

Computer Inventoried

KCC
AUG 28 1994

OIL PRODUCERS INC., OF KS.
COMPLETION REPORT

WELL - CAROTHERS A, OWWO (PREVIOUSLY KNOWN A DIERKSON A #1 BY PICKERELL)

LEGAL DESCR. - 100' NE OF SW/SE - 23-33s-6w IN HARPER CO. KS.

API# - 15-077-21039-0001

K.B. - 5' ABOVE G.L.

G.L. - 1267'

SURFACE CSN. - 8 5/8" @ 218' WITH 160 SX.

RTD - 4450'

LTD - 4448' (DRESSER LATERLOG RAN 10/17/84)

PRODUCTION CSN. - 4 1/2" , 9.5# SET @ 4449' WITH 125 SX

TOP OF CEMENT - 4156'

PBTD - 4445' (4405' BY TUBING TALLY 7/27/93. HAVE 40' SAND FILL-UP)

PERFORATIONS - MISSISSIPPI DOLOMITE-----4390'-4399' 2/FT.
MISSISSIPPI DOLOMITE-----4370'-4373' 2/FT.
MISSISSIPPI CHERT-----4359'-4361' 2/FT.

TUBING RAN - 15' M.A., S.N., 135 JTS. 2 3/8" TUBING.

TUBING SET @ - 4376.85' (28' OFF BOTTOM 7/27/93)

LINE HEATER - BS&B 2' X 5' 2000 psi WORKING PRESSURE

GAS PACK - MID STATES 24" X 8' VERTICAL 1000 psi W.I. WITH GAS DUMP

HEATER TREATER - 4' X 20' SHERMAN 50# W.P. HEATER TREATER

STOCK TANKS - 10' x 12' 210 BBL STEEL

WATER TANK - 10' X 12' 200 BBL FIBERGLASS

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7/19/93

SIROKY WELL SERVICE ON LOCATION, RIGGED UP D-D DERRICK.
MILLERS ON LOCATION & WELDED 4 1/2" HALF BORE COLLAR ON @ G.L.
SHUT DOWN FOR THE NIGHT.

7/20/93

ELI WIRELINE ON LOCATION TO RUN CORRELATION & CEMENT
BOND LOG.
FOUND EXCELLENT CEMENT BONDAGE THROUGHOUT MISS PAY
INTERVALS.

FOUND TOP OF CEMENT @ 4156' FOUND TOTAL DEPTH @ 4385'.
NOTE: - (WE ARE NOT DEEP ENOUGH TO PERFORATE. WILL HAVE TO DRILL OUT
BEFORE PROCEEDING WITH COMPLETION.)

A&W SUPPLY ON LOCATION & DELIVERED 139 JTS. 2 3/8" USED T&D TBG.
SWS RIGGED TO RUN BIT & TUBING.

RIH - WITH 3 7/8" BIT & TUBING.
TAGGED SOLID TOTAL DEPTH @ 4412' BY TBG TALLY.
SHUT DOWN FOR THE NIGHT.

7/21/93

JOHNSON BROS. ON LOCATION WITH DRILLING EQUIPMENT.
DRILLED: - 13' OF SOLID CEMENT, LATCH DOWN PLUG & BAFFLE @ 4425', &
20' SOLID CEMENT OUT OF SHOE JT. TO 4445'.
CIRCULATED HOLE CLEAN. POOH WITH TUBING & BIT.
SWABBED WELL DOWN VIA 4 1/2" CASING SWAB TO 4000' FROM SURFACE.

ELI WIRELINE ON LOCATION TO PERFORATE MISS DOLO
PERFORATED PROPOSED INTERVALS IN MISS DOLO @ 4390'-4399' & 4370'-4373'
2 SHOTS/FT. UTILIZING EXPENDABLE CASING GUN FOR MAXIMUM
PENETRATION.

FOUND TOTAL DEPTH @ - 4445'.

SWS SWABBED WELL DOWN TO T.D. @ 4445'.
WAITED 15 MINUTES FOR NATURAL TEST.

