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

Operator: License #: 5352
Name: Baird Oil Co., Inc.
Address: P.O. Box 428
City/State/Zip: Logan, KS 67646
Purchaser: Farmland Industries
Operator Contact Person: Jim Baird
Phone: (913) 689-7457
Contractor: Name: Abercrombie Drilling, Inc.
License: 5422
Wellsite Geologist: Jim R. Baird
Designate Type of Completion: X New Well __ Re-Entry ___ Workover
X Oil ___ SUD ___ Temp. Abd.
Gas ___ Inj ___ Delayed Comp.
Dry ___ Other (Core, Water Supply, etc.)
If OMMO: old well info as follows:
Operator: N/A
Well Name: 
Comp. Date: Old Total Depth: ___
Drilling Method: X Mud Rotary ___ Air Rotary ___ Cable
8-19-90 8-28-90 9-5-90
Spud Date: Date Reached TD: Completion Date: ___

INSTRUCTIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derry 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 driller's time log shall be attached with 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: Jim L. Baird
Title: Executive Vice-President
Date: 12-13-90

K.C.C. OFFICE USE ONLY
F __ Letter of Confidentiality Attached
C __ Wireline Log Received
C __ Driller's Time Log Received

Distribution: SD/Rep: NGPA: Other:

Signature: Robert B. Hartman
Title: Notary Public
Date: 12-13-90

Date Commission Expires: 3/29/91

Form ACO-1 (7-89)
**INVOICE**

**ORIGINAL**

HALLIBURTON SERVICES

P.O. BOX 951046
DALLAS, TX 75395-1046

**WELL LEASE NO./PLANT NAME**

CARTRELL 1

**WELL/PLANT LOCATION**

ROOKS

**STATE**

KS

**WELL/PLANT OWNER**

SAME

**SERVICE LOCATION**

HAYS

**CONTRACTOR**

ABERCROMBIE

**JOB PURPOSE**

CEMENT PRODUCTION CASING

**TICKET DATE**

08/28/1990

**ACCT. NO.**

044605

**CUSTOMER AGENT**

JIM BAIRD

**VENDOR NO.**

**CUSTOMER P.O. NUMBER**

**SHIPPED VIA**

COMPANY TRUCK

**FILE #**

00637

**BAIRD OIL CO., INC.**

**SUITE 1300**

**LIBERTY TOWER**

100 BROADWAY AVENUE

OKLAHOMA CITY, OK 73102-0000

**FROM CONFIDENTIAL**

---

**PRICE REF. NO.**

**DESCRIPTION**

**QUANTITY**

**UNIT**

**UNIT PRICE**

**AMOUNT**

000-117

MILEAGE

29

MI

2.35

68.15

007-013

MULT STAGE CEMENTING-1ST STAGE

3671

FT

1,145.00

1,145.00

007-016

MULT STAGE CEMENTING-ADD STAGE

1

UNT

950.00

950.00

018-317

SUPER FLUSH

12

SK

74.00

888.00

71

MULT STAGE CEMENTER 5-1/2" 8RD

1

EA

2,450.00

2,450.00

813.10354

PLUG SET 5 1/2"

1

EA

400.00

400.00

812.0162

WALL CLEANER CABLE TYPE 5 1/2"

20

EA

27.50

550.00

807.2005

CENTRALIZER 5-1/2" MODEL 5-4

7

EA

44.00

308.00

807.93022

CEMENT BASKET 5 1/2"

