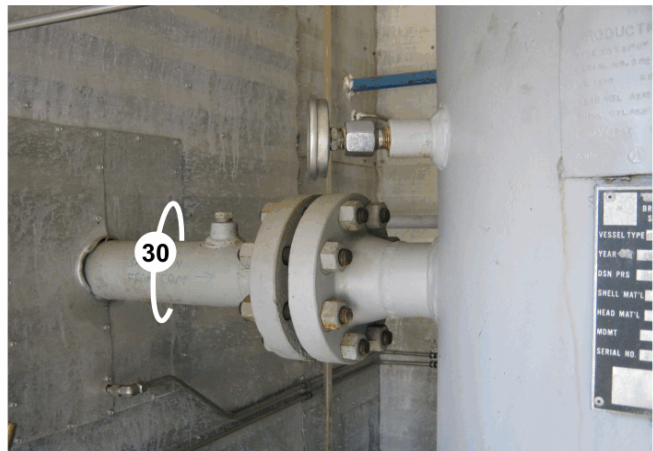
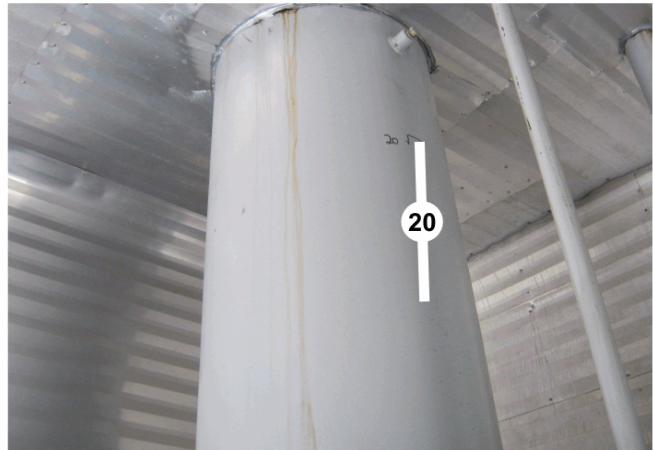
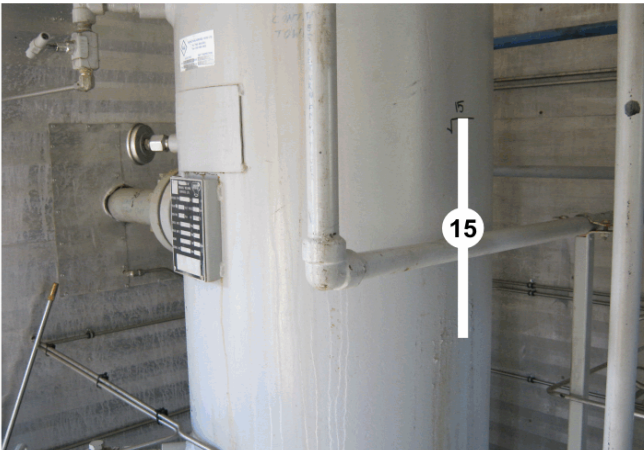
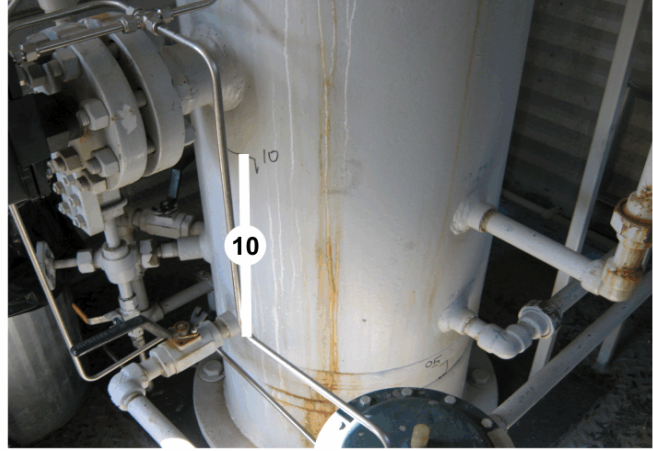
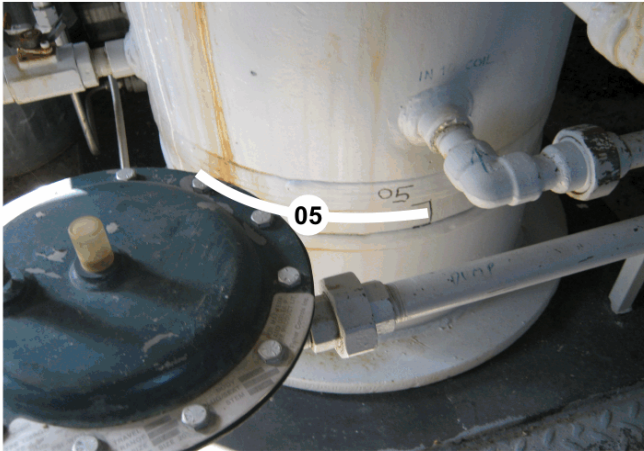


