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**Mobil Oil Company**

A Division of Socony Mobil Oil Company, Inc.

P. O. BOX 1800, HOBBS, NEW MEXICO 88240

October 20, 1965

New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico

RE: SALT WATER DISPOSAL

Gentlemen:

Attached is Socony Mobil Oil Company, Inc.'s Application to Dispose of Salt Water by Injection into a Porous Formation (C-108) along with a plat of the area involved and a diagram of the proposed disposal well.

The proposed salt water disposal well was originally drilled by the Skelly Oil Company in an effort to produce the Devonian formation. However, the Devonian drill stem tested 2700' formation salt water and no oil or gas. The lease and well reverted back to the mineral and land owner, Mr. U. D. Sawyer, after Skelly plugged and abandoned the well in February, 1949. Socony Mobil has leased the well from Mr. Sawyer and we propose to clean the well out to the original total depth of 12,741', drill to approximately 13,550', run a 5-1/2" liner from 4000' to the top of the Devonian at 12,710' and complete it as a salt water disposal well in the Devonian formation.

We have also included a cross-section through the Devonian formation because the proposed well is located within one mile of the Crossroads Devonian Field. However, it has long been a recognized premise that a fault exists between the Crossroads Devonian Field proper and our proposed salt water disposal well. The Mid-Continent Sawyer Well No. 1-B is indicated on the cross-section as being drilled through this fault. There is no evidence of any Woodford Shale which usually overlays the Devonian and it is evident that the well produced 1631 barrels of oil and 3964 barrels of salt water from a lower Devonian porous interval on the Uplifted or Crossroads Field side of the fault before it was plugged and abandoned in November of 1949. The fault serves as a seal between the proposed disposal well and the Crossroads Field proper and will prevent any migration of injected salt water into the producing zone in the Crossroads Field.



N.M.O.C.C.

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A copy of this application has been furnished Sunray DX Oil Company and Shell Oil Company as offset operators as well as the State Engineer's Office.

Yours very truly,

A handwritten signature in cursive script, appearing to read "Glen W. Barb".

Glen W. Barb  
Producing Superintendent

JMMcGee/jlh

Attachments - 12

C-108 - 3 ea.

Area Plat - 3 ea.

Diagram - 3 ea.

Cross-section - 3 ea.

cc: (w/1 copy of ea. attachment)

Sunray DX Oil Co., Box 1416, Roswell, N. Mex.

State Engineer, Box 1717, Roswell, N. Mex.

U. D. Sawyer, Crossroads, N. Mex.

NEW MEXICO OIL CONSERVATION COMMISSION  
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR <b>Socony Mobil Oil Company, Inc.</b>		ADDRESS <b>Box 1800, Hobbs, New Mexico 88240</b>	
LEASE NAME <b>U. D. Sawyer</b>	WELL NO. <b>1</b>	FIELD <b>Undesignated</b>	COUNTY <b>Lea</b>
LOCATION UNIT LETTER <b>A</b> ; WELL IS LOCATED <b>660</b> FEET FROM THE <b>East</b> LINE AND <b>660</b> FEET FROM THE <b>North</b> LINE, SECTION <b>33</b> TOWNSHIP <b>9 South</b> RANGE <b>36 East</b> NMPM.			
CASING AND TUBING DATA			
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT
SURFACE CASING	<b>13-3/8</b>	<b>290</b>	<b>325</b>
INTERMEDIATE	<b>9-5/8</b>	<b>4602</b>	<b>3500</b>
LONG STRING	<b>5-1/2</b>	<b>4000-12700</b>	<b>400</b>
TUBING	<b>5</b>	<b>4062</b>	NAME, MODEL AND DEPTH OF TUBING PACKER <b>Baker Model 'A'</b>
NAME OF PROPOSED INJECTION FORMATION <b>Devonian</b>		TOP OF FORMATION <b>12,710'</b>	BOTTOM OF FORMATION <b>13,550'</b>
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>Tubing &amp; Casing</b>		PERFORATIONS OR OPEN HOLE? <b>Open Hole</b>	PROPOSED INTERVAL(S) OF INJECTION <b>12,700' - 13,550'</b>
IS THIS A NEW WELL DRILLED FOR DISPOSAL? <b>No</b>	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? <b>Crude Oil Production but DST was 100% Salt Water</b>		HAS WELL EVER BEEN PERFORMED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>No</b>
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH			
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA <b>Approx. 240' (Est.)</b>		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA <b>None</b>	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA <b>None</b>
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) <b>11,000</b>	MINIMUM <b>25,000</b>	MAXIMUM <b>Closed</b>	OPEN OR CLOSED TYPE SYSTEM <b>Both</b>
IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>Both</b>		APPROX. PRESSURE (PSI) <b>800</b>	
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - <b>Yes</b>		WATER TO BE DISPOSED OF <b>Yes</b>	
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) <b>Mr. U. D. Sawyer, Crossroads, New Mexico</b>		NATURAL WATER IN DISPOSAL ZONE <b>Yes</b>	
ARE WATER ANALYSES ATTACHED? <b>No</b>		LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF MILE OF THIS INJECTION WELL <b>Sunray DX Oil Company, P. O. Box 1416, Roswell, New Mexico 88201</b>	
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? <b>Yes</b>		SURFACE OWNER <b>Yes</b>	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) <b>Yes</b>		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL <b>Yes</b>	
		THE NEW MEXICO STATE ENGINEER <b>Yes</b>	
		ELECTRICAL LOG <b>No</b>	
		DIAGRAMMATIC SKETCH OF WELL <b>Yes</b>	