1

EA

90.00

90.00

800.8883

FLOAT SHOE 5 1/2" 8RD SSII

1

EA

194.00

194.00

837.06900

STANDARD CEMENT

200

SK

5.45

1,090.00

504-308

STANDARD CEMENT

20

SK

5.45

109.00

506-105

POZMIX A

20

SK

2.88

57.60

506-121

HALIBURTON-GEL 2%

1

SK

.00

N/C

504-316

HALIBURTON LIGHT W/STANDARD

350

SK

5.21

1,823.50

509-968

SALT

1560

LB

.10

156.00

507-153

CFR-3

94

LB

3.90

366.60

508-292

GILSONITE, SACKED

500

LB

.42

210.00

507-210

FLOCHELE

138

LB

1.30

179.40

500-207

BULK SERVICE CHARGE

632

CFT

1.10

695.20

500-306

MILEAGE CMTG MAT DEL OR RETURN

825.079

TM

.75

618.81

---

**TERMS**

INVOICES PAYABLE NET BY THE 20TH OF THE FOLLOWING MONTH AFTER DATE OF INVOICE UPON CUSTOMER'S DEFAULT IN PAYMENT OF CUSTOMER'S ACCOUNT BY THE LAST DAY OF THE MONTH FOLLOWING THE MONTH IN WHICH THE INVOICE IS DATED, CUSTOMER AGREES TO PAY INTEREST THEREON AFTER DEFAULT AT THE HIGHEST LAWFUL CONTRACT RATE APPLICABLE BUT NOT TO EXCEED 18%, PER ANNUM. IN THE EVENT IT BECOMES NECESSARY TO EMPLOY AN ATTORNEY TO ENFORCE COLLECTION OF SAID ACCOUNT, CUSTOMER AGREES TO PAY ALL COLLECTION COSTS AND EXPENSES INCURRED THEREIN.

**CONTINUED ON NEXT PAGE**
DRILL STEM TESTS

FSIP: 1088 Rec. 390' M.W. (5% mud) 1st open: fair blow

DST #2 (3354-3394) 30-30-30-30 IPF: 54-217 ISIP: 1165 FFP: 269-347
FSIP: 1148 Rec. 806' gas in pipe; 715' cl. gassy oil; 125' G.M.C.O. (15% gas, 35% mud 50% oil) 95' O.C.M. (15% oil 85% mud) Strong blow.

DST #3 (3389-3415) 30-30-30-30 IPF: 23-106 ISIP: 1152 FFP: 147-190
FSIP: 1130 Rec. 745' GIP, 525' cl. gassy oil; 100' H.O.C.M. (33% oil 67% mud) Strong blow

FSIP: 1121 Rec. 1290' G.I.P.; 1300' gassy cl. oil; 65' H.O.C.M. (30% oil 70% mud) Strong blow

DST #5 (3441-3463) 30-30-30-30 IPF: 54-213 ISIP: 1165 FFP: 256-328
FSIP: 1135 Rec. 1230 G.I.P.; 722' cl. gassy oil; 62' M.C.O. (37% mud 69% oil) 125' M.W. w/oil specs (12% mud 88% wtr.) Strong blow

DST #6 (3461-3484) 30-30-30-60 IPF: 89-196 ISIP: 1088 FFP: 264-314
FSIP: 1093 Rec. 630 S.G.C.M.W. w/oil specs (3% gas 12% mud 85% wtr.) Fair to strong blow

DST #7 (3506-3538) 30-30-10-0 IPF: 26-26 ISIP: 30 FFP: 28-28 FSIP: 0
Rec. 5' mud w/oil scum, good odor. Very weak blow-1st open
No blow-2nd open

DST #8 (3532-3555) 30-30-30-30 IPF: 26-80 ISIP: 260 FFP: 110-141
FSIP: 260 Rec. 372' G.I.P.; 360' cl. gassy oil; 75' H.O.C.M. (35% oil 65% mud) Fair to strong blow

DST #9 (3553-3573) 30-30-0-0 IPF: 28-28 ISIP: 28 Rec. 1' OCM (5% oil est.)
very weak blow-1st open; no blow-2nd open

DST #10 (3644-3653) 45-50-45-45 IPF: 41-46 ISIP: 746 FFP: 52-68
FSIP: 571; Rec. 94' cl. gassy oil; 30' H.O.C.M. (30% oil 70% mud)
weak to fair blow-1st open; weak blow-2nd open.

DST #11 (3593-3653) 45-45-45-45 IPF: 76-76 ISIP: 809 FFP: 109-109
FSIP: 765, Rec. 135' G.I.P.; 110' C.G.O.; 60' O.C.M. (35% oil 65% mud)
fair blow-1st open (8½") 2nd open-4" blow
**HALLIBURTON SERVICES**

