

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-75

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JUN 09 '88

5a. Indicate Type of Lease	
State ☒	Fee ☐
5. State Oil & Gas Lease No.	
E-7116	

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DISCONTINUED WELL. USE "APPLICATION FOR PERMIT - 1" (FORM C-101) FOR SUCH PROPOSALS.)

1. ☒ OIL WELL ☐ GAS WELL ☐ OTHER		7. Unit Agreement Name
2. Name of Operator ARCO Oil and Gas Company ✓		8. Farm or Lease Name Empire Abo Unit "E"
3. Address of Operator P.O. Box 1610, Midland, Texas 79702		9. Well No. 34
4. Location of well UNIT LETTER <u>C</u> <u>1954.48</u> FEET FROM THE <u>West</u> LINE AND <u>971.95</u> FEET FROM THE <u>North</u> LINE. SECTION <u>34</u> TOWNSHIP <u>17S</u> RANGE <u>28E</u> N.M.P.M.		10. Field and Pool, or Wildcat Empire Abo
15. Elevation (Show whether DF, RT, GR, etc.) 3659' RT		12. County Eddy

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☒	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANE ☐	COMMENCE DRILLING OPS. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐	OTHER ☐	CASING TEST AND CEMENT JOB ☐	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

Plug	Interval	Sx Cmt	Remarks
1	5785'-6070' 3536	25 25	CIBP at 6070 w/25SX (top of Abo Reef at 5933)
2	2000'-2220'	2025	Spot (Top of San Andres at 2110)
3	1300'-1750'	40	Spot (DV tool at 1668-and top of Queen at 1350)
4	holes in csg	?	Squeeze w/CR.
5	700'-870'	1525	Spot (top of Seven Rivers at 767) (surf csg shoe at 786)
6	0-285'	25	Spot (Surf Plug)

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

SIGNED Ken W. Gosnell TITLE Engr. Tech. 915-688-5672 DATE 6-6-88

APPROVED BY Original Signed By Mike Williams TITLE Notify N.M.O.C.C. in sufficient time to witness DATE NOV 18 1988

CONDITIONS OF APPROVAL, IF ANY: As Noted Above Plugging

WORKOVER PROCEDUREDATE: 08-26-87WELL NO. & TYPE OF JOB: Empire Abo Unit #E-34: P & ADRILLED & COMPLETED: 1960 LAST WO: 12/79: Convert to Natural FlowFIELD: Empire Abo COUNTY: Eddy, NM PREPARED BY: W C HeardTD: 6247' PBD: 6215' DATUM: KB DIST RKB TO GL: _____

TUBINGHEAD: MAKE _____ SIZE _____ PRESSURE RATING _____

CASING INFORMATION:	SIZE	WEIGHT	GRADE	SET @	SX CMT	TOC
SURFACE:	<u>8-5/8</u>	<u>24#</u>	<u>J-55</u>	<u>786</u>	<u>450</u>	<u>surf-circ</u>
INTERMEDIATE:	_____	_____	_____	_____	_____	_____
PRODUCTION:	<u>4-1/2</u>	<u>9.5#</u>	<u>J-55</u>	<u>6247</u>	<u>900</u>	<u>1691-WO*</u>

*see well history

LINER: SIZE _____ WEIGHT _____ GRADE _____ TOP _____ BOTTOM _____ TOC _____

PRESENT PERFORATIONS & FORMATION: Abo 6186-96' (2 SPF); Abo 6107-37'
cmtd w/350 sx in two jobsTUBING DATA: SIZE 2-3/8 WT. 4.7 GRADE J-55 THD. EUE BTMD @ 6105'
NO. OF JTS. 196 MISC. SN, pkrPACKER & MISC.: Guiberson KVL-30 pkr @ 6105'.WELL HISTORY

Drilled and completed July of 1960, by Pan American Petroleum Corporation. Perforated Abo 6107-37' initially. The NMOC required this well to be worked over in 1977, to shut off a water flow from the 8-5/8" x 4-1/2" annulus. The 4-1/2" casing was found parted at 1452'. After pulling the free 4-1/2", the stub was washed over to 1700' (original TOC was found at 1691'), cut at 1691' and an additional 239' pulled. Ran 4-1/2" tieback string with casing patch and DV tool. Cemented tieback with 1700 sacks and ran CBL which indicated TOC at 1292'. Perforated 4-1/2" casing at 1267', cemented with 1800 sacks - circulated 50 barrels water cut cement. Temperature survey indicated TOC at 980', CBL indicated TOC at 360'. Cemented perfs at 1267' with additional 2800 sacks cement, 125 barrels Flo-Chek, 800 gallons BJ SAF MK III in four separate jobs. Water flow shut off. In February, 1979, swaged 4-1/2" casing at 1140', cemented Abo 6107-37' with 350 sacks, perforated Abo 6186-96' and stimulated. Production reports 1000 psi on tubing-casing annulus due to water flow. Suspect water flow to be coming from old perfs at 1267'.

PROCEDURE

Location: 972' FNL & 1954' FWL, Sec. 34, T-17-S, R-28-E, Eddy Co., NM

NOTIFY NMOCC (Artesia, NM (505) 748-1283) at least 24 hours prior to starting plugging operations.