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

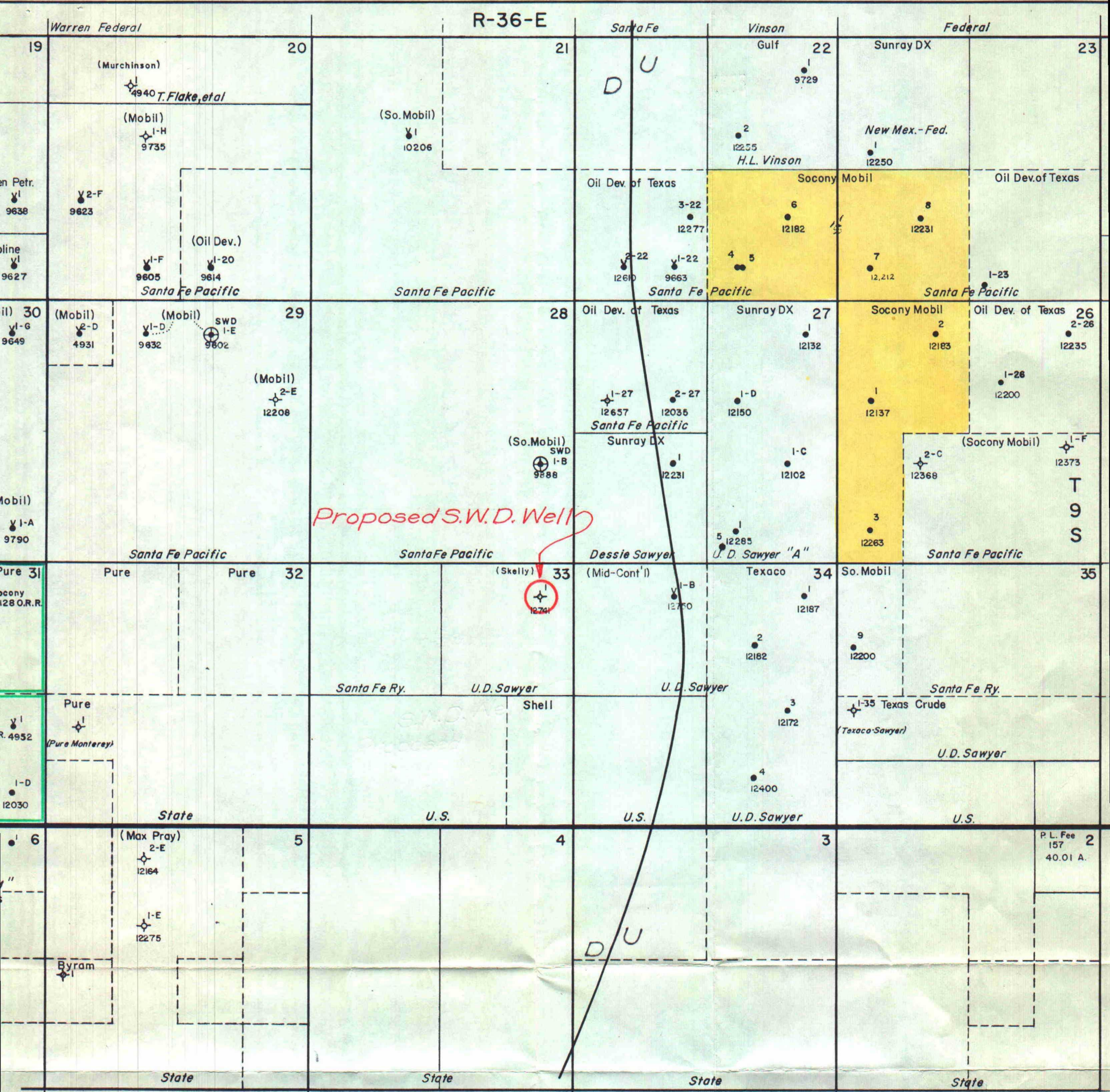
*Glen W. Barb*  
 - Glen W. Barb  
 (Signature)

Producing Superintendent  
 (Title)

October 20, 1965  
 (Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.





SOCONY MOBIL OIL COMPANY  
PROPOSED S.W.D. WELL LOCATION  
Crossroads Field Area  
Lea County, New Mexico  
J.M.M. 10-18-65 C.T.A.  
Scale: 1" = 2000'





## Mobil Oil Company

A Division of Socony Mobil Oil Company, Inc.