**CONFIDENTIAL**

**TICKET No. 908547-2**

**FORM 1900-R-11**

**WELL NO.-FARM OR LEASE NAME**

#1 GARTRELL

**COUNTY**

Rooks

**STATE**

KS

**CITY/STATE/ZIP**

**WELL TYPE**

Logan, KS 67646

**WELL CATEGORY**

03

**WELL PERMIT NO.**

035

**PRICE REFERENCE**

**SECONDARY REF OR PART NO.**

**ACCOUNT**

**DESCRIPTION**

**UNITS 1**

**UNITS 2**

**UNIT PRICE**

**AMOUNT**

<table>
<thead>
<tr>
<th>PRICE REFERENCE</th>
<th>SECONDARY REF OR PART NO.</th>
<th>ACCOUNT</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>MEAS</th>
<th>QTY</th>
<th>MEAS</th>
<th>COSTS</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>000-117</td>
<td>001-016</td>
<td>1</td>
<td>MILEAGE</td>
<td>29.0 ft</td>
<td>2.35</td>
<td>60.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>007-013</td>
<td>001-016</td>
<td>1</td>
<td>PUMP SERVICE 1ST STAGE</td>
<td>3607.0 ft</td>
<td>1.00</td>
<td>1145.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>007-161</td>
<td></td>
<td>1</td>
<td>PUMP SERVICE 2ND STAGE</td>
<td>1.0 ea</td>
<td>12.0 sk</td>
<td>950.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>018-317</td>
<td></td>
<td>1</td>
<td>SUPER FLUSH</td>
<td>24.0 ft</td>
<td>2450.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>813.10354</td>
<td>1</td>
<td>MULTI STAGE CMTR</td>
<td>1.0 ea</td>
<td>5.5 10</td>
<td>400.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>812.0162</td>
<td>1</td>
<td>PLUG SET</td>
<td>1.0 ea</td>
<td>9.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>807.2005</td>
<td>1</td>
<td>CABLE STRATCHERS</td>
<td>20.0 ea</td>
<td>512.10</td>
<td>550.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>807.73022</td>
<td>1</td>
<td>CENTRALIZERS</td>
<td>7.0 ea</td>
<td>44.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>320</td>
<td>800.8883</td>
<td>1</td>
<td>CMT BASKET</td>
<td>1.0 ea</td>
<td>512.10</td>
<td>90.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>837.06900</td>
<td>1</td>
<td>SUPER SEAL FLOAT SHOE</td>
<td>1.0 ea</td>
<td>194.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**AS PER ATTACHED BULK MATERIAL DELIVERY TICKET NO.**

**B-**

**WAS JOB SATISFACTORILY COMPLETED?**

[ ] Yes

[ ] No

**WAS OPERATION OF EQUIPMENT SATISFACTORY?**

[ ] Yes

[ ] No

**WAS PERFORMANCE OF PERSONNEL SATISFACTORY?**

[ ] Yes

[ ] No

**SIGNATURE**

Michael D. Baker

**WE CERTIFY THAT THE FAIR LABOR STANDARDS ACT OF 1938, AS AMENDED, HAS BEEN COMPLIED WITH IN THE PRODUCTION OF GOODS AND OR WITH RESPECT TO SERVICES FURNISHED UNDER THIS CONTRACT.**

[ ] Yes

[ ] No

**SUB TOTAL**

12349.26
<table>
<thead>
<tr>
<th>PRICE REFERENCE</th>
<th>SECONDARY</th>
<th>CODE</th>
<th>DESCRIPTION</th>
<th>UNITS 1</th>
<th>UNITS 2</th>
<th>UNIT PRICE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>504-308</td>
<td>516.00261</td>
<td>1B</td>
<td>Standard Cement</td>
<td>200</td>
<td></td>
<td>5.45</td>
<td>1,090.00</td>
</tr>
<tr>
<td>504-308</td>
<td>516.00261</td>
<td>1B</td>
<td>Standard Cement</td>
<td>20</td>
<td>XXXX</td>
<td>5.45</td>
<td>109.00</td>
</tr>
<tr>
<td>506-105</td>
<td>516.00286</td>
<td>1B</td>
<td>Pozmix 'A'</td>
<td>20</td>
<td>XXXX</td>
<td>2.88</td>
<td>57.60</td>
</tr>
<tr>
<td>506-121</td>
<td>516.00259</td>
<td>1B</td>
<td>1 sk HalliburtonGel@2%</td>
<td></td>
<td></td>
<td>n/e</td>
<td></td>
</tr>
<tr>
<td>504-316</td>
<td>516.00315</td>
<td>1B</td>
<td>Halliburton Light Cement</td>
<td>350</td>
<td></td>
<td>5.21</td>
<td>1,823.50</td>
</tr>
<tr>
<td>507-153</td>
<td>516.00161</td>
<td>1B</td>
<td>CFR-3 Blended</td>
<td>94</td>
<td>1b</td>
<td>3.90</td>
<td>366.60</td>
</tr>
<tr>
<td>507-210</td>
<td>590.50071</td>
<td>1B</td>
<td>Floxcole Blended</td>
<td>138</td>
<td>1b</td>
<td>1.30</td>
<td>179.40</td>
</tr>
</tbody>
</table>