RECOVERED - NO FLUID WITH GOOD SHOW OF GAS.

SERFCO ON LOCATION TO ACIDIZE MISS DOLO 4390'-99' & 4370'-73'
WITH 1500 GALS 15% HCS ACID & 60 BALL SEALERS AS DIVERTERS.

ACIDIZED MISS DOLO AS FOLLOWS:

PUMPED 500 GALS 15% HCS ACID (NO BALLS)
PUMPED 1000 GALS 15% HCS ACID, INJECTING 1 BALL/16 GALS ACID (60 BALLS)
LOADED HOLE WITH 35 BBLs FIELD BRINE @ 6 BPM.
PRESSURED IN INTERVALS TO 1700 psi. BROKE BACK.
START DISPLACING 500 GALS @ 3 BPM - 1000 psi - 540 psi.
INCREASED TO 4 BPM @ 540 psi TO 370 psi.
DISPLACED 1000 GALS (WITH BALLS) @ 4 BPM - 360 psi - 1700 psi.
WITH 588 GALS ACID LEFT TO DISPLACE BALLED OFF TO 1700 psi.
SURGED PRESSURE OFF OF WELL IN ATTEMPT TO RELEASE BALLS FROM PERFS.
WENT IN W/BLANK SWAB TOOL TO KNOCK OFF BALLS.
STACKED OUT @ APPROX. 4425' WITH SWAB STEM.

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7/21 CONT.

ACID JOB CONTINUED.

SERFCO HOOKED BACK UP IN ATTEMPT TO DISPLACE ACID & COULD NOT.
SWS RIGGED TO SWAB BACK SOME FLUID TO SURGE BALLS OFF.
SWABBED 10 BBLS BACK IN 3 RUNS. WELL KICKING FLUID BACK.
WENT BACK IN WITH BLANK SWAB STEM TO BE SURE OF BOTTOM.
FOUND BRIDGE AGAIN @ 4400'. (25' HIGHER)
SERFCO HOOKED BACK UP & RELOADED HOLE.
DISPLACED 336 MORE GALS OF ACID @ 1.7 BPM - 350 psi - 1700 psi.
WELL BALLED OFF AGAIN WITH 252 GALS ACID LEFT IN WELL BORE.
DECISION MADE TO SWAB WELL BACK.

TTL LOAD - 102 BBLS

SEFCO RIGGED DOWN . SWS RIGGED TO SWAB BACK ACID LOAD.

SWAB TESTING AS FOLLOWS:

<u>TIME</u>	<u>MADE</u>	<u>TTL</u>	<u>OIL%</u>	<u>FL. LEV.</u>	<u>REMARKS</u>
7:30	-----	----	-----	-----	START SWABBING
8:30	75.00	75.00	11%	FLOWING	1 HR. START FLOW
9:00	3.34	78.34	95%	FLOWING	1/2 HR. FLOW.

AT THE END OF FLOW TESTING FLUID WAS DIMINISHING & FEELS VERY STRONG.

SHUT DOWN FOR THE NIGHT.

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7/22/93

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SICP - 600 psi.

OPENED WELL UP & WELL STARTED FLOWING @ 7:00 A.M.

APPROX SBHP - 1300 psi (ASSUMING FLUID COLUMN IN WELL BORE WAS FLUID THAT WELL FLOWED IN 1st HR. 464' OIL & 986' WATER)

FLOW TESTED WELL AS FOLLOWS:

<u>TIME</u>	<u>MADE</u>	<u>TTL</u>	<u>OIL%</u>	<u>FL. LEV</u>	<u>REMARKS</u>
8:00	23.00	101.34	32%	FLOW	1 HR. FLOW.
9:00	1.67	103.01	N/A	FLOW	1 HR. FLOW.
10:00	.84	103.85	30%	FLOW	1 HR. FLOW.

SERFCO ON LOCATION TO RE-ACIDIZE MISS DOLO PERFS 4390'-99' & 4370'-73' WITH GELLED ACID PAD SYSTEM USING 30# GELLED ACID & 30# CROSS-LINKED GEL FOR THE PAD.

