



BOTTOM HOLE ASSURANCE, INC.

NDE Inspection Services

No. IR 42624TT-3

Email: BHAInc@bottomholeassurance.com
107 Citron Drive • Youngsville, LA 70592

Office: (337) 857-8994 Fax: (337) 857-8964
Bottomholeassurance.com

Table with columns: CUSTOMER (HALLIBURTON ICC), 3rd PARTY, FACILITY / LOCATION (TEST TOOLS), AUTHORIZED BY (BOBBY CHOATE), INVOICE NO., RIG, OCS-G & WELL NO., PROJECT IN HOUSE, P.O. NO. / JOB NO. (1017510022), DATE (4/26/2024). Main table with 40 rows of SERIAL NO., DESCRIPTION, PIN, BOX, I.D., O.D., LENGTH.

SUMMARY: FULL BODY INSP. BSM-GOM-HAL-TT-201 REV. 6

Table with columns: Batch # Info., Connection Inspection, Body Inspection, Body Dry M.P.I. Includes checkboxes for Wet Flour, Residual, Long. Insp., AC Current, DC Current, Trans. Insp., Visible M.P.I.

System Effectiveness: LP-Comparative Block, Dry MP-Castrol Strip, Wet MP-Castrol Strip. Blacklight Inspection: 3641, 0.25, 0.1. Equipment / Inspector Information: Unit # 13, Date 2/16/2023, Inspector BRONZE POIRIER. Signature: Bronze Poirier. Customer Rep Signoff.



**BOTTOM HOLE ASSURANCE, INC.**

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| CUSTOMER<br>HALLIBURTON ICC |                 | 3rd PARTY<br><input type="checkbox"/> | FACILITY / LOCATION<br>TEST TOOLS | AUTHORIZED BY<br>BOBBY CHOATE |                                  | INVOICE NO.       |        |  |
|-----------------------------|-----------------|---------------------------------------|-----------------------------------|-------------------------------|----------------------------------|-------------------|--------|--|
| RIG                         |                 | OCS-G & WELL NO.                      |                                   | PROJECT<br>IN HOUSE           | P.O. NO. / JOB NO.<br>1017510022 | DATE<br>4/26/2024 |        |  |
| SERIAL NO.                  | DESCRIPTION     |                                       | PIN                               | BOX                           | I.D.                             | O.D.              | LENGTH |  |
| 1                           | EQ# 10255192    | 7 3/4" CHAMP IV PACKER                |                                   |                               |                                  |                   |        |  |
| 2                           | 4610867-11,12   | MECHANICAL SLIPS(6) - ACC             |                                   |                               |                                  |                   |        |  |
| 3                           | AN1873652       | SAP# 100012556                        |                                   |                               |                                  |                   |        |  |
| 4                           | 4429768-1,2,3,4 | DRAG BLOCKS(4) - ACC                  |                                   |                               |                                  |                   |        |  |
| 5                           |                 | SAP# 100012574                        |                                   |                               |                                  |                   |        |  |
| 6                           |                 |                                       |                                   |                               |                                  |                   |        |  |
| 7                           |                 |                                       |                                   |                               |                                  |                   |        |  |
| 8                           |                 |                                       |                                   |                               |                                  |                   |        |  |
| 9                           |                 |                                       |                                   |                               |                                  |                   |        |  |
| 10                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 11                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 12                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 13                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 14                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 15                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 16                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 17                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 18                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 19                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 20                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 21                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 22                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 23                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 24                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 25                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 26                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 27                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 28                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 29                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 30                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 31                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 32                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 33                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 34                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 35                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 36                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 37                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 38                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 39                          |                 |                                       |                                   |                               |                                  |                   |        |  |
| 40                          |                 |                                       |                                   |                               |                                  |                   |        |  |