**TOTAL WEIGHT**

**LOADED MILES**

**TON MILES**

**SERVICE CHARGE ON MATERIALS RETURNED**

**CU. FEET**

**SERVICE CHARGE**

**MILEAGE CHARGE**

**RETURNED MILEAGE CHARGE**

**TOTAL WEIGHT**

**LOADED MILES**

**TON MILES**

**CARRY FORWARD TO INVOICE**

**SUB-TOTAL**

**5,305 61**
TO: HALLIBURTON SERVICES
YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICEMEN TO DELIVER AND OPERATE THE SAME, AS AN INDEPENDENT CONTRACTOR TO
AND DELIVER AND SELL PRODUCTS, SUPPLIES, AND MATERIALS FOR THE PURPOSE OF SERVICING
BAIRRO - OIL CO. (CUSTOMER) CONFIDENTIAL

WELL NO. 1
LEASE GARTRELL
SEC. 22
TWP. 6
RANGE 20
COUNTY ROOKS
STATE KS
OWNED BY SANE

THE FOLLOWING INFORMATION WAS FURNISHED BY THE CUSTOMER OR HIS AGENT

FORMATION
NAME
FROM
TO
THICKNESS
PACKER TYPE
TOTAL DEPTH
MUD WEIGHT
BORE HOLE
INITIAL PROD.
PRESENT PROD.
PREVIOUS TREATMENT
TREATMENT INSTRUCTIONS: TREAT THRU TUBING
HYDRAULIC HORSEPOWER ORDERED

NEW USED WEIGHT SIZE FROM TO MAX ALLOW.
CASING N 14 5 1/2
LINER
TUBING
OPEN HOLE SHOTS/FT.
PERFORATIONS PERFORATIONS PERFORATIONS

Cement casing w/ 40 Sks 50/50 Port 2% sec 12 1/4 Gill. White/1 Sk
Cement Top Stage w/ 350 Sks Hc w/ 1/4 Fluoride/1 Sk

Cement casing w/ 40 Sks 50/50 Port 2% sec 12 1/4 Gill. White/1 Sk
Cement Top Stage w/ 350 Sks Hc w/ 1/4 Fluoride/1 Sk

CUSTOMER OR HIS AGENT WARRANTS THE WELL IS IN PROPER CONDITION TO RECEIVE THE PRODUCTS, SUPPLIES, MATERIALS, AND SERVICES

As consideration, the above-named customer agrees: THIS CONTRACT MUST BE SIGNED BEFORE WORK IS COMMENCED.

a) To pay Halliburton in accordance with the rates and terms stated in Halliburton's current price list. Invoices are payable 30 days after date of invoice. Under our standard in payment of Customer's account by the last day of the month following the month in which the invoice is dated. Customer agrees to pay interest thereon at default at the highest lawful contract rate applicable, but not to exceed 5% per annum in the event of necessity to employ attorneys to enforce collection of said amount. Customer agrees to pay all collection costs and attorney fees in the amount of 20% of the amount of the unpaid account.

b) To defend, indemnify, release and hold harmless Halliburton, its divisions, subsidiaries, parent and affiliated companies and the officers, directors, employees, agents and servants of all of them from and against any claims, liabilities, expenses, attorneys fees, and costs of defense to the extent permitted by law for:

1. Damage to property owned by, in the possession of, or leased by Customer, and/or the well owner (if different from Customer), including, but not limited to, surface and subsurface damage. The term "well owner" shall include working and royalty interest owners.

2. Reservoir, formation, or well loss or damage, subsurface trespass or any action in the nature thereof.

3. Personal injury or death or property damage (including, but not limited to, damage to the reservoir, formation or well), or any damages whatsoever, growing out of or in any way connected with or resulting from pollution, subsurface pressure, losing control of the well and/or a well blowout or the use of radioactive material.

The defense, indemnity, release and hold harmless obligations of Halliburton provided for in this Section b) and Section c) below shall apply to claims or liability even if caused or contributed to by Halliburton's negligence, strict liability, or the unneighborliness of any vessel owned, operated, or furnished by Halliburton or any defect in the data, products, supplies, materials, or equipment of Halliburton whether in the preparation, design, manufacture, distribution, or marketing thereof, or from a failure to warn any person of such defect. Such defense, indemnity, release and hold harmless obligations of Halliburton shall not apply where the claims or liabilities are caused by the gross negligence or willful misconduct of Halliburton. The term "Halliburton" as used in said Sections b) and c) shall mean Halliburton, its divisions, subsidiaries, parent and affiliated companies, and the officers, directors, employees, agents and servants of all of them.

