh w/ 2 jts 2 7/8" J-55, Added 4' sub. Left bottom of tbg @ 4190' Pumped 3 bbls 15% NEFE HCL Acid dn tbg w/ 22 5 bls wtr to put on spot. Pooh w/ tubing
	12:00 - 13:00	1.00	SAFETY	MTG	CMPPRF	Rig up Baker Atlas Logging equipment. Held Logging and perforating safety meeting
	13:00 - 14:00	1.00	LOG	CSG	CMPPRF	RU pack-off, tested to 1.000 psi. Held good. RIH w/ CBL tool and logged from 4190' to 2,400'
	14:00 - 15:00	1.00	PERF	CSG	CMPPRF	Arm and PU Perforating Gun. PU Select Fire Gun and pressure Tested to 1000 psi. Held pressure.
	15:00 - 15:45	0.75	PERF	CSG	CMPPRF	RIH w/ 3-1/8" Select Fire Gun Carrier w/ 311T w/ 23 gram Charges w/ 2 JSPF, 120 deg phasing w/ Gamma Ray Collar Locator. Get on Depth Perforating From top down. Perforate from 4010' - 13, 4018' - 22 All shots fired. Pooh with electric Line.
	15:45 - 16:30	0.75	PERF	CSG	CMPPRF	RIH w/ 3-1/8" Select Fire Gun Carrier w/ 311T w/ 23 gram Charges w/ 2 JSPF, 120 deg phasing w/ Gamma Ray Collar Locator. Get on Depth Perforating From top down. Perforate from 4036' - 40, 4045' - 50, 4055' - 57. All shots fired. Pooh with electric Line.
	16:30 - 17:15	0.75	PERF	CSG	CMPPRF	RIH w/ 3-1/8" Select Fire Gun Carrier w/ 311T w/ 23 gram Charges w/ 2 JSPF, 120 deg phasing w/ Gamma Ray Collar Locator Get on Depth Perforating From top down. Perforate from 4067' - 70, 4082' - 86, All shots fired. Pooh with electric Line
	17:15 - 18:00	0.75	RURD	ELEC	CMPPRF	Rig down Baker Atlas Perforating Equipment. Perforated San Andres from 4010' - 4086' (32 Holes) (Net 25' perforated)
9/9/2008	18:00 - 18:30	0.50	SECURE	WELL	CMRUN	Shut-in and Secure Well. SDFN.
	06:30 - 07:00	0.50	SAFETY	MTG	CMRUN	Held Safety Meeting Blow down csg pressure.
	07:00 - 10:00	3.00	RUNPUL	TBG	CMRUN	Rih w/ packer and 126 jts of tubing and packer. Reversed 10 bls wtr then set pkr @ 3990' Pressured up annulus to 500 psi. Held ok. Started pumping dn tbg, Perfs broke at 1600 psi @ 1 bpm. Pumped @ 3 bpm @ 1900 psi. Press. hit 2000 psi, shut dn, let it bleed off, then pumped 5 more bls @ 1 bpm. ISIP - 1300 psi, 0 psi - 10 min. Rigged up to start swabbing well.
9/10/2008	10:00 - 17:30	7.50	SWAB	TBG	CMRUN	SFL @ surface. Made 12 runs bringing 62 bls to surface. All dirty water. EFL @ 3300'. Shut down for night.
	17:30 - 18:00	0.50	SECURE	WELL	CMRUN	Shut-in and Secure Well. SDFN.
	06:30 - 07:00	0.50	SAFETY	MTG	CMRUN	Held Safety Meeting. Tbg had 900 psi, csg had 0. Blew down tbg pressure.
9/11/2008	07:00 - 16:00	9.00	SWAB	TBG	CMRUN	Starting fluid level @ 3000'. Made 6 runs recovering 30 bls water. (no oil). Well starting gassing. Switched tbg to flowline and put well into test separator. Rate showed to be 150 - 180 mcf Made 1 more run and rehooked to flowline and left well flowing to test separator overnight. Ending fluid level @ 3300'. Total fluid recovered so far - 92 bls wtr.
	16:00 - 16:30	0.50	SECURE	WELL	CMRUN	Secure Well. SDFN.
	07:00 - 07:30	0.50	SAFETY	MTG	CMRUN	Held Safety Meeting.
	07:30 - 13:00	5.50	PULD	TBG	CMRUN	Unset packer. Pooh w/ tubing and packer Rbih w/ open ended jt of 2 7/8" J-55 tbg, SN, 2 alloy jts 2 7/8", 4 jts 2 7/8" J-55 tbg, TAC, 123 jts 2 7/8 J-55. Bottom of open ended Tbg - 4104' (18' below bottom perf) SN - 4072', TAC - 3912'. Bottom of tbg is 86' off PBTD (4190' toc on CIBP @ 4200') San Andres Perfs - 4010' - 4086'.
	13:00 - 14:30	1.50	NUND	BOPE	CMRUN	ND BOPE, NU WH.
	14:30 - 16:30	2.00	PULD	RODS	CMRUN	Rih w/ 2.5 - 1.50" RHBC 20-6-4 insert pump, 10 - 1.0" KD steel rods, 54 - 7/8" KD steel rods. Rain shut down operations.

Operations Summary Report

Legal Well Name: HANSEN STATE NO 9
 Common Well Name: HANSEN STATE NO 9
 Event Name: RECOMPLETION
 Contractor Name: KEY ENERGY SERVICES
 Rig Name: KEY ENERGY SERVICES

Start: 9/8/2008
 Rig Release: 9/15/2008
 Rig Number: 340
 Spud Date: 9/15/2008
 End: 9/15/2008
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
9/11/2008	16:30 - 17:00	0.50	SECURE	WELL	CMRUN	Shut-in and Secure Well. SDFN.
9/12/2008	06:30 - 07:00	0.50	SAFETY	SMTG	RODOP	Safety Meeting
	07:00 - 12:00	5.00	PLNRP	RODOP	RODOP	Fih w/ 97 - 7/8" KD steel rods New, 1 25" x 26' PR w/ 16' liner Hang on, L & T Ok. Waited for electricians to show up and replace line fuses Start well pumping to production facility.
9/15/2008	12:00 - 13:00	1.00	SECURE	WELL	RODOP	RD MOPU. Clean location. Well head flange size is 6" 900.
	06:30 - 07:00	0.50	SAFETY	SMTG	RODOP	Safety Meeting
	07:00 - 09:30	2.50	RURD	RIG	RODOP	RD MOPU. Clean location. Left well pumping to facility Well head flange size is 2-7/8" - 6" 900.