Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" For such proposals

5. Lease Designation and Serial No.
SF 078417

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE

7. If unit or CA, Agreement Designation
San Juan 28-7

1 Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
280

2 Name of Operator
CONOCO INC.

9. API Well No.
30-039-26175

3 Address and Telephone
10 DESTA DRIVE, SUITE 430E, MIDLAND, TEXAS 79705-4500

10. Field and Pool, or Exploratory Area
Mesaverde/Basin Dakota

4 Location of Well (Footage, Sec., T, R, M, or Survey Description)
Section 27, T-28-N, R-7-W
1310' FSL & 10' FEL

11. County or Parish, State
Rio Arriba, NM

MAR 2000 RECEIVED OIL CON. DIV. DIST. 3

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

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☐ Abandonment	☒ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Change in casing	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13 Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.

Conoco Inc. proposes to change the casing as indicated in the attached well plan outline and cementing plan.

14 I hereby certify that the foregoing is true and correct
Signed JoAnn Johnson Title Sr. Property Analyst Date 2/28/00

15 (This space for Federal or State office use)
Approved by Conditions of approval if any: /s/ Errol Becher Title _____ Date MAR - 7 2000

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

NMOCD

At Conoco our work is never so urgent or important that we cannot take time to do it safely.

SAN JUAN DRILLING PROGRAM

WELL INFO

Well:	San Juan 28-7 Unit #280		**Area:**	28-7 Unit	**AFE #**	2420(DK) 2450(MV)	**AFE $:**	342,650	
County:	Rio Arriba		**State:**	New Mexico	**Rig:**	Key #49	**RKB-GL:**	13'	
API #	30-039-26175	**Permit #**	SF 078417		**Fresh Wtr Prot:**	Circulate cement on surface casing			
MD:	7791'	**TVD:**	7791'		**KOP:**	N/A	**G.L. Elev:**	6507'	
Co-ordinates:	**WELL**	**Latitude:**	36° 39.4'	**Longitude:**	107° 35.3'	**ERA**	**Latitude:**	36° 39.6'	**Longitude:** 107° 35.5'
Location:	1300' FSL & 10' FEL								
	Sec. 17, T28N, R7W								
Directional:	N/A								

DISCUSSION

THESE WELLS ARE TO BE DRILLED WITH SAFETY AND PROTECTION OF THE ENVIRONMENT AS THE PRIMARY OBJECTIVES!

IT IS THE DRILLING REPRESETATIVES RESPONSIBILITY TO READ AND FOLLOW ALL STIPULATIONS FOR EACH PERMIT AND ENSURE COMPLIANCE

REGULATORY NOTIFICATIONS

Notify the U.S. Bureau of Land Management:

1. Anytime a major deviation from the well plan (plug back, sidetrack, etc...) is going to occur. Leave a message with the intended plan if no one answers. **If in doubt notify!** Better to notify unnecessarily than not to and get a fine.
2. Immediately upon spudding
3. Complete the Notice of Spud Sundry and **FAX** to Trigon Engineering Inc. at (970) 385-9107, attention Debra Sittner. Call her at (970) 385-9100, ext. 25 or Verla Johnson @ ext. 20 to confirm that the fax was received. This is in addition to the phone calls to the BLM.
4. 24 hours prior to any BOP or casing pressure test.
5. 24 hours prior to any cementing operation

PHONE NUMBERS

BLM – Farmington: (505) 599-8907

BLM – Albuquerque: (505) 761-8700

New Mexico Oil Conservation Department: (505) 334-6178

NOTE – Permits come from either the Farmington OR Albuquerque depending upon the area. Refer to the permit for the correct number to call.

Review Emergency Response Plan before rigging up and be prepared to execute the plan if needed!

The objective of this well is to develop the Mesa Verde (MV) and Dakota (DKTA) geologic horizons.

TIME

	Days From Spud to...							
	Surf Csg Pt	**Drlg Out**	**Int. Csg Pt**	**Drlg Out**	**TD**	**Log**	**Prod Csg Set**	**Rig Rel.**
Days	0.5	1.0	N/A	N/A	13.0	15	15.5	16.0