c) That because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, Halliburton is unable to guarantee the effectiveness of the products, supplies or materials, nor the results of any treatment or service, nor the accuracy of any chart interpretation, research analysis, job recommendation or other data furnished by Halliburton. Halliburton personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Customer agrees that Halliburton shall not be liable for and Customer shall indemnify Halliburton against any damages arising from the use of such information.

d) That Halliburton warrants only title to the products, supplies and materials and that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Halliburton's liability and Customer's exclusive remedy in any cause of action (whether in contract, tort, breach of warranty or otherwise) to Customer for any loss or damage caused by any of its products, supplies or materials on their return to Halliburton or, to the allowance to the Customer of the cost for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, punitive or consequential damages.

e) That Customer shall, at its risk and expense, attempt to recover any Halliburton equipment, tools or instruments which are lost in the well and if such equipment, tools or instruments are not recovered. Customer shall pay Halliburton its replacement cost unless such loss is due to the sole negligence of Halliburton. If Halliburton equipment, tools or instruments are damaged in the well, Customer shall pay Halliburton the lesser of its replacement cost or the cost of repairs unless such damage is caused by the sole negligence of Halliburton. In the case of equipment, tools or instruments for marine operations, Customer shall, in addition to any foregoing, be fully responsible for loss of or damage to any of its equipment, tools or instruments which occurs at any time after delivery to Customer at the landing until returned to the landing, unless such loss or damage is caused by the sole negligence of Halliburton.

f) To waive the provisions of the Deceptive Trade Practices - Consumer Protection Act, to the extent permitted by law.

g) That this contract shall be governed by the laws of the state where services are performed or materials are furnished.

h) That Halliburton shall not be bound by any changes or modifications in this contract, except where such change or modification is made in writing by a duly authorized executive officer of Halliburton.

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THIS CONTRACT AS CUSTOMER'S AGENT.

SIGNED

DATE

TIME

CONFIDENTIAL

FROM

CONFIDENTIAL

DATE

TIME

CONFIDENTIAL

DATE

TIME

From Halliburton Services: A Division of Halliburton Company

We certify that the Fair Labor Standards Act of 1938, as amended, has been complied with in the production of goods and/or with respect to services furnished under this contract.
## WELL DATA

<table>
<thead>
<tr>
<th>FIELD</th>
<th>SEC.</th>
<th>TWP.</th>
<th>RGE.</th>
<th>Cty.</th>
<th>STATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>22</td>
<td>6</td>
<td>20</td>
<td>Rocks</td>
<td>KS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FORMATION NAME</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FORMATION THICKNESS</th>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INITIAL PROD: OIL</th>
<th>BPD</th>
<th>WATER</th>
<th>BPD</th>
<th>GAS</th>
<th>MCFD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRESENT PROD: OIL</th>
<th>BPD</th>
<th>WATER</th>
<th>BPD</th>
<th>GAS</th>
<th>MCFD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPLETION DATE</th>
<th>MUD TYPE</th>
<th>MUD WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PACKER TYPE</th>
<th>SET AT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOTTOM HOLE TEMP</th>
<th>PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MISC. DATA</th>
<th>TOTAL DEPTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## JOB DATA

<table>
<thead>
<tr>
<th>TOOLS AND ACCESSORIES</th>
<th>TYPE AND SIZE</th>
<th>QTY.</th>
<th>MAKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOAT COLLAR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLOAT SHOE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GUIDE SHOE</td>
<td>5/16 X 16</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>CENTRALIZERS</td>
<td>7/8 X 20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>TOP Plug</td>
<td>5 1/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEAD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PACKER</td>
<td>5 1/2</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td>5 1/4</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

## MATERIALS

<table>
<thead>
<tr>
<th>TREAT. FLUID</th>
<th>DENSITY</th>
<th>LBS/GAL-APF</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPL. FLUID</td>
<td>DENSITY</td>
<td>LBS/GAL-APF</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROP. TYPE</th>
<th>SIZE</th>
<th>LBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROP. TYPE</td>
<td>SIZE</td>
<td>LBS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACID TYPE</th>
<th>GAL.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACID TYPE</td>
<td>GAL.</td>
<td>%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SURFACTANT TYPE</th>
<th>GAL.</th>
<th>IN</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE AGENT TYPE</td>
<td>GAL.</td>
<td>IN</td>
</tr>
</tbody>
</table>

|FLUID LOSS ADD. TYPE| GAL-LB.|
|                    |       |
|GELING AGENT TYPE  | GAL-LB.|
|FRAC. RED. AGENT TYPE| GAL-LB.|
|BREAKER TYPE       | GAL-LB.|
|BLOCKING AGENT TYPE| GAL-LB.|
|PERFPAC BALLS TYPE | QTY.   |
|OTHER              |       |
|OTHER              |       |

