STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 5447
Name: OXY USA, Inc.
Address: P. O. BOX 26100
Oklahoma City, OK 73126-0100
City/State/Zip
Purchaser: CITGO
Operator Contact Person: Raymond Hui
Phone (405) 749-2471
Contractor: Name: Red Tiger Drilling Company
License: 5302'
Wellsite Geologist: Bill Keller

Designate Type of Completion
X New Well Re-Entry Workover.
Oil SWD Temp. Abd.
Gas Inj Delayed Comp.
Dry Other (Core, Water Supply, etc.)

If CKDD: old well info as follows:
Operator:
Well Name:
Comp. Date Old Total Depth

Drilling Method:
Mud Rotary Air Rotary Cable

11-6-90 11-12-90 1-12-91
Spud Date Date Reached TD Completion Date

INTRODUCIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form. See rule 82-3-107 for confidentiality in excess of 12 months. One copy of all wireline logs and drillers time log shall be attached to this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Vic Tumlinson
Title Operations Drilling Manager Date 2-6-91
Subscribed and sworn to before me this 6th day of February 1991.
Notary Public Ray Anna
Date Commission Expires 4-16-94

API NO. 15- 147-20522 -00-00
County Phillips
CSE/4 NW/4 NE/4 Sec. 32 Twp. 58 Rge. 20 X East
Ft. North from Northeast Corner of Section
1650 Ft. West from Southeast Corner of Section
(NOTE: Locate well in section plat below.)
Lease Name Ray C Well # 5
Field Name Ray
Producing Formation Reagan
Elevation: Ground 2201 KB 2206
Total Depth 3657 PBTD 3633'

Amount of Surface Pipe Set and Cemented at 353' Feet
Multiple Stage Cementing Collar Used? X Yes No
If yes, show depth set DV tool at 1740' Feet
If Alternate II completion, cement circulated from 1740' Feet depth to 0 w. 400 sx cmt.

K.C.C. OFFICE USE ONLY
Letter of Confidentiality Attached
Wireline Log Received
Drillers Timelog Received

Distribution
KCC SWD/Rep NGPA
KGS Plug
(Specify)

Form ACO-1 (7-89)
**Operator Name**  OXY USA, Inc.  
**Lease Name**  Ray C  
**Well #**  5  
**Sec.**  32  
**Twp.**  5S  
**Rge.**  20  
**County**  Phillips

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

- **Drill Stem Tests Taken**
  - [ ] Yes  [x] No

- **Samples Sent to Geological Survey**
  - [x] Yes  [ ] No

- **Cores Taken**
  - [ ] Yes  [x] No

- **Electric Log Run**
  - [x] Yes  [ ] No

Ran Dual Induction Laterlog Spectral Density; Dual Spaced Neutron II Log and Microlog.

**Formation Description**

<table>
<thead>
<tr>
<th>Name</th>
<th>Top</th>
<th>Bottom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topeka</td>
<td>3163</td>
<td></td>
</tr>
<tr>
<td>Heebner</td>
<td>3112</td>
<td></td>
</tr>
<tr>
<td>Toronto</td>
<td>3334</td>
<td></td>
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<tr>
<td>LKC</td>
<td>3353</td>
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<tr>
<td>Basil Penn</td>
<td>3360</td>
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</tr>
<tr>
<td>Reagan</td>
<td>3596</td>
<td></td>
</tr>
<tr>
<td>Granite Wash</td>
<td>3620</td>
<td></td>
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<tr>
<td>TD</td>
<td>3657</td>
<td>3635</td>
</tr>
<tr>
<td>PBTD</td>
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<td></td>
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</tbody>
</table>

**Casing Record**

- **New** [x]  **Used**  [ ]

<table>
<thead>
<tr>
<th>Purpose of String</th>
<th>Size Hole Drilled</th>
<th>Size Casing Set (In O.D.)</th>
<th>Weight Lbs./Ft.</th>
<th>Setting Depth</th>
<th>Type of Cement</th>
<th># Sacks Used</th>
<th>Type and Percent Additives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface</td>
<td>12 1/4&quot;</td>
<td>8 5/8&quot;</td>
<td>24#</td>
<td>353'</td>
<td>Cl.A</td>
<td>250</td>
<td>3% cc</td>
</tr>
<tr>
<td>Production</td>
<td>7 7/8&quot;</td>
<td>5 1/2&quot;</td>
<td>15.5#</td>
<td>3655'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Perforation Record**

<table>
<thead>
<tr>
<th>Shots Per Foot</th>
<th>Specify Footage of Each Interval Perforated</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3595-3598</td>
</tr>
</tbody>
</table>

