

| | | LSD: 1 | 2-08-050 | -19W5I | Date: 2013-03-06 | SAP Equi | pment ID 6 | 6182452 | |
|--|---|---------------------------------------|----------|--|--|---|---------------------------------------|----------|------------|
| | | | | VESSEL STAT | IC DATA | | | | |
| Plant: MINEHEAD OP Unit: | | | | OP Unit: | FH01 | | System: | | |
| Prov. Insp . #: 0611191 | | | | CRN: | P7217.231 | | Equip Tag#: | 661 | 82452 |
| quipment Des | scription: 3 | PHASE SEPARATO | OR | | | | Serial #: | 1227 | 79 |
| anufacturer: | RJV | | | | | | Vessel Class: vessel | | |
| nternal Acces | s: No | | | Description: | | | Year Built: 2011 | | 1 |
| AWP: | 10204 | kpa | | At Temp | 38 C | | MDMT: | | С |
| ode: | | | | RT: RT2 | | | PWHT: | No | |
| iameter: 40 | 06 mm L e | ength: 2286 | mm | (T/T): mm | OAL: mm | | Orientation: | Verti | ical |
| SHE | LL Mat'l: | SA-106 B | | Thickness: | 1 mm | | Corr Allowance: | | 2 mm |
| HEA | D Mat'l: | SA-516 70 | | Thickness: | 1 mm | | Corr Allowance: | | 2 mm |
| | Nozzle Mat'l: | 57, 510 70 | | Thickness: | | | Corr Allowance: | | |
| | N- | | | Internal Clad: | No | | Capacity: | | m3 |
| ternal Coatir | ng: No | | | Inspection Port: | No | | Skirt | Legs | Saddle |
| lanway: ozzle Rating: | | lb ANSI | | Painted: | No | | Insulated: | No | Jaudie |
| ozzie Katiliy. | | ID ANSI | | | | | Ilisulateu. | 110 | |
| roduction De | scription | | I | PROCESS D Sweet | Sour: | | | | |
| perating Pres | | kna | | | Sour. | C | | | |
| berating Pres | ssure | kpa | ļ | Operating Temp: | | | | | |
| | | | | PSV STATIC | T T | | | | |
| | _ | Size(r | nm) | Set Press | Capacity Imperial | Manufactu | rer | Model | Last |
| Serial No. | Location | Inlet | Outlet | (1-0-) | SCFM | | | | Service |
| 12392-133 | Shell | 25.40 | 25.40 | 9929 | 5180 SCFM | TAYLOR | | T-8200-1 | 2012/02/09 |
| | | | 1 | NCDECTION CUM | | | | | |
| | | | | NSPECTION SUM | IMARY | | | | |
| | | | | INSPECTION SUM | IMARY | | | | |
| FIT FOR SER | VICE | | | NSPECTION SUM | IMARY | | | | |
| FIT FOR SER | VICE | | | NSPECTION SUM | IMARY | | | | |
| FIT FOR SER | VICE | | | | ENDATIONS | | | | |
| FIT FOR SER | VICE | | | | | | | | |
| FIT FOR SER | VICE | | | | | | | | |
| FIT FOR SER | VICE | | | | | | | | |
| FIT FOR SER | VICE | | | | | | | | |
| FIT FOR SER | VICE | | | | ENDATIONS | DEFICIENCES | · · · · · · · · · · · · · · · · · · · | | |
| FIT FOR SER | VICE | | | RECOMMI | ENDATIONS | DEFICIENCES | | | |
| FIT FOR SER | VICE | | | RECOMMI | ENDATIONS | DEFICIENCES | 3 | | |
| FIT FOR SER | VICE | | | RECOMMI | ENDATIONS | DEFICIENCES | ; | | |
| FIT FOR SER | VICE | | | RECOMMI | ENDATIONS | DEFICIENCES | 3 | | |
| FIT FOR SER | VICE | | | RECOMMI | ENDATIONS 6/INSPECTION | DEFICIENCES | | | |
| | | | NON | RECOMMI CONFORMANCES INSPECTIO | ENDATIONS | | | | |
| FIT FOR SER | tegy | | NON | RECOMMI | ENDATIONS 6/INSPECTION | | ion Interval | | |
| | tegy | 01/21 | NON | RECOMMI CONFORMANCES INSPECTIO | ENDATIONS 6/INSPECTION | Inspect | | | |
| Inspection Strat | tegy | 01/21 | NON | RECOMMI CONFORMANCES INSPECTIO Availability Date of Last Inspect | ENDATIONS 6/INSPECTION ON PLANNING | Inspect | ion Interval | | |
| nspection Strat | tegy | | NON | RECOMMI CONFORMANCES INSPECTIO Availability Date of Last Inspect REPORT CEI | ENDATIONS S/INSPECTION ON PLANNING ENTIFICATION | Inspect Date of | ion Interval · Next Insp | | |
| nspection Stratenspection Date | tegy | spections/tests ha | NON | RECOMMI CONFORMANCES INSPECTIO Availability Date of Last Inspect REPORT CEI completed in accordance | ENDATIONS S/INSPECTION ON PLANNING ENTIFICATION | Inspect Date of | ion Interval · Next Insp | | |
| nspection Strat nspection Date The Signature specified equip | tegy | spections/tests hat for service until | NON | RECOMMI CONFORMANCES INSPECTIO Availability Date of Last Inspect REPORT CEI completed in accordance f next inspection. | ENDATIONS S/INSPECTION ON PLANNING ENTIFICATION | Inspect Date of pection strategy ar | ion Interval Next Insp Indicate the | 2013/01/ | 21 |
| Inspection Strates Inspection Date Inspection Date Inspection Date Inspected by Inspected by | tegy 2013/ S below certify that in oment is considered file | spections/tests hat for service until | NON | RECOMMI CONFORMANCES INSPECTIO Availability Date of Last Inspect REPORT CEI completed in accordance | ENDATIONS S/INSPECTION ON PLANNING ENTIFICATION | Inspect Date of pection strategy ar | ion Interval · Next Insp | 2013/01/ | 21 |
| inspection Stratinspection Date The Signatures specified equip | tegy 2013/ S below certify that in oment is considered file | spections/tests hat for service until | NON | RECOMMI CONFORMANCES INSPECTIO Availability Date of Last Inspect REPORT CEI completed in accordance f next inspection. | ENDATIONS S/INSPECTION ON PLANNING ENTIFICATION | Inspect Date of pection strategy ar | ion Interval Next Insp Indicate the | 2013/01/ | 21 |
| Inspection Strat Inspection Date The Signatures specified equip Inspected by Reviewed and | tegy 2013/ S below certify that in oment is considered file | spections/tests hat for service until | NON | RECOMMI CONFORMANCES INSPECTIO Availability Date of Last Inspect REPORT CEI completed in accordance f next inspection. | ENDATIONS S/INSPECTION ON PLANNING RTIFICATION with the identified ins | Inspect Date of pection strategy ar | ion Interval Next Insp Ind that the | 2013/01/ | 21 |



Husky Energy PRESSURE VESSEL & COLUMN INSPECTION REPORT SAP Equipment ID

Date: 2013-03-06 **SAP Equipment ID** 66182452

DETAILED INSPECTION VISUAL EXTERNAL

| ID | Description | Condition | Location | NCR | Comments |
|-----|---------------------------------------|-----------|----------|-----|---|
| V1 | General Other (Please Explain) | N/A | | | |
| V2 | General Corrosion | Accept | | | NO EXT CORROSION |
| V3 | General Leaks | Accept | | | NO LEAKS/WEEPS |
| V4 | Vibration | N/A | | | |
| V5 | Dissimilar Flange Rating | N/A | | | |
| V6 | Ladder/Stairway | N/A | | | |
| V7 | Heads | Accept | | | PAINT IN GOOD CONDITION, NO DAMAGE |
| V8 | Guy Wires | N/A | | | |
| V9 | Electrical Ground | N/A | | | |
| V10 | Painted Inactive Corrosion | N/A | | | |
| V11 | Coating/Painting | Accept | | | VERY GOOD CONDITION |
| V12 | Expansion Joint or Bellows | N/A | | | |
| V13 | Gauge/Site Glass | Accept | | | CLEAN, NEW CONDITION |
| V14 | Shell | Accept | | | PAINT GOOD, NO DAMAGE |
| V15 | Jacket | N/A | | | |
| V21 | Support Other (Please explain) | N/A | | | |
| V22 | Foundation | N/A | | | |
| V23 | Anchor Bolts | N/A | | | WELDED TO SKID |
| V24 | Saddle/Skirt | Accept | | | NO DAMAGE, PAINT IN GOOD CONDITION |
| V25 | Davit | N/A | | | |
| V26 | Fireproofing | N/A | | | |
| V31 | Connections Other (Please explain) | N/A | | | |
| V32 | Small Branches | Accept | | | THREADED CONNECTIONS FULLY ENGAGED, NO DAMAGE |
| V33 | Nozzles | Accept | | | BOTH THREADED AND FLANGED CONNECTIONS, NO DAMAGE, FULLY ENGAGED, NO SHORT BOLTING |
| V34 | Manways | N/A | | | |
| V35 | Reinforcing Pads | N/A | | | |
| V36 | Inadequate Thread Engagement | N/A | | | FULLY ENGAGED |
| V37 | Bolting | Accept | | | NO SHORT BOLTING |
| V38 | Flanges | Accept | | | NO DAMAGE |
| V39 | Leak Clamps | N/A | | | |
| V41 | Insulation Other (Please explain) | N/A | | | |
| V42 | Damage | Accept | | | NO EXTENERAL DAMAGE |
| V43 | Penetrations | N/A | | | |
| V44 | Insulation Jacket | N/A | | | |
| V45 | Banding | N/A | | | |
| V46 | Seals/Joints | Accept | | | FULLY ENGAGED |
| V51 | Relief Devices Other (Please explain) | N/A | | | |
| V52 | Corrosion | Accept | | | NO EXT CORROSION |
| V53 | Leaks | Accept | | | NO LEAKS/WEEPS |
| V54 | Restricted Inlet/Outlet | N/A | | | |