1. Set test tank. RU flowline f/tbg-csg ann to tank. Bleed press off ann if possible.
2. MIRU PU. Kill 2-3/8" tbg w/10# BW. ND tree, NU BOP.
3. Rlse KVL-30 pkr (straight pickup). Circ hole with 10# BW. POH.
4. RU WL. Set CIBP @ 6070'.
5. RIH w/pkr on 2-3/8" tbg. Isolate holes/perfs in 4-1/2" csg. Est IR & press.
6. RIH w/2-3/8" tbg OE & tag CIBP @ 6070'. Spot 285' cmt plug f/6070-5785' using 25 sx Cl 'H' mixed @ 16.4 ppg (cover top of Abo Reef @ 5933'). PU to 5785'. Spot 73 bbl 10 ppg mud w/25 ppb SWG f/5785-1260'.
7. PU to 2220'. Spot 220' balanced cmt plug f/2220-2000' using 20 sx Cl 'H' w/2% CaCl₂ mixed @ 16.4 ppg (cover San Andres form - SA top @ 2110'). PU to 1750'. Spot 450' balanced cmt plug f/1750-1300' using 40 sx Cl 'H' w/2% CaCl₂ mixed @ 16.4 ppg (cover DV tool @ 1668' and Queen form - Queen top @ 1350'). POH.
8. RIH w/CICR on 2-3/8" tbg & set ± 50 above holes/perfs located in Step 5. Squeeze as necessary. PO of CR. Circ hole w/10 ppg mud w/25 ppb SWG. Run noise log/temperature survey to determine if there is water movement behind 4-1/2" csg. Perf & squeeze using CR's as necessary to achieve wtr shutoff.
9. Spot 170' balanced cmt plug f/870-700' using 15 sx Cl 'H' mixed @ 16.4 ppg (cover Seven Rivers form - SR top @ 767' - and surf csg shoe).
10. Spot 285' balanced cmt plug f/285-surf using 25 sx Cl 'H' mixed @ 16.4 ppg. Surf plug.

General Purpose Worksheet

Subject **EMPIRE ABO UNIT #E-34**

Page No

Of

File **PRESENT STATUS**

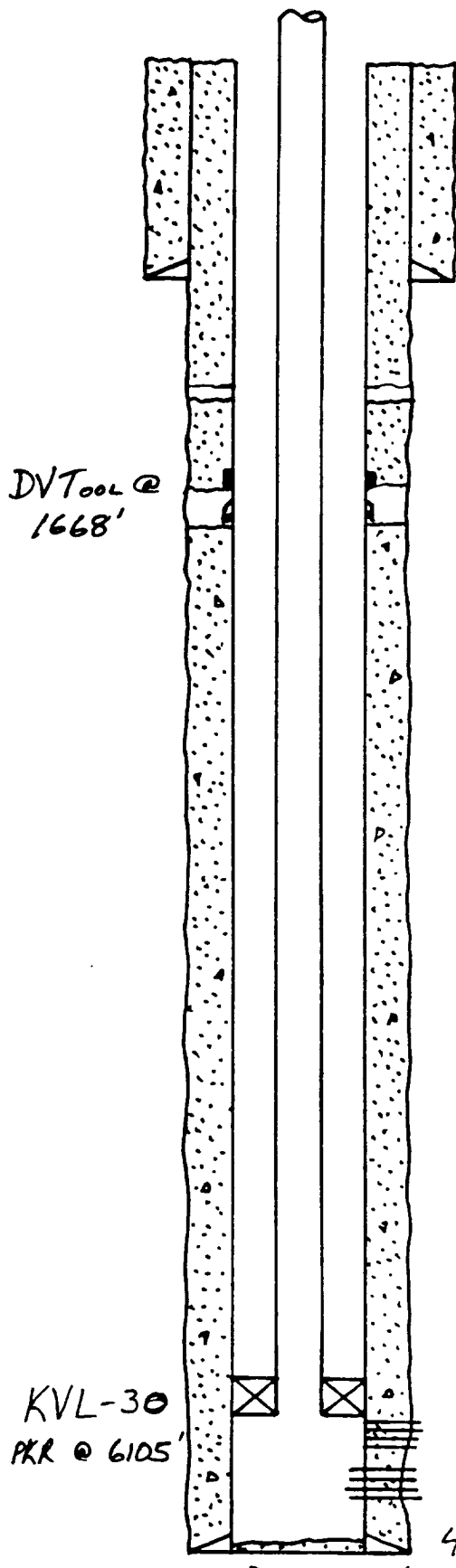
By

WCH

Date

7-24-87

LOCATION: 972' FNL & 1954' FWL, SEC. 34,
T-17-S, R-28-E, EDDY COUNTY, NM



8 5/8" 24# J-55 CSG @ 786' w/450 sx. TOC @ SURF-CIR.

WO 1977: FOUND 4 1/2" PARTED @ 1452'. Pulled CSG.
WASHED OVER STUB TO 1700' & CUT @ 1691' & PULLED.
RAN TIEBACK w/CSG PATCH & DV TOOL. CMTD THRU
DVT w/1700 sx. TOC BY CBL @ 1292'. PERFS 4"
@ 1267' & CMTD w/1800 sx. CIRC 50 BBL w/
CUT CMT. TOC - CBL 360', TS 780'. CMTD PERFS
@ 1267' w/ADDL 2800 sx, 125 BBL FLO-CHEK,
800 GAL SAF MK III IN 4 SEPARATE JOBS.

WO 1979: HAD TO SWAGE OUT TITE SPOT @ 1140'.
CMTD ABO 6107-37' & PERFS 6186-96'.

NOTE: 1000 PSI ON TBG/CSG ANNULUS - WTR FLOW-
SUSPECTED TO BE COMING F/PERFS @ 1267'

COMPLETION ASSEMBLY:

196 JTS 2 3/8" 4.7# J-55 ELUE BRD TBG
1 - SN
1 - GUIBERSON KVL-30 PKR

KVL-30
PKR @ 6105'

ABO PERFS 6107-37': CMTD w/350 sx IN 2 JOBS
ABO PERFS 6186-96' (2 SPF)
4 1/2" 9.5# J-55 CSG @ 6247' w/900 sx. TOC @ 1691'

WASH OVER