**Acid, Fracture, Shot, Cement Squeeze Record**

- **(Amount and Kind of Material Used)**
- **Depth**
  - Not Treated

**Tubing Record**

<table>
<thead>
<tr>
<th>Size</th>
<th>Set At</th>
<th>Packer At</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 7/8&quot;</td>
<td>3598</td>
<td></td>
</tr>
</tbody>
</table>

**Date of First Production**

- **1-8-91**

**Producing Method**

- [ ] Flowing  [ ] Pumping  [ ] Gas Lift  [ ] Other (Explain)

**Estimated Production Per 24 Hours**

<table>
<thead>
<tr>
<th>Oil</th>
<th>Bbls.</th>
<th>Gas</th>
<th>Mcf</th>
<th>Water</th>
<th>Bbls.</th>
<th>Gas-Oil Ratio</th>
<th>Gravity</th>
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<tr>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td>864</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Disposition of Gas**

- [ ] Vented  [ ] Sold  [ ] Used on Lease
  (If vented, submit ACO-18.)

- [ ] Open Hole  [ ] Perforation  [ ] Dually Completed  [ ] Commingled
  - [x] No

**Method of Completion**

- Production Interval
  - 3595-3598'  

**Prod. csg & cement data:**
Cemented 1st stage w/175 sx. Cemented top stage w/400 Howco light w/1/4#/sx.
January 25, 1991

CHRONOLOGICAL WELL REPORT

OXY USA INC., RAY "C" 85
PHILLIPS, KS 67568 WSN: 9030498

11/7/90 PR OPNS: DRILLING:
MD 358; DRIL(D) 358; DSS 1; DOL 1; *** FIRST REPORT ***;
MW 8.6; FV 26; PH 7; CHL 500; SLD % 1; CASING 8.625;
@ 355; DEV MD 358; ANGLE 0.5;
ACTIVITY SUMMARY:
* AFE TO DRILL DEVELOPMENT WELL * RU RED TIGER RIG 82.
SPUDDED 12/14/89 HOLE AT 8:00 AM 11/6/90. DRILLED TO 358'.
SHORT TRIPPED BIT. RAN BACK TO BOTTOM. CIRCULATED. POOH
W/COLLARS. RIH W/ 8 JTS 8-5/8", 244 K-55, "A"-GRADE
CASING (34") TO 358'. SET 2' BELOW GROUND LEVEL. RIGGED
UP NOW. CEMENTED W/ 250 SX CLASS "A" + 3% CC + 1/4#/SK
FLOCELE. PLUG DOWN AT 8:50 PM 11/6/90. CEMENT CIRCULATED.

CHIC J. NOWELL; DAILY COST @ 9,957; CUM COST @ 10,957)

11/8/90 PR OPNS: DRILLING:
MD 1,858; DRIL(D) 1,580; DSS 2; DOL 2;
MW 9.2; FV 28; PH 7; CHL 400; CASING 8.625; @ 355;
DEV MD 873; ANGLE 0.5; DEV MD 1,374; ANGLE 1; DEV MD 1,754; ANGLE 0.5;
ACTIVITY SUMMARY:
MADE BIT TRIP AT 1754'. DRILLERS ANHYDRITE 1750-1766'.
DRILLING AT 1858' AT REPORT TIME.

CHIC J. NOWELL; DAILY COST @ 9,375; CUM COST @ 20,332

11/9/90 PR OPNS: DRILLING:
MD 2,776; DRIL(D) 918; DSS 3; DOL 3;
MW 9.3; FV 26; PH 7; CHL 800; SLD % 7; CASING 8.625;
@ 355; DEV MD 2,401; ANGLE 1;
ACTIVITY SUMMARY:
DRILLING AT 2776' AT REPORT TIME.

CHIC J. NOWELL; DAILY COST @ 5,758; CUM COST @ 26,070

11/10/90 PR OPNS: DRILLING:
MD 3,259; DRIL(D) 483; DSS 4; DOL 4;
MW 9.1; FV 35; PH 11; WL 9.2; CHL 1000; SLD % 7.6;
CASING 8.625; @ 353; DEV MD 3,212; ANGLE 0.75;
ACTIVITY SUMMARY:
DISPLACED MUD AT 2806'. DRILLING AT 3259' AT REPORT TIME.