| GENERAL PRESSURE VESSEL INFORMATION | | | | | | |
|---|------------------|-----------------------|---|----------------------------|--------------------|-------------------------|
| District: St. Albert South | | | Skid No.: | | | |
| Facility: Ardmore | | | Location (LSD): 03-01-063-03W4 | | | |
| Name & Equip No: CONTACTOR - N/S | | | Orientation: Vertical | | | |
| Company: CNRL | | | Cost Code: | | | |
| Status: Operating | | | Operating Province: Alberta | | | |
| Unit: | | | | | | |
| ABSA | | | | | | |
| Plant: | | | Vessel: | | | |
| Process: | | | Special: | | | |
| Amount(\$): | | | | | | |
| PRESSURE VESSEL NAMEPLATE DATA | | | | | | |
| Registration Number: 0079998 | | | Registration Number (Other): | | | |
| Serial Number: 202102 | | | CRN Number: B811.2 | | | |
| MAWP: 1,200.00 (psi) | | 8273.76 (Kpa) | | AT temperature: 450.00 (F) | | 232.22 (C) |
| Size (diam. x length): 20.00 x 210.00(In) | | | 508.00 x 334.00(mm) | | | |
| X-Ray: Spot | | | Manufacturer: MURDOCK PRODUCTION EQUIPMENT | | | |
| Year Built: 1969 | | | Lining Or Coated: | | | |
| Code parameters: ASME | | | Heat Treatment: No | | | |
| | | | Corrosion allowance: 0.00 (In) | | 0.00 (mm) | |
| | | | Manway: No | | | |
| PIPING NAMEPLATE DATA | | | | | | |
| Primary Flange Rating: 600 | | | ASME B16.5 - Table 2-1.1 @ 150F: 1480 (psi) | | | |
| Pressure Use For TMin: Vess Design Press | | | Piping Operating Press: 1200 (psi) | | | |
| Stress Value: 20000 (psi) | | | E Value: 1 | | | |
| Comments: | | | | | | |
| SERVICE CONDITIONS-INDICATE ALL THAT APPLY | | | | | | |
| Sweet <input checked="" type="checkbox"/> | | Sour | | Oil | | Gas |
| Amine | | LPG | | Condensate | | Air |
| | | | | | | Water |
| | | | | | | Glycol |
| Other (Describe): | | | | | | |
| COMPONENTS | | | | | | |
| Name | Joint Efficiency | Outside Diameter(in.) | Head Type | Material Type | Stress Value (PSI) | Nominal Thickness(Inch) |
| SHELL | 0.85 | 20.00 | | SA-53 B SMLS | 15000 | 0.94 |
| HEAD | 1.00 | 20.00 | Ellipsoidal | Unknown | 15000 | 0.94 |
| GENERAL COMMENTS | | | | | | |
| ALTERATION MADE BY: BROOKS WELDING SERVICES LTD RT-3, YEAR ALTERED: 1998, DESIGN PRESSURE: 8274 KPA HEAD MATERIAL: A212 PICS: 2361-2372. | | | | | | |



| | | | |
|-----------------------|------------------|------------------------|------------------------|
| OWNER | CNRL | EQUIPMENT # | N/S |
| EQUIPMENT NAME | CONTACTOR | SERIAL # | 202102 |
| REGISTRATION # | 0079998 | INSPECTION DATE | AUGUST 10, 2011 |

NOTES

ULTRASONIC CORROSION SURVEY REPORT

| | | |
|-----------------------|------------------|----------------------------|
| EQUIP NAME: CONTACTOR | SERIAL #: 202102 | DISTRICT: St. Albert South |
| PROV REG: 0079998 | CRN: B811.2 | FACILITY: Ardmore |
| EQUIP #: N/S | | LSD: 03-01-063-03W4 |