FORMATIONS

Zone	Depth (TVD)	MW	Zone EMW	Hole Size	Csg Size	FIT / LOT	Remarks
Surface Casing	500	8.6 - 9.0		12 ¼"	9-5/8"	None	Severe lost circulation is possible. 320' is the minimum surface casing depth below ground level per NMOCD.
OJAM	2284	8.6 - 8.8		8 3/4"	4 ½"	N/A	Possible water flows.
KRLD	2399						
FRLD	2742						Possible gas
PCCF	3172						Possible lost circulation & differential sticking
LEWS	3326						
CHRA	4121						
CLFH/MV	4792						Possible gas
MENF/MV	4938	8.6 - 9.0					
PTLK/MV	5377						Probable lost circulation. Pretreat system with 20% LCM.
MNCS	5840						Possible Sloughing shale
GLLP	6605						Possible lost circulation
GRHN	7339						
GRRS/DKTA	7402						Possible gas
TWLS/ DKTA	7444						Possible gas
PAGU/DKTA	7566						Possible gas, Highly Fractured
TOTAL DEPTH	**7791**	8.8 - 9.0					Possible gas
PERMIT TO	**8091**						

LOGS

Intermediate Logs:	N/A
TD Logs:	Formation Compensated Density or Lithodensity with Gamma-ray & Caliper Compensated Neutron Density Induction Resistivity with Gamma-ray & SP
Additional Information:	

SAN JUAN DRILLING PROGRAM

EQUIPMENT

Wellhead:	9 5/8" 8RD x 11" 3M - Casing Head 11" 3M x 7 1/16" 5M – Tubing Spool
Other:	Tree: Adapter –7 1/16" 5M x 2 1/16" 5M with Master Valve & Wing Valve
BOP's:	**Rotating Head** – Flow line or Blooie line – Pipe Rams - Blind Rams – C/K Lines
Remarks:	High and low pressure BOP tests shall be conducted every 14 days and anytime flange seals are broken for repair or service. Functional and visual tests will be conducted daily and so noted on the daily drilling report. Test BOP's and choke manifold to a low pressure of 250psi and then to a high pressure of 3000psi (rated working pressure). **Proper test plug seating should be checked and the 2" casing head valve must be open and unobstructed.**

MUD PROGRAM

From	To	Mud Type	Wt	Vis	% LCM	YP	Gels	FL	% Solids	pH
0	500	Fresh water	8.6 - 9.0	30	0	As needed	As Needed	~	2 - 5	~
500	***	Fresh water	8.4 - 8.8	28 - 32	0	~	As needed	None	2 - 5	~
***	4790	Gel/Polymer	8.8 - 9.0	43 - 45	0	10 - 12	As needed	8 - 10	3 - 5	9.0 - 10.0
4790	5440	Gel/Polymer	8.8 - 9.0	42 – 46	15 - 20	10 - 12	As needed	8 – 10	3 – 5	9.0 – 10.0
5440	7500	Gel/Polymer	8.8 – 9.0	45 - 50	10 – 20	10 - 12	As needed	8 – 10	3 – 5	9.0 – 10.0
7500	7791	Gel/Polymer	8.8 - 9.0	55 - 60	8 – 20	10 - 12	As needed	8 - 10	3 - 5	9.0 - 10.0

Remarks:

12 ¼" (0' to +320')

Spud with fresh water and circulate high viscosity sweeps formulated with GEL & LIME (Spud Mud) to remove the dense accumulation of cuttings from the hole.

Sweeps of POLYPLUS should be used if needed to enhance hole cleaning. A sweep should be pumped prior to reaching TD. Pump another sweep, and cirulate about half an hour prior to pulling out to run casing..

During the drilling of the surface hole, run all of the equipment in a solids removal mode.

8 3/4" (+320' to TD)

Drill out of surface with fresh water. Hole should build mud, but may require sweeps of Kwik Thik (beneficiated bentonite) to prevent excessive water losses.

While drilling add 1 quart (vis cup) of PolyPlus down DP on connections **as required.** Do not over treat. Adding PolyPlus when not dictated by hole conditions will only add to the cost without improving performance. Can also cause mud WT to increase quickly after light mud up. Kwik Thik will build viscosity at a lower cost than Poly Plus. Poly Plus adds some inhibition as we get deeper.

*** Drill with fresh water until seepage occurs. **Slight mud up of Polyplus System to control seepage. Full mud up once excessive seepage occurs or excessive drag is seen on connections.** At ~2200' pay close attention to the hole conditions (this is where we have fully mud up in the past).

Run all solids control & maintain mud weight as low as possible. If mud weight exceeds 9.0 ppg, dump and dilute.

Lost circulation is expected in the PTLK formation (~5377'). **Pretreat system with 20 % LCM at the top of the PTLK formation.** Have a pill with 25% LCM in the pre-mix tank in case losses are encountered. If losses are encountered, pull above the loss zone, spot the pill, and allow it to soak. If no losses are encountered through the Point Lookout, LCM in the system may be allowed to slowly drop back to 8-10%.

Increase funnel viscosity to 60 sec/qt after tripping for the bit.

Spot a LCM pill across the Point Lookout when pulling out to log and run casing.