CHIC J. NOWELL; DAILY COST @ 4,944; CUM COST @ 59,414

11/11/90 PR OPNS: DRILLING; PREPARING TO LOG:
MD 3,532; DRIL(D) 273; DSS 5; DOL 5;
MW 9.1; FV 35; LCM 1; PH 10.5; WL 8.8; CHL 900;
SLD % 7; CASING 8.625; @ 353;
ACTIVITY SUMMARY:
ESTIMATED FORMATION TOPS:
TOPEKA 3163' (-957)
HEEBNER 3312' (-1106)
TORONTO 3334' (-1128)
LKC 3355' (-1147)
BASIL PENN 3350' (-1344)
REAGAN SAND 3696' (-1590)
GRANITE WASH 3620' (-1414)

CHIC J. NOWELL; DAILY COST @ 2,014; CUM COST @ 52,428

11/12/90 PR OPNS: PREPARING TO RUN 5-1/2" CASING;
MD 6,621; DRIL(D) 125; DSS 6; DOL 6;
MW 9.7; FV 46; LCM 0.5; PH 10; WL 8.4; CHL 900;
SLD % 9.5; CASING 8.625; @ 353; DEV MD 3,657; ANGLE 1.5;
ACTIVITY SUMMARY:
TO @ 3657' CIRCULATED 1 HOUR. SHORT TRIPPED. RAN BACK
TO BOTTOM. CIRCULATED 1 HOUR. POOH W/ DRILL PIPE. RU
HOWCO LOGGING. RIH W/ DUAL INDUCTION LATERLOG SPECTRAL
DENSITY, DUAL SPACED NEUTRON II LOG AND MICLOG. RIH W/
DRILL PIPE. CIRCULATED 1 HOUR. SDON.

CHIC J. NOWELL; DAILY COST @ 15,599; CUM COST @ 48,627

11/13/90 PR OPNS: WAITING ON CEMENT;
MD 3,777; DSS 7; DOL 7; *** DROP FROM REPORT PENDING COMPLETION ***;
MW 9.7; FV 46; LCM 0.5; PH 10; WL 8.4; CHL 900;
SLD % 9.5; CASING 8.625; @ 353;
ACTIVITY SUMMARY:
POOH W/ DRILL PIPE LAYING DOWN. RU TO RUN 5-1/2". RIH W/ 15'
SHOE, 90 JTS, 15.50, "A"-GRADE, K-55, 5-1/2" CASING.
BOTH SIDES SANDBLASTED 147'. TOTAL OF 3656' SET AT
3653'. RAN INSERT VALVE FLOAT SHOE. SHUT OFF BAFFLE IN
TOP OF SHOE JOINT AND DV ON TOP OF 48 JTS (11/47').
CENLIALIZERS ON 1ST, 3RD, 5TH, 7TH, 9TH, 11TH, 13TH, 16TH,
17TH, 20TH, AND 49TH JTS. RAN CEMENT BASKET 20' BELOW DV. RAN
MUD FLUSH AND CEMENT ACCORDING TO PROGNOSIS. OPENED DV AND
CIRCULATED FOR 30 HOURS. CEMENTED TOP STAGE WITH 409 SX
HOWCO LIGHT W/ 1/4#/SK FLOCELE. CIRCULATED 45 BBLS CEMENT
TO PIT. PLUG DOWN AT 3:52 PM 11/12/90. RELEASED RIG AT
4:48 PM 11/12/90.

CHIC J. NOWELL; DAILY COST @ 32,713; CUM COST @ 80,740
January 25, 1991

OXY USA INC., RAY "C" #5
PHILLIPS, KS WSN: 1303498

CASING 5.5 & 3.655;
ACTIVITY SUMMARY:
* COMPLETION OPERATIONS * RU OWS WELL SERVICE RIG #14, RIH
W/ 7'/8" DILL ROCK BIT, 4' 3-1/2" DRILL COLLARS, 5-1/2" SCRAPER
AND 56 JTS 2-7/8" J-55 TUBING, TAGGED DV AT 1740'.
DRILLED DV, CIRCULATED HOLE CLEAN. SDM.
CHIC J. NOWELL; DAILY COST $ 9,795; CUM COST $ 83,715;

11/28/90 PR OPNS: PREPARING TO PERFORATE ADDITIONAL 1';
FORM: REAGAN 3595-96';
PBDT 3,635; MTD 3,657; PERFS(MD) 3,595; - 3,596; DSS 22; DOL 22;
CASING 5.5 & 3.655;
ACTIVITY SUMMARY:
RAN TUBING AND BIT TO BOTTOM. CIRCULATED HOLE CLEAN,
(TAGGED AT 5655'). PRESSURED UP TO 500 PSI - HELD OK.
POOH W/ TUBING, COLLARS AND BIT. RIGGED UP HALLIBURTON
LOGGING SERVICE. RIH W/ GR/CCL/CBL AND LOGGED FROM
3625-2500' AND 1800-1650' RIAH AND PERFORATED REAGAN AT
3595-96' AT 4 SPF W/ 3-1/8" JET GUN. POOH. STARTED
SWABBING CASING. SWABBED WELL DOWN. NO FLUID ENTRY.
SDM.
CHIC J. NOWELL; DAILY COST $ 4,038; CUM COST $ 87,745;