Box 1800, Hobbs, New Mexico

October 28, 1965

Mr. Frank Irby  
State Engineer Office  
Box 1069  
Santa Fe, New Mexico

PROPOSED SWD WELL, CROSS-  
ROAD SWD SYSTEM, LEA COUNTY,  
NEW MEXICO

Dear Frank:

Attached is a revised drawing which incorporates the more complete cementing procedure per your verbal request of October 26, 1965.

We have also specified our equipment for the "tubing-liner" connection point. This was our original intent and I believe will answer your request for the best possible seal at this location.

By copy of this letter and drawing to Jim Kapteina, we are notifying the NMOCC of the change in cementing.

Be sure to tell us if there's anything more we can do on this.

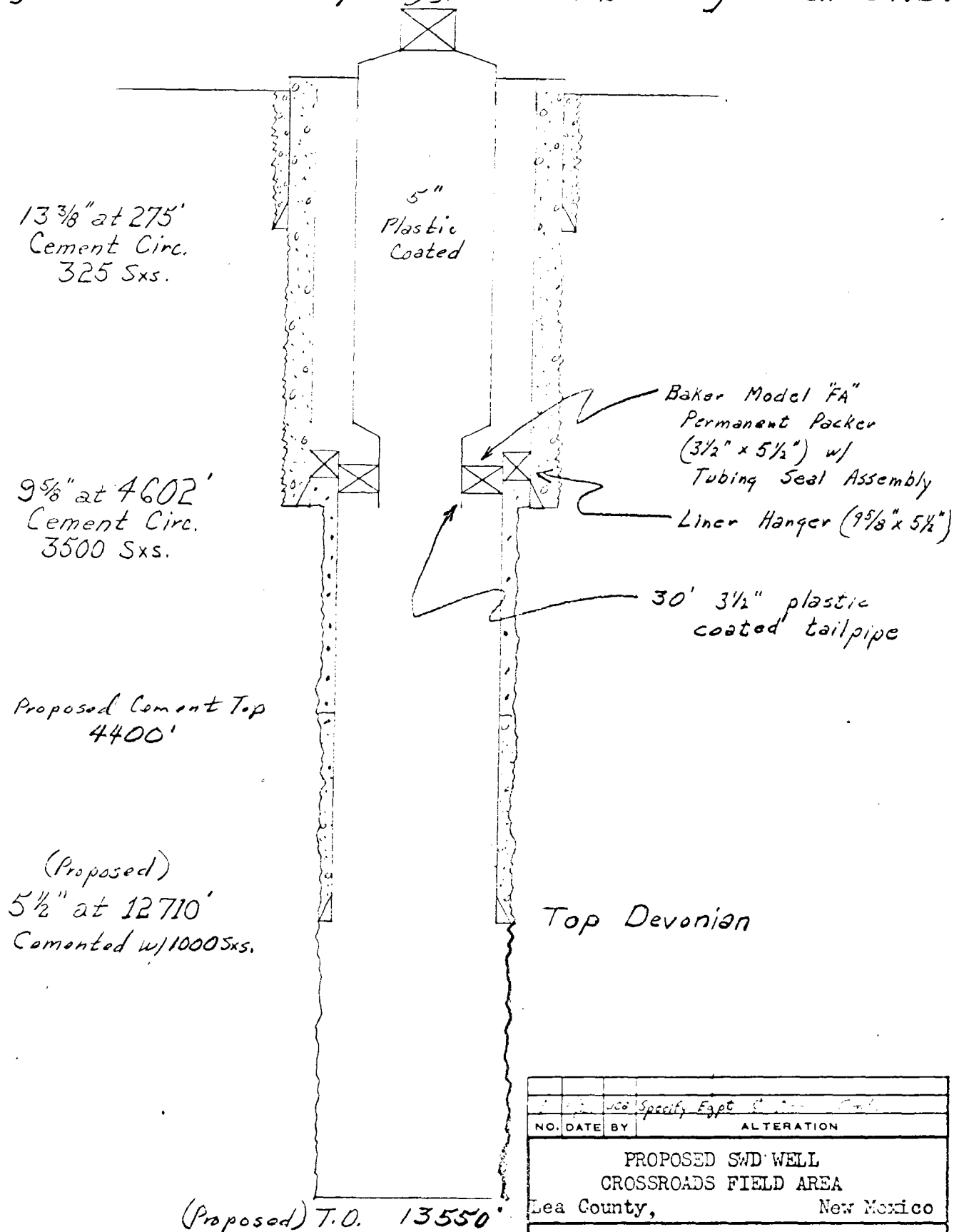
Yours very truly,

*J. C. Gordon, Jr.*  
J. C. Gordon, Jr.  
Prod. Engineering Supervisor

JCG,Jr/vvd  
Attachment: Drawing

cc: ✓ Jim Kapteina, NMOCC  
Box 2088  
Santa Fe, New Mexico

Socony Mobil Oil Company, Inc. - U.D. Sawyer No. 1 SWDW



NO.		DATE		BY		ALTERATION	
PROPOSED SWD WELL CROSSROADS FIELD AREA Lea County, New Mexico							
SOCONY MOBIL OIL COMPANY, INC.							
DRAWN Jman				SCALE		DWG. NO.	
CHECKED				DATE 10-18-65		A	

LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE