



CONTACT INFORMATION  
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| DRILL HOLE SAMPLES                    |          |          |   |           |                            |      |        |  |  | assessment hole    |  |  |  |  |                      |  |         |  |  | PAGE 1             |  | OF |  |  |
|---------------------------------------|----------|----------|---|-----------|----------------------------|------|--------|--|--|--------------------|--|--|--|--|----------------------|--|---------|--|--|--------------------|--|----|--|--|
| PROPERTY<br>El Rico 3 (Copper Chiefs) |          |          |   |           | DISTRICT<br>Lone Star      |      |        |  |  | COUNTY<br>Graham   |  |  |  |  | STATE<br>AZ          |  |         |  |  | COUNTRY            |  |    |  |  |
| HOLE NO.<br>ES-34                     |          |          |   |           | CONTRACTOR<br>LaVon Prince |      |        |  |  | COLLAR COORD.<br>N |  |  |  |  | COLLAR ELEV.<br>4100 |  |         |  |  | E                  |  |    |  |  |
| BEARING                               |          |          |   |           | INCLINATION<br>vertical    |      |        |  |  | DEPTH<br>90        |  |  |  |  | STARTED<br>8/29/74   |  |         |  |  | STOPPED<br>8/30/74 |  |    |  |  |
| SAMPLE NUMBER                         | BIT SIZE | RECOVERY |   | DRILL RUN |                            | INT. | ASSAYS |  |  |                    |  |  |  |  |                      |  | REMARKS |  |  |                    |  |    |  |  |
|                                       |          | FEET     | % | FROM      | TO                         |      |        |  |  |                    |  |  |  |  |                      |  |         |  |  |                    |  |    |  |  |

20 30

30% Kag, andesite agglomerate + chlorite and weaker sericite alteration  
70% fissure vein material, qtz and qtz-ser chips most show hematite as diss. specks, coatings or pervasive, hematite color varies from bright red to purple; no goethite or jarosite

30 40  
40 50  
50 60  
60 70  
70 80

sharp change, considerable yellow + gold limonite about equal to hematite; some rock type + alteration

JOYLES BROS. DRILLING COM. NY  
SHIFT REPORT

JOB 10-212 LOC. Safford DATE 3-19-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 10 mud  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 1 Diamond  
DEPTH, END OF SHIFT 950 CAL-SEAL 2 Dick's mud seal  
DEPTH, START OF SHIFT 945 LUMNITE 2 Gunk Seal  
DRILLED \_\_\_\_\_ PORTLAND 45 sk cement  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 4 loads  
NUMBER OF RUNS 3

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 3 circ. CEMENTING 8  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Had all water  
Couldn't get it back with circ material  
got cement. the hole cement came  
off. + loss water

DRILLER Al Hehr HELPER John  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

**WYLES BROS. DRILLING COMI NY**  
SHIFT REPORT

JOB 6-712 LOC. Esser DATE 3-20-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 6 mud 2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL 1 soda ash  
DEPTH, START OF SHIFT \_\_\_\_\_ LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND 15 51 portland  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 5 loads  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

**TIME CHARGES**

DRILLING \_\_\_\_\_ CEMENTING 10  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

**BITS AND SHELLS**

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) 3 shifts  
Water hauler  
Waiting on Cement Cement not  
Set up Drillout Cement & re Cement  
Hole

DRILLER Al Kehr HELPER Jahn  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMP NY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 3-21-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 950 LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 1 load  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED 90 FROM 820 TO 910

TIME CHARGES

DRILLING 5 CEMENTING 5  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

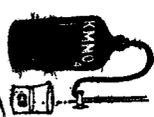
REMARKS (Explain delays and hole condition) Drill out cement  
rod out rods + collar on supply  
line cement set up hard  
Drill out 90 ft of cement

DRILLER Al Hehr HELPER John  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

1435 S. 10th AVL  
P. O. BOX 1889

# Jacobs Assay Office

Registered Assayers



PHONE 622-0813

Certificate No. 5-9508

TUCSON, ARIZONA 85708

April 14<sup>th</sup> 1975

Sample Submitted by Mr. Concepcion International Inc

| SAMPLE MARKED | GOLD<br>Ozs. per ton<br>ore | GOLD<br>Value per ton<br>ore | SILVER<br>Ozs. per ton<br>ore | COPPER<br>Per cent<br>Wet Assay | LEAD<br>Per cent<br>Wet Assay | Per cent<br>Wet Assay | Per cent<br>Wet Assay |
|---------------|-----------------------------|------------------------------|-------------------------------|---------------------------------|-------------------------------|-----------------------|-----------------------|
|---------------|-----------------------------|------------------------------|-------------------------------|---------------------------------|-------------------------------|-----------------------|-----------------------|

01730.

\$

0.02



• Gold Priced \$100.00 per oz. Troy

Charges \$ 2.00

Very respectfully,

*Ben P. Jacobs*



SAN ANTONIO, TEXAS  
 0174548  
 00174548  
 0174548  
 0174548



1624 Pioneer Road  
 Salt Lake City, Utah 84110  
 Phone: 388-321  
 General Offices and Plant  
 P.O. Box 58  
 Salt Lake City, Utah 84110  
 Phone: (801) 487-3971

97  
 2/27/52

DIAMOND DRILLING EQUIPMENT  
 INDICATION TESTING  
 -ING-  
 -ING-

| Invoice No. | Hole No. | Location     | From | To         | Rate  | Total   |
|-------------|----------|--------------|------|------------|-------|---------|
| ES-25       | 0        | SAFFORD, AZ. |      | 500        | 5.30  | 2650.00 |
|             | 500      | SAFFORD, AZ. |      | 832        | 6.40  | 2124.8  |
|             | 832      | SAFFORD, AZ. |      | 1000       | 11.76 | 1974.1  |
|             | 1000     | SAFFORD, AZ. |      | 1096       | 13.00 | 1231.2  |
|             | 1096     | SAFFORD, AZ. |      | 168        |       | 37.50   |
|             | 168      | SAFFORD, AZ. |      | 95         |       | 37.50   |
|             | 95       | SAFFORD, AZ. |      | 84 HRS     |       | 150.00  |
|             | 84       | SAFFORD, AZ. |      | 17 HRS     |       | 13.00   |
|             | 17       | SAFFORD, AZ. |      | 1 WK       |       | 35      |
|             | 1        | SAFFORD, AZ. |      | 29 DAYS    |       | 7       |
|             | 29       | SAFFORD, AZ. |      | 963 MI.    |       | 14      |
|             | 963      | SAFFORD, AZ. |      | 527 LOADS  |       | 14      |
|             | 527      | SAFFORD, AZ. |      | 7 1/2 DAYS |       | 14      |

MOBILIZATION, CEMENTING  
 HOURLY RENTAL CASING -- 200.00 PER No.  
 HAMMER TRUCK RENTAL  
 WATER TRUCK MILEAGE  
 WATER TRUCK WATER  
 LOADS OF WATER  
 WATER HAMMER

Late payment charge of 1% per month or the maximum amount permitted by law, whichever is lower, will be charged in the event payment is not received by the date to the date we receive payment.

2ND CORE DRILLING  
 ROTARY DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT



BRANCH OFFICES  
 PHOENIX, ARIZONA  
 GOLDEN, COLORADO  
 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 MT. IRON, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLESBROS  
 MEXICO CITY, MEXICO  
 telex: 001774546

CONTRACTORS-ENGINEERS  
 General Offices and Plant  
 1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671  
 SALT LAKE CITY, UTAH 84110  
 Cable: BOYLESBROS  
 Telex: 388-321

INVOICE DATE: *March 29, 1975*  
 ORDER NUMBER:  
 INVOICE NUMBER:  
 CONTRACT: *6-712*  
 TERMS:  
 LOCATION: *Safford, Ariz.*

*Essex International Inc.*  
*1704 West Grant Ave.*  
*ucson, Ariz. 85705*

*H-1010*

| Hole No.                                                                | From | To   | Footage                 | Rate         | Total         |
|-------------------------------------------------------------------------|------|------|-------------------------|--------------|---------------|
| ES-35                                                                   | 950  | 1000 | 50                      |              |               |
|                                                                         | 1000 | 1095 | 95                      | 13.00        | 1235.00       |
| <i>Hourly work: Lost circulation</i>                                    |      |      | <i>6 hrs.</i>           | <i>37.50</i> | <i>225.00</i> |
| <i>Water hauler - 38 hrs. straight 10 hrs. overtime + payroll taxes</i> |      |      | <i>4 days</i>           | <i>13.00</i> | <i>52.00</i>  |
| <i>Water Truck Rental (390.00 mo.)</i>                                  |      |      | <i>203 mi.</i>          | <i>.35</i>   | <i>71.05</i>  |
| <i>Water Truck Mileage</i>                                              |      |      | <i>45 lbs.</i>          | <i>3.90</i>  | <i>175.50</i> |
| <i>Materials Used: Mud No 2</i>                                         |      |      | <i>4 cans (magedon)</i> | <i>20.10</i> | <i>80.40</i>  |
|                                                                         |      |      | <i>3 lbs.</i>           | <i>99.40</i> | <i>298.20</i> |
|                                                                         |      |      | <i>1 sk.</i>            | <i>15.45</i> | <i>15.45</i>  |
|                                                                         |      |      | <i>1 sk. (Baroid)</i>   | <i>41.36</i> | <i>41.36</i>  |

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ROTARY DRILLING  
GROUTING  
FOUNDATION TESTING  
DIAMOND DRILLING EQUIPMENT



**BRANCH OFFICES**  
PHOENIX, ARIZONA  
GOLDEN, COLORADO  
SPARKS, NEVADA  
SPOKANE, WASHINGTON  
MURFREESBORO, TENNESSEE  
MT. IRON, MICHIGAN  
SANTIAGO, CHILE  
cable: BOYLESBROS  
LIMA, PERU  
cable: BOYLESBROS  
MEXICO CITY, MEXICO  
telex: 001774546

**CONTRACTORS-ENGINEERS**  
General Offices and Plant  
1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671  
SALT LAKE CITY, UTAH 84110  
Cable: BOYLESBROS  
Telex: 388-321

INVOICE DATE: *March 29, 1975*  
ORDER NUMBER:  
INVOICE NUMBER:  
CONTRACT: *6-712*  
TERMS:  
LOCATION: *Safford, Ariz.*

*Essey International, Inc.*  
*1704 West Grant Ave.*  
*Sucson, Ariz. 85905*

| Hole No. | From                                 | To | Footage         | Rate         | Total        |
|----------|--------------------------------------|----|-----------------|--------------|--------------|
|          | <i>Materials Used</i>                |    | <i>1 sk.</i>    | <i>21.70</i> | <i>21.70</i> |
|          | <i>Petro Seal</i>                    |    | <i>1 sk.</i>    |              |              |
|          | <i>Loads of water</i>                |    | <i>14 loads</i> |              |              |
|          | <i>Handling &amp; Transportation</i> |    | <i>15%</i>      |              |              |
|          |                                      |    | <i>Total</i>    |              |              |

Late Payment Charge of 1% per month or the maximum amount permitted by law, whichever is lower, will be charged in the event payment is not made within the time of this invoice. It will be computed from the due date to the date we receive payment.

DIAMOND CORE DRILLING  
 ROTARY DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT



CONTRACTORS-ENGINEERS

General Offices and Plant

1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671

SALT LAKE CITY, UTAH 84110

Cable: BOYLES CO

Telex: 388-321

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 PHOENIX, ARIZONA  
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 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 IRONWOOD, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLES COP  
 MEXICO CITY, MEXICO  
 telex: 001774546

INVOICE DATE: 3-25-75

ORDER NUMBER:

INVOICE NUMBER:

CONTRACT:

TERMS:

LOCATION:

*Exec International Inc.  
 1704 W. Grand Ave.  
 Tucson Ariz 85705*

*6-712  
 30 days  
 704 Safford*

*ok  
 W6B  
 W6port*

| Hole No. | From                          | To                       | Footage | Rate            | Total   |
|----------|-------------------------------|--------------------------|---------|-----------------|---------|
| ES 35    | 0                             | 500                      | 500     | 5.30            | 2650.   |
|          | 500                           | 832                      | 332.    | <del>6.40</del> | 2124.80 |
|          | 832.                          | 950                      | 118     |                 |         |
|          | 1 wk.                         | <del>Hammer Rental</del> |         | 150. wk         | 150.00  |
|          | Mobilization                  |                          |         |                 | 250.00  |
|          | 78' Cement & Circulation Time |                          |         | 37.50           | 2925.00 |
|          | 17' Caseing                   |                          |         | 37.50           | 637.50  |
|          | 1 Cement Plug                 |                          |         | 14.00           | 14.00   |
|          | 94 SX Mud Seal                |                          |         | 3.90            | 366.60  |
|          | 10 SX Gunk Seal               |                          |         | 15.40           | 154.00  |
|          | 12 SX Deck Mud Seal           |                          |         | 10.55           | 126.60  |

DIAMOND CORE DRILLING  
 ROTARY DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT



CONTRACTORS-ENGINEERS

General Offices and Plant

1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671  
 SALT LAKE CITY, UTAH 84110

Cable: BOYLESCO

Telex: 388-321

BRANCH OFFICES  
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 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 IRONWOOD, MICHIGAN  
 SANTIAGO, CHILE  
 Cable: BOYLESBROS  
 LIMA, PERU  
 Cable: BOYLESBROS  
 MEXICO CITY, MEXICO  
 telex: 001774346

INVOICE DATE: 3-25-75

ORDER NUMBER:

INVOICE NUMBER:

CONTRACT:

TERMS:

LOCATION:

*Essex International Inc.*

*1704 W. Grant Ave*

*Tucson Ariz 85705*

*ok WLB*

*6-712,  
 30 days  
 No of Safford*

| Hole No. | From                     | To | Footage | Rate  | Total  |
|----------|--------------------------|----|---------|-------|--------|
| ES. 35   |                          |    |         |       |        |
|          | 4 SK Driscoll            |    |         | 99.40 | 397.60 |
|          | 4 SK Soda Ash            |    |         | 14.50 | 58.00  |
|          | 2 SK Dispense.           |    |         | 21.70 | 43.40  |
|          | 9 can Air Zink           |    |         | 42.50 | 382.50 |
|          | 1 SK Calumet Powder      |    |         | 18.15 | 18.15  |
|          | 7 SK Casting Plaster     |    |         | 4.95  | 34.65  |
|          | 9 1/2 SK Patton's Cement |    |         | 2.75  | 253.00 |
|          | 1 SK Lime                |    |         | 3.81  | 3.81   |
|          | 1 SK Ziegel.             |    |         | 8.68  | 8.68   |
|          | 1 SK Asbestos            |    |         | 18.50 | 18.50  |
|          | 2 SK Barite              |    |         | 5.20  | 10.40  |

DIAMOND CORE DRILLING  
 ROTARY DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT



CONTRACTORS-ENGINEERS

General Offices and Plant

1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671

SALT LAKE CITY, UTAH 84110

Cable: BOYLESCO

Telex: 388-329

INVOICE DATE: 3-25-75

ORDER NUMBER:

INVOICE NUMBER:

CONTRACT: 6-712,  
 30 days  
 TERMS: No. of Safford

LOCATION:

Hole No.

ES 25

From

40 yft. 6 1/2" Surface pipe  
 832. yft. 4 in I.D. casing  
 38 loads water  
 24 days water tik Rental.  
 760 Water tik Mileage  
 3 day water hauler.  
 1590. m. Materials used

To

Footage

Rate

Total

2870,40  
 28.50  
 312,00  
 266,  
 192,00

Approx: \$14,692

OK W & B  
 G & S

PHONES  
 GOLDEN, COLORADO  
 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 IRONWOOD, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLESBROS  
 MEXICO CITY, MEXICO  
 telex: 001774546

Excel International Inc.

MOND CORE DRILLING  
 WIRE DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT



BRANCH OFFICES  
 PHOENIX, ARIZONA  
 GOLDEN, COLORADO  
 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 MT. IRON, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLESBROS  
 MEXICO CITY, MEXICO  
 telex: 001774546

CONTRACTORS-ENGINEERS  
 General Offices and Plant  
 1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671  
 SALT LAKE CITY, UTAH 84110  
 Cable: BOYLESBO  
 Telex: 388-321

INVOICE DATE: MARCH 29, 1975  
 ORDER NUMBER:  
 INVOICE NUMBER: SW-372  
 CONTRACT: 6-712  
 TERMS: NET 30 DAYS  
 LOCATION: SAFFORD, AZ.

ESSEX INTERNATIONAL, INC.  
 1704 W. GRANT AVE  
 TUCSON, AZ. 85705

| Hole No. | From                        | To | Footage | Rate  | Total  |
|----------|-----------------------------|----|---------|-------|--------|
|          | MATERIALS USED: CEMENT PLUG |    | 1       | 15.00 | 15.00  |
|          | MUD No. 2                   |    | 129 SKS | 3.90  | 542.10 |
|          | KWIK SEAL                   |    | 11 SKS  | 15.40 | 169.40 |
|          | DICKS MUD SEAL              |    | 12 SKS  | 10.55 | 126.60 |
|          | DRISCOSE                    |    | 7 SKS   | 99.40 | 695.80 |
|          | SODA ASH                    |    | 4 SKS   | 14.50 | 58.00  |
|          | DISPERSE                    |    | 3 SKS   | 21.70 | 65.10  |
|          | AIR QUIK                    |    | 9 CANS  | 42.50 | 382.50 |
|          | CALCIUM CHLORIDE            |    | 1 SK    | 18.00 | 18.00  |
|          | CASTING PLASTER             |    | 7 SKS   | 4.95  | 34.65  |
|          | PORTLAND CEMENT             |    | 92 SKS  | 2.75  | 253.00 |

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DIAMOND CORE DRILLING  
 DIAMOND DRILLING EQUIPMENT  
 GROUTING  
 FOUNDATION TESTING



BRANCH OFFICES  
 PHOENIX, ARIZONA  
 GOLDEN, COLORADO  
 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 MT. IRON, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLESBROS  
 MEXICO CITY, MEXICO  
 telex: 001774546

CONTRACTORS-ENGINEERS  
 General Offices and Plant  
 1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671  
 SALT LAKE CITY, UTAH 84110  
 Cable: BOYLESBROS  
 Telex: 388-321

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INVOICE DATE: MARCH 29, 1975  
 ORDER NUMBER:  
 INVOICE NUMBER: SW-372  
 CONTRACT: 6-712  
 TERMS: NET 30 DAYS  
 LOCATION: SAFFORD, AZ

ESSEX INTERNATIONAL, INC.  
 1704 W. GRANT AVE  
 TULSON, AZ 85705

| Hole No.                  | From       | To | Footage | Rate    | Total            |
|---------------------------|------------|----|---------|---------|------------------|
| MATERIALS USED:           | LIME       |    | 1 SK    | 3.97    | 3.97             |
|                           | ZEAGEL     |    | 1 SK    | 9.08    | 9.08             |
|                           | ASBESTOS   |    | 1 SK    | 18.50   | 18.50            |
|                           | BARITE     |    | 2 SKS   | 5.20    | 10.40            |
|                           | DEXTRID    |    | 1 SK    | 43.43   | 43.43            |
|                           | PETRO SEAL |    | 1 SK    | 16.22   | 16.22            |
|                           | RODLUBE    |    | 4 CANS  | 22.11   | 80.40            |
| TRANSPORTATION & HANDLING |            |    | 15%     | 2527.15 | 379.08           |
| 6 1/2" SURFACE PIPE       |            |    | 40 FT   | 5.50    | 220.00           |
| 4" I. D. CASING           |            |    | 832 FT  | 3.45    | 2870.4           |
|                           |            |    |         |         | <u>19,415.98</u> |

Late Payment Charge of 1% per month or the maximum amount permitted by law, whichever is lower, will be charged in the event payment is not made within the terms of this invoice. It will be computed from the due date to the date we receive payment.

LYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6 712 LOC. ESSEX DATE 3-10-75  
SHIFT DAY \_\_\_\_\_ SWING V NITE \_\_\_\_\_ HOLE NO. LS 35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 695  
DEPTH, START OF SHIFT 660  
DRILLED 35  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK HAMMER  
NUMBER OF RUNS \_\_\_\_\_

MUD 1 air junk  
TYPE \_\_\_\_\_  
GAL SEAL - 5 SACKS  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 1 load

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 4 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR 4  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ 8 WATER DELAY \_\_\_\_\_  
MIXING MUD 10 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) top rods out to  
change hammer, repair table chain

DRILLER John Borgstedt HELPER Dove  
MACHINE NO. 7 FOREMAN \_\_\_\_\_

JOYLES BROS. DRILLING COM. NY  
SHIFT REPORT

JOB 6-712 LOC. \_\_\_\_\_ DATE 3-11-75  
SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD 2 air/gal  
STICKUP, END OF SHIFT 835 TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 835 CAL-SEAL 1 Bot per gal  
DEPTH, START OF SHIFT 695 LUMNITE \_\_\_\_\_  
DRILLED 135 PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK Hammer WATER 1 Coop  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 10 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR 3  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) put chain in back out take + start out Hammer

DRILLER al Nehr HELPER Tommy  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

JOYLES BROS. DRILLING COM. INY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-11-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 835 LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING 12 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ 12 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) lay down pipe  
& start running casing (800 ft.)

DRILLER John Borgstad HELPER Dove  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

JYLES BROS. DRILLING COM' NY  
SHIFT REPORT

JOB 6-1712 LOC. Safford DATE 3-12-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 1 Discal  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL 1 Deepseal  
DEPTH, START OF SHIFT 832 LUMNITE 1 Dick mud Seal  
DRILLED \_\_\_\_\_ PORTLAND 23 Portland  
CORE RECOVERED \_\_\_\_\_ ADDITIVES 1 Calcium Chloride  
TYPE OF ROCK \_\_\_\_\_ WATER 2 loads  
NUMBER OF RUNS \_\_\_\_\_ 1 = cement plug

FEET CASED 832 FROM 0 TO 832 SIZE 4 1/2 ID  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING 6  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING 4 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Wash down to bottom cement casing

DRILLER Al Hehr HELPER Tony  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

**JOYLES BROS. DRILLING COM. NY**  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-12-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 4 mud 2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 835 LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 4 loads  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

**TIME CHARGES**

DRILLING \_\_\_\_\_ CEMENT Time 10  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ 10 WASHING OR CLEANING \_\_\_\_\_

**BITS AND SHELLS**

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) haul core pipe,  
run core pipe in, haul water & fill  
pits.

DRILLER John Bergstedt HELPER Dove  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

WYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC Essex DATE 3-13-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 879  
DEPTH, START OF SHIFT 832  
DRILLED 47  
CORE RECOVERED 47  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS 6

MUD #2 - 15 SACKS  
DISCLOSURE - 1 SACK  
DISPERSE - 1 SACK  
PETROL OIL - 5 SACKS  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER - 5 GALS

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 7 Plug +  
CEMENT 3  
REAMING \_\_\_\_\_  
EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_  
STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_  
WATER DELAY \_\_\_\_\_  
MIXING MUD 10 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Drill out Plug +  
Cement

DRILLER W. Hehn HELPER John  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COM. INC.  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-14-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 886  
DEPTH, START OF SHIFT 879  
DRILLED 7  
CORE RECOVERED 7  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS 1

MUD <sup>#2</sup> - 8 SACKS  
DRIXOSE. 1 SACK  
TYPE \_\_\_\_\_  
CAL-SEAL 1/2 x 2 1/2  
LUMNITE 1/2 x 2 1/2  
PORTLAND 1/2 x 2 1/2  
ADDITIVES 6 Dink Seal  
WATER - 3 LOSAS  
2 Dink Mud Seal

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING 8  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Lost all water  
pumped Salt Gel Plug got 50% back

DRILLER Al Hehr HELPER John  
MACHINE NO. 7 FOREMAN \_\_\_\_\_

**DYLES BROS. DRILLING COMPANY**

SHIFT REPORT

JOB 6-712 LOC. Safford DATE 3-24-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT 950  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD 4 mud 2.  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 1 load

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED 130 FROM 820 TO 949

TIME CHARGES

DRILLING \_\_\_\_\_ Drill bit  
CEMENTING \_\_\_\_\_ 4  
EQUIP. REPAIR \_\_\_\_\_  
STAND-BY OR SURVEY \_\_\_\_\_  
WATER DELAY \_\_\_\_\_  
WASHING OR CLEANING \_\_\_\_\_  
MIXING MUD \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Drill out from  
820 - 949 13ft Cement  
+ reg down + move of hole.

DRILLER Al Hehu HELPER John  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COM. NY  
SHIFT REPORT

JOB 6-712 LOC. Essay DATE 3-17-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. 8535

RODS, END OF SHIFT \_\_\_\_\_ MUD mud 2.2 6SX  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 902 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 886 LUMNITE \_\_\_\_\_  
DRILLED 16 PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 3 loads  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 5 \_\_\_\_\_ CEMENTING 5 \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Pump another  
plus + drill it out + get ciro back  
ground broken started to lose  
mud again

DRILLER Al Helm HELPER John

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMI NY  
SHIFT REPORT

JOB 6-712 LOC. Edney DATE 3-18-25  
SHIFT DAY  SWING  NITE  HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD 65% mud 35  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 2 Junk Seal  
DEPTH, END OF SHIFT 745 CAL-SEAL 2 5/8 Dick mud seal  
DEPTH, START OF SHIFT 702 LUMNITE 1 Diesel  
DRILLED 43 PORTLAND 2 Soda ash  
CORE RECOVERED 43 ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 4 loads  
NUMBER OF RUNS 7

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 10 \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Losing water  
pretty heavily

DRILLER Al Hoke HELPER John  
MACHINE NO. 7 FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-612 LOC. ESSEX DATE 3-29-75  
SHIFT DAY \_\_\_\_\_ SWING L NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT 1122 MUD 75% mud #2  
STICKUP, END OF SHIFT 20 TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 1095 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 1059 LUMNITE \_\_\_\_\_  
DRILLED 36 PORTLAND \_\_\_\_\_  
CORE RECOVERED 36 ADDITIVES 1 qt. Dycose  
TYPE OF ROCK LARD WATER 2 LOADS  
NUMBER OF RUNS 5

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 10 12 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) start

started rods out of hole.  
tube sand in.

DRILLER Foster HELPER Cates Jr.  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

YLES BROS. DRILLING COMF NY

SHIFT REPORT

JOB 6-700 LOC Sa/Esop DATE 3-4-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 32

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 20  
DEPTH, START OF SHIFT 0  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK Bt Hal  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE 1 air quik  
CAL-SEAL 1 Bt/Pengumb  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 1 load

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 3 \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN 6 \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) rig up + move  
rig + pipe in

DRILLER John \_\_\_\_\_ HELPER Dave + Tony \_\_\_\_\_  
Al \_\_\_\_\_ FOREMAN \_\_\_\_\_  
MACHINE NO. \_\_\_\_\_  
7

YLES BROS. DRILLING COMF NY

SHIFT REPORT

JOB 6-712 LOC. Essex DATE 3-5-75  
SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. 85-32

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 70  
DEPTH, START OF SHIFT 28  
DRILLED 50  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK Hammer  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE 1 air slick  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND 8 Sx portland  
ADDITIVES / Casting plaster  
WATER \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 Casing & 4  
CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 10 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) set surface  
& cement casing & cement case

DRILLER Al Kern HELPER Tony  
MACHINE NO. 7 FOREMAN \_\_\_\_\_

WYLES BROS. DRILLING COMPANY

SHIFT REPORT

JOB 6-712 LOC. <sup>ESSEX</sup> SAFFORD DATE 3-5-74  
SHIFT DAY \_\_\_\_\_ SWING V NITE \_\_\_\_\_ HOLE NO. E5-32

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 135 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 90 LUBRICANT \_\_\_\_\_  
DRILLED 65 PORTLAND -16 SACKS  
CORE RECOVERED \_\_\_\_\_ ADDITIVES -4 CASTING PASTE  
TYPE OF ROCK Hammer WATER -1 LOAD  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 CEMENTING 4  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ 10 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) cement core at 90 ft.  
& at 125 ft. hole caving at 135 ft.

DRILLER John Borgstrom HELPER Dave Carpenter

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

YLES BROS. DRILLING COME NY  
SHIFT REPORT

JOB 6-710 LOC. Gossey DATE 3-6-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 5 gal. air gum  
DEPTH, END OF SHIFT 290 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 135 LUMNITE \_\_\_\_\_  
DRILLED 155 PORTLAND 15 portland cement  
CORE RECOVERED \_\_\_\_\_ ADDITIVES 2 castings plaster  
TYPE OF ROCK Hammer WATER 1 load  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 CEMENTING 4  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ 10 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Cement Crawl

DRILLER Al Nehr HELPER Tony

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

YLES BROS. DRILLING COM' NY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-6-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 395 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 290 LUMNITE \_\_\_\_\_  
DRILLED 105 PORTLAND 1 Brl / 200 lbs  
CORE RECOVERED \_\_\_\_\_ ADDITIVES 2-2-2-2-2-2-2-2-2-2  
TYPE OF ROCK Hammer WATER LOAD  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 10 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ 10 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) pretty hard stuff  
in this hole.

DRILLER John Bergstedt HELPER Dave  
MACHINE NO. 7 FOREMAN \_\_\_\_\_

WYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-707 LOC. Essex DATE 3-7-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 5 gal Foam  
DEPTH, END OF SHIFT 515 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 395 LUMNITE \_\_\_\_\_  
DRILLED 120 PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK Hammer WATER \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR 3  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ 9 WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Go through Compressor  
Value Ok. them

DRILLER Al Hehn HELPER Tony  
MACHINE NO. 3526 FOREMAN \_\_\_\_\_  
7

RYLES BROS. DRILLING COMP NY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-7 75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD AIR QUIK - 5 GAL  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 620 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 515 LUMNITE \_\_\_\_\_  
DRILLED 105 PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK HUMMER WATER - LOADS  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 10 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ 10 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER John Borgstam HELPER Dave  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

YLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6712 LOC. Essex DATE 3-8-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 24 SA mud 2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 620 LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 4 loads  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
haul water MIXING MUD 4 \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) haul water mud seal up pit + fill one pit

DRILLER Al Hew John Tony HELPER \_\_\_\_\_  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

L. LYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 4-702 LOC. Essert DATE 3-10-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD 1 Can airgub  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 660 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 620 LUMNITE \_\_\_\_\_  
DRILLED 46 PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK Hammer WATER \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 8 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER Al Hehe HELPER Tony  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

PHYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-713 LOC. Essex DATE 4-1-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

|                             |                      |
|-----------------------------|----------------------|
| RODS, END OF SHIFT _____    | MUD _____            |
| STICKUP, END OF SHIFT _____ | TYPE _____           |
| DEPTH, END OF SHIFT _____   | CAL-SEAL _____       |
| DEPTH, START OF SHIFT _____ | LUMNITE _____        |
| DRILLED _____               | PORTLAND _____       |
| CORE RECOVERED _____        | ADDITIVES _____      |
| TYPE OF ROCK _____          | WATER <u>2 loads</u> |
| NUMBER OF RUNS _____        |                      |

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
WASTED  
CEMENT DRILLED 160 FROM 876 TO 1036

TIME CHARGES

|                         |                           |
|-------------------------|---------------------------|
| DRILLING _____          | CEMENTING <u>12</u>       |
| REAMING _____           | EQUIP. REPAIR _____       |
| CASING _____            | STAND-BY OR SURVEY _____  |
| SET-UP, TEAR DOWN _____ | WATER DELAY _____         |
| MIXING MUD _____        | WASHING OR CLEANING _____ |

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER Oliver HELPER Stacy  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

RYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-1-75  
SHIFT DAY  SWING  NITE  HOLE NO. ES-85

|                             |                       |
|-----------------------------|-----------------------|
| RODS, END OF SHIFT _____    | MUD <u>2sk mud #2</u> |
| STICKUP, END OF SHIFT _____ | TYPE _____            |
| DEPTH, END OF SHIFT _____   | CAL-SEAL _____        |
| DEPTH, START OF SHIFT _____ | LUMNITE _____         |
| DRILLED _____               | PORTLAND _____        |
| CORE RECOVERED _____        | ADDITIVES _____       |
| TYPE OF ROCK _____          | WATER <u>Local</u>    |
| NUMBER OF RUNS _____        |                       |

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 3 hrs (10) waiting on cement  
CEMENTING to set 3 hrs  
REAMING \_\_\_\_\_ ~~EQUIP. REPAIR~~ other 4 hrs  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 1 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) waited on cement  
to set up. Pulled rods out to put  
Rock bit on. RAN Rods Back in.  
Moved equip. from old location to  
stack pile.

DRILLER Foster HELPER Gates Jr.  
MACHINE NO. 867 FOREMAN Nelson - water hauler

**BOYLES BROS. DRILLING COMP. NY**  
**SHIFT REPORT**

JOB 6-612 LOC. ES (EX) DATE 3-31-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_ LUMINITE 1 sk Dowflake  
DRILLED \_\_\_\_\_ PORTLAND 10 sks  
CORE RECOVERED \_\_\_\_\_ ADDITIVES 1 sk lime  
TYPE OF ROCK \_\_\_\_\_ WATER \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

**TIME CHARGES**

DRILLING \_\_\_\_\_ CEMENTING 8  
REAMING 8 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

**BITS AND SHELLS**

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Finished running rods in for cementing. Pulled back and cleared rods out @ 830 ft

DRILLER Alves HELPER Tom  
MACHINE NO. \_\_\_\_\_ FOREMAN Berry-Berry

# BOYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-612 LOC. ESSEX DATE 3-31-75  
 SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

|                                   |                     |
|-----------------------------------|---------------------|
| RODS, END OF SHIFT _____          | MUD _____           |
| STICKUP, END OF SHIFT _____       | TYPE _____          |
| DEPTH, END OF SHIFT <u>1096</u>   | CAL-SEAL _____      |
| DEPTH, START OF SHIFT <u>1095</u> | LUMNITE _____       |
| DRILLED <del>1095</del>           | PORTLAND _____      |
| CORE RECOVERED _____              | ADDITIVES _____     |
| TYPE OF ROCK <u>HARD</u>          | WATER <u>1 Load</u> |
| NUMBER OF RUNS _____              |                     |

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

**TIME CHARGES**

|                         |                           |
|-------------------------|---------------------------|
| DRILLING <u>7</u>       | CIRCULATION <u>3 HRS</u>  |
| CEMENTING <u>(10)</u>   |                           |
| REAMING _____           | EQUIP. REPAIR _____       |
| CASING _____            | STAND-BY OR SURVEY _____  |
| SET-UP, TEAR DOWN _____ | WATER DELAY _____         |
| MIXING MUD _____        | WASHING OR CLEANING _____ |

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Finished pulling  
Reds out, ran back to bottom,  
lub. banded in again. Pulled Reds.  
tumped down paper for circulation.  
Still no return.

DRILLER Foster HELPER GALES JR  
 MACHINE NO. 867 FOREMAN Nelson - Water hauler

# EYLES BROS. DRILLING COMP NY

## SHIFT REPORT

JOB 6-712 ? LOC. Essex DATE 3-20-75  
 SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

|                             |                 |
|-----------------------------|-----------------|
| RODS, END OF SHIFT _____    | MUD _____       |
| STICKUP, END OF SHIFT _____ | TYPE _____      |
| DEPTH, END OF SHIFT _____   | CAL-SEAL _____  |
| DEPTH, START OF SHIFT _____ | LUMNITE _____   |
| DRILLED _____               | PORTLAND _____  |
| CORE RECOVERED _____        | ADDITIVES _____ |
| TYPE OF ROCK _____          | WATER _____     |
| NUMBER OF RUNS _____        |                 |

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

|                            |                           |
|----------------------------|---------------------------|
| DRILLING _____             | CEMENTING _____           |
| REAMING _____              | EQUIP. REPAIR <u>1</u>    |
| CASING _____               | STAND-BY OR SURVEY _____  |
| SET-UP, TEAR DOWN <u>2</u> | WATER DELAY <u>2</u>      |
| MIXING MUD _____           | WASHING OR CLEANING _____ |

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) waiting on mud pump  
to be fixed, moved over some  
stand by's & supply pump.  
High winds & snow

DRILLER Adrian HELPER Conrad  
 MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
 7

FYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. 2004 X DATE 3-26-75  
SHIFT DAY \_\_\_\_\_ SWING        NITE \_\_\_\_\_ HOLE NO. 1535

|                             |                 |
|-----------------------------|-----------------|
| RODS, END OF SHIFT _____    | MUD _____       |
| STICKUP, END OF SHIFT _____ | TYPE _____      |
| DEPTH, END OF SHIFT _____   | CAL-SEAL _____  |
| DEPTH, START OF SHIFT _____ | LUMNITE _____   |
| DRILLED _____               | PORTLAND _____  |
| CORE RECOVERED _____        | ADDITIVES _____ |
| TYPE OF ROCK _____          | WATER _____     |
| NUMBER OF RUNS _____        |                 |

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR-DOWN 4 WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Moving Equip  
From old location to new site

DRILLER Foster HELPER Nelson + [unclear]  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

# EYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-712 LOC. Essex DATE 3-27-75  
 SHIFT DAY  SWING  NITE  HOLE NO. ES-35

|                                  |                 |
|----------------------------------|-----------------|
| RODS, END OF SHIFT _____         | MUD _____       |
| STICKUP, END OF SHIFT _____      | TYPE _____      |
| DEPTH, END OF SHIFT _____        | CAL-SEAL _____  |
| DEPTH, START OF SHIFT <u>175</u> | LUMNITE _____   |
| DRILLED _____                    | PORTLAND _____  |
| CORE RECOVERED <u>5</u>          | ADDITIVES _____ |
| TYPE OF ROCK <u>HARD</u>         | WATER _____     |
| NUMBER OF RUNS <u>1</u>          |                 |

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

|                            |                           |
|----------------------------|---------------------------|
| DRILLING <u>2</u>          | CEMENTING <u>9</u>        |
| REAMING _____              | EQUIP. REPAIR <u>2</u>    |
| CASING _____               | STAND-BY OR SURVEY _____  |
| SET-UP, TEAR-DOWN <u>4</u> | WATER DELAY _____         |
| MIXING MUD _____           | WASHING OR CLEANING _____ |

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Rise tower and finish setting up. Hard time starting drill motor + supply pump. Ran rods to bottom.

DRILLER Olves HELPER Ben  
 MACHINE NO. 867 FOREMAN \_\_\_\_\_  
 7

EYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 3-27-75  
SHIFT DAY \_\_\_\_\_ SWING ✓ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT 1002 MUD 3 sk mud (#2)  
STICKUP, END OF SHIFT 17 TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 978 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 955 LUMNITE \_\_\_\_\_  
DRILLED 23 PORTLAND \_\_\_\_\_  
CORE RECOVERED 23 ADDITIVES 5 gal Reef Lube  
TYPE OF ROCK hard & Breaker WATER 2 gal  
NUMBER OF RUNS 4

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 10 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR 2  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Cleaned Hydr.  
oil & filter. Repaired light plant.  
Put 15 gal Hydr oil in Rig.

DRILLER Foster HELPER Cates  
MACHINE NO. 7 FOREMAN Nelson - Water

F YLES BROS. DRILLING COMP NY  
SHIFT REPORT

JOB 6-712R LOC. Essex DATE 3-28-75  
SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35'

RODS, END OF SHIFT \_\_\_\_\_ MUD 10 mud #2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 1 PETRO SEAL  
DEPTH, END OF SHIFT 1009 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 978 LUMNITE \_\_\_\_\_  
DRILLED 31 PORTLAND \_\_\_\_\_  
CORE RECOVERED 31 ADDITIVES 5 gal Rod Lube  
TYPE OF ROCK Muddy + Hard WATER 3 loads  
NUMBER OF RUNS 6

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 9 <sup>Loss circulation</sup> ~~CEMENTING~~ 2  
REAMING 12 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 1 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition)

Pumped two plugs down for circulation - still getting, only about 50% return

DRILLER Alves HELPER Tom + Jerry  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

F YLES BROS. DRILLING COMP NY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-28-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT 1062 MUD 75% mud #2  
STICKUP, END OF SHIFT 16 TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 1039 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 1009 LUBRICANT 15K Kwik Seal  
DRILLED 30 PORTLAND 5 gal 100 Lube  
CORE RECOVERED 30 ADDITIVES 15K DRISCOSE  
TYPE OF ROCK Hard + Shaly WATER 3 Loads  
NUMBER OF RUNS 4

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 9 (12) CEMENTING 2 *Loss circulation*  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 1 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Not getting  
ANY RETURN BACK, Pumped down  
Petro seal and Kwik seal.

DRILLER Foster HELPER Gates Jr.  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

YLES BROS. DRILLING COMP NY  
SHIFT REPORT

JOB 6-612 LOC. ESSEX DATE 3-29-75  
SHIFT DAY SWING NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 18 mud #2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 1 Deyford  
DEPTH, END OF SHIFT 1059 CAL-SEAL 1 miscose  
DEPTH, START OF SHIFT 1039 LUMNITE 1 Dupon  
DRILLED 20 PORTLAND \_\_\_\_\_  
CORE RECOVERED 20 ADDITIVES 5 gal Rodchute  
TYPE OF ROCK Hard + Broken WATER 4/100 lbs  
NUMBER OF RUNS 4

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 8 Loss circulation  
CEMENTING 2  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING (12) STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. 4519933 SIZE & TYPE NX OVERSIZE  ON 950 OFF 1059  
4505635 NX  1059  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Pumped down  
plug for circulation. still only 50% return  
misaligned round-tipped rods.

DRILLER Alves HELPER Tom & Jerry  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

POYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-702 LOC. Essex DATE 4-9-75  
SHIFT DAY SWING NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD 12 mud # 2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL 2 quick seal  
DEPTH, START OF SHIFT \_\_\_\_\_ LUMNITE 2 Petro seal  
DRILLED \_\_\_\_\_ PORTLAND 1 Red Lube  
CORE RECOVERED \_\_\_\_\_ ADDITIVES 2 lignosulfonate  
TYPE OF ROCK \_\_\_\_\_ WATER 3 leads  
NUMBER OF RUNS \_\_\_\_\_

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING 10 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD lost circulation WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Put down 240  
gals lost circulation mat

DRILLER Fisher HELPER Johnson  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

POYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 4-8-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD 5 mud #2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 1292 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 1263 LUMNITE \_\_\_\_\_  
DRILLED 30 PORTLAND \_\_\_\_\_  
CORE RECOVERED 30 ADDITIVES \_\_\_\_\_  
TYPE OF ROCK Hard WATER 4 Loads  
NUMBER OF RUNS 3

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 7 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR To start engine  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Bad time to start engine. 1 Hr High pressure start of shift mud too thick

DRILLER Fisher HELPER Johnson  
MACHINE NO. 867 FOREMAN \_\_\_\_\_

PYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-1712 LOC. ESSEX DATE 4-8-75  
SHIFT DAY \_\_\_\_\_ SWING L NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 1.3 mud #2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 1 Disc  
DEPTH, END OF SHIFT 1325 CAL-SEAL 1 Patco Seal  
DEPTH, START OF SHIFT 1292 LUMNITE 1 Kwik Seal  
DRILLED 33 PORTLAND \_\_\_\_\_  
CORE RECOVERED 33 ADDITIVES \_\_\_\_\_  
TYPE OF ROCK Hard Broken WATER 3 Loads  
NUMBER OF RUNS 4

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 ~~CEMENTING~~ Lost circulation 4  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING 10 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Lost all return  
@ 1320 - got back about 75%

DRILLER Alves HELPER Later  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

POYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essit DATE 4-7-75

SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT 1222 MUD 10 mud #2  
STICKUP, END OF SHIFT 10 TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 1205 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 1175 LUMNITE \_\_\_\_\_  
DRILLED 30 PORTLAND 1 Dispersed  
CORE RECOVERED 30 ADDITIVES 1 Red Lub  
TYPE OF ROCK Hard WATER 3 Loads  
NUMBER OF RUNS 3

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 8 CEMENTING \_\_\_\_\_  
REAMING 10 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN Lost Circulation WATER DELAY \_\_\_\_\_  
MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Lost Circulation  
Open

DRILLER Lisher HELPER Johnson  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

PHYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-7-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 10 sec mud #2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 1 Disease  
DEPTH, END OF SHIFT 1262 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 1205 LUMNITE \_\_\_\_\_  
DRILLED 58 PORTLAND \_\_\_\_\_  
CORE RECOVERED 57 ADDITIVES \_\_\_\_\_  
TYPE OF ROCK Hard WATER 3 loads  
NUMBER OF RUNS 6

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 9 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING 10 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 1 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) 7570 return  
end of shift.

DRILLER Alves HELPER Satea  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

FAYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 4-712 LOC. \_\_\_\_\_ DATE 4-6-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_ LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING 8 LOST CIR.  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) PUMPING LOST

CIR MATERIAL ONE SQUEEZE

DRILLER B. [Signature] HELPER F. [Signature]  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

POYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-4-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 1 mud #2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 1175 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 1145 LUMNITE \_\_\_\_\_  
DRILLED 30 PORTLAND \_\_\_\_\_  
CORE RECOVERED 30 ADDITIVES \_\_\_\_\_  
TYPE OF ROCK Hard WATER 2 loads  
NUMBER OF RUNS 3

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 Loss Circulation  
CEMENTING 1  
REAMING 8 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 1 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
Milage on water truck  
10429  
75% return

DRILLER Alves HELPER Tom  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

POYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-3-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 5 mud #2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 1145 CAL-SEAL 1 Diverse  
DEPTH, START OF SHIFT 1114 LUMNITE 1 Kwik seal  
DRILLED 31 PORTLAND 1 Petro Seal  
CORE RECOVERED 31 ADDITIVES 10 gal red tube  
TYPE OF ROCK Hard & Brittle WATER 3 loads  
NUMBER OF RUNS 4

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 \_\_\_\_\_ Log Circulation  
CEMENTING 2 \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ 10 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 2 \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Cave @ 1141  
75% return end of shift

DRILLER Alves HELPER Tom  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

PYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-612 LOC. ESSEX DATE 4-3-75  
SHIFT DAY  SWING  NITE  HOLE NO. 163

RODS, END OF SHIFT 1142 MUD 10 SK mud #2  
STICKUP, END OF SHIFT 21 TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 1114 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 1103 LUMNITE \_\_\_\_\_  
DRILLED 11 PORTLAND \_\_\_\_\_  
CORE RECOVERED 11 ADDITIVES 15K Dextrid  
TYPE OF ROCK HARD WATER 5 Loads  
NUMBER OF RUNS 3

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES Loss Circulation  
DRILLING 4 (10) CEMENTING 4 hrs  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Dumped down  
Dicks mud seal 3/4 sack still no return  
lost circulation at 1108

DRILLER Foster HELPER Nelson  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

**POYLES BROS. DRILLING COMPANY**  
SHIFT REPORT

JOB 6-713 LOC. ESSEX DATE 4-2-75  
 SHIFT DAY \_\_\_\_\_ SWING ✓ NITE \_\_\_\_\_ HOLE NO. ES-31

|                                   |                                 |
|-----------------------------------|---------------------------------|
| RODS, END OF SHIFT _____          | MUD <u>10 mud #2</u>            |
| STICKUP, END OF SHIFT _____       | TYPE _____                      |
| DEPTH, END OF SHIFT <u>1109</u>   | CAL-SEAL <u>1 Duroseal</u>      |
| DEPTH, START OF SHIFT <u>1096</u> | LUMNITE <u>1 Duxtal</u>         |
| DRILLED _____                     | PORTLAND <u>1 Castic soda</u>   |
| CORE RECOVERED _____              | ADDITIVES <u>5 gal Red lube</u> |
| TYPE OF ROCK <u>Hard</u>          | WATER <u>3 loads</u>            |
| NUMBER OF RUNS <u>1</u>           |                                 |

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

**TIME CHARGES**

DRILLING 4 OTHER CEMENTING 4 (No pay)  
 REAMING \_\_\_\_\_ EQUIP. REPAIR 10  
 CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
 SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
 MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

**BITS AND SHELLS**

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Tried to clean sump out but couldn't get bottom clear broke impeller on loading pump - sump pump don't work  
new rods in and flushed hole  
Mickey Mouse Equip

DRILLER Alvex HELPER \_\_\_\_\_  
 MACHINE NO. B67 FOREMAN \_\_\_\_\_

POYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-612 LOC. ESSEX DATE 4-2-75  
SHIFT DAY  SWING  NITE  HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_ LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 1 Load  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED 60 FROM 1036 TO 1096

TIME CHARGES

DRILLING \_\_\_\_\_ Drilling cement  
CEMENTING out 6 hrs  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ 48 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Pulled Rods  
out to take Rock Bit off and  
put diamond Bit on. start BACK IN

DRILLER Foster HELPER Gates Jr.  
MACHINE NO. 867 FOREMAN Nelson - Waterhauler

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 4-13-75  
SHIFT DAY 5 SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. 2505

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT 1382 TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 1586 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 2 LUMNITE \_\_\_\_\_  
DRILLED 2 PORTLAND \_\_\_\_\_  
CORE RECOVERED 2 ADDITIVES \_\_\_\_\_  
TYPE OF ROCK Hard WATER \_\_\_\_\_  
NUMBER OF RUNS 1

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 CEMENTING 40 *Drilling + Washing*  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) *Went rods through  
plug that was put down 7' +  
I pull + lay down rods*

DRILLER Fisher HELPER Steve + John  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. 2550 DATE 4-15-75  
SHIFT DAY \_\_\_\_\_ SWING ✓ NITE \_\_\_\_\_ HOLE NO. 73-35

|                             |                 |
|-----------------------------|-----------------|
| RODS, END OF SHIFT _____    | MUD _____       |
| STICKUP, END OF SHIFT _____ | TYPE _____      |
| DEPTH, END OF SHIFT _____   | CAL-SEAL _____  |
| DEPTH, START OF SHIFT _____ | LUMNITE _____   |
| DRILLED _____               | PORTLAND _____  |
| CORE RECOVERED _____        | ADDITIVES _____ |
| TYPE OF ROCK _____          | WATER _____     |
| NUMBER OF RUNS _____        |                 |

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

|                         |                           |
|-------------------------|---------------------------|
| DRILLING _____          | CEMENTING _____           |
| REAMING _____           | EQUIP. REPAIR _____       |
| CASING _____            | STAND-BY OR SURVEY _____  |
| SET-UP; TEAR DOWN _____ | WATER DELAY _____         |
| MIXING MUD _____        | WASHING OR CLEANING _____ |

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER Oliver HELPER Lutes  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

B YLES BROS. DRILLING COMP. NY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-14-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE: 2 Beate  
DEPTH, END OF SHIFT \_\_\_\_\_ 50 CAL-SEAL 1 ZEGEL  
DEPTH, START OF SHIFT \_\_\_\_\_ 70 LUMNITE 2 KUK SEAL  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 1 loads  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED 93 FROM 1283 TO 1376

TIME CHARGES

DRILLING \_\_\_\_\_ Drilling  
CEMENTING 10  
REAMING \_\_\_\_\_ 10 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Quick seal  
plug in bottom of hole, couldn't  
pull tube bit pulled back to  
see if anything was in rods

DRILLER Oliver HELPER Latis  
MACHINE NO. BC7 FOREMAN \_\_\_\_\_  
7

B YLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 4-14-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_ LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 4 Leads  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
Washed +  
CEMENT DRILLED 367 FROM 946 TO 1283

TIME CHARGES

DRILLING 10 CEMENTING 10  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER Lisher HELPER Johnson + John  
MACHINE NO. 867 FOREMAN \_\_\_\_\_

WYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB \_\_\_\_\_ LOC. \_\_\_\_\_ DATE 4-12-85  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_ LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND 15  
CORE RECOVERED \_\_\_\_\_ ADDITIVES 1 LIME  
TYPE OF ROCK \_\_\_\_\_ WATER \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES 8

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) CEMENTED FOR  
WATER LOSS

DRILLER Barny HELPER Benny  
MACHINE NO. \_\_\_\_\_ FOREMAN TRUCK DRIVER  
7

BC LES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-1712 LOC. 8 ESSEX DATE 4-11-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. E3-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_ LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND 1 sk  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ <sup>Less circulation</sup> CEMENTING 8  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING 8 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER Alves HELPER Stater  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

YLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-7121 LOC. Essex DATE 4-11-75  
SHIFT DAY 5 SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES35

RODS, END OF SHIFT \_\_\_\_\_ MUD 20 Hawk Thick  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 1386 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 1369 LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES 1 Pm L  
TYPE OF ROCK \_\_\_\_\_ WATER 3 Leads  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 8 CEMENTING \_\_\_\_\_  
REAMING 10 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Drilling blind

DRILLER Lisher HELPER Johnson John  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

BILES BROS. DRILLING COMP. NY  
SHIFT REPORT

JOB 6-712 LOC. ESSE DATE 4-10-75  
SHIFT DAY \_\_\_\_\_ SWING ✓ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 1 CMC.  
DEPTH, END OF SHIFT 1363 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 1335 LUMNITE \_\_\_\_\_  
DRILLED 28 PORTLAND \_\_\_\_\_  
CORE RECOVERED 28 ADDITIVES \_\_\_\_\_  
TYPE OF ROCK Hard Broken WATER 4 loads  
NUMBER OF RUNS 5

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 7 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ 10 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 3 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. 4505633 SIZE & TYPE 1 1/2 OVERSIZE ✓ ON 1059 OFF 1335

SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Ran rods back in hole

DRILLER Oliver HELPER Lates

MACHINE NO. 267 FOREMAN \_\_\_\_\_

BOULES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 4-10-75  
SHIFT DAY W SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES35

RODS, END OF SHIFT \_\_\_\_\_ MUD Hydramid #2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 1 mud # 10  
DEPTH, END OF SHIFT 1335 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 1325 LUMNITE \_\_\_\_\_  
DRILLED 10 PORTLAND 2 Post Lube  
CORE RECOVERED 10 ADDITIVES 1.6 ml  
TYPE OF ROCK Hard WATER 2  
NUMBER OF RUNS 1

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 4 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD Best Circulation 6 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Inject cement side  
works

DRILLER Fisher HELPER Johnson John  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

# EYLES BROS. DRILLING COMP NY

## SHIFT REPORT

JOB 6-412 LOC. ESSEX DATE 4-9-75  
 SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

|                                   |                                  |
|-----------------------------------|----------------------------------|
| RODS, END OF SHIFT _____          | MUD <u>35 sacks kwik thick</u>   |
| STICKUP, END OF SHIFT _____       | TYPE <u>1 mud #11</u>            |
| DEPTH, END OF SHIFT _____         | CAL-SEAL _____                   |
| DEPTH, START OF SHIFT <u>1324</u> | LUMNITE <u>1 Petro seal</u>      |
| DRILLED _____                     | PORTLAND <u>1 kwik seal</u>      |
| CORE RECOVERED _____              | ADDITIVES <u>500 lb Red cube</u> |
| TYPE OF ROCK _____                | WATER <u>3 loads</u>             |
| NUMBER OF RUNS _____              |                                  |

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

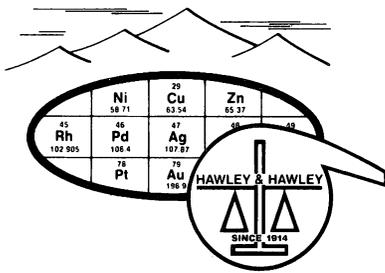
|                         |                                                    |
|-------------------------|----------------------------------------------------|
| DRILLING _____          | hostess <sup>excitation</sup> 9<br>CEMENTING _____ |
| REAMING _____           | EQUIP. REPAIR <u>1</u>                             |
| CASING _____            | STAND-BY OR SURVEY _____                           |
| SET-UP, TEAR DOWN _____ | WATER DELAY _____                                  |
| MIXING MUD _____        | WASHING OR CLEANING _____                          |

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Break lines on  
beam 35' could not get returning  
back. Red vibration of mud - fluid going  
out bottom of hole

DRILLER Oliver HELPER J. L. ...  
 MACHINE NO. 867 FOREMAN \_\_\_\_\_  
 7



**SKYLAB LABS, INC.**  
 Hawley & Hawley, Assayers and Chemists Division  
 1700 W. Grant Rd., P.O. Box 50106, Tucson, Arizona 85703  
 (602) 622-4836

Charles E. Thompson  
 Arizona Registered Assayer No. 9427

William L. Lehmbeck  
 Arizona Registered Assayer No. 9425

**CERTIFICATE OF ANALYSIS**

| ITEM NO. | SAMPLE IDENTIFICATION | Cu %  |  |  |  |  |  |  |  |
|----------|-----------------------|-------|--|--|--|--|--|--|--|
| 1        | 01718                 | <0.01 |  |  |  |  |  |  |  |
| 2        | 01719                 | <0.01 |  |  |  |  |  |  |  |
| 3        | 01720                 | 0.01  |  |  |  |  |  |  |  |
| 4        | 01721                 | <0.01 |  |  |  |  |  |  |  |
| 5        | 01722                 | 0.01  |  |  |  |  |  |  |  |
| 6        | 01723                 | <0.01 |  |  |  |  |  |  |  |
| 7        | 01724                 | <0.01 |  |  |  |  |  |  |  |
| 8        | 01725                 | 0.01  |  |  |  |  |  |  |  |
| 9        | 01726                 | 0.01  |  |  |  |  |  |  |  |
| 10       | 01727                 | <0.01 |  |  |  |  |  |  |  |
| 11       | 01728                 | <0.01 |  |  |  |  |  |  |  |
| 12       | 01729                 | 0.01  |  |  |  |  |  |  |  |

*ES-35*

TO:  
**Essex International, Inc.**  
 1704 West Grant Road  
 Tucson, Arizona 85705  
  
 Attn.: Mr. Grover Heinrichs

REMARKS:  
**Single analysis**  
  
 DATE REC'D: **3/31/75**

CERTIFIED BY:  
  
 DATE COMPL.: **4/9/75**  
 JOB NUMBER: **750686**

DIAMOND CORE DRILLING  
 ROTARY DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT  
 DRILLING ADDITIVES

**Boyles Bros.**  
**DRILLING COMPANY**  
 CONTRACTORS-ENGINEERS

General Offices and Plant  
 1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671  
 SALT LAKE CITY, UTAH 84110  
 Cable: BOYLESKO  
 Telex: 388-321

BRANCH OFFICES  
 PHOENIX, ARIZONA  
 GOLDEN, COLORADO  
 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 IRONWOOD, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLESKOP  
 MEXICO CITY, MEXICO  
 telex: 001774546

January 14, 1975

BEN L. AUSTIN  
 MANAGER DRILLING OPERATIONS

Essex International, Inc.  
 1704 West Grant Avenue  
 Tucson, Arizona 85705

Attention: Mr. Paul Eimon

Gentlemen:

We are pleased to submit the following quotation for rotary and core drilling on your deep hole project located near Safford, Arizona.

We propose to move a rotary drilling rig onto the drill site to rotary drill as deep as is practical, case the hole and move a core rig onto location to deepen the hole by coring.

1. Mobilization and Demobilization - <sup>250.00</sup>~~\$750.00~~ lump sum each rig.
2. Drilling Rates - Vertical Holes:

2.1 Rotary and Core Drilling:

|                  | Hammer<br>or Rockbit | <u>NX or BX</u> |
|------------------|----------------------|-----------------|
| 0 to 500 feet    | \$5.30               | \$              |
| 500 to 1,000 "   | 6.40                 | (11.75) -       |
| 1,000 to 1,500 " | 7.75                 | 13.00 -         |
| 1,500 to 2,000 " | 9.95                 | 14.25 -         |
| 2,000 to 2,500 " |                      | 15.50           |
| 2,500 to 3,000 " |                      | 17.25           |
| 3,000 to 3,500 " |                      | 19.50           |
| 3,500 to 4,000 " |                      | 22.50           |
| 4,000 to 4,500 " |                      | 27.00           |
| 4,500 to 5,000 " |                      | 33.00           |
| 5,000 to 5,500 " |                      | 39.50           |
| 5,500 to 6,000 " |                      | 46.50           |

Essex International, Inc.

January 14, 1975

Page #2

- 2.2 Spot coring with the rotary rig will be charged at the rate of \$42.50 per hour plus the cost of bits.
- 2.3 A down-the-hole hammer will be charged at the rate of \$150.00 per week while in use.
- 2.4 While rotary drilling, if the rock should become so hard or other ground conditions be encountered such that the penetration rate falls below 50 feet per eight-hour shift over a period of three consecutive drilling shifts, Boyles will have the right to charge at the rate of \$42.50 per rig hour plus the cost of bits consumed from the end of the third qualifying shift until the hole is completed, or case the hole for coring.
- 2.5 Reaming to be charged at \$8.50 per foot.
3. The following items to be charged at the rate of \$37.50 per hour:
  - 3.1 Cementing and regaining lost circulation.
  - 3.2 Cleaning out and conditioning existing hole and making up core drilling string when changing over to core drilling.
  - 3.3 Surveying the hole plus \$125.00 per week for a Boyles owned instrument, or third party invoice cost, while the survey instrument is in use.
  - 3.4 Installing or retrieving casing.
  - 3.5 Set-up, moving between holes, and tearing down.
  - 3.6 Standby time at your request.
  - 3.7 Delays caused by actions on your part and not the fault of Boyles, including inaccessability to the drill site because of bad weather or other conditions not under the control of Boyles.
4. Water truck rental will be charged at the rate of \$390.00 per month for a Boyles Bros. owned two-wheel drive truck plus \$.35 per mile, or \$460.00 per month for a four-wheel drive truck plus \$.45 per mile, or third-party invoice plus 10% handling for outside rental. Water to be hauled by Boyles from your source of supply. If a steady driver is required, he will be charged at the rate of \$64.00 per eight-hour shift.
5. Core boxes, cement, drilling mud, mud additives, and lost circulation

Essex International, Inc.

January 14, 1975

Page #3

materials consumed will be charged at our published list prices plus 15% for mixing, handling, and transportation to the job site.

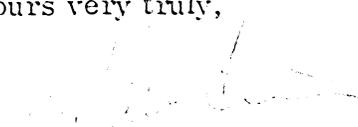
6. Casing will be invoiced at published list prices at time of installation in the hole. Any casing recovered will be credited at a mutually agreeable salvage value.
7. Drill roads and drill sites are to be constructed and maintained accessible to truck mounted drill rigs, supply trucks, and pickups free of cost to Boyles Bros. Any environmental responsibility relating to the construction, use or reclamation of same shall be the responsibility of Essex International. Boyles Bros. will, however, remove all trash and loose material, leaving drill sites in a clean and orderly condition.
8. Boyles Bros. certifies it has or will have licenses to do contract work in the state of Arizona. All other licenses, land and water use permits, environmental reports, state reports relating to hole plugging, etc. shall be the responsibility of Essex International. Boyles Bros. shall cooperate with and give technical assistance if requested for your compliance with these regulations.
9. Boyles Bros. shall drill at the location and to the depths specified by the representative of Essex International and shall be held harmless for all liability claims which may arise from normal activity related to this contract, including pollution of ground water or surrounding land from discharge of drill water and wastes. Boyles Bros. agree to accept responsibility for the irresponsible acts of their employees and for the liability which may result from these acts.
10. The prices in this schedule will remain firm for a period of 30 days from the date of the proposal; at which time, if the contract has not been accepted, Boyles Bros. reserves the right to revise any prices or conditions of this offer.
11. Boyles Bros. will invoice at the end of each calendar month for the work done during such period and the terms will be net 30 days. In the event payment is not made within these terms, a late payment charge of 1% per month or the maximum amount permitted by law, whichever is lower, will be charged. It will be computed from the due date to the date we receive payment.

BOYLES BROS. DRILLING CO.

Essex International, Inc.  
January 14, 1975  
Page #4

Thank you for asking Boyles Bros. to quote on this work. We will look forward to receiving your instructions.

Yours very truly,



B. L. Austin

BLA:bg

cc: S. L. Mathews



PROPOSAL

Submitted by: LONGYEAR - PHOENIX  
Page 1 of 4

Date MARCH 3, 1975

To: ESSEX INTERNATIONAL  
1704 W. GRANT ROAD  
TUCSON, ARIZONA 85705

Subject:  
Drilling Program Located  
Near Safford, Arizona  
Attn: Mr. E. Gover Heinrichs

1. Mobilization and Demobilization of personnel and equipment -

- a. Coring rig - lump sum per rig ..... \$ 1,100.00
- b. Rotary rig - lump sum per rig ..... \$ -----

2. Overburden Drilling (or collaring hole)

| From (ft) | To (ft) | Rock Bit Size |          | Diamond Bit Size |          |
|-----------|---------|---------------|----------|------------------|----------|
|           |         |               |          |                  |          |
| 0         | 50      | 6 3/4"        |          |                  |          |
|           |         | \$ 9.00       | \$ ----- | \$ -----         | \$ ----- |
| -----     | -----   | -----         | -----    | -----            | -----    |

3. Rotary Drilling

| From (ft) | To (ft) | Hole Size |          |
|-----------|---------|-----------|----------|
|           |         |           |          |
| 0         | 500     | 4 3/4"    |          |
| 500       | 1,000   |           |          |
|           |         | \$ 7.80   | \$ ----- |
|           |         | 9.35      |          |
| -----     | -----   | -----     | -----    |

4. Diamond Core Drilling

| From (ft) | To (ft) | Size     |          |          |          |
|-----------|---------|----------|----------|----------|----------|
|           |         | NQ       | BQ       |          |          |
| 0         | 500     |          |          |          |          |
| 500       | 1,000   |          |          |          |          |
| 1,000     | 1,500   |          |          |          |          |
| 1,500     | 2,000   |          |          |          |          |
| 2,000     | 2,500   |          |          |          |          |
| 2,500     | 3,000   |          |          |          |          |
|           |         | \$ 11.80 | \$ 11.50 | \$ ----- | \$ ----- |
|           |         | 12.70    | 12.20    | -----    | -----    |
|           |         | 13.70    | 13.20    | -----    | -----    |
|           |         | 14.90    | 14.40    | -----    | -----    |
|           |         | 17.15    | 16.65    | -----    | -----    |
|           |         | 20.15    | 19.65    | -----    | -----    |
| -----     | -----   | -----    | -----    | -----    | -----    |

Angle hole drilling ..... Add \$ ----- Per Ft.

**LONGYEAR COMPANY  
PROPOSAL**

To: ESSEX INTERNATIONAL

Date MARCH 3, 1975

|                                                                              | Rate per Hour        |                      |
|------------------------------------------------------------------------------|----------------------|----------------------|
|                                                                              | Rotary Rig           | Core Rig             |
| 5. Rig Time ( <u>2</u> man crew)                                             |                      |                      |
| a. Cementing – hole preparation, grouting and drilling .....                 | \$ <u>38.00</u>      | \$ <u>37.20</u>      |
| b. Hole stabilizing and/or plugging .....                                    | \$ <u>38.00</u>      | \$ <u>37.20</u>      |
| c. Installing and pulling casing .....                                       | \$ <u>38.00</u>      | \$ <u>37.20</u>      |
| d. Rigging up and down .....                                                 | \$ <u>-----</u>      | \$ <u>-----</u>      |
| e. Moving between holes .....                                                | \$ <u>-----</u>      | \$ <u>-----</u>      |
| f. Drilling, reaming, casing, stabilizing, etc. (hourly contracts) .....     | \$ <u>-----</u>      | \$ <u>-----</u>      |
| g. Re-entry and cleaning out old hole plus cost of all bits and supplies ... | \$ <u>-----</u>      | \$ <u>37.20</u>      |
| h. Installing and dismantling water lines .....                              | \$ <u>-----</u>      | \$ <u>-----</u>      |
| i. Tractor service (or at Longyear's hired cost) $\pm$ 10% .....             | \$ <u>cost + 10%</u> | \$ <u>cost + 10%</u> |
| j. Hole survey or inclination test $\pm$ rental of instrument .....          | \$ <u>28.00</u>      | \$ <u>27.00</u>      |
| k. Wedging operations $\pm$ cost of wedge if needed .....                    | \$ <u>-----</u>      | \$ <u>37.20</u>      |
| l. -----                                                                     | \$ <u>-----</u>      | \$ <u>-----</u>      |
| m. -----                                                                     | \$ <u>-----</u>      | \$ <u>-----</u>      |

6. Standby or Delays

For the convenience or the responsibility of client (2 man crew) \$ 28.00 \$ 27.00

7. Casing (at Longyear List Price)

- a. Left in hole at client's request ..... 100 %
- b. Lost through normal drilling operations ..... 100 %

8. Reaming Per ft. will be invoiced at rig time rates plus bits.

|          |                    |                |                |                |
|----------|--------------------|----------------|----------------|----------------|
| AT DEPTH | _____ to _____     | _____ to _____ | _____ to _____ | _____ to _____ |
|          | ----- to ----- ft. | \$ -----       | \$ -----       | \$ -----       |
|          | ----- to ----- ft. | -----          | -----          | -----          |
|          | ----- to ----- ft. | -----          | -----          | -----          |
|          | ----- to ----- ft. | -----          | -----          | -----          |

LONGYEAR COMPANY  
PROPOSAL

To: ESSEX INTERNATIONAL

Date MARCH 3, 1975

9. In hole materials (at Longyear FOB job cost plus 10%)

- a. Drill mud ..... Yes X No -----
- b. Mud additives ..... Yes X No -----
- c. Hole stabilizing or plugging materials ..... Yes X No -----
- d. Cement ..... Yes X No -----
- e. Hole plugs ..... Yes X No -----
- f. Other -----  
-----  
-----

10. Water

- a. Water truck rental charge ..... \$ 450.00 per month
- b. Water truck mileage ..... 30¢ per mile
- c. Water truck driver (full time if required) ..... \$ 8.85 Per hour
- d. Water, if purchased.. will be invoiced ..... At Longyear's cost
- e. Water line
  - 1) Excess of ----- ft. Increase footage rate ..... \$ ----- per foot

11. Core Boxes

- NO - BO size ..... @ \$ 1.30 each
- size ..... @ \$ ----- each

12. Footage Compensation (hourly contracts) ..... \$ ----- per foot drilled

13. Per Diem Charge To cover living allowances for crews. .... \$ ----- per man  
per day worked

14. Bits and Setting Charges (at Longyear's list price)

- a. Rotary or rock bits ..... Yes ----- No X
- b. Diamond bits and shells ..... Yes ----- No X

15. Other See cover letter.

LONGYEAR COMPANY  
GENERAL SPECIFICATIONS

To: ESSEX INTERNATIONAL

Date MARCH 3, 1975

16. Anticipated Requirements and Conditions

- a. one drills; type Longyear Model 44 equipped with rotary tools
- b. 2 shifts per day (2 man crew @ 8 hours per shift).
- c. 6 day per week
- d. Minimum contract footage 2,000 ft.
- e. Number of holes 1 +
- f. Maximum depth 3,000 ft.
- g. Average depth 2,000 ft.
- h. Attitude of holes (from horizontal)
  - 1) Vertical X
  - 2) Angle @ ----- degrees.
- i. Average depth of overburden 50 ft. Composition gravel
- j. Size of hole or core size required: 4 3/4" rotary for 3" pipe - NQ Core
- k. Rock type to be drilled: basalt, andesite conglomerate,
- l. Other: -----  
-----  
-----  
-----

17. Insurance:

We will carry Comprehensive General Liability and Automobile Insurance covering personal injury and property damage and also statutory Workmen's Compensation Insurance. Certificates showing these coverages will be furnished upon request.

18. Invoices

- a. Invoices covering the work performed will be prepared as promptly as possible after the fifteenth and last day of each month and payment shall be due within twenty days from your receipt of invoice.
- b. Invoices arising from this project will be subject to all applicable state taxes (Sales, Use, Gross Receipts, Privilege, etc.)

19. Prices quoted herein are firm only if this proposal is accepted on or before April 10, 1975 and if work is commenced within a reasonable period of time.

20. This proposal together with its covering letter will constitute the terms and conditions of this working agreement. Your authorized signature in the space provided below will acknowledge your acceptance and will validate the agreement.