Miscellaneous

Run all solids control equipment while drilling. Very important to keep solids control equipment running at optimum performance to minimize solids and mud weight. Run the finest screens possible on both shakers.

Keep a good supply of fibrous lost circulation materials (Cedar Fiber, Multiseal, or Sawdust) on location to fight lost circulation

It is possible that treatments of DD (drilling detergent) may be needed to provide lubricity and minimize bit balling. Check with Drilling Engineer prior to use.

Schlumberger

PRIMARY CEMENTING PROPOSAL

SURFACE & 3 STAGE LONGSTRING

Conoco

San Juan 28-7 Unit #280

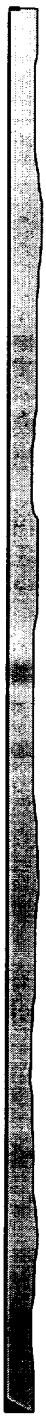
Well Location

Field	:	San Juan Unit
County	:	Rio Arriba
State	:	Nm
Country	:	USA

Prepared for	:	**Brett Thompson**	Service Point	:	FARMINGTON, NM
		Ricky Joyce	Business Phone	:	505-325-5096
Date Prepared	:	8/20/99	FAX No.	:	505-327-0317

Prepared by	:	Duane Gonzalez
Phone	:	(281) 293-4538
FAX	:	(281) 293-4424
E-Mail address	:	dgonzalez@houston.dowell.slb.com

Well Data: 9 5/8 in. Surface



< Surface

Depth	500	ft.
Casing Size	9 5/8	in., 32.3 lbs./ft.
Open Hole Diameter	12 1/4	in.
BHST	100	°F
BHCT	80.0	°F
Total Excess	100	%
Tail Excess	100	%

Mud Wt./Type: 8.4 ppg Fresh Wtr. Based

Calculations:

Volume Factors:

Casing x Open Hole	0.3132 cu.ft./ft
Casing (Internal)	0.4411 cu.ft./ft

Top of Cement **Surface**

Cement System:

Open Hole Fill	(500 x 0.3132 x 2.) / 1.19 = 262 sks.
Casing Shoe Cement	(40 x 0.4411) / 1.19 = 15 sks.
	Total Tail Cement = 277 sks.

< T.D. - 500 ft.

Cementing Systems

Spacer System: 20 bbls .

Fresh Water

Cement System: 275 sks.

Class B + 2% S1 + 0.25 pps D29

Mix Weight	:	15.6	PPG
Yield	:	1.19	cu.ft./sk.
Mix Water	:	5.19	gal./sk.
Fluid Loss	:	800	cc/30 minutes
Thickening Time	:	0.125	hours:minutes
Comp. Strength	:	1,000	psi in 12 hrs.

Well Data: 4 1/2 in. Production - Stage 1

Depth	7,791	ft.
Casing Size	4 1/2	in., 11.6 lbs./ft.
Open Hole Diameter	8 3/4	in.
Previous Csg. Depth	500	ft.
Previous Csg. Size	9 5/8	in., 32.3 lbs./ft.
BHST	175	°F
BHCT	130.8	°F
Total Excess	35	%
Lead Excess (calculated O.H.)	35.0	%
Tail Excess	35	%
Stage Collar Depth	5,800	ft.

< Surface

< Previous Csg.
500 ft

Mud Wt./Type: 8.6 ppg Fresh Wtr. Based

Calculations:

Volume Factors:

Casing x Open Hole	0.3071 cu.ft./ft
Casing x Previous Casing	0.3307 cu.ft./ft
Casing (Internal)	0.0874 cu.ft./ft

Top of Lead	**5,800 ft.**
Top of Tail	**7,191 ft.**

Lead System:

Total Lead Fill (1,391 x 0.3071 x 1.35) / 2.86 = 202 sks.

< Top of Cmt./DV Tool
5,800 ft.

Tail System:

Top of Lead
7,191 ft.

Open Hole Fill	(600 x 0.3071 x 1.35) / 1.45 = 171 sks.
Casing Shoe Cement	(80 x 0.0874) / 1.45 = 5 sks.
	Total Tail Cement = 176 sks.

< T.D. - 7,791 ft.

Cementing Systems

Spacer System: 20 bbls .

CW-100 Chemical Wash

Lead System: 200 sks.

Class B + 3% D79 + 0.1% D46 + 0.25 pps D29

Mix Weight	:	11.4 PPG
Yield	:	2.86 cu.ft./sk.
Mix Water	:	17.64 gal./sk.
Fluid Loss	:	700 cc/30 minutes
Thickening Time	:	5:00 hours:minutes
Comp. Strength	:	600 psi in 24 hrs.

Tail System: 175 sks.