ACIDIZED MISS DOLO AS FOLLOWS:

PUMPED 500 GALS 30# CROSS-LINK GELLED PAD	12 BBLS
PUMPED 1000 GALS 15% 30# GELLED ACID	36 BBLS
PUMPED 1000 GALS 30# CROSS-LINK GELLED PAD	60 BBLS
PUMPED 1000 GALS 15% 30# GELLED ACID	84 BBLS
PUMPED 1000 GALS 30# CROSS-LINK GELLED PAD	108 BBLS
PUMPED 1000 GALS 15% 30# GELLED ACID	132 BBLS
PUMPED 500 GALS 30# CROSS-LINK GELLED PAD	144 BBLS

HOLE LOADED @ 46 BBLS (HAD 1450' FLUID IN HOLE)

DISPLACED WITH 70 BBLS FIELD BRINE @ 5 BPM - 420 psi.

TOTAL LOAD - 214 BBLS

ISIP - 50 psi, **VAC** - IN 1 MINUTE.

LET ACID SIT FOR 1 HR. BEFORE SWABBING BACK TO ALLOW GEL TO BREAK.

7/22 CONT.

SWS RIGGED TO SWAB BACK @ 1:00 . FOUND FL. LEV. @ 500' DOWN.

SWAB TESTING AS FOLLOWS:

<u>TIME</u>	<u>MADE</u>	<u>TTL</u>	<u>FL. LEV.</u>	<u>OIL%</u>	<u>GAS</u>
2:00	76.82	76.82	1200'	SHOW	SHOW
3:00	35.07	111.89	2000'	SHOW	SHOW
4:00	31.71	143.62	3400'	27%	STRONG.
5:00	5.01	148.63	4500'	30%	260 MCFPD

NOTE: - (GAS MEASURED @ 260 MCFPD THROUGH ORIFICE TESTER @ END OF 5:00 HOURLY REPORT)

SERFCO ON LOCATION TO KILL WELL TO ALLOW FOR PERFORATION OF UPPER MISS CHERT SECTION.

PUMPED 40 BBLS FIELD BRINE VIA CASING, WELL ON VACCUUM.

ELI WIRELINE ON LOCATION TO PERFORATE MISS CHERT.

PERFORATED PROPOSED INTERVAL IN MISS CHERT FROM 4359' - 4361'
2 SHOTS/FT. UTILIZING EXPENDABLE CASING GUN FOR MAXIMUM
PENETRATION.

FOUND TOTAL DEPTH @ 4443' (HAVE 2' OF BALL SEALER FILL-UP)

HALLIBURTON ON LOCATION WITH RETRIEVABLE 4 1/2" BRIDGE PLUG.

R/H - WITH 4 1/2" RBP & 135 JTS. 2 3/8" TUBING.

SET RBP @ 4365'. WITH END OF TUBING @ 4360'

NOTE: - (WELL KICKED OFF THROUGH TUBING AS WE WERE SETTING PLUG)
SHUT DOWN FOR THE NIGHT.

7/23/93

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SERFCO ON LOCATION TO ACIDIZE MISS CHERT WITH 500 GALS 15% HCS ACID.

ACIDIZED MISS CHERT AS FOLLOWS:

LOADED HOLE BY CIRCULATING VIA TUBING.

DISPLACED ACID ACROSS BOTTOM OF TUBING. SHUT ANNULUS IN.

PRESSURED TO 700 psi. BROKE BACK TO 600 psi.

STARTED FEEDING ACID @ 600 psi.

DISPLACED ACID @ 3 1/2 BPM - 1400 psi.

ISIP - 380 psi, **15 MIN SIP** - 150 psi.

TTL LOAD - 78 BBLS.

NOTE: - (THE MISS CHERT IS VERY TIGHT & DOES NOT SEEM TO BE BROKEN DOWN SUFFICIENTLY. WE WILL HAVE TO FRAC MISS CHERT SEPARATELY TO ENSURE THAT WE HAVE FRACTURE COVERAGE ACROSS CHERT SECTION.)