ACCEPTED:  
Company \_\_\_\_\_  
By \_\_\_\_\_ Title \_\_\_\_\_  
Date \_\_\_\_\_

By: Ray P. Muncy  
LONGYEAR COMPANY  
MANAGER, SOUTHWESTERN ZONE  
CONTRACT DRILLING DIVISION

LONGYEAR COMPANY  
PROPOSAL

To: ESSEX INTERNATIONAL

Date MARCH 3, 1975

9. In hole materials (at Longyear FOB job cost plus 10%)

- a. Drill mud ..... Yes X No -----
- b. Mud additives..... Yes X No -----
- c. Hole stabilizing or plugging materials..... Yes X No -----
- d. Cement ..... Yes X No -----
- e. Hole plugs ..... Yes X No -----
- f. Other -----  
-----  
-----

10. Water

- a. Water truck rental charge..... \$ 450.00 per month
- b. Water truck mileage..... 30¢ per mile
- c. Water truck driver (full time if required) ..... \$ 8.85 Per hour
- d. Water, if purchased. will be invoiced..... At Longyear's cost
- e. Water line  
1) Excess of ----- ft. Increase footage rate ..... \$ ----- per foot

11. Core Boxes

- NO - BO size ..... @ \$ 1.30 each
- size ..... @ \$ ----- each

12. Footage Compensation (hourly contracts) ..... \$ ----- per foot drilled

13. Per Diem Charge To cover living allowances for crews..... \$ ----- per man  
per day worked

14. Bits and Setting Charges (at Longyear's list price)

- a. Rotary or rock bits ..... Yes ----- No X
- b. Diamond bits and shells..... Yes ----- No X

15. Other See cover letter.

LONGYEAR COMPANY  
GENERAL SPECIFICATIONS

To: ESSEX INTERNATIONAL

Date MARCH 3, 1975

16. Anticipated Requirements and Conditions

- a. one drills; type Longyear Model 44 equipped with rotary tools
- b. 2 shifts per day (2 man crew @ 8 hours per shift).
- c. 6 day per week
- d. Minimum contract footage 2,000 ft.
- e. Number of holes 1 +
- f. Maximum depth 3,000 ft.
- g. Average depth 2,000 ft.
- h. Attitude of holes (from horizontal)
  - 1) Vertical X
  - 2) Angle @ ----- degrees.
- i. Average depth of overburden 50 ft. Composition gravel
- j. Size of hole or core size required: 4 3/4" rotary for 3" pipe - NQ Core
- k. Rock type to be drilled: basalt, andesite conglomerate,
- l. Other: -----  
-----  
-----  
-----

17. Insurance:

We will carry Comprehensive General Liability and Automobile Insurance covering personal injury and property damage and also statutory Workmen's Compensation Insurance. Certificates showing these coverages will be furnished upon request.

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ACCEPTED:  
Company \_\_\_\_\_

By \_\_\_\_\_ Title \_\_\_\_\_

Date \_\_\_\_\_

By: Ray P. Mancy  
LONGYEAR COMPANY  
MANAGER, SOUTHWESTERN ZONE  
CONTRACT DRILLING DIVISION



PROPOSAL

Submitted by: LONGYEAR - PHOENIX  
Page 1 of 4

Date MARCH 3, 1975

To: ESSEX INTERNATIONAL  
1704 W. GRANT ROAD  
TUCSON, ARIZONA 85705

Subject:  
Drilling Program Located  
Near Safford, Arizona

Attn: Mr. E. Gover Heinrichs

1. Mobilization and Demobilization of personnel and equipment -

- a. Coring rig - lump sum per rig ..... \$ 1,100.00
- b. Rotary rig - lump sum per rig ..... \$ -----

2. Overburden Drilling (or collaring hole)

| From (ft)    | To (ft)      | Rock Bit Size  |                 | Diamond Bit Size |                 |
|--------------|--------------|----------------|-----------------|------------------|-----------------|
|              |              |                |                 |                  |                 |
|              |              | <u>6 3/4"</u>  | <u>-----</u>    | <u>-----</u>     | <u>-----</u>    |
| <u>0</u>     | <u>50</u>    | <u>\$ 9.00</u> | <u>\$ -----</u> | <u>\$ -----</u>  | <u>\$ -----</u> |
| <u>-----</u> | <u>-----</u> | <u>-----</u>   | <u>-----</u>    | <u>-----</u>     | <u>-----</u>    |

3. Rotary Drilling

| From (ft)    | To (ft)      | Hole Size      |                 |
|--------------|--------------|----------------|-----------------|
|              |              |                |                 |
|              |              | <u>4 3/4"</u>  | <u>-----</u>    |
| <u>0</u>     | <u>500</u>   | <u>\$ 7.80</u> | <u>\$ -----</u> |
| <u>500</u>   | <u>1,000</u> | <u>9.35</u>    | <u>-----</u>    |
| <u>-----</u> | <u>-----</u> | <u>-----</u>   | <u>-----</u>    |

4. Diamond Core Drilling

| From (ft)    | To (ft)      | Size            |                 |                 |                 |
|--------------|--------------|-----------------|-----------------|-----------------|-----------------|
|              |              | NQ              | BQ              |                 |                 |
|              |              |                 |                 |                 |                 |
| <u>0</u>     | <u>500</u>   | <u>\$ 11.80</u> | <u>\$ 11.50</u> | <u>\$ -----</u> | <u>\$ -----</u> |
| <u>500</u>   | <u>1,000</u> | <u>12.70</u>    | <u>12.20</u>    | <u>-----</u>    | <u>-----</u>    |
| <u>1,000</u> | <u>1,500</u> | <u>13.70</u>    | <u>13.20</u>    | <u>-----</u>    | <u>-----</u>    |
| <u>1,500</u> | <u>2,000</u> | <u>14.90</u>    | <u>14.40</u>    | <u>-----</u>    | <u>-----</u>    |
| <u>2,000</u> | <u>2,500</u> | <u>17.15</u>    | <u>16.65</u>    | <u>-----</u>    | <u>-----</u>    |
| <u>2,500</u> | <u>3,000</u> | <u>20.15</u>    | <u>19.65</u>    | <u>-----</u>    | <u>-----</u>    |
| <u>-----</u> | <u>-----</u> | <u>-----</u>    | <u>-----</u>    | <u>-----</u>    | <u>-----</u>    |

Angle hole drilling ..... Add \$ ----- Per Ft.

**LONGYEAR COMPANY  
PROPOSAL**

To: ESSEX INTERNATIONAL

Date MARCH 3, 1975

|                                                                              | Rate per Hour        |                      |
|------------------------------------------------------------------------------|----------------------|----------------------|
|                                                                              | Rotary Rig           | Core Rig             |
| 5. Rig Time ( <u>2</u> man crew)                                             |                      |                      |
| a. Cementing — hole preparation, grouting and drilling .....                 | \$ <u>38.00</u>      | \$ <u>37.20</u>      |
| b. Hole stabilizing and/or plugging .....                                    | \$ <u>38.00</u>      | \$ <u>37.20</u>      |
| c. Installing and pulling casing .....                                       | \$ <u>38.00</u>      | \$ <u>37.20</u>      |
| d. Rigging up and down .....                                                 | \$ -----             | \$ -----             |
| e. Moving between holes .....                                                | \$ -----             | \$ -----             |
| f. Drilling, reaming, casing, stabilizing, etc. (hourly contracts) .....     | \$ -----             | \$ -----             |
| g. Re-entry and cleaning out old hole plus cost of all bits and supplies ... | \$ -----             | \$ <u>37.20</u>      |
| h. Installing and dismantling water lines .....                              | \$ -----             | \$ -----             |
| i. Tractor service (or at Longyear's hired cost) $\pm$ 10% .....             | \$ <u>cost + 10%</u> | \$ <u>cost + 10%</u> |
| j. Hole survey or inclination test $\pm$ rental of instrument ....           | \$ <u>28.00</u>      | \$ <u>27.00</u>      |
| k. Wedging operations $\pm$ cost of wedge if needed .....                    | \$ -----             | \$ <u>37.20</u>      |
| l. -----                                                                     | \$ -----             | \$ -----             |
| m. -----                                                                     | \$ -----             | \$ -----             |

6. Standby or Delays  
 For the convenience or the responsibility of client (2 man crew) \$ 28.00 \$ 27.00

7. Casing (at Longyear List Price)

|                                                  |              |
|--------------------------------------------------|--------------|
| a. Left in hole at client's request .....        | <u>100</u> % |
| b. Lost through normal drilling operations ..... | <u>100</u> % |

8. Reaming Per ft. will be invoiced at rig time rates plus bits.

|          |                    |                |                |                |
|----------|--------------------|----------------|----------------|----------------|
| AT DEPTH | _____ to _____     | _____ to _____ | _____ to _____ | _____ to _____ |
|          | ----- to ----- ft. | \$ -----       | \$ -----       | \$ -----       |
|          | ----- to ----- ft. | _____          | _____          | _____          |
|          | ----- to ----- ft. | _____          | _____          | _____          |
|          | ----- to ----- ft. | _____          | _____          | _____          |



**GERRY COFFEY**

**Sales Engineer  
Barold Division  
N L INDUSTRIES, INC.**

**520 E. 2nd St. - C-1  
Mesa, Arizona 85203  
(602) 964-8287**



4/13/75

MR. BILL BROWN  
Essex International Inc.

Friday past we mixed & pumped down a lost circulation plug often referred to as a salt gel plug. When I left the drill @ 7 pm. they were approx. 30 feet off bottom with returns.

Baroid is able to furnish this courtesy service in the hope that you will specify our products on your future jobs. Almost all products at this job site were our competitors materials.

Mud companies furnish engineering service along with their products & the material price includes this engineering. If you do not or cannot get engineering service then you are being charged for a service without receiving same.

We hope you will request Baroid when drilling fluids are considered & solicit your questions & comments.

I enclose our current price lists & a chart on Baroid product applications.

Cordially yours

G. Coffey - Baroid Engineer

# BAROID DRILLING MUD PRODUCTS FOR MINERALS DRILLING

● PRIMARY FUNCTION  
○ SECONDARY FUNCTION

RECOMMENDED  
USAGE

| PRODUCT TRADE NAME        | FUNCTIONS         |                    |                  |            |                        |            |           |                    |                    |                 |        |             |                |                      |                 | DESCRIPTION                                                                     | MAKE-UP DOSAGE      |
|---------------------------|-------------------|--------------------|------------------|------------|------------------------|------------|-----------|--------------------|--------------------|-----------------|--------|-------------|----------------|----------------------|-----------------|---------------------------------------------------------------------------------|---------------------|
|                           | Viscosity-Reducer | Thinner Dispersant | Filtrate Reducer | PH Control | Water Well Development | Surfactant | Lubricant | Calcium-Stuck Pipe | Shale/Clay Control | Weight Material | Foamer | Fresh Water | Brackish Water | Saturated Salt Water | Air, Mist, Foam |                                                                                 |                     |
| AQUAGEL (100#)            | ●                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Sodium type montmorillonite standard bentonite, non toxic, specific gravity 2.7 | 20-50 lb/100 gal    |
| BARAFOS (100#)            | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Sodium tetraphosphate powder, non toxic                                         | 1-1/2 lb/100 gal    |
| BAROID (100#)             | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Barite, barium sulfate powder BaSO <sub>4</sub> , specific gravity 4.2          | 100-1800 lb/100 gal |
| Caustic Soda (50#)        | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Sodium hydroxide flake, toxic NaOH                                              | 0.2-6 lb/100 gal    |
| CC-16 (50#)               | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Solubilized sodium salt of lignitic humic acid powder                           | 1-10 lb/100 gal     |
| CELLEX HV (50#)           | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Sodium carboxymethylcellulose powder, non toxic                                 | 0.2-3 lb/100 gal    |
| CON DEX (5-gal)           | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Water Soluble surfactants                                                       | 1/2-1 pint/100 gal  |
| DRUSBAG (50#)             | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Polymionic cellulose polymer                                                    | 1/2-5 lb/100 gal    |
| FIBRETEX (40#)            | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Processed cane fibers, non toxic                                                | 5-60 lb/100 gal     |
| HY-SEAL (40#)             | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Shredded organic fiber, non toxic                                               | 5-30 lb/100 gal     |
| JELFLAKE (25#)            | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Shredded cellophane film                                                        | 5-20 lb/100 gal     |
| LO LOSS (50#)             | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Modified guar gum powder, non toxic                                             | 1-10 lb/100 gal     |
| MICATEX (50#)             | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Mica Flakes, Fine/coarse, non toxic                                             | 4-20 lb/100 gal     |
| Q-BROCK (50#)             | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Perochroms Lignosulfonate powder                                                | 2-20 lb/100 gal     |
| QUICK-FOAM (5-55 gal.)    | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Biodegradable foaming agent                                                     | 1/2-4 pints/100 gal |
| QUICK-CEL (50#)           | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | High yield bentonite                                                            | 10-20 lb/100 gal    |
| QUICK-MUD (4 gal. carton) | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Liquid viscosifier                                                              | 1-8 quarts/100 gal  |
| QUICK-TRON (20# carton)   | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Organic polymer, non-fermenting, non toxic                                      | 1/2-4 lb/100 gal    |
| Sapp (100#)               | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Sodium acid pyrophosphate granular                                              | 1/2-1 lb/100 gal    |
| Soda Ash (100#)           | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Sodium Carbonate powder Na <sub>2</sub> CO <sub>3</sub>                         | 1-4 lb/100 gal      |
| TORQ TRIM (5-55 gal.)     | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Biodegradable and non toxic                                                     | 1-4 quarts/100 gal  |
| ZEOGEL (100#)             | ○                 | ○                  | ○                | ○          | ○                      | ○          | ○         | ○                  | ○                  | ○               | ○      | ○           | ○              | ○                    | ○               | Attapulgite powder                                                              | 20-40 lb/100 gal    |



# CUSTOMERS PRICE LIST

BAROID DIVISION N L INDUSTRIES, INC.  
P.O. BOX 1675 HOUSTON, TEXAS 77001

Baroid Store: GLOBE, ARIZONA

Telephone: 602/425-7049

Serial No.: GL-7 Cancels: GL-6

Effective: March 10, 1975

| PRODUCT                           | PRICE<br>F.O.B.<br>WAREHOUSE | PACKAGE         | PRODUCT                   | PRICE<br>F.O.B.<br>WAREHOUSE | PACKAGE     |
|-----------------------------------|------------------------------|-----------------|---------------------------|------------------------------|-------------|
| <b>BASIC MUD MATERIALS</b>        |                              |                 |                           |                              |             |
| AQUAGEL                           | \$ 4.73                      | Per 100# bag    | DRISPAC                   | \$ 114.99                    | Per 50# bag |
| BAROCO                            | ----                         | 100# bag        | IMPERMEX                  | 19.13                        | 50# bag     |
| BAROID                            | 5.45                         | 100# bag        | QUIK-GEL                  | 4.25                         | 50# bag     |
| CELLEX (H.V.)                     | 104.55                       | 50# bag         | ZEOGEL                    | 9.08                         | 100# bag    |
| CELLEX (Reg.)                     | 101.96                       | 50# bag         | MUD GEL                   | 2.37                         | 50# bag     |
| DEXTRID                           | 43.43                        | 50# bag         |                           |                              |             |
| <b>LOST CIRCULATION MATERIALS</b> |                              |                 |                           |                              |             |
| ASPEN FIBER                       | \$ ----                      | Per 40# bag     | KWIK-SEAL                 | \$ 16.22                     | Per 40# bag |
| COTTONSEED HULLS                  | 9.06                         | 100# bag        | LEATHER SEAL              | 30.63                        | 50# bag     |
| DIASEAL M                         | 13.44                        | 50# bag         | MICATEX (F, C)            | 9.76                         | 50# bag     |
| FIBERTEX                          | 9.19                         | 40# bag         | PALCO SEAL                | 12.16                        | 40# bag     |
| HY-SEAL                           | 11.14                        | 40# bag         | PLUG-GIT                  | 11.18                        | 40# bag     |
| JELFLAKE                          | 14.98                        | 25# bag         | WALL-NUT (F, M, C, Flour) | 11.68                        | 50# bag     |
| <b>MUD CHEMICALS</b>              |                              |                 |                           |                              |             |
| AKTAFLO-E                         | \$ 402.96                    | Per 55 gal. dr. | LIME                      | \$ 3.97                      | Per 50# bag |
| AKTAFLO-S                         | 452.90                       | 55 gal. dr.     | LOLOSS                    | 87.85                        | 50# bag     |
| ALDACIDE                          | 49.33                        | 50# bag         | POTASSIUM CHLORIDE        | 14.59                        | 100# bag    |
| ALUMINUM STEARATE                 | 41.79                        | 25# bag         | Q-BROXIN                  | 24.49                        | 50# bag     |
| BARAFLOC                          | 9.31                         | 1# can          | SALT                      | 5.42                         | 100# bag    |
| BARAFOS                           | 33.38                        | 50# bag         | SMENTOX                   | 13.77                        | 50# bag     |
| BEN-EX                            | 10.72                        | 2# bag          | SODA ASH                  | 15.17                        | 100# bag    |
| BICARB. OF SODA                   | 24.14                        | 100# bag        | SODIUM BICHROMATE         | 132.01                       | 100# bag    |
| CALCIUM CHLORIDE (Flake)          | 18.77                        | 100# bag        | SOLTEX                    | 41.49                        | 50# bag     |
| CALCIUM CHLORIDE (H.T.)           | 18.77                        | 80# bag         | STABILITE                 | 74.25                        | 50# pail    |
| CALCIUM CHLORIDE (Pwd.)           | ----                         | 100# bag        | TANNEX                    | 28.16                        | 50# bag     |
| CARBONOX                          | 11.28                        | 50# bag         | TORQ-TRIM                 | 488.76                       | 55 gal. dr. |
| CAUSTIC SODA                      | 23.61                        | 50# bag         | TRIMULSO                  | 145.84                       | 15 gal. dr. |
| CC-16                             | 17.34                        | 50# bag         | TRIMULSO                  | 528.33                       | 55 gal. dr. |
| CON DET                           | 37.04                        | 5 gal. can      | WOLF                      | 46.87                        | 50# bag     |
| DESCO                             | 33.41                        | 25# bag         | WORKOVER ONE              | 20.79                        | 50# bag     |
| EP MUDLUBE                        | 22.41                        | 5 gal. can      | XC POLYMER                | 291.90                       | 50# bag     |
| EP MUDLUBE                        | 234.58                       | 55 gal. dr.     | X-TEND                    | 15.96                        | 2# bag      |
| FLOSAL                            | 17.81                        | 50# bag         |                           |                              |             |
| GYPSUM                            | 7.69                         | 100# bag        |                           |                              |             |
| K-FLO                             | 554.82                       | 55 gal. dr.     |                           |                              |             |
| K-LIG                             | 18.92                        | 50# bag         |                           |                              |             |
| <b>OIL MUD MATERIALS</b>          |                              |                 |                           |                              |             |
| DRILTREAT                         | \$ 65.32                     | Per 50# pail    | GELTONE                   | \$ 43.89                     | Per 50# bag |
| DURATONE (H.T.)                   | 55.62                        | 50# bag         | INVERMUL                  | 30.72                        | 50# bag     |
| E Z MUL                           | 499.58                       | 55 gal. dr.     | PETROTONE                 | 48.18                        | 50# bag     |
| E Z SPOT                          | 527.74                       | 55 gal. dr.     | SKOT FREE                 | 168.84                       | 15 gal. dr. |

TERMS: Net 30 days.

