Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: LC-058698A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL [X] GAS WELL [ ] OTHER
7. UNIT AGREEMENT NAME: MCA Unit Sec 4
2. NAME OF OPERATOR: Conoco Inc.
8. FARM OR LEASE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 460 - Hobbs NM 88240
9. WELL NO.: #330
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: Unit M, 1295' FSL & 1295' FWL
10. FIELD AND POOL, OR WILDCAT: Maljamar G-SA
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 23, T17S, R32E
14. PERMIT NO: 30-025-24710
15. ELEVATIONS (Show whether DF, RT, GR, etc.): 4007' KB
12. COUNTY OR PARISH: Lea
13. STATE: NM

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF [ ]	PULL OR ALTER CASING [ ]	WATER SHUT-OFF [ ]	REPAIRING WELL [ ]
FRACTURE TREAT [ ]	MULTIPLE COMPLETE [ ]	FRACTURE TREATMENT [ ]	ALTERING CASING [ ]
SHOOT OR ACIDIZE [ ]	ABANDON* [ ]	SHOOTING OR ACIDIZING [ ]	ABANDONMENT* [ ]
REPAIR WELL [X]	CHANGE PLANS [ ]	(Other) [ ]	
(Other)		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

See attached procedure.

RECEIVED
NOV 13 1989
HOBBS, NEW MEXICO

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

SIGNED W. W. Baker TITLE Administrative Sup'r. DATE Nov 1, 1989

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE 11/13/89

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Recommended Procedure

1. Move in rig up. Blow well down. Nipple up blowout preventer. Pull out of hole with 4' 2-7/8" sub.

2. Run in hole with 4-3/4" bit and drill collars on 2-7/8" workstring. Drill out cement retainer at 2200'. Use filtered produced water to circulate well. Pull out of hole.

   NOTE: This is the most critical step of the procedure. If the retainer can be drilled without exiting pipe, there is a good chance the well can be saved. The top of cement above the retainer should be at 2190'. The CBL indicates bonded pipe from 2170'-2380'. After drilling the retainer, pick up stabilizers to drill out cement below the retainer with a stiff assembly. Since the retainer is set in "good" pipe, it should drill up without using stabilizers (the stabilizers would tend to wear out pipe above while grinding away the retainer).

3. Run in hole with 4-3/4" bit, bit sub, 4-3/4" stabilizer, 10' 3-1/2" collar, stabilizer, DC, stabilizer, 4 DC's and workstring. Drill out cement to ±2800'. Wash sand off retrievable bridge plug at 3015'. Pull out of hole. Go in hole with 4-7/8" string mill to top of retrievable bridge plug. Circulate clean and pull out of hole.

   NOTE: If metal is encountered, (drilling on the casing) pull out of hole with bit and run in hole with concave mill.

4. Run in hole and retrieve Lok-set retrievable bridge plug at 3015'.

5. Run in hole with 4-3/4" bit, DC's and workstring. Clean out fill to 4200'. Pull out of hole. Run in hole with bit, short collar, 4-7/8" string mill, DC's and workstring to PBTD. Pull out of hole.

6. Run and cement 4" flush joint casing to surface as follows:

4" Casing Specs

OD	GRADE	WT	ID	DRIFT	BBL/FT	80% COLLAPSE	80% BURST
4"	J-55	9.5	3.548	3.428	.0122	4088	4352

NOTE: Have bottom 800' of casing sandblasted

A. Rig up casing running equipment. Make up float equipment, 1 joint of casing, and float collar. Thread lock these connections.

B. Run remainder of the ±4160' of casing. Tag TD and pick up 3-4' Rig up cementing head circulate hole clean with 2% KCL water.

C. Mix and pump 160 sacks Class "C" with 13 lbs per sack salt and 4%

bentonite. Follow with 50 sacks Class "C" with 2% $CaCl_2$ and 0.5% friction reducer (80% excess). Drop plug on the fly (do not shut down to wash up, keep cement moving) and displace with 45 barrels water and slow down pump. Pump remaining ±5 barrels and watch for plug to bump.

NOTE: Service company must supply test data on the slurry mixed with Maljamar water showing cement rheology, thickening time, and 12 and 24 hour compressive strengths. Catch samples (both dry and mixed) during the job. Make sure density is correct before pumping, use pressurized mud balance to check density.