SUMMARY

| TYPE | LAST INSPECTION | INSPECTION INTERVAL (YEARS) | CORROSION RATE (IN/YR) | | REMAINING HALF LIFE (YEARS) | GOVERNING INSPECTION INTERVAL | NEXT INSPECTION DATE |
|--------|-----------------|-----------------------------|------------------------|-----------|-----------------------------|-------------------------------|----------------------|
| | | | SHORT TERM | LONG TERM | | | |
| VESSEL | Aug 10, 2011 | 4.0 | 0.0000 | 0.0000 | 99.0 | REGULATORY | Aug 10, 2015 |
| PIPING | Aug 10, 2011 | 4.0 | 0.0000 | 0.0000 | 99.0 | | |

VESSEL SURVEY READINGS

| POINT NUMBER | TYPE | POINT DATA (INCH) | | | DATE | SURVEY READINGS | | | CALCULATIONS | | | Flag |
|--------------|-------|-------------------|--------|--------|-----------|-----------------|-------|--------------|----------------------|---------------------|---------------------|------------------------|
| | | NOM. | C.A. | NOM-CA | | LOW | AVG | T Req (inch) | short term corr rate | long term corr rate | remaining half life | |
| 05 | Head | 0.9375 | 0.0000 | 0.9375 | Aug 10/11 | 0.929 | 0.960 | 0.746 | 0.0000 | 0.0000 | 99.0 | LOW RDG IS BETWEEN NOM |
| 10 | Shell | 0.9375 | 0.0000 | 0.9375 | Aug 10/11 | 1.019 | 1.025 | 0.907 | 0.0000 | 0.0000 | 99.0 | NO COMMENTS |
| 15 | Shell | 0.9375 | 0.0000 | 0.9375 | Aug 10/11 | 0.992 | 1.010 | 0.907 | 0.0000 | 0.0000 | 99.0 | NO COMMENTS |
| 20 | Shell | 0.9375 | 0.0000 | 0.9375 | Aug 10/11 | 1.018 | 1.025 | 0.907 | 0.0000 | 0.0000 | 99.0 | NO COMMENTS |

PIPING SURVEY READINGS

| POINT NUMBER | TYPE | POINT DATA (INCH) | | | DATE | SURVEY READINGS | | | CALCULATIONS | | | Flag |
|--------------|------------|-------------------|--------------|--------|-----------|-----------------|-------|--------------|----------------------|---------------------|---------------------|-------------|
| | | NOM. | Mill Tol./CA | NOM-CA | | LOW | AVG | T Req (inch) | short term corr rate | long term corr rate | remaining half life | |
| 25 | 90L 2 XS | 0.2180 | 0.0273 | 0.1907 | Aug 10/11 | 0.223 | 0.230 | 0.071 | 0.0000 | 0.0000 | 99.0 | NO COMMENTS |
| 30 | BAND 3 STD | 0.2160 | 0.0270 | 0.1890 | Aug 10/11 | 0.232 | 0.240 | 0.105 | 0.0000 | 0.0000 | 99.0 | NO COMMENTS |

Field Inspection Report - CNRL

2,160

| | | | | | |
|---------------------------|------------------|------------------------|----------------|--------------------------|---------|
| Registration #: | 0079998 | Equipment Name: | CONTACTOR | Province: | Alberta |
| District: | St. Albert South | LSD: | 03-01-063-03W4 | Location: | Ardmore |
| CRN: | B811.2 | Skid Number: | | Service: | |
| Manway: | No | Coating: | | Equipment Number: | N/S |
| MAWP (psi): | 1200.00 (psi) | Temp: | 450.00 (F) | Serial Number: | 202102 |
| Outstanding NCR's: | No | No.: | 0 | | |
| General: | | | | | |

Safety Valves

| Side: | MAWP (psi) | MAWP (kPa) | PSV No. | Set Press (psi) | Set Press (kPa) | Capacity Imperial | Imperial Units | Capacity Metric | Metric Units |
|----------------|------------|------------|-----------------------------|-----------------|-----------------|-------------------|----------------|-----------------|------------------|
| | 1200.00 | 8273.76 | | | 0.00 | | SCFM | | |
| Status: | Operating | | Examination Methods: | | | Access: | EXTERNAL | | Cleaning: |