Prices subject to change without notice.

TAXES: All applicable taxes will be added to above price.

RM- 10

MATERIALS RETURNED FOR CREDIT WILL BE SUBJECT TO RESTOCKING CHARGE.

DIAMOND CORE DRILLING  
 ROTARY DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT

# Boyles Bros. DRILLING COMPANY

CONTRACTORS-ENGINEERS

General Offices and Plant

1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671

SALT LAKE CITY, UTAH 84110

Cable: BOYLES CO

Telex: 388-321

BRANCH OFFICES  
 PHOENIX, ARIZONA  
 GOLDEN, COLORADO  
 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 IRONWOOD, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLES CO  
 MEXICO CITY, MEXICO  
 telex: 001774546

INVOICE DATE: 3-25-75

ORDER NUMBER:

INVOICE NUMBER:

CONTRACT: 6-712

TERMS: 30 days

LOCATION: No of Safford

Essex International Inc.  
 1704 W. Grant Ave  
 Tucson Ariz 85-705

ok  
 WBB  
 Essex

| Hole No. | From   | To              | Footage | Rate  | Total  |
|----------|--------|-----------------|---------|-------|--------|
| E 5. 35  | 4 SX   | Driest          |         | 99.40 | 397.60 |
|          | 4 SX   | Soda Ash        |         | 14.50 | 58.00  |
|          | 2 SX   | Despense        |         | 21.70 | 43.40  |
|          | 9      | can Airgink     |         | 42.50 | 382.50 |
|          | 1 SX   | Calamin Choude  |         | 18.15 | 18.15  |
|          | 7 SX   | Casting Plaster |         | 4.95  | 34.65  |
|          | 92 SX  | Portland Cement |         | 2.75  | 253.00 |
|          | 1 SX   | Lime            |         | 3.81  | 3.81   |
|          | 1 SX   | Zeagel          |         | 8.68  | 8.68   |
|          | 1 SX   | Asbestos        |         | 18.50 | 18.50  |
| 2 SX     | Barite |                 | 5.20    | 10.40 |        |

DIAMOND CORE DRILLING  
 ROTARY DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT

# Boyles Bros. DRILLING COMPANY

CONTRACTORS-ENGINEERS

General Offices and Plant

1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671

SALT LAKE CITY, UTAH 84110

Cable: BOYLES CO

Telex: 388-321

*Essex International Inc.*

**BRANCH OFFICES**

PHOENIX, ARIZONA  
 GOLDEN, COLORADO  
 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 IRONWOOD, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLES COP  
 MEXICO CITY, MEXICO  
 telex: 001774546

INVOICE DATE: *3-25-75*  
 ORDER NUMBER:  
 INVOICE NUMBER:  
 CONTRACT: *6-712,*  
 TERMS: *30 days*  
 LOCATION: *No. of Safford*

*OK W6B Essex*

| Hole No.     | From            | To                         | Footage | Rate          | Total          |
|--------------|-----------------|----------------------------|---------|---------------|----------------|
| <i>ES 25</i> | <i>40 ft.</i>   | <i>6 1/2" Surface pipe</i> |         |               |                |
|              | <i>832 ft.</i>  | <i>4 in I.D. casing</i>    |         | <i>3.45</i>   | <i>2870.40</i> |
|              | <i>38 loads</i> | <i>water</i>               |         | <i>.75</i>    | <i>28.50</i>   |
|              | <i>24 days</i>  | <i>water tub rental</i>    |         | <i>390.00</i> | <i>312.00</i>  |
|              | <i>760</i>      | <i>water tub mileage</i>   |         | <i>.35</i>    | <i>266.</i>    |
|              | <i>3 day</i>    | <i>water hauler</i>        |         | <i>64.00</i>  | <i>192.00</i>  |
|              | <i>1590 m.</i>  | <i>Materials used</i>      |         |               | <i>170</i>     |
|              | <i>Approx :</i> | <i>\$14,692</i>            |         |               |                |

DIAMOND CORE DRILLING  
DRY DRILLING  
GROUTING  
FOUNDATION TESTING  
DIAMOND DRILLING EQUIPMENT

# Boyles Bros. DRILLING COMPANY

BRANCH OFFICES  
PHOENIX, ARIZONA  
GOLDEN, COLORADO  
SPARKS, NEVADA  
SPOKANE, WASHINGTON  
MURFREESBORO, TENNESSEE  
MT. IRON, MICHIGAN  
SANTIAGO, CHILE  
cable: BOYLESBROS  
LIMA, PERU  
cable: BOYLESBROS  
MEXICO CITY, MEXICO  
telex: 001774546

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CONTRACTORS-ENGINEERS

General Offices and Plant

1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671

SALT LAKE CITY, UTAH 84110

Cable: BOYLESBROS

Telex: 388-321

INVOICE DATE: MARCH 29, 1975

ORDER NUMBER:

INVOICE NUMBER: SW-372

CONTRACT: 6-712

TERMS: NET 30 DAYS

LOCATION: SAFFORD, AZ.

Essex International, Inc.  
1704 W. GRANT AVE  
TUCSON, AZ. 85705

| Hole No. | From             | To   | Footage | Rate  | Total  |
|----------|------------------|------|---------|-------|--------|
|          | MATERIALS USED:  |      |         |       |        |
|          | CEMENT           | PLUG | 1       | 15.00 | 15.00  |
|          | MUD No. 2        |      | 139 SKS | 3.90  | 542.10 |
|          | KWIK SEAL        |      | 11 SKS  | 15.40 | 169.40 |
|          | DICKS MUD SEAL   |      | 12 SKS  | 10.55 | 126.60 |
|          | DRISCOSE         |      | 7 SKS   | 99.40 | 695.80 |
|          | SODA ASH         |      | 4 SKS   | 14.50 | 58.00  |
|          | DISPERSE         |      | 3 SKS   | 21.70 | 65.10  |
|          | AIR QUIK         |      | 9 CANS  | 42.50 | 382.50 |
|          | CALCIUM CHLORIDE |      | 1 SK    | 18.00 | 18.00  |
|          | CASTING PLASTER  |      | 7 SKS   | 4.95  | 34.65  |
|          | PORTLAND CEMENT  |      | 92 SKS  | 2.75  | 253.00 |

Late Payment Charge of 1% per month or the maximum amount permitted by law, whichever is lower, will be charged in the event payment is not made within the terms of this invoice. It will be computed from the due date to the date we receive payment.

DIAMOND CORE DRILLING  
 SURFACE DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT

# Boyles Bros. DRILLING COMPANY

BRANCH OFFICES  
 PHOENIX, ARIZONA  
 GOLDEN, COLORADO  
 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 MT. IRON, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLES COP  
 MEXICO CITY, MEXICO  
 telex: 001774546

CONTRACTORS-ENGINEERS

General Offices and Plant

1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671

SALT LAKE CITY, UTAH 84110

Cable: BOYLES CO

Telex: 388-321

PAGE - 3 -

INVOICE DATE: MARCH 29, 1975

ORDER NUMBER:

INVOICE NUMBER: SW-372

CONTRACT: 6-712

TERMS: NET 30 DAYS

LOCATION: SAFFORD, AZ

ESSEX INTERNATIONAL, INC.  
 1704 W. GRANT AVE  
 TULSON, AZ 85705

| Hole No.                  | From       | To | Footage | Rate    | Total            |
|---------------------------|------------|----|---------|---------|------------------|
| MATERIALS USED:           | LIME       |    | 1 SK    | 3.97    | 3.97             |
|                           | ZEAGEL     |    | 1 SK    | 9.08    | 9.08             |
|                           | ASBESTOS   |    | 1 SK    | 18.50   | 18.50            |
|                           | BARITE     |    | 2 SKS   | 5.20    | 10.40            |
|                           | DEXTRID    |    | 1 SK    | 43.43   | 43.43            |
|                           | PETRO SEAL |    | 1 SK    | 16.22   | 16.22            |
|                           | ROD LUBE   |    | 4 CANS  | 22.11   | 80.40            |
| TRANSPORTATION & HANDLING |            |    | 15 %    | 2527.15 | 379.08           |
| 6 1/2" SURFACE PIPE       |            |    | 40 FT   | 5.50    | 220.00           |
| 4" I. D. CASING           |            |    | 832 FT  | 3.45    | 2870.40          |
|                           |            |    |         |         | <u>19,415.98</u> |

Late Payment Charge of 1% per month or the maximum amount permitted by law, whichever is lower, will be charged in the event payment is not made within the terms of this invoice. It will be computed from the due date to the date we receive payment.

END CORE DRILLING  
 DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT

# Boyles Bros. DRILLING COMPANY

BRANCH OFFICES  
 PHOENIX, ARIZONA  
 GOLDEN, COLORADO  
 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 MT. IRON, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLESOP  
 MEXICO CITY, MEXICO  
 telex: 001774545

CONTRACTORS-ENGINEERS

General Offices and Plant

1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671

SALT LAKE CITY, UTAH 84110

Cable: BOYLESO

Telex: 388-321

INVOICE DATE: MARCH 29, 1975

ORDER NUMBER:

INVOICE NUMBER: SW-372

CONTRACT: 6-712

TERMS: NET 30 DAYS

LOCATION: SAFFORD, AZ.

ESSEX INTERNATIONAL, INC  
 1704 W. GRANT AVE  
 TUCSON, AZ 85705

OK  
 WGB

| Hole No.                                  | From | To   | Footage    | Rate   | Total    |
|-------------------------------------------|------|------|------------|--------|----------|
| ES-35                                     | 0    | 500  | 500        | 5.30   | 2650.00  |
|                                           | 500  | 832  | 332        | 6.40   | 2124.80  |
|                                           | 832  | 1000 | 168        | 11.75  | 1974.00  |
|                                           | 1000 | 1095 | 95         | 13.00  | 1235.00  |
| MOBILIZATION                              |      |      |            |        | 250.00   |
| HOURLY WORK: CEMENTING & LOST CIRCULATION |      |      | 84 HRS     | 37.50  | 3150.00? |
| HAMMER RENTAL CASING                      |      |      | 17 HRS     | 37.50  | 637.50   |
| WATER TRUCK RENTAL - 390.00 PER Mo.       |      |      | 1 WK       | 150.00 | 150.00   |
| WATER TRUCK MILEAGE                       |      |      | 29 DAYS    | 13.00  | 377.00   |
| LOADS OF WATER                            |      |      | 963 Mi     | .35    | 337.05   |
| WATER HAULER                              |      |      | 52 LOADS   | .75    | 39.00    |
|                                           |      |      | 7 1/2 DAYS | 64.00  | 480.00   |

Late Payment Charge of 1% per month or the maximum amount permitted by law, whichever is lower, will be charged in the event payment is not made within the terms of this invoice. It will be computed from the due date to the date we receive payment.

DEEP CORE DRILLING  
 ROTARY DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT

# Boyles Bros. DRILLING COMPANY

CONTRACTORS-ENGINEERS

General Offices and Plant

1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671

SALT LAKE CITY, UTAH 84110

Cable: BOYLES CO

Telex: 388-321

BRANCH OFFICES  
 PHOENIX, ARIZONA  
 GOLDEN, COLORADO  
 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 MT. IRON, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLES COP  
 MEXICO CITY, MEXICO  
 telex: 001774546

INVOICE DATE: *March 29, 1975*

ORDER NUMBER:

INVOICE NUMBER:

CONTRACT: *6-712*

TERMS:

LOCATION: *Safford, Ariz.*

*Essey International, Inc.  
 1704 West Grant Ave.  
 Meson, Ariz. 85705*

*OK Essey  
 WGB*

| Hole No.                               | From                                                     | To          | Footage        | Rate         | Total          |
|----------------------------------------|----------------------------------------------------------|-------------|----------------|--------------|----------------|
| <i>ES-35</i>                           | <i>950</i>                                               | <i>1000</i> | <i>50</i>      |              |                |
|                                        | <i>1000</i>                                              | <i>1095</i> | <i>95</i>      | <i>13.00</i> | <i>1235.00</i> |
| <i>Hourly work: Lost circulation</i>   |                                                          |             | <i>6 hrs.</i>  | <i>37.50</i> | <i>225.00</i>  |
| <i>Water Hauler -</i>                  | <i>38 hrs. straight 10 hrs. overtime + payroll taxes</i> |             |                |              |                |
| <i>Water Truck Rental (390.00 mo.)</i> |                                                          |             | <i>4 days</i>  | <i>13.00</i> | <i>52.00</i>   |
| <i>Water Truck Mileage</i>             |                                                          |             | <i>203 mi.</i> | <i>.35</i>   | <i>71.05</i>   |
| <i>materials used: mud no 2</i>        |                                                          |             | <i>45 sks.</i> | <i>3.90</i>  | <i>175.50</i>  |
|                                        | <i>Rod Lubr (magchar)</i>                                |             | <i>4 cans</i>  | <i>20.10</i> | <i>80.40</i>   |
|                                        | <i>Discoose</i>                                          |             | <i>3 sks.</i>  | <i>99.40</i> | <i>298.20</i>  |
|                                        | <i>Kwik Seal</i>                                         |             | <i>1 sk.</i>   | <i>15.45</i> | <i>15.45</i>   |
|                                        | <i>Dextrid (Baroid)</i>                                  |             | <i>1 sk.</i>   | <i>41.36</i> | <i>41.36</i>   |

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ROTARY DRILLING  
GROUTING  
FOUNDATION TESTING  
DIAMOND DRILLING EQUIPMENT

# Boyles Bros. DRILLING COMPANY

**BRANCH OFFICES**  
PHOENIX, ARIZONA  
GOLDEN, COLORADO  
SPARKS, NEVADA  
SPOKANE, WASHINGTON  
MURFREESBORO, TENNESSEE  
MT. IRON, MICHIGAN  
SANTIAGO, CHILE  
cable: BOYLESBROS  
LIMA, PERU  
cable: BOYLESBROS  
MEXICO CITY, MEXICO  
telex: 001774546

**CONTRACTORS-ENGINEERS**

General Offices and Plant

1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671

SALT LAKE CITY, UTAH 84110

Cable: BOYLESKO

Telex: 388-321

INVOICE DATE: *Mar 29, 1975*

ORDER NUMBER:

INVOICE NUMBER:

CONTRACT: *6-712*

TERMS:

LOCATION: *Safford, Ariz.*

*Essex International, Inc.  
1704 West Grant Ave.  
Tucson, Ariz. 85705*

| Hole No.               | From                  | To | Footage         | Rate         | Total        |
|------------------------|-----------------------|----|-----------------|--------------|--------------|
| <i>Materials Used:</i> | <i>Disperse</i>       |    | <i>1 sk.</i>    | <i>21.70</i> | <i>21.70</i> |
|                        | <i>Petro Seal</i>     |    | <i>1 sk.</i>    |              |              |
|                        | <i>Loads of water</i> |    | <i>14 loads</i> |              |              |
| <i>Handling &amp;</i>  | <i>Transportation</i> |    | <i>15%</i>      |              |              |
|                        |                       |    | <i>Total</i>    |              |              |

Late Payment Charge of 1% per month or the maximum amount permitted by law, whichever is lower, will be charged in the event payment is not made within the terms of this invoice. It will be computed from the due date to the date we receive payment.

DIAMOND CORE DRILLING  
 ROTARY DRILLING  
 GROUTING  
 FOUNDATION TESTING  
 DIAMOND DRILLING EQUIPMENT

# Boyles Bros. DRILLING COMPANY

CONTRACTORS-ENGINEERS

General Offices and Plant

1624 Pioneer Road P. O. Box 58 Phone (801) 487-3671

SALT LAKE CITY, UTAH 84110

Cable: BOYLES CO

Telex: 388-321

**BRANCH OFFICES**

PHOENIX, ARIZONA  
 GOLDEN, COLORADO  
 SPARKS, NEVADA  
 SPOKANE, WASHINGTON  
 MURFREESBORO, TENNESSEE  
 IRONWOOD, MICHIGAN  
 SANTIAGO, CHILE  
 cable: BOYLESBROS  
 LIMA, PERU  
 cable: BOYLES COP  
 MEXICO CITY, MEXICO  
 telex: 001774546

INVOICE DATE: 3-25-75  
 ORDER NUMBER:  
 INVOICE NUMBER:  
 CONTRACT: 6-712  
 TERMS: 30 days  
 LOCATION: No 4 Safford

Essex International Inc.  
 1704 W. Grant Ave.  
 Tucson Ariz 85705

OK  
 WBB  
 Essex

| Hole No. | From                             | To                              | Footage | Rate    | Total   |
|----------|----------------------------------|---------------------------------|---------|---------|---------|
| ES 35    | 0                                | 500                             | 500     | 5.30    | 2650.   |
|          | 500                              | 832                             | 332.    | 6.40    | 2124.80 |
|          | 832.                             | 950                             | 118     |         |         |
|          | 1 wk.                            | <del>Hammer</del> Hammer Rental |         | 150. wk | 150.00  |
|          | Mobilization                     |                                 |         |         | 250.00  |
|          | 78 hrs Cement + Circulation Time |                                 |         | 37.50   | 2925.00 |
|          | 17 hrs Casing                    |                                 |         | 37.50   | 637.50  |
|          | 1 Cement Plug                    |                                 |         | 14.00   | 14.00   |
|          | 94 SX. Mud Seal                  |                                 |         | 3.90    | 366.60  |
|          | 10 SX Guit Seal                  |                                 |         | 15.40   | 154.00  |
|          | 12 SX Dick Mud Seal              |                                 |         | 10.55   | 126.60  |





BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-14-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 886  
DEPTH, START OF SHIFT 879  
DRILLED 7  
CORE RECOVERED 7  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS 1

MUD <sup>#2</sup> - 8 SACKS  
DRISCOSE - 1 SACK  
CAL-SEAL 15X Lume  
LUMNITE 15X Zoogel  
PORTLAND 15X Gishberg  
ADDITIVES 6 Dink Seal  
WATER - 3 CORDS  
2 Dick's Mud Seal

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING circ 8  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Lost all water  
pumped Salt Well Plug got 50% back

DRILLER Al Hehr HELPER John

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

DOYLES BROS. DRILLING COMPANY

SHIFT REPORT

JOB 6-712 LOC. Safford DATE 3-24-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 3J

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT 950  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD 4 mud 2.  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 1 load

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED 130 FROM 820 TO 949

TIME CHARGES

DRILLING \_\_\_\_\_ Drill out of  
CEMENTING f  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Drill out from  
820 - 949 1300 Cement  
+ rig down + move of hole.