SWS RIGGED TO SWAB BACK 70 BBL ACID LOAD @ 9:30 A.M. VIA TBG SWAB.

SWAB TESTING AS FOLLOWS:

<u>TIME</u>	<u>MADE</u>	<u>TTL</u>	<u>OIL%</u>	<u>GAS</u>	<u>CSN PRESS</u>
10:30	40.00	40.00	NONE	SHOW	BLOW
WELL STARTED FLOWING @ 10:30.					
11:30	13.36	53.36	SHOW	SHOW	BLOW
12:30	25.05	78.41	14%	STRONG	BLOW
1:30	16.70	95.11	21%	300 MCFPD	BLOW
2:00	15.03	110.14	25%	313 MCFPD	BLOW

GAS MEASURED BY ORIFICE GAS TESTER ON 1:30 & 2:00 REPORTS.

7/23 CONT.

SERFCO ON LOCATION TO KILL WELL TO ALLOW FOR TUBING TO BE RAISED IN PREPARATION FOR FRAC JOB.

KILLED WELL & RAISED TUBING 2 JTS. BOTTOM TBG @ 4300'.

SERFCO ON LOCATION TO FRAC MISS CHERT 4359'-61' WITH 7750 GALS 30# CROSS-LINK GEL & 8000# SAND.

FRAC MISS CHERT AS FOLLOWS:

CIRCULATED HOLE TO LOAD TBG & ANNULUS. SHUT CSN IN.	48 BBLS
PUMP 3000 GALS PAD & EST. INJ. RATE @ 4.6 BPM - 1460 psi	120 BBLS
START 1000# 20/40 SAND @ 1 PPG - 4.7 BPM - 960 psi	120 BBLS
START 2000# 20/40 SAND @ 2 PPG - 4.7 BPM - 960 psi	144 BBLS
AT 160 BBLS PUMPED WITH 1344# 2 PPG 20/40 SAND. PRESSURE CLIMBED TO 1300#	
CUT SAND DUE TO INCREASING THREAT OF FRAC SCREENING OUT.	160 BBLS
DISPLACED SAND @ 4.6 BPM - 1470 psi.	178 BBLS
OVER-FLUSHED SAND BY 5 BBLS. STOP OPERATIONS.	183 BBLS
<u>TTL LOAD</u> - 183 BBLS (7686 GALS)	
<u>TTL SAND</u> - 2344# 20/40.	
<u>ISIP</u> - 230 psi	
<u>VAC IN 5 MINUTES.</u>	

SWS RAN IN WITH TUBING & RELEASED BRIDGE PLUG. POOH WITH TBG & RBP.

SERFCO RIGGED TO FRACTURE ALL MISS INTERVALS IN DOLOMITE & CHERT, 4390'-99', 4370'-73', & 4359'-61' WITH 39,000 GALS 30# CROSS-LINKED GEL & 51,000# SAND.

FRAC ALL MISS PERFORATIONS AS FOLLOWS:

PUMP 15,000 GALS PRE-PAD & EST. INJECTION RATE @ 20 BPM - 860 psi	360 BBLS
START 4000# 20/40 SAND @ 1 PPG - 20 BPM @ 860 psi	360 BBLS
20/40 SAND @ 1 PPG ON BOTTOM - 20 BPM @ 820 psi	430 BBLS
START 8000# 20/40 SAND @ 2 PPG - 20 BPM @ 820 psi	456 BBLS
20/40 SAND @ 2 PPG ON BOTTOM - 20 BPM @ 770 psi	526 BBLS
START 8000# 12/20 SAND @ 2 PPG - 20 BPM @ 710 psi	582 BBLS
12/20 SAND @ 2 PPG ON BOTTOM - 20 BPM @ 700 psi	623 BBLS
START 15,000# 12/20 SAND @ 3 PPG - 20 BPM @ 770 psi	648 BBLS
12/20 SAND @ 3 PPG ON BOTTOM - 20 BPM @ 830 psi	718 BBLS
START 16,000# 12/20 SAND @ 4 PPG - 19 BPM @ 860 psi	768 BBLS
12/20 SAND @ 4 PPG ON BOTTOM - 19 BPM @ 900 psi	838 BBLS
CUT SAND, START 3000 GAL FLUSH- 19 BPM @ 910 psi	864 BBLS
SAND CLEAR START 10 BBL O.F. - 19 BPM @ 1150 psi	940 BBLS
OVER-FLUSH COMPLETE STOP OPERATIONS.	950 BBLS
<u>TOTAL LOAD</u> - 950 BBLS (39,900 GALS)	
<u>TOTAL SAND</u> - 51,000# (39,000# 12/20 & 12,000# 20/40)	
<u>ISIP</u> - 800 psi	
<u>5 MINUTE SIP</u> - 240 psi	
<u>10 MINUTE SIP</u> - 160 psi	
<u>15 MINUTE SIP</u> - 140 psi	