External Inspection

| | | | | | |
|-------------------------|------------------|---|----------------------|-------------------------|----------------------------|
| Inspection Date: | Aug 10, 2011 | Inspection Interval: | 48 | Next Insp. Date: | Aug 10, 2015 |
| Item | Condition | Inspection Comments | | | |
| Insulation | N/A | | | | |
| External Condition | Accept | IN GOOD CONDITION. | | | |
| Leakage | Accept | NO VISIBLE LEAKS. | | | |
| Skirt/Saddle | Accept | | | | |
| Anchor Bolts | Accept | VESSEL SECURE. | | | |
| Concrete Foundation | Accept | | | | |
| Ladder/Platform | Concern | NO CAGE ON LADDER. | | | |
| Nozzle | Accept | IN GOOD CONDITION. | | | |
| Gauges | Accept | IN GOOD CONDITION. | | | |
| External Piping | Accept | MINOR EXTERNAL CORROSION ON PIPING, FLANGE BOLTS. | | | |
| Valving | Accept | NO VISIBLE LEAKS. | | | |
| PSV | N/A | NO ACCESS(HEIGHT). | | | |
| NDE Methods | Accept | UT/VT. | | | |
| Other | N/A | | | | |
| Recommendations: | FIT FOR SERVICE. | | Inspected By: | Jamey Tanasichuk | ABSA PESL #: 000411 |

INSPECTOR : I have witnessed/done the above inspections and certify that they have been done in accordance with our approved manual and that the information is accurate. I certify that the status of the Pressure equipment detailed here is:

Suitable to be returned to service

Repairs complete(AB-40 attached)

Repairs are still required:

Suggested Inspection interval: 48

Inspector: Jamey Tanasichuk

ABSA PESL #: 000411

Signature:  **Date:** Aug 10, 2011



OVERALL



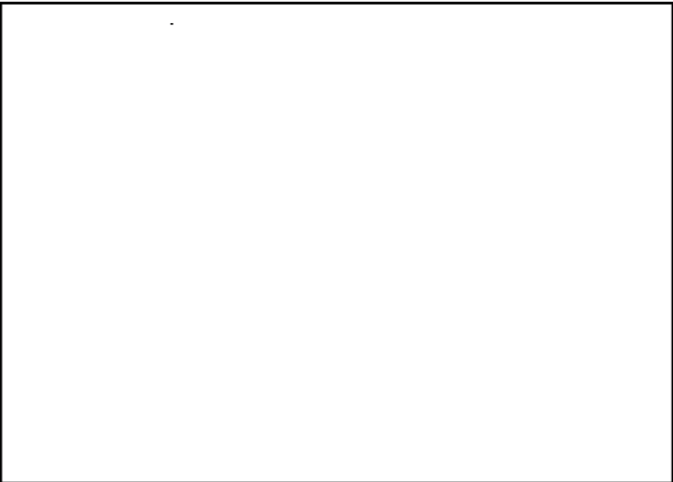
OVERALL



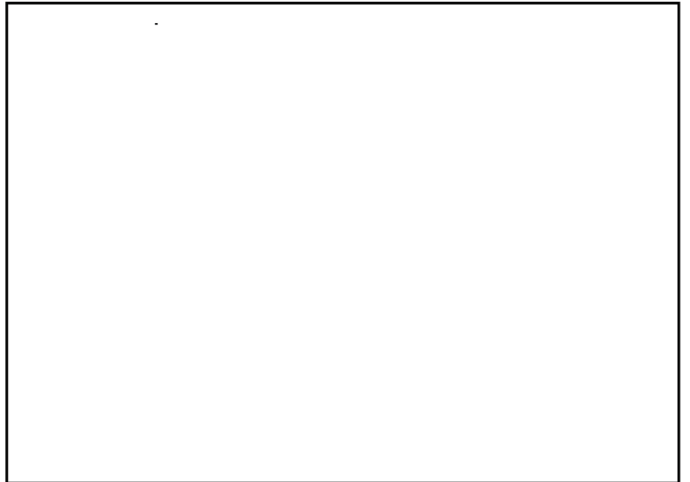
OVERALL



PSV



PSV



| | | |
|----------------------------------|------------------------|--------------|
| OWNER: CNRL | SERIAL # 202102 | NOTES |
| EQUIPMENT NAME: CONTACTOR | NB# | |
| REGISTRATION # 79998 | OWNER ID | |
| EQUIPMENT # | | |