## WORKOVER PROCEDURE

DATE: 7/19/89

WELL & JOB: Empire Abo Unit No. R-8 LAST WORKOVER: TA 12/18/79				DRILLED: July, 1961			
				LD: Empire (Abo)	COU	COUNTY: Eddy Co, NM	
BY: D.C. Bretches		<b>TD:</b> 5847'	<b>PBD:</b> 5730'		DATUM: RKE	3	
CASING: SURFACE: PROD:	<u>SIZE</u> 8-5/8" 4-1/2"	<u>WEIGHT</u> 24# 9.5#	<u>GRADE</u> J55 J55	<u>SET @</u> 1515' 5847'	<u>SX CMT</u> 700 850	<u>TOC</u> Surf (Circ) 1520'(TS)	

PERFORATIONS: Abo 5774 - 5811' Covered w/ 75 sx cmt and CR set @ 5740'.

TUBING:	SIZE: No Tubing in hole	WEIGHT:	GRADE:	THREAD:
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PACKER AND MISC: No Packer in hole. Hole loaded with 2% KCl Water.

HISTORY AND BACKGROUND: The Empire Abo Unit R-8 was drilled and completed as an Abo producer in July, 1961. The well produced until October, 1973 at which time it was shut in due to an excessively high Gas-Oil-Ratio. In December, 1979 the R-8 was stimulated unsuccessfully with an Acid/Xylene treatment. Upon evaluation, the Abo perforations were cemented below a cement retainer and the tubing was pulled from the well. The R-8 was TA'd on December 12, 1979.

SCOPE OF WORK: Recomplete the Empire Abo Unit No. R-8 in the upper Abo reef.

## PROCEDURE

- 1. MIRU PU. Monitor 4-1/2" CSG for pressure. Kill well if necessary. ND WH. NU BOP. Test CSG to 500 psi for 15 min w/ produced water. If CSG does not hold pressure, RIH w/ PKR and isolate CSG leak. Sqze leak if necessary.
- RU WL and run GR/JB to ±5730'. Run GR/CCL f/ 5290 5730' (Use to correlate to Schlumberger's GR-N/L dated 7/21/61). Perf the 4-1/2" CSG w/ 2 JSPF using a 3-1/8" Select Fire CSG gun f/ 5680-5688', 5694-5698', and 5702-5714' (54 holes). RD WL.

If well goes on vacuum, swab test. If well does not go on vacuum, proceed to Step #3.

- 3. RIH w/ Ret PKR on 2-3/8" Prod TBG (Get TBG from Empire Abo Yard) to 5716' testing to 4000 psi above slips. Spot 100 gal 15% NEFE HCl acid across perfs 5680 5714'. PU, RVS 5 BBLS, and set PKR @ ±5580'. PA to 500#.
- 4. Acdz Abo perfs 5680 5714' w/ 2500 gal 15% NEFE HCl @ 1-2 BPM dropping 60 1.3 SG BS's in groups of three evenly spaced throughout treatment. MAXP: 1500 psi. Flush to bottom perf w/ clean produced water.
- 5. Swab/flow back and evaluate. If zone is productive, proceed to step #7, otherwise go to next step.