DRILLER Al Hehr HELPER John  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

# BOYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-712 LOC. Eossey DATE 3-17-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. 85 35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 902  
DEPTH, START OF SHIFT 886  
DRILLED 16  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD mud 22 6SX  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 2 loads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

DRILLING 5  
REAMING \_\_\_\_\_  
CASING \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_  
MIXING MUD \_\_\_\_\_

CEMENTING 5  
EQUIP. REPAIR \_\_\_\_\_  
STAND-BY OR SURVEY \_\_\_\_\_  
WATER DELAY \_\_\_\_\_  
WASHING OR CLEANING \_\_\_\_\_

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition)

Pump another Plug + Drill it out + got Ciro back  
Ground Broken Started to loose  
Mud Again

DRILLER

Al Helm

HELPER

John

MACHINE NO. \_\_\_\_\_

FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Edney DATE 3-18-23  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 945  
DEPTH, START OF SHIFT 902  
DRILLED 43  
CORE RECOVERED 43  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS 7

MUD 65K mud 2  
TYPE 2 Gunk Seal  
CAL-SEAL 25X Dick mud seal  
LUMNITE 1 Disposal  
PORTLAND 2 Soda ash  
ADDITIVES \_\_\_\_\_  
WATER 4 loads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 10 \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Losing water pretty readily

DRILLER Al Heke HELPER John  
MACHINE NO. 7 FOREMAN \_\_\_\_\_

# BOYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB W-212 LOC. Safford DATE 3-19-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 950  
DEPTH, START OF SHIFT 945  
DRILLED 5  
CORE RECOVERED 5  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS 3

MUD 10 mud  
TYPE 1 Diesel  
CAL-SEAL 2 Ducks mudged  
LUMNITE 2 Gunk Seal  
PORTLAND 15 SK cement  
ADDITIVES \_\_\_\_\_  
WATER 4 loads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

DRILLING 3 CEMENTING 8  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition)

Lost all water  
Couldnt get it back with circ mater  
got cement. the hole cement came  
off. + loss water

DRILLER W. H. H. H. HELPER John

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

# BOYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-712 LOC. Essex DATE 3-20-75

SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD 6 mud 2  
TYPE \_\_\_\_\_  
CAL-SEAL 1 soda ash  
LUMNITE \_\_\_\_\_  
PORTLAND 15 st portland  
ADDITIVES \_\_\_\_\_  
WATER 5 loads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING 10  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) 3 shifts

Water hauler  
Waiting on Cement Cement not  
Set up Drillout Cement & Re Cement  
Hole

DRILLER Al Kohn HELPER Jahn

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY

SHIFT REPORT

JOB 6-712 LOC. Essex DATE 3-21-75

SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT 950  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 1 load

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED 90 FROM 820 TO 910

TIME CHARGES

DRILLING 5  
REAMING \_\_\_\_\_  
CASING \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_  
MIXING MUD \_\_\_\_\_

CEMENTING 5  
EQUIP. REPAIR \_\_\_\_\_  
STAND-BY OR SURVEY \_\_\_\_\_  
WATER DELAY \_\_\_\_\_  
WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Dull out cement  
drag out rods & collar on supply  
at cement get up half  
dull out 90 ft of cement

DRILLER Al Hehr HELPER John

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

LYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-7-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 620  
DEPTH, START OF SHIFT 515  
DRILLED 105  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK HAMMER  
NUMBER OF RUNS \_\_\_\_\_

MUD AIR QUIK - 5 GAL  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER - 1 LOAD

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 10 \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 10 \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER John Bergstad HELPER Dave  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

LYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 4-702 LOC. Essex DATE 3-10-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 31

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 660  
DEPTH, START OF SHIFT 620  
DRILLED 40  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK Hammer  
NUMBER OF RUNS \_\_\_\_\_

MUD 1 Can Airgrip  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 8  
REAMING \_\_\_\_\_  
CASING \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_  
MIXING MUD 4

CEMENTING \_\_\_\_\_  
EQUIP. REPAIR \_\_\_\_\_  
STAND-BY OR SURVEY \_\_\_\_\_  
WATER DELAY \_\_\_\_\_  
WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER W. Hebe HELPER Tony  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEY DATE 7-10-75  
SHIFT DAY \_\_\_\_\_ SWING V NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 695  
DEPTH, START OF SHIFT 660  
DRILLED 35  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK Hammer  
NUMBER OF RUNS \_\_\_\_\_

MUD 1 air gum  
TYPE \_\_\_\_\_  
GAL SEAL MUD - 5 SACKS  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 1 load

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 34 \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR 4 \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 8 \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) tap rods out to change hammer, repair table chain

DRILLER John Borgstedt HELPER Dove  
MACHINE NO. 7 FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. \_\_\_\_\_ DATE 3-11-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT 835  
DEPTH, END OF SHIFT ~~830~~  
DEPTH, START OF SHIFT 695  
DRILLED 135  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK Hammer  
NUMBER OF RUNS \_\_\_\_\_

MUD 2 air/gal  
TYPE \_\_\_\_\_  
CAL-SEAL 1 Box per gal  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 1 load

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 10 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR 3  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) put chain in Beal out take + start out Hammer

DRILLER al Nehr HELPER Tomp  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-11-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 835 LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING 12 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ 12 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) lay down pipe & start running casing. (800 ft.)

DRILLER John Borgstadt HELPER Dove  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Safford DATE 3-12-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT 832  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE 1 Driscoll  
CAL-SEAL 1 Desperse  
LUMNITE 1 Drill mud Seal  
PORTLAND 23 Portland  
ADDITIVES 1 Calcium Chloride  
WATER 2 loads  
1 = Cement Plug

FEET CASED 832 FROM 0 TO 832 SIZE 4 1/2 ID  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_  
REAMING \_\_\_\_\_  
CASING 4  
SET-UP, TEAR DOWN \_\_\_\_\_  
MIXING MUD \_\_\_\_\_

CEMENTING 6  
EQUIP. REPAIR \_\_\_\_\_  
STAND-BY OR SURVEY \_\_\_\_\_  
WATER DELAY \_\_\_\_\_  
WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Wash down to bottom cement casing

DRILLER Al Hehr HELPER Tony  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-12-75  
SHIFT DAY \_\_\_\_\_ SWING ✓ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT 832  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD 4 Mud 2  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 4 loads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING Time 10  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ 10 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) haul core pipe, run core pipe in, haul water & fill pits.

DRILLER John Bergstedt HELPER Dove  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

YLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 3-13-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 879  
DEPTH, START OF SHIFT 832  
DRILLED 47  
CORE RECOVERED 47  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS 6

MUD #2 - 15 SACKS  
DRY CLOSE - 1 SACK  
TYPE \_\_\_\_\_  
DISPENSE - 1 SACK  
CAL SEAL \_\_\_\_\_  
PETRO SEAL - 5 SACKS  
LUMINITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER - 5 LOADS

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 7 \_\_\_\_\_  
REAMING \_\_\_\_\_  
CASING \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_  
MIXING MUD \_\_\_\_\_  
CEMENTING 3 \_\_\_\_\_  
EQUIP. REPAIR \_\_\_\_\_  
STAND-BY OR SURVEY \_\_\_\_\_  
WATER DELAY \_\_\_\_\_  
WASHING OR CLEANING 10 \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Drill out Plug + Cement

DRILLER Al Hehn HELPER John

MACHINE NO. 7 FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEL DATE 3-28-75  
SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 10 mud #2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 1 PETRO SEAL  
DEPTH, END OF SHIFT 1009 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 978 LUMNITE \_\_\_\_\_  
DRILLED 31 PORTLAND \_\_\_\_\_  
CORE RECOVERED 31 ADDITIVES 5 gal RodhubE  
TYPE OF ROCK muddy + Hard WATER 3 loads  
NUMBER OF RUNS 6

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 9 \_\_\_\_\_ Loss circulation 2  
CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ 12 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 1 \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Pumped two plugs  
down for circulation still getting, only  
about 50% return

DRILLER Alves HELPER Tom + Jerry  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-28-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT 1062  
STICKUP, END OF SHIFT 16  
DEPTH, END OF SHIFT 1039  
DEPTH, START OF SHIFT 1009  
DRILLED 30  
CORE RECOVERED 30  
TYPE OF ROCK hard & muddy  
NUMBER OF RUNS 4

MUD 75% mud #2  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMINITE 15K Kwik Seal  
PORTLAND 5% Seal Rod Lub  
ADDITIVES 15K DRISCOSE  
WATER 3 Loads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 9 CEMENTING 2 *Loss circulation*  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 1 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Not getting any return back, pumped down Petro seal and Kwik seal.

DRILLER Foster HELPER Gates Jr.  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

# BOYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-612 LOC. ESSEX DATE 3-29-75  
 SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
 STICKUP, END OF SHIFT \_\_\_\_\_  
 DEPTH, END OF SHIFT 1059  
 DEPTH, START OF SHIFT 1039  
 DRILLED 20  
 CORE RECOVERED 20  
 TYPE OF ROCK hard + Broken  
 NUMBER OF RUNS 4

MUD 18 mud #2  
 TYPE 1 Deytuid  
 CAL-SEAL 1 misc  
 LUMNITE 1 Dupont  
 PORTLAND \_\_\_\_\_  
 ADDITIVES 5 gal Modcrete  
 WATER 4 loads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

DRILLING 8 \_\_\_\_\_ Loss circulation  
 CEMENTING 2 \_\_\_\_\_  
 REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
 CASING \_\_\_\_\_ (12) STAND-BY OR SURVEY \_\_\_\_\_  
 SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
 MIXING MUD 2 \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

### BITS AND SHELLS

BIT NO. 4519933 SIZE & TYPE NX OVERSIZE ✓ ON 950 OFF 1059  
4505633 NX ✓ 1059  
 SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Pumped down plugs for circulation. still only 50% return  
Mistake round-tipped rods.

DRILLER Oliver HELPER Tom + Jerry  
 MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-612 LOC. ESSEX DATE 3-29-75  
SHIFT DAY \_\_\_\_\_ SWING L NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT 1122  
STICKUP, END OF SHIFT 20  
DEPTH, END OF SHIFT 1095  
DEPTH, START OF SHIFT 1059  
DRILLED 36  
CORE RECOVERED 36  
TYPE OF ROCK Hard  
NUMBER OF RUNS 5

MUD 75k mud #2  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES 10k D. DISC  
WATER 2 Loads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 10 12 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) start

started rods out of hole.  
Tube sampler in.

DRILLER Foster HELPER Cates Jr.  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-702 LOC Sa' Essep DATE 3-4-75  
SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 32

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 20 \_\_\_\_\_  
DEPTH, START OF SHIFT 0 \_\_\_\_\_  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK B4 Hal  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE 1 air quik  
CAL-SEAL 1 B4 pengrub  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 1 load

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 3  
REAMING \_\_\_\_\_  
CASING \_\_\_\_\_  
SET-UP, TEAR DOWN 6  
MIXING MUD \_\_\_\_\_

CEMENTING \_\_\_\_\_  
EQUIP. REPAIR \_\_\_\_\_  
STAND-BY OR SURVEY \_\_\_\_\_  
WATER DELAY \_\_\_\_\_  
WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) rig up + move rig + pipe in

DRILLER John Al Kew  
HELPER Dave + Tony

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

# WYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-712 LOC. Cassidy DATE 3-5-75  
SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-32

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 70  
DEPTH, START OF SHIFT 28  
DRILLED 50  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK Hammer  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE 1 air slick  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND 8 portland  
ADDITIVES 1 casting plaster  
WATER \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

DRILLING 6 \_\_\_\_\_ CEMENTING Casing + 4 \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ 10 \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) set surface  
+ Cement casing + cement case

DRILLER Al Hehr HELPER Tony

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

YLES BROS. DRILLING COMPANY

SHIFT REPORT

JOB 6-712 LOC. <sup>ESSEX</sup> SAFFORD DATE 3-5-74

SHIFT DAY \_\_\_\_\_ SWING ✓ NITE \_\_\_\_\_ HOLE NO. E5-32

RODS, END OF SHIFT \_\_\_\_\_

MUD \_\_\_\_\_

STICKUP, END OF SHIFT \_\_\_\_\_

TYPE \_\_\_\_\_

DEPTH, END OF SHIFT 135

CAL-SEAL \_\_\_\_\_

DEPTH, START OF SHIFT 70

LUBRICANT \_\_\_\_\_

DRILLED 65

PORTLAND -16 SACKS

CORE RECOVERED \_\_\_\_\_

ADDITIVES -4 CASTING PLASTER

TYPE OF ROCK HAMMER

WATER -1 LOAD

NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_

FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_

CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6

CEMENTING 4

REAMING \_\_\_\_\_

EQUIP. REPAIR \_\_\_\_\_

CASING \_\_\_\_\_

STAND-BY OR SURVEY \_\_\_\_\_

SET-UP, TEAR DOWN \_\_\_\_\_

WATER DELAY \_\_\_\_\_

MIXING MUD \_\_\_\_\_ 10 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) cement core at 90 ft. & at 125 ft. hole caving at 135 ft.

DRILLER John Borgstrom HELPER Dove Carpenter

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

LYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-710 LOC. Essey DATE 3-6-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 290  
DEPTH, START OF SHIFT 135  
DRILLED 155  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK Hammer  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE 5 gal. air gum  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND 15 portland cement  
ADDITIVES 2 castings plastic  
WATER 1 load

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 CEMENTING 4  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ 10 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Cement Cave

DRILLER Al Hehr HELPER Tony

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

YLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-6-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 395  
DEPTH, START OF SHIFT 290  
DRILLED 105  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK Hammer  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND 1 Brl. Longmaid  
ADDITIVES 2 SACKS TOS  
WATER 1 LOAD

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 10 \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ 10 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) pretty hard stuff  
in this hole.

DRILLER John Bergstedt HELPER Dave  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

LYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-702 LOC. Essex DATE 3-7-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE 5 gal Foam  
DEPTH, END OF SHIFT 515 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 395 LUMNITE \_\_\_\_\_  
DRILLED 120 PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK Hammer WATER \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR 3  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ 9 WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Go through Compressor  
Value Ok. then

DRILLER Al Hehn HELPER Tony  
MACHINE NO. 3526 FOREMAN \_\_\_\_\_  
7

YLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6712 LOC. Essex DATE 3-8-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT 620  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD 24 SA mud 2  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 4 loads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
Haul water 4 \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_  
MIXING MUD \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Haul water mud seal up pit + fill one pit

DRILLER Al Hew John HELPER Tony  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essit DATE 4-7-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES35

RODS, END OF SHIFT 1222  
STICKUP, END OF SHIFT 10  
DEPTH, END OF SHIFT 1203  
DEPTH, START OF SHIFT 1175  
DRILLED 30  
CORE RECOVERED 30  
TYPE OF ROCK Hard  
NUMBER OF RUNS 3

MUD 10 mud #2  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND 1 Dispersed  
ADDITIVES 1 Red Lub  
WATER 3 Loads

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 8 CEMENTING \_\_\_\_\_  
REAMING 10 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN Lost Circulation WATER DELAY \_\_\_\_\_  
MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Lost Circulation  
Paper

DRILLER Lisher HELPER Johnson  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 4-7-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 1262  
DEPTH, START OF SHIFT 1205  
DRILLED 57  
CORE RECOVERED 57  
TYPE OF ROCK Hard  
NUMBER OF RUNS 6

MUD 10 sks mud #2  
TYPE 1 Driscoll  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 3 loads

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 9 \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ 10 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 1 \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) 75% return  
end of shift.