| . | usky Energy | PRESSU | RE VES | SSEL & CO | LUMN I | NSP | ECTION REPORT | | |
|----------|------------------------|----------------|---------------------------|-----------|------------------|---------|------------------|----------|--|
| | | LSD: 12 | <mark>2-08-050-1</mark> 9 | W5 | Date: 201 | 3-03-06 | SAP Equipment ID | 66182452 | |
| V55 | Manual Operation Lever | N | N/A | | | | | | |

DETAILED INSPECTION OTHER TECHNIQUES

| ID | Location | Observation/Measurement | Acceptance Criteria | NCR | Comments |
|----|----------|-------------------------|---------------------|-----|----------|
| | | | | | |

DETAILED INSPECTION UT THICKNESS

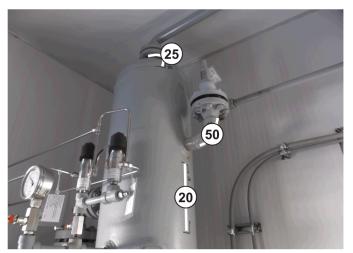
| C | ML | Nom. Thickness | CURRENT READINGS | short term corr rate | long term corr rate | remaining half life | Survey Date | Comments |
|----|-------------|-------------------|---------------------|-------------------------|------------------------|------------------------|-------------|----------|
| 05 | (Head) | 20.62 | 21.56 | 0.0000 | 0.0000 | 99.0 | 2013/01/21 | |
| 10 | (Shell) | 21.44 | 21.92 | 0.0000 | 0.0000 | 99.0 | 2013/01/21 | |
| 15 | (Shell) | 21.44 | 21.87 | 0.0000 | 0.0000 | 99.0 | 2013/01/21 | |
| 20 | (Shell) | 21.44 | 22.35 | 0.0000 | 0.0000 | 99.0 | 2013/01/21 | |
| 25 | (Head) | 20.62 | 21.59 | 0.0000 | 0.0000 | 99.0 | 2013/01/21 | |
| 30 | (90L 2 160) | 8.74 | 8.00 | 0.0145 | 0.0145 | 7.8 | 2013/01/21 | |
| 35 | (90L 2 XS) | 5.54 | 5.77 | 0.0000 | 0.0000 | 99.0 | 2013/01/21 | |
| 40 | (90L 2 XS) | 5.54 | 5.03 | 0.0100 | 0.0100 | 5.5 | 2013/01/21 | |
| 45 | (90L 2 160) | 8.74 | 7.98 | 0.0150 | 0.0150 | 7.5 | 2013/01/21 | |
| 50 | (90L 2 160) | 8.74 | 8.00 | 0.0145 | 0.0145 | 7.8 | 2013/01/21 | |

Western Quality Services

TOTAL INTEGRITY MANAGEMENT SOLUTIONS

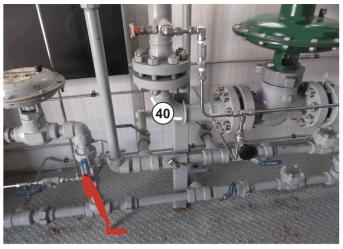












| OWNER: HUSKY | SER AL # 12279 | N |
|----------------------------------|----------------|---|
| EQUIPMENT NAME: SEPARATOR | NB# | |
| REGISTRATION # 0611191 | OWNER ID | |
| EQUIPMENT # 66182452 | | |



TOTAL INTEGRITY MANAGEMENT SOLUTIONS





NAMEPLATE



OVERALL

EQUIPMENT NAME: SEPARATOR

EQUIPMENT # 66182452

REGISTRATION # 0611191

| OWNER: HUSKY | SERIAL # 12279 | NOTES |
|--------------|----------------|-------|

NB#

OWNER ID