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TOTAL LOAD TO RECOVER BOTH FRAC JOBS - 1133 BBLS.

TOTAL SAND PUMPED BOTH FRAC JOBS - 53,334#

SHUT DOWN FOR THE WEEKEND.

7/26/93

SWS BACK ON LOCATION TO SWAB BACK FRAC LOADS VIA CASING SWAB.

SICP - 0 psi

FLUID LEVEL - 300' DOWN

SBHP - CALCULATES - 1955 psi

7/26 CONT.

SWAB & FLOW TESTING AS FOLLOWS:

<u>TIME</u>	<u>MADE</u>	<u>TOTAL</u>	<u>FL. LEV.</u>	<u>OIL%</u>	<u>GAS</u>	<u>REMARKS</u>
8:30	00.00	00.00	300'	----	----	START SWABBING.
9:30	60.12	60.12	600'	----	----	1 HOUR SWABBING.
10:30	66.80	126.92	FLOW	SHOW	SHOW	WELL STARTED FLOWING.
11:30	110.00	236.92	FLOW	SHOW	SHOW	1 HOUR FLOWING.
12:30	120.25	357.17	FLOW	SHOW	SHOW	1 HOUR FLOWING.
12:30 - 1:30 (DRAIN TANK)						
2:30	105.25	462.42	FLOW	8%	SHOW	1 HOUR FLOWING.
3:00	23.38	485.80	FLOW	3%	1379 mcf	1/2 HOUR FLOWING.
3:00 - 4:00 (WENT TO PIT FLOWED APPROX 60 BBLS. TEST GAS @ 2858 MCFPD)						
5:00	60.12	605.80	FLOW	7%	2858 mcf	1 HOUR FLOWING.
6:00	76.82	682.62	FLOW	7%	2858 mcf	1 HOUR FLOWING.
6:00 - 7:00 (FLOW TO PIT APPROX. 70 BBLS @ 7% OIL. TEST GAS @ 2858 mcfpd)						
8:00	60.00	812.62	FLOW	11%	3155 mcf	1 HOUR FLOWING.

NOTE: (GAS WAS MEASURED WITH ORIFICE TESTER USING 1 1/2" ORIFICE.
WE HAVE 320 BBLS OF FRAC LOAD LEFT TO RECOVER.)
SHUT DOWN FOR THE NIGHT.

7/28/93

SICP - 1480 psi.

SBHP - 1711 psi. (FIGURED WITH NO FLUID THIS WOULD BE MINIMUM PRESS.)
BLEW WELL DOWN. FLUID HIT @ 400 psi.

SERFCO ON LOCATION TO KILL WELL.

PUMPED 100 BBLS. KCL WATER TO KEEP WELL QUIET.

SWS RIGGED TO SAND PUMP, USING JOHNSON BROS. SAND PUMP.

SAND PUMP NOT WORKING PROPERLY. DECIDED TO RUN TUBING.