DRILLER Alves HELPER Sates  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. \_\_\_\_\_ DATE 4-6-75  
SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. 85-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_ LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING LOST CIR.  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) PUMPING LOST  
CIR MATERIAL ONE SQUEEZE

DRILLER BARRY HELPER FOSTER  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-4-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 1 mud #2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 1175 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 1145 LUMNITE \_\_\_\_\_  
DRILLED 30 PORTLAND \_\_\_\_\_  
CORE RECOVERED 30 ADDITIVES \_\_\_\_\_  
TYPE OF ROCK Hard WATER 2 loads  
NUMBER OF RUNS 3

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 CEMENTING Less circulation  
REAMING 8 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 1 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_

Milage on water truck  
104291  
75% return

DRILLER Alves HELPER Tom  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 4-3-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD 5 mud #2  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 1145 CAL-SEAL 1 Oniase  
DEPTH, START OF SHIFT 1114 LUMNITE 1 Kwik seal  
DRILLED 31 PORTLAND 1 Petro Seal  
CORE RECOVERED 31 ADDITIVES 1 legal rod tube  
TYPE OF ROCK Hard + Broken WATER 3 loads  
NUMBER OF RUNS 4

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 Log Circulation  
CEMENTING 2  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Cave @ 1141  
75% return end of shift

DRILLER Alves HELPER Tom  
MACHINE NO. 867 FOREMAN \_\_\_\_\_

# BOYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-712 LOC. Essex DATE 4-15-75  
 SHIFT DAY W SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. 8535

RODS, END OF SHIFT \_\_\_\_\_  
 STICKUP, END OF SHIFT 1389  
 DEPTH, END OF SHIFT 1386  
 DEPTH, START OF SHIFT 2  
 DRILLED 2  
 CORE RECOVERED 2  
 TYPE OF ROCK Hard  
 NUMBER OF RUNS 1

MUD \_\_\_\_\_  
 TYPE \_\_\_\_\_  
 CAL-SEAL \_\_\_\_\_  
 LUMNITE \_\_\_\_\_  
 PORTLAND \_\_\_\_\_  
 ADDITIVES \_\_\_\_\_  
 WATER \_\_\_\_\_

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

DRILLING 6 CEMENTING 40  
 REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
 CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
 SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
 MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Wank rods through plug that was put down for 1/2 pull + lay down rods

DRILLER Fisher HELPER Steve + John  
 MACHINE NO. 867 FOREMAN \_\_\_\_\_  
 7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 4-15-75  
SHIFT DAY \_\_\_\_\_ SWING V NITE \_\_\_\_\_ HOLE NO. ES-55

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ 10 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER Oliver HELPER Lutes

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-14-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE: 2 Benite  
DEPTH, END OF SHIFT \_\_\_\_\_ \$2 CAL-SEAL 1 ZEOGEL  
DEPTH, START OF SHIFT \_\_\_\_\_ 7u LUMNITE 2 1/2 CORK SEAL  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 1 loads  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED 93 FROM 1283 TO 1376

TIME CHARGES

DRILLING \_\_\_\_\_ Drilling  
CEMENTING 10  
REAMING \_\_\_\_\_ 10 EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Quick seal  
plug in bottom of hole, couldn't  
hear tube hit pulled back to  
see if anything was in rods

DRILLER Oliver HELPER Harris  
MACHINE NO. 667 FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 4-14-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 4 Leads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
Washed +  
CEMENT DRILLED 367 FROM 916 TO 1283

TIME CHARGES Drilling out

DRILLING \_\_\_\_\_ CEMENTING 10  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER Lisher HELPER Johnson + John  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB \_\_\_\_\_ LOC. \_\_\_\_\_ DATE 4-12-85  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. E535

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_ LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND 15  
CORE RECOVERED \_\_\_\_\_ ADDITIVES 1 Lime  
TYPE OF ROCK \_\_\_\_\_ WATER \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES 8

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) CEMENTED FOR  
WATER LOSS

DRILLER Barny HELPER Barny's  
MACHINE NO. \_\_\_\_\_ FOREMAN TRUCK DRIVER  
7

BOULES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-1712 LOC. 8 ESSEX DATE 4-11-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. E3-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND 1 sk \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_  
REAMING \_\_\_\_\_  
CASING \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_  
MIXING MUD \_\_\_\_\_  
CEMENTING Less circulation \_\_\_\_\_  
EQUIP. REPAIR \_\_\_\_\_  
STAND-BY OR SURVEY \_\_\_\_\_  
WATER DELAY \_\_\_\_\_  
WASHING OR CLEANING \_\_\_\_\_

8

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER Alves HELPER Lates

MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-7121 LOC. Essex DATE 4-11-75  
SHIFT DAY 5 SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 1386  
DEPTH, START OF SHIFT 1363  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD 20 Kwik Thick  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES 1 lb m E  
WATER 3 Leads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 8 \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Drilling blind

DRILLER Lisher \_\_\_\_\_ HELPER Johnson John \_\_\_\_\_  
MACHINE NO. 867 \_\_\_\_\_ FOREMAN \_\_\_\_\_

BOLLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-10-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 1363  
DEPTH, START OF SHIFT 1335  
DRILLED 28  
CORE RECOVERED 28  
TYPE OF ROCK Hard Broken  
NUMBER OF RUNS 5

MUD \_\_\_\_\_  
TYPE 1 C.M.C.  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 4 loads

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 7 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ 10 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 3 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. 4505633 SIZE & TYPE NK OVERSIZE  ON 1059 OFF 1335  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Ran rods back in hole

DRILLER Oliver HELPER Lates  
MACHINE NO. 067 FOREMAN \_\_\_\_\_  
7

BOULES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 4-10-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 1335  
DEPTH, START OF SHIFT 1325  
DRILLED 10  
CORE RECOVERED 10  
TYPE OF ROCK Hard  
NUMBER OF RUNS 1

MUD 4 mud #2  
TYPE 1 mud #10  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND 2 Rod Lube  
ADDITIVES 1 RML  
WATER 2

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 4 CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD Last Circulation 6 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Inject cement side  
roads.

DRILLER Fisher HELPER Johnson John  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

# BOYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-9-75  
 SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
 STICKUP, END OF SHIFT \_\_\_\_\_  
 DEPTH, END OF SHIFT \_\_\_\_\_  
 DEPTH, START OF SHIFT 1327  
 DRILLED \_\_\_\_\_  
 CORE RECOVERED \_\_\_\_\_  
 TYPE OF ROCK \_\_\_\_\_  
 NUMBER OF RUNS \_\_\_\_\_

MUD 35 sbs kwik thick  
 TYPE 1 mud #11  
 CAL-SEAL \_\_\_\_\_  
 LUMNITE 1 Petro Seal  
 PORTLAND 1 Kwik Seal  
 ADDITIVES 5cpl Rod Lub  
 WATER 3 loads

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

DRILLING \_\_\_\_\_ <sup>lost 2nd cuttings</sup>  
 GEMENTING 9  
 REAMING \_\_\_\_\_ 10 EQUIP. REPAIR 1  
 CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
 SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
 MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Bole lines on  
near 351. Could not get returning  
back. Rod vibrating bad - fluid going  
out bottom of hole

DRILLER Olves HELPER Lates  
 MACHINE NO. 867 FOREMAN \_\_\_\_\_  
 7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-702 LOC. ESSEX DATE 4-9-75  
SHIFT DAY ✓ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD 12 mud # 2  
TYPE \_\_\_\_\_  
CAL-SEAL 2 quick seal  
LUMNITE 2 Petro seal  
PORTLAND 1 Rod Lube  
ADDITIVES 2 Ignigason  
WATER 3 Leads

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD Lost Circulation WASHING OR CLEANING \_\_\_\_\_

10

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Put down 240  
gals lost circulation mat

DRILLER Fisher HELPER Johnson  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. Essex DATE 4-8-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES 35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 1292  
DEPTH, START OF SHIFT 1263  
DRILLED 30  
CORE RECOVERED 30  
TYPE OF ROCK Hard  
NUMBER OF RUNS 3

MUD 5 mud #2  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 4 Loads

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 7 \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ (10) \_\_\_\_\_ EQUIP. REPAIR To start engs  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 2 \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Bad time to start engs. 1 hr High pressure start of shift mud to thick

DRILLER Fisher HELPER Johnson  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

POYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-8-75  
SHIFT DAY \_\_\_\_\_ SWING L NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 1325  
DEPTH, START OF SHIFT 1292  
DRILLED 33  
CORE RECOVERED 33  
TYPE OF ROCK Hard & Broken  
NUMBER OF RUNS 4

MUD 13 mud #2  
TYPE 1 Discase  
CAL-SEAL 1 Patco Seal  
LUMNITE 1 K-wil Seal  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 3 loads

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 6 Lost circulation  
CEMENTING 4  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING 10 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Lost all return @ 1320 - got back about 75%

DRILLER Alves HELPER Lates  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

# BOYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-612 LOC. ESSEX DATE 4-3-75  
 SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. 163

RODS, END OF SHIFT 1142  
 STICKUP, END OF SHIFT 24  
 DEPTH, END OF SHIFT 1114  
 DEPTH, START OF SHIFT 1103  
 DRILLED 11  
 CORE RECOVERED 11  
 TYPE OF ROCK HARD  
 NUMBER OF RUNS 3

MUD 10 SK mud #2  
 TYPE \_\_\_\_\_  
 CAL-SEAL \_\_\_\_\_  
 LUMNITE \_\_\_\_\_  
 PORTLAND \_\_\_\_\_  
 ADDITIVES 15K Dextrid  
 WATER 5 LOADS

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

DRILLING 4 10 Loss circulation  
 REAMING \_\_\_\_\_ CEMENTING 4 hrs  
 CASING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
 SET-UP, TEAR DOWN \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
 MIXING MUD 2 WATER DELAY \_\_\_\_\_  
 WASHING OR CLEANING \_\_\_\_\_

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Dumped down  
Dicks mud seal 3/4 SACK still NO RETURN  
Lost circulation AT 1108

DRILLER Foster HELPER Nelson  
 MACHINE NO. 867 FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-2-75  
SHIFT DAY \_\_\_\_\_ SWING ✓ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT 1109  
DEPTH, START OF SHIFT 1096  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK Hard  
NUMBER OF RUNS 1

MUD 10 mud #2  
TYPE \_\_\_\_\_  
CAL-SEAL 1 Dussose  
LUMNITE 1 Duxtral  
PORTLAND 1 CAUSTIC Soda  
ADDITIVES 5 gal Red lube  
WATER 3 loads

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 4 OTHER CEMENTING 4 (No pay)  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Tried to clear sump out but couldn't get bottom clear broke unseller on loading pump - sump pump don't work ran rods in and flushed hole Mickey Mouse Equip!

DRILLER Alves HELPER Jim  
MACHINE NO. 867 FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-612 LOC. ESSEX DATE 4-2-75  
SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_ MUD \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_ TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_ CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_ LUMNITE \_\_\_\_\_  
DRILLED \_\_\_\_\_ PORTLAND \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_ ADDITIVES \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_ WATER 1 Load  
NUMBER OF RUNS \_\_\_\_\_

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED 60 FROM 1036 TO 1096

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING Drilling cement  
REAMING \_\_\_\_\_ CEMENTING out 6 hrs  
CASING \_\_\_\_\_ (48) EQUIP. REPAIR \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Pulled Rods  
out to take Rock Bit off and  
put diamond Bit on. start BACKIN

DRILLER Foster HELPER Gates Jr  
MACHINE NO. 867 FOREMAN Nelson - Waterhauler

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-713 LOC. Essex DATE 4-1-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 2 loads

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
was 160  
CEMENT DRILLED 160 FROM 876 TO 1036

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING 12  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ 12 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLER Alves HELPER Stacy  
MACHINE NO. 867 FOREMAN \_\_\_\_\_  
7

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 4-1-75  
SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. Es-85

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD 2sk mud #2  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER 1 load

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING 3 hrs (10) CEMENTING waiting on cement to set, 3 hrs  
REAMING \_\_\_\_\_ EQUIP. REPAIR other 4 hrs  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 1 WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition)

waited on cement to setup. Pulled rods out to put Rock bit on. RAN rods back in. Moved equip. from old location to stock pile.

DRILLER Foster HELPER Gary J.R.  
MACHINE NO. 867 FOREMAN Nelson - water hauler

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-612 LOC. Essex DATE 3-31-75  
SHIFT DAY \_\_\_\_\_ SWING  NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_



MUD \_\_\_\_\_  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE 1 sk Dowflake  
PORTLAND 10 sks  
ADDITIVES 1 sk lime  
WATER \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING 8  
REAMING \_\_\_\_\_ EQUIP. REPAIR 8  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Finished running rods in for cementing. Pulled back and cleared rods out @ 830 ft

DRILLER Alves HELPER Tom Berry-Berry  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

# BOYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-612 LOC. ESSEX DATE 3-31-75  
 SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

|                                   |                     |
|-----------------------------------|---------------------|
| RODS, END OF SHIFT _____          | MUD _____           |
| STICKUP, END OF SHIFT _____       | TYPE _____          |
| DEPTH, END OF SHIFT <u>1096</u>   | CAL-SEAL _____      |
| DEPTH, START OF SHIFT <u>1095</u> | LUMNITE _____       |
| DRILLED <u><del>1095</del> 1</u>  | PORTLAND _____      |
| CORE RECOVERED _____              | ADDITIVES _____     |
| TYPE OF ROCK <u>HARD</u>          | WATER <u>1 LOAD</u> |
| NUMBER OF RUNS <u>1</u>           |                     |

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

|                         |                                                |
|-------------------------|------------------------------------------------|
|                         | <b>TIME CHARGES</b>                            |
| DRILLING <u>7</u>       | <u>(10)</u> CEMENTING <u>Circulation 3 hrs</u> |
| REAMING _____           | EQUIP. REPAIR _____                            |
| CASING _____            | STAND-BY OR SURVEY _____                       |
| SET-UP, TEAR DOWN _____ | WATER DELAY _____                              |
| MIXING MUD _____        | WASHING OR CLEANING _____                      |

**BITS AND SHELLS**

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Finished pulling rods out, ran back to bottom of hole & sanded in again. Pulled rods, tamped down paper for circulation. Still no returns.

DRILLER Foster HELPER Gates Jr  
 MACHINE NO. 867 FOREMAN Nelson - Water hauler

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712? LOC. Essex DATE 3-26-75  
SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES35

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER \_\_\_\_\_

FEET CASSED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR #  
CASING \_\_\_\_\_ 8 STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN Moving Equip 2 Weather 2 WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Waiting on manifolds to be fixed, moved over some 100' traps & supply pump.  
High winds & snow

DRILLER Adrian HELPER Looney  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

BOYLES BROS. DRILLING COMPANY  
SHIFT REPORT

JOB 6-712 LOC. 5002X DATE 3-26-75  
SHIFT DAY \_\_\_\_\_ SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. 1135

RODS, END OF SHIFT \_\_\_\_\_  
STICKUP, END OF SHIFT \_\_\_\_\_  
DEPTH, END OF SHIFT \_\_\_\_\_  
DEPTH, START OF SHIFT \_\_\_\_\_  
DRILLED \_\_\_\_\_  
CORE RECOVERED \_\_\_\_\_  
TYPE OF ROCK \_\_\_\_\_  
NUMBER OF RUNS \_\_\_\_\_

MUD \_\_\_\_\_  
TYPE \_\_\_\_\_  
CAL-SEAL \_\_\_\_\_  
LUMNITE \_\_\_\_\_  
PORTLAND \_\_\_\_\_  
ADDITIVES \_\_\_\_\_  
WATER \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

TIME CHARGES

DRILLING \_\_\_\_\_ CEMENTING \_\_\_\_\_  
REAMING \_\_\_\_\_ EQUIP. REPAIR \_\_\_\_\_  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR-DOWN MOVING EQUIP 4 \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) MOVING EQUIP FROM OLD LOCATION TO NEW ONE

DRILLER Foster HELPER Nelson + Curtis  
MACHINE NO. \_\_\_\_\_ FOREMAN \_\_\_\_\_

# BOYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-712 LOC. Essex DATE 3-27-75  
 SHIFT DAY  SWING \_\_\_\_\_ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT \_\_\_\_\_  
 STICKUP, END OF SHIFT \_\_\_\_\_  
 DEPTH, END OF SHIFT \_\_\_\_\_  
 DEPTH, START OF SHIFT 950  
 DRILLED 5  
 CORE RECOVERED 5  
 TYPE OF ROCK hard  
 NUMBER OF RUNS 1

MUD \_\_\_\_\_  
 TYPE \_\_\_\_\_  
 CAL-SEAL \_\_\_\_\_  
 LUMNITE \_\_\_\_\_  
 PORTLAND \_\_\_\_\_  
 ADDITIVES \_\_\_\_\_  
 WATER \_\_\_\_\_

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
 CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

DRILLING 2 CEMENTING \_\_\_\_\_  
 REAMING \_\_\_\_\_ 9 EQUIP. REPAIR 2  
 CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
 SET-UP, TEAR-DOWN 4 WATER DELAY \_\_\_\_\_  
 MIXING MUD \_\_\_\_\_ WASHING OR CLEANING \_\_\_\_\_

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition)

Rised tower and finished setting up. Had time starting drill motor + supply pump. Ran rods to bottom.

DRILLER alves HELPER Gene  
 MACHINE NO. 867 FOREMAN \_\_\_\_\_

# BOYLES BROS. DRILLING COMPANY

## SHIFT REPORT

JOB 6-712 LOC. ESSEX DATE 3-27-75  
SHIFT DAY \_\_\_\_\_ SWING ✓ NITE \_\_\_\_\_ HOLE NO. ES-35

RODS, END OF SHIFT 1002 MUD 3 sk mud #2  
STICKUP, END OF SHIFT 17 TYPE \_\_\_\_\_  
DEPTH, END OF SHIFT 978 CAL-SEAL \_\_\_\_\_  
DEPTH, START OF SHIFT 955 LUMNITE \_\_\_\_\_  
DRILLED 23 PORTLAND \_\_\_\_\_  
CORE RECOVERED 23 ADDITIVES 5 gal Red Lube  
TYPE OF ROCK hard & Broken WATER 2 LOAD  
NUMBER OF RUNS 4

FEET CASED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
FEET REAMED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_ SIZE \_\_\_\_\_  
CEMENT DRILLED \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_

### TIME CHARGES

DRILLING 6 CEMENTING 10  
REAMING \_\_\_\_\_ EQUIP. REPAIR 2  
CASING \_\_\_\_\_ STAND-BY OR SURVEY \_\_\_\_\_  
SET-UP, TEAR DOWN \_\_\_\_\_ WATER DELAY \_\_\_\_\_  
MIXING MUD 2 WASHING OR CLEANING \_\_\_\_\_

### BITS AND SHELLS

BIT NO. \_\_\_\_\_ SIZE & TYPE \_\_\_\_\_ OVERSIZE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
SHELL NO. \_\_\_\_\_ TYPE \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
BIT CONDITION \_\_\_\_\_ REASON FOR RETIRING \_\_\_\_\_

REMARKS (Explain delays and hole condition) Cleaned Hydr. oil filter. Repaired light plant. Put 15 gal Hydr oil in Rig.

DRILLER Foster HELPER Gates Jr.  
MACHINE NO. 7 FOREMAN Nelson - Waterbury