SUMMARY: FULL BODY INSP. BSM-GOM-HAL-TT-201 REV. 6

| Batch # Info.  | Connection Inspection                                 |  | Body Inspection                                       |  |                                       | Body Dry M.P.I                      |  |  |
|----------------|---|--|---|--|---------------------------------------|-------------------------------------|--|--|
| 20-B 23K007    | Wet Flour. M.P.I. <input checked="" type="checkbox"/> | Dry M.P.I. <input type="checkbox"/>            | Wet Flour. M.P.I. <input checked="" type="checkbox"/> | Residual <input type="checkbox"/>              | Dry M.P.I. <input type="checkbox"/>   | Residual <input type="checkbox"/>   |  |  |
| Dry Powder     | Vis. Liq. Pen. <input type="checkbox"/>               | Residual <input type="checkbox"/>              | Vis. Liq. Pen. <input type="checkbox"/>               | Continuous <input checked="" type="checkbox"/> | Long. Insp. <input type="checkbox"/>  | Continuous <input type="checkbox"/> |  |  |
| 7-HF           | Flour Liq. Pen. <input type="checkbox"/>              | Continuous <input checked="" type="checkbox"/> | Flour Liq. Pen. <input type="checkbox"/>              | AC Current <input type="checkbox"/>            | Trans. Insp. <input type="checkbox"/> | AC Current <input type="checkbox"/> |  |  |
| White Contrast | Long. Insp. <input checked="" type="checkbox"/>       | AC Current <input type="checkbox"/>            | Long. Insp. <input checked="" type="checkbox"/>       | DC Current <input checked="" type="checkbox"/> |                                       | DC Current <input type="checkbox"/> |  |  |
| 14-A           | Trans. Insp. <input checked="" type="checkbox"/>      | DC Current <input checked="" type="checkbox"/> | Trans. Insp. <input checked="" type="checkbox"/>      | Visible M.P.I. <input type="checkbox"/>        |                                       |                                     |  |  |

System Effectiveness: LP-Comparative Block  Dry MP-Castrol Strip  Wet MP-Castrol Strip

| Blacklight Inspection   | Equipment / Inspector Information  |
|---|--|
| Blacklight Intensity: <u>3360</u> Bath Mixture: <u>0.25</u> Whitelight: <u>0.1</u>  | Equipment Used From Unit # <u>13</u><br>Qual. Date(s) MT <u>2/16/2023</u> PT <u>8/9/2023</u>   |
| <b>Liquid Penetrant Inspection</b><br>Whitelight: _____<br>Magnaflux Developer: SKD-S2 Magnaflux Penetrant: <input type="checkbox"/> SKL-WP2 <input type="checkbox"/> ZL-60D<br>(Check one)<br>Batch # _____ Batch # _____<br>Dwell Time: _____ min Dwell Time: _____ min | 3rd Party Rep: _____<br>Signature: _____<br>Level II Inspector: BRONZE POIRIER<br>Signature: <u>Bobby Poirier</u><br><small>Signature guarantees final walk thru of job and job site</small> |
| <b>Job Information</b><br>B <u>BP</u> V <u>BP</u> D _____ P <u>BP</u>   | Customer Rep Signoff: _____  |

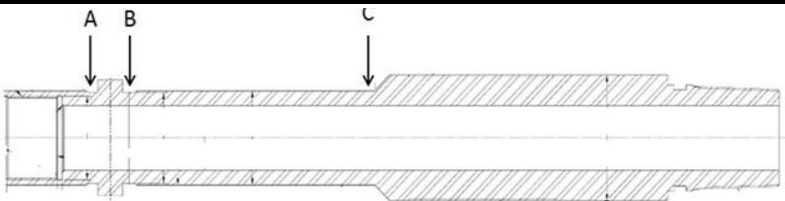


# MAINTENANCE CHECK SHEETS - Page 1 of 1

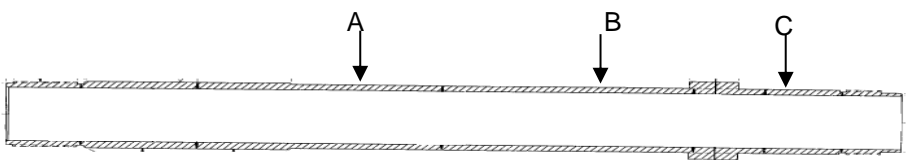
SAP#

Tool ID Number:

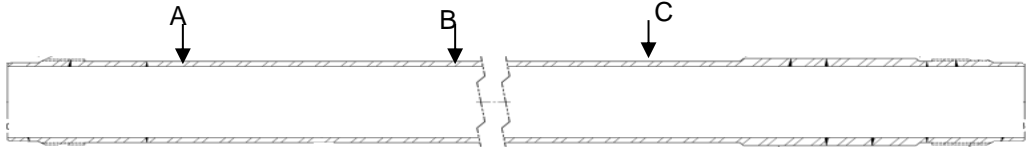
## ULTRASONIC THICKNESS MEASUREMENT LOG SHEET

|  |  |
|--|--|
| Lug Mandrel<br>102018706<br><b>Nominal ID: 2.44"</b> |  |
|--|--|

|                        |      |              |      |              |      |             |
|------------------------|------|--------------|------|--------------|------|-------------|
| Thickness Measurements | A1:  | 0.511        | B1:  | 0.512        | C1:  | 0.68        |
|                        | A2:  | 0.512        | B2:  | 0.513        | C2:  | 0.65        |
|                        | A3:  | 0.513        | B3:  | 0.512        | C3:  | 0.65        |
|                        | A4:  | 0.511        | B4:  | 0.512        | C4:  | 0.68        |
|                        | Min: | <b>0.490</b> | Min: | <b>0.490</b> | Min: | <b>0.54</b> |

|  |  |
|--|--|
| Splined Mandrel<br>100004100<br><b>Nominal ID: 2.37"</b> |  |
|--|--|

|                        |      |              |      |              |      |              |
|------------------------|------|--------------|------|--------------|------|--------------|
| Thickness Measurements | A1:  | 0.255        | B1:  | 0.257        | C1:  | 0.258        |
|                        | A2:  | 0.254        | B2:  | 0.255        | C2:  | 0.258        |
|                        | A3:  | 0.257        | B3:  | 0.254        | C3:  | 0.257        |
|                        | A4:  | 0.255        | B4:  | 0.256        | C4:  | 0.256        |
|                        | Min: | <b>0.245</b> | Min: | <b>0.245</b> | Min: | <b>0.245</b> |

|   |  |
|---|--|
| Bypass Mandrel<br>100004116<br><b>Nominal ID: 2.37"</b> |  |
|---|--|

|                        |      |              |      |              |      |              |
|------------------------|------|--------------|------|--------------|------|--------------|
| Thickness Measurements | A1:  | 0.221        | B1:  | 0.222        | C1:  | 0.221        |
|                        | A2:  | 0.221        | B2:  | 0.223        | C2:  | 0.221        |
|                        | A3:  | 0.223        | B3:  | 0.223        | C3:  | 0.222        |
|                        | A4:  | 0.222        | B4:  | 0.224        | C4:  | 0.223        |
|                        | Min: | <b>0.205</b> | Min: | <b>0.205</b> | Min: | <b>0.205</b> |

**Instructions for Performing Ultrasonic Wall Thickness Measurements:**

- 1.) Ensure that areas to be tested are free of grit, grease and grime.
- 2.) Prepare Ultrasonic Testing device per manufacturers instructions.
- 3.) Take readings 90° apart at each indicated location ensuring that readings are within +/- .010 of each other.
- 4.) Record measurements above.
- 5.) Components with measurements below the indicated minimum thickness tolerance must be discarded and replaced with new components

|   |                        |
|---|------------------------|
| Test Performed By: <u>Benjamin</u>      | Date: <u>4/26/2024</u> |
| Supervisor Sign Off: <u>[Signature]</u> | Date: <u>4/29/2024</u> |