Cement Detail

	Class C with 13 lbs per sx salt and 4% bentonite	Class C with 2% $CaCL_2$ and 0.5% friction reducer
Water required	9.92 gal/sx	6.3 gal/sx
Slurry wt.	13.6 lb/gal	14.8 lb/gal
Yield	1.90 cu ft/sx	1.33 cu ft/sx

D. Land casing as cemented. Wait on cement 24 hours.

E. Run in hole with bit and casing scraper. Clean out to ±4160'

F. Run GR-CCL from PBTD to 3500'.

7. Perforate 6th and 7th pay as follows:

Perforation Detail

Gun Size	Phasing	END	TTP	ECP
2-5/8" HSC	180	.38"	10.6" min.	9.47" min.

	Interval	No. Feet	No. Shots
7th:	4084'-4068'	17	34
	4040'-4036'	5	10
		22 total	44 total perfs
6th:	4017'-4014'	4	8
	3980'-3972'	9	18
	3968'-3962'	7	14
	3956'-3949'	8	16
	3942'-3929'	14	28
	3913'-3904'	10	20
		52 total	104 total perfs

8. Breakdown 6th and 7th perfs with 60 barrels (63 including acid spot) 15% HCL-NE-FE (inhibited 48 hours).

   A. Run in hole with treating packer on 2-3/8" workstring. Spot 3 barrels acid from 4081' to 3907'. Set packer at 3700'.

   B. Pump 60 barrels 15% HCL-NE-FE (inhibited 48 hours) at 4-6 BPM dropping 3 ballsealer (7/8" RCN, 1.3 S.G.) per barrel. Maximum pressure: 4100 psi.

   C. Flush with 40 barrels filtered produced water.

   D. Shut-in 2 hours and swab remainder of day, allowing time to release packer, run through perfs to dislodge ballsealers, and pull out of hole with packer.

9. Frac the San Andres 7th and Grayburg 6th in two stages with 74,000 lbs 16-30 OTTOWA sand as follows.

Mix Water Requirements

- Clean mix water
- Add bacteriacide to first load in each tank
- Pull fluid sample and make sure
  A. Iron is less than 25 ppm
  B. Bicarbonates are less than 350 ppm
- Fluid temperature between 40 and 70 F

Rheology Data - Cross Linked Pad

612 cp (170 sec -1) System

N'	K'	Vis (170 sec -1)	Lbs HPG/1000 gals
0.48	0.185	612	40

- Use a borate cross-linker
- Add sufficient breaker to break gel in 6 hrs
- Use 5% diesel in pad
- Foaming agent necessary with the diesel additive

Rheology Data - 40# Linear Pad

N'	K'	Vis (170 sec -1)	Lbs HPG/1000 gals
0.568	0.012	46 cp	40

- Fluid loss - 40 lbs silica flour per 1000 gals
- Bacteriacide - 0.1% X-cide or comparable
- Defoamer - small amount to prevent foaming
- Breaker - sufficient breaker to break fluid in 6 hrs at 90 F

Rheology Data - 20# Frac Fluid

N'	K'	Vis (170 sec -1)	Lbs HPG/1000 gals
.6830	.0016	15 cp	20

- Fluid loss - 40 lbs of silica flour per 1000 gals
- Bacteriacide - 0.1% X-cide or comparable
- Defoamer - small amount to prevent foaming
- Breaker - sufficient breaker to break fluid in 6 hrs at 90 F.

Rheology Data - Diverter

- 400 lbs rock salt mixed in 6 barrels 40 lb HPG
- Breaker - sufficient breaker to break fluid in 2 hrs at 90 F

Rheology Data - Flush

- Filtered produced water

A. Pick up and set 4" treating packer at 3650'. Load backside to 1000 psi.

B. Pump the following two stage frac as follows: (see attached max pressure vs rate chart).

Volume Gal	Volume Bbls	Function	Sand Req lbs/gal	Total Gals	Volume Bbls	Sand lbs	Rate BPM
1500	36	x linked pad	0	1500	36	0	16
1500	36	40# linear pad	0	3000	36	0	16
1500	36	Prop	.5	4500	109	750	16
1500	36	Prop	1.0	6000	145	2250	16
1000	24	Prop	1.5	7000	169	3750	16
2500	60	Prop	2.0	9250	229	8750	16
2500	60	Prop	3.0	12000	289	16250	16
252	6	Diverter	0	12252	295	16250	12
504	12	x-linked pad	0	12756	307	16250	12
294	7	x-linked pad	0	13050	314	16250	8
702	17	x-linked pad	0	13752	329	0	16
1500	36	40# linear pad	0	15252	366	0	16
750	18	Prop	.5	16002	383	16625	16
1250	30	Prop	1.0	17252	412	17875	16
1500	35	Prop	1.5	18752	447	20125	16
2500	60	Prop	2.0	21252	506	24125	16
1500	36	Prop	3.0	22752	541	28625	16
967	23	Flush	0	23719	564	28625	12

10. Run production equipment.