RAN TUBING AS FOLLOWS:

MUD ANCHOR X 2 3/8"	-----15.00'
SEATING NIPPLE X 2 3/8"	-----1.10'
135 JTS. 2 3/8" USED TESTED & DRIFTED TBG.	-----4358.75'
K.B. (5' LESS 3' ABOVE G.L.)	-----2.00'
TUBING SET @	-----4376.85'
SEATING NIPPLE SET @	-----4361.85'

TAGGED TOTAL DEPTH @ 4405' BY TUBING TALLY. PICKED UP & SET TBG 28' OFF BOTTOM.

NOTE: - (WELL KICKED OFF 3 TIMES WHILE RUNNING TUBING. PUMPED AN ADDITIONAL 50 BBLS KCL WATER FOR A TTL OF 150 BBLS OF KILL WATER.)

PACKED TUBING OFF & WELL KICKED OFF @ 2:30 P.M. W/O RUNNING SWAB.

FLOW TEST AS FOLLOWS:

3:30 - FLOWED 78.49 BBLS @ 8% OIL. 700 psi CSN PRESS. TEST GAS @ 2558 MCFPD.
3:30 - 4:00 - SWS RIGGED UNIT DOWN & OPENED WELL BACK UP.
5:00 - FLOWED 65.13 BBLS @ 15% OIL. 950 psi CSN PRESS. TEST GAS @ 2558 MCFPD.
6:00 - FLOWED 60.00 BBLS @ 8% OIL. 950 psi CSN PRESS. TEST GAS @ 2558 MCFPD.

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7/28/93 CONT.

WE HAVE RECOVERED 1016 BBLs OF FRAC & KILL LOADS OUT OF 1283 TTL LOADS. LACK 267 BBLs OF LOADS.
SWS MOVED OFF LOCATION.

7/29/93

ENSLEE DOZER SERVICE ON LOCATION BUILT TANK BATTERY GRADE TO SOUTH OF WELL @ ROAD AND LEVELED LOCATION.
BULLSEYE ROUSTABOUT ON LOCATION. DELIVERED & SET 4' X 20' HEATER TREATER FROM FISHER LEASE. DELIVERED & SET 10' X 12' 210 BBLs STEEL STOCK TANK FROM BARSTOW LEASE.

7/30/93

MILLER OILFIELD SERVICE ON LOCATION. LAYED 2 3/8" TUBING LEAD LINE FROM WELL HEAD TO TANK BATTERY PAD.

SET BS&B 2' X 5' LINE HEATER FROM WOOLRIDGE-B LEASE.
SET 24" X 8' VERTICAL SEPARATOR WITH GAS OPERATED DUMP 1000 psi W.I. FROM BUCKLIN LEASE.

MILLER ON LOCATION WITH 10' X 12' 200 BBL FIBERGLASS WATER TANK & SET ON PAD.

STARTED ON PLUMBING EQUIPMENT IN.
SHUT DOWN FOR THE WEEKEND.

8/2/93

MILLER'S BACK ON LOCATION & FINISHED HOOKING TANK BATTERY.

SICP - 1530 psi

SITP - 1530 psi

SBHP - CALCULATES 1754 psi (FIGURED WITHOUT ANY FLUID)

AWAITING WESTERN GAS RESOURCES GAS TEST ON WELL & GAS LINE.

8/10/93

SITP - 1580 psi

SICP - 1560 psi

SBHP - CALCULATES 1804 psia (FIGURED WITHOUT ANY FLUID IN WELL BORE)

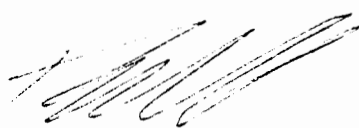
WESTERN GAS RESOURCES ON LOCATION TO RUN 1 pt. GAS TEST.

STARTED TEST 3:30 P.M. 8/10/93 WITH GAS FLOW OF 513 MCFPD.

3:30 P.M. 8/11/93 24 HR. TEST WELL PRODUCING 327 MCFPD WITH SITP - 1100 psi & SICP - 1440 psi.

END TEST. AWAITING GAS LINE HOOKUP FROM WESTERN GAS RESOURCES.

END OF REPORT.



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