50:50 Poz:Class B + 2% D20 + 0.5% D60 + 0.2% D65 + 0.1% D46 + 0.25 pps D29

Mix Weight	:	12.8 PPG
Yield	:	1.45 cu.ft./sk.
Mix Water	:	7.15 gal./sk.
Fluid Loss	:	350 cc/30 minutes
Thickening Time	:	4:30 hours:minutes
Comp. Strength	:	500 psi in 24 hrs.

Well Data: 4 1/2 in. Production - Stage 2

Depth	7,791	ft.
Casing Size	4 1/2	in., 11.6 lbs./ft.
Open Hole Diameter	8 3/4	in.
Previous Csg. Depth	500	ft.
Previous Csg. Size	9 5/8	in., 32.3 lbs./ft.
BHST	175	°F
BHCT	117.7	°F
Total Excess	35	%
Tail Excess	35	%
Stage Collar Depth	5,800	ft.

Mud Wt./Type: 8.6 ppg Fresh Wtr. Based

Calculations:

Volume Factors:

Casing x Open Hole	0.3071 cu.ft./ft
Casing x Previous Casing	0.3307 cu.ft./ft
Casing (Internal)	0.0874 cu.ft./ft

Top of Cement **2,700 ft.**

Cement System:

Open Hole Fill	(3,100 x 0.3071 x 1.35) / 1.45 = 886 sks.
Casing Shoe Cement	(40 x 0.0874) / 1.45 = 2 sks.
	Total Tail Cement = 888 sks.

Cementing Systems

Spacer System: 20 bbls .

CW-100 Chemical Wash

Cement System: 890 sks.

50:50 Poz:Class B + 2% D20 + 0.5% D60 + 0.2% D65 + 0.1% D46 + 0.25 pps D29

Mix Weight	:	12.8	PPG
Yield	:	1.45	cu.ft./sk.
Mix Water	:	7.15	gal./sk.
Fluid Loss	:	350	cc/30 minutes
Thickening Time	:	4:30	hours:minutes
Comp. Strength	:	500	psi in 24 hrs.

Well Data: 4 1/2 in. Production - Stage 3

Depth	7,791	ft.
Casing Size	4 1/2	in., 11.6 lbs./ft.
Open Hole Diameter	8 3/4	in.
Previous Csg. Depth	500	ft.
Previous Csg. Size	9 5/8	in., 32.3 lbs./ft.
BHST	128	°F
BHCT	95.3	°F
Total Excess	35	%
Lead Excess (calculated O.H.)	35.0	%
Tail Excess	35	%
Stage Collar Depth	2,700	ft.

< Surface

< Previous Csg. 500 ft

Mud Wt./Type: 8.6 ppg Fresh Wtr. Based

Calculations:

Volume Factors:

Casing x Open Hole	0.3071 cu.ft./ft
Casing x Previous Casing	0.3307 cu.ft./ft
Casing (Internal)	0.0874 cu.ft./ft

< Top of Tail 1,700 ft.

Top of Lead	**Surface**
Top of Tail	**1,700 ft.**

Lead System:

< Stage Collar (DV-2) 2,700 ft.

Open Hole Fill	(1,200 x 0.3071 x 1.35) / 2.86 = 174 sks.
Previous Casing Fill	(500 x 0.3307) / 2.86 = 58 sks.
	Total Lead Cement = 232 sks.

< Stage Collar (DV-1) 5,800 ft.

Tail System:

Open Hole Fill	(1,000 x 0.3071 x 1.35) / 1.45 = 286 sks.
Casing Shoe Cement	(40 x 0.0874) / 1.45 = 2 sks.
	Total Tail Cement = 288 sks.

< T.D. - 7,791 ft.

Cementing Systems

Spacer System: 20 bbls .

CW-100 Chemical Wash

Lead System: 230 sks.

Class B + 3% D79 + 0.1% D46 + 0.25 pps D29

Mix Weight	:	11.4	PPG
Yield	:	2.86	cu.ft./sk.
Mix Water	:	17.64	gal./sk.
Fluid Loss	:	700	cc/30 minutes
Thickening Time	:	5:00	hours:minutes
Comp. Strength	:	600	psi in 24 hrs.

Tail System: 290 sks.

50:50 Poz:Class B + 2% D20 + 0.5% D60 + 0.2% D65 + 0.1% D46 + 0.25 pps D29

Mix Weight	:	12.8	PPG
Yield	:	1.45	cu.ft./sk.
Mix Water	:	7.15	gal./sk.
Fluid Loss	:	350	cc/30 minutes
Thickening Time	:	4:30	hours:minutes
Comp. Strength	:	500	psi in 24 hrs.