## CEMENT DATA

<table>
<thead>
<tr>
<th>STAGE</th>
<th>NUMBER OF BACKS</th>
<th>CEMENT</th>
<th>BRAND</th>
<th>BULK SACKED</th>
<th>ADDITIVES</th>
<th>YIELD CUF./SK</th>
<th>MIXED LBS./GAL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>40</td>
<td>50/50</td>
<td>F22</td>
<td>8</td>
<td>2% LIQUID</td>
<td>12 1/2#</td>
<td>6% SODIUM / 1 SK</td>
</tr>
<tr>
<td>2</td>
<td>200</td>
<td>STANDARD</td>
<td>122</td>
<td>8</td>
<td>18% SALT</td>
<td>14% CFR</td>
<td>4.2 FLUORITE / 1 SK</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRESSURES IN PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRCULATING</td>
</tr>
<tr>
<td>BREAKDOWN</td>
</tr>
<tr>
<td>AVERAGE</td>
</tr>
<tr>
<td>FRAC. GRADIENT</td>
</tr>
<tr>
<td>SHUT-IN INSTANT</td>
</tr>
<tr>
<td>HYDRAULIC HP</td>
</tr>
<tr>
<td>ORDERED</td>
</tr>
<tr>
<td>AVAILABLE</td>
</tr>
<tr>
<td>USED</td>
</tr>
<tr>
<td>AVERAGE RATES IN BPM</td>
</tr>
<tr>
<td>TREATING</td>
</tr>
<tr>
<td>DISPL.</td>
</tr>
<tr>
<td>CEMENT LEFT IN PIPE</td>
</tr>
</tbody>
</table>

## SUMMARY

<table>
<thead>
<tr>
<th>VOLUMES</th>
<th>TYPE</th>
<th>SUPER-FLUSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRESLUSH: BBL-GAL.</td>
<td>SUB</td>
<td>SUPER-FLUSH</td>
</tr>
<tr>
<td>LOAD &amp; BIDN: BBL-GAL.</td>
<td>PAD</td>
<td>BBL-GAL.</td>
</tr>
<tr>
<td>TREATMENT: BBL-GAL.</td>
<td>DISPL.</td>
<td>BBL-GAL.</td>
</tr>
<tr>
<td>CEMENT SLURRY: BBL-GAL.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOLUME: BBL-GAL.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## REMARKS

FROM CONFIDENTIAL
CONSERVATION DIVISION
Wichita, Kansas

FIELD OFFICE
<table>
<thead>
<tr>
<th>CHART NO.</th>
<th>TIME</th>
<th>RATE (BPM)</th>
<th>VOLUME (BBL)</th>
<th>PRESSURE (PSI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Job Log**

- **Description of Operation and Materials**
  - On loc w/ F.E. & 18k5 Rigs, just finished laying down AP.
  - To rig up & Run 11/4 5# CSG BE SET 3G71 Tool 30404.
  - D.V. @ 177.46 Shoe St. 16.75°
  - Cemented 1.5:1:7.10 1-5-7.19
  - Cut basket off 463 St.
  - CSG 618# Mix
  - Mix & Pump 5006 CU SUPER FLUSH.
  - 40.5ks - 50/50 ROZ 2% CEC 1274 CEM SOL 200-5ks CTA 18% SALT 5% CEC 2% DCEC.
  - Finish mix cont.
  - Wash Pump/Circ.
  - Drop 1st stage plug.
  - Start Disp. 4.6 Bar A. 4.85 Bar In.
  - Plug Down.
  - Release pressure Super Seal shoe held.
  - Drop D.V. opening device.
  - Open D.V. establish circ.
  - Hook up to rig & pump 7/8in.
  - Plug & hold up 155ks HCC.
  - Hook up to CSG.
  - Mix & Pump 3.55ks HCC 6/8.8 ft.
  - Finish cement.
  - Release D.V. closing plug.
  - Start disp.
  - Disp 1in.
  - Close D.V.
  - Release pressure D.V. closed.
  - (Cement circ to surface & place 40k5).
  - Job complete.

**FROM CONFIDENTIAL**

- M. Childers
- R. Berens
- G. Palmyers

**Conservation Division**

Wichita, Kansas