11/29/90 PR OPNS: PREPARING TO REPERFORATE;
FORM: REAGAN 3595-97';
PBDT 3,635; MTD 3,657; PERFS(MD) 3,595; - 3,596; DSS 23; DOL 23;
CASING 5.5 & 3.655;
ACTIVITY SUMMARY:
OVERNIGHT FILLUP 600'. FL @ 2995'. SWABBED DRY.
PERFORATED REAGAN 3595-97' @ 4 SPF. SWABBED DRY.
CHIC J. NOWELL; DAILY COST $ 1,985; CUM COST $ 89,730;

11/30/90 PR OPNS: SWAB TESTING;
FORM: REAGAN 3595-98';
PBDT 3,635; MTD 3,657; PERFS(MD) 3,595; - 3,598; DSS 24; DOL 24;
CASING 5.5 & 3.655;
ACTIVITY SUMMARY:
OVERNIGHT FILLUP 50'. FL @ 3345'. PERFORATED REAGAN FROM
3597-98' @ 4 SPF. FLUID LEVEL JUMPED 230' AS SOON AS
REAGAN WAS PERFORATED. SWABBED DOWN. RAN SWAB TESTS.
1ST HR: 46 BF, 82 OIL, FL @ 1600'.
2ND HR: 46 BF, 82 OIL, FL @ 1700'.
SDM.
CHIC J. D. HININGER; DAILY COST $ 2,026; CUM COST $ 91,756;

12/1/90 PR OPNS: PREPARING TO PUT WELL ON PUMP;
FORM: REAGAN 3595-98';
PBDT 3,635; MTD 3,657; PERFS(MD) 3,595; - 3,598; DSS 25; DOL 25;
CASING 5.5 & 3.655;
ACTIVITY SUMMARY:
NO WORK FROM 12/1/90 TO 12/3/90.
CHIC J. NOWELL; CUM COST $ 91,756;

12/4/90 PR OPNS: WAITING ON EQUIPMENT;
FORM: REAGAN 3595-98';
PBDT 3,635; MTD 3,657; PERFS(MD) 3,595; - 3,598; DSS 28; DOL 28;
CASING 5.5 & 3.655;
ACTIVITY SUMMARY:
OVERNIGHT FL @ 1600', 90' OIL, 100' WATER. SWABBED DOWN.
1ST HR TEST: 45 BBLS, 82 OIL, FL @ 1600'.
2ND HR TEST: 45 BBLS, 82 OIL, FL @ 1600'.
3RD HR TEST: 45 BBLS, 82 OIL, FL @ 1600'.
* DROP FROM REPORT PENDING INSTALLATION OF PUMPING
EQUIPMENT *
CHIC J. D. HININGER; DAILY COST $ 900; CUM COST $ 92,656;

1/8/91 PR OPNS: PUMP TESTING;
FORM: REAGAN 3595-98';
PBDT 3,635; MTD 3,657; PERFS(MD) 3,595; - 3,598; DSS 63; DOL 63;
*** PICK UP FROM REPORT ON 12/4/90 ***;
CASING 5.5 & 3.655;
ACTIVITY SUMMARY:
RIH W/ 2-7/8" MUD ANCHOR (12.5'), 3-1/4 X 16' PRC TUBING
PUMP W/ 4' PLUNGER (.5 UNDER SIZED) WITH 1-1/2 X 16'
POLISHED RODS ON PLUNGER, BROWNING ON/OFF TOOL AND 113 JTS,
2-7/8" "A"-GRADE, J-55, 6.58 TUBING TO (3593'), 8 - 1-1/2'
SINKER BARS, 72 - 3/4" NORRIS 97 "A"-GRADE RODS, 60 - 7/8"
NORRIS 97 "A"-GRADE RODS, 1 - 1-1/2 X 22" POLISHED ROD.
SEVERE BEND IN C-320-250-85 PUMPING UNIT ("C"-320-250-85 OKC
GENERAL STOCK WITH 30 HP ELECTRIC MOTOR FROM OKC GENERAL
STOCK). WELL RUNNING 85" X 9-1/2 X 3-1/4".
WELL TEST: 19 BD & 635 BHPD.
CHIC J. NOWELL; DAILY COST $ 40,998; CUM COST $ 132,753;

1/9/91 PR OPNS: PUMP TESTING;
FORM: REAGAN 3595-98';