

UT SURVEY N/A
PSV INSP N/A
VTE INSP Accept
VTI INSP N/A

#### **EQUIPMENT DEFICIENCY SUMMARY**

| District:            | GRANDE PRAIRIE                                      |          | Facility       | Belloy            | Lo          | ocation/LSD    | 15-2       | 3-077-01W6  |
|----------------------|---|----------|----------------|-------------------|-------------|----------------|------------|-------------|
| Equipment Nam        | LINE HEATER   |          | •              |                   | Р           | Prov Reg No.:  |            |             |
| Serial No.:          | 6053-14   |          | Equip No.:     | N/S               | N           | lational Board | No.: N/S   |             |
| UT SURVEY            | LATEST UT DATE                                      | USED IN  | SUMMARY        |                   |             |                |            |             |
| LOCATION             | Nom - CA Lov  | v RDG Av | g RD TMin      | UT Flag           | RECOM       | IMENDATION     | QUALITY AC | TION RESULT |
|                      |   |          |                |                   |             |                |            |             |
| PSV INSPECTION       | PSV INSPECTION LATEST PSV INSP DATE USED IN SUMMARY |          |                |                   |             |                |            |             |
| DEFICIENCY           |   |          |                | RECOMMEN          | IDATION     | QUALI          | TY ACTION  | RESULT      |
|                      |   |          |                |                   |             |                |            |             |
| VISUAL EXTERNA       | AL INSPECTION                                       | LATE     | ST VTE DATE U  | JSED IN SUMMARY A | ugust 11, 2 | 2015           |            |             |
| DEFICIENCY           |   |          |                | RECOMMEN          | DATION      | QUALI          | TY ACTION  | RESULT      |
| No Deficiencies Foun | d   |          |                | N/A               |             | N/A            |            | Accept      |
| VISUAL INTERNA       | L INSPECTION  | LATE     | EST VTI DATE U | JSED IN SUMMARY   |             | •              |            |             |
| DEFICIENCY           |   |          |                | RECOMME           | NDATION     | N QUAL         | ITY ACTION | RESULT      |
| N/A                  |   |          |                | N/A               |             | N/A            | _          | N/A         |



Client:

**CNRL** 

TOTAL INTEGRITY MANAGEMENT SOLUTIONS

#### PRESSURE EQUIPMENT DATA REPORT

|                                      |                     | EQ                    | UIPM           | 1EN7    | GEN                         | ERAL INFO                        | RMATION                |                             |              |                |       |  |
|--------------------------------------|---------------------|-----------------------|----------------|---------|-----------------------------|----------------------------------|------------------------|-----------------------------|--------------|----------------|-------|--|
| District: GRANDE PRAIRIE             |                     |                       |                |         |                             |                                  |                        |                             |              |                |       |  |
| Facility: Belloy                     |                     |                       |                |         |                             |                                  |                        |                             |              |                |       |  |
| <b>Location /LSD:</b> 15-23-077-01W6 |                     |                       |                |         | Operating Province: Alberta |                                  |                        |                             |              |                |       |  |
| <b>Equipment Name:</b>               | LINE                | HEATE                 | R              |         |                             | •                                |                        |                             |              |                |       |  |
| Equipment Status:                    | Shut                | <br>ut-In             |                |         |                             | Orientat                         | Orientation: Ho        |                             |              |                |       |  |
| Skid No.:                            |                     |                       |                |         |                             | Unit:                            |                        |                             |              |                |       |  |
|                                      |                     |                       | E              | QUIF    | PMEN                        | T STATIC D                       | ATA                    |                             |              |                |       |  |
| AB Registration No.:                 |                     |                       |                |         |                             | Serial No.:                      |                        | 6053-14                     |              |                |       |  |
| Registration No./Other:              |                     |                       |                |         |                             | Equipment N                      | lo.:                   | N/S                         |              |                |       |  |
| CRN NO.:                             |                     |                       |                |         |                             | Unique ID No                     | o.:                    |                             |              |                |       |  |
| National Board No.:                  | N/S                 |                       |                |         |                             | Oncor ID No                      | .:                     | 157430                      |              |                |       |  |
| Manufacturer:                        | PRIORI              | PRIORITY PROJECTS     |                |         | Year Built:                 |                                  | 2006                   |                             |              |                |       |  |
| MAWP:                                | 14.90               | (psi)                 | 102.7          | 73      | (Kpa)                       | Temperature                      | :                      | 100.00                      | (F)          | 37.78          | (C)   |  |
| Diameter.:                           | 48.000              | (ln)                  | 1219           | .20(    | (mm)                        | Length:                          |                        | 240.00                      | (ln)         | 6096.00        | (mm)  |  |
| Radiography:                         |                     |                       |                |         |                             | Heat Treatmo                     | ent:                   |                             |              |                |       |  |
| Corrosion allowance:                 | 0.000               | (ln)                  | 0.000          | 00 (mm) |                             | MDMT:                            |                        |                             |              |                |       |  |
| Lining Or Coated:                    |                     |                       |                |         | Painted:                    | Painted: Yes                     |                        |                             |              |                |       |  |
| Insulated:                           | Yes                 | Yes                   |                |         |                             | Internally Cla                   | Internally Clad:       |                             |              |                |       |  |
| Hand Hole:                           |                     | l v                   |                |         |                             | Support Type                     | e:                     | Saddle                      |              |                |       |  |
| Manway:                              | Yes                 | Yes                   |                |         |                             | Manway Size                      | Manway Size(In): 48.00 |                             |              |                |       |  |
| Capacity/Volume(m3):                 |                     |                       |                |         |                             | Nozzle Ratin                     | -                      |                             |              |                |       |  |
|                                      |                     |                       | M.A            | ATER    | RIALS                       | /COMPONE                         | INTS                   |                             |              |                |       |  |
| Name                                 | loint<br>Efficiency | Outside<br>Diameter(i |                |         | Head 1                      | Гуре                             | Material<br>Type       |                             | ess<br>(PSI) |                | minal |  |
| SHELL                                | 1.00                | 48.000                |                |         |                             | Unknown                          |                        | <b>Value (PSI)</b><br>17500 |              | Thickness(In.) |       |  |
|                                      |                     |                       |                | PIP     | ING S                       | STATIC DATA                      | 4                      |                             |              |                |       |  |
| Primary Flange Rating:               | 900                 |                       |                |         |                             | ASME B16.5 - Table 2-1.1 @ 150F: |                        |                             | 2            | 2220 (psi)     |       |  |
| Pressure Use For TMin:               | Other               |                       |                |         |                             | Piping Operating Press:          |                        |                             | 3130 (psi)   |                |       |  |
| Stress Value:                        | 20000               |                       |                |         | E Value:                    |                                  |                        | 1.00                        | Joint:       | SMLS           |       |  |
| SERVICE C                            |                     |                       |                |         | CONDITIONS                  |                                  |                        |                             |              |                |       |  |
| Sweet Sour ✓ Oil                     |                     |                       |                | Gas     |                             | Water                            |                        |                             |              |                |       |  |
| Amine LPG Con                        |                     |                       | Condensate Air |         |                             | Glycol                           |                        |                             |              |                |       |  |
|                                      |                     |                       |                |         | CON                         | <i>IMENTS</i>                    |                        |                             |              |                |       |  |
|                                      |                     |                       |                |         |                             |                                  |                        |                             |              |                |       |  |
|                                      |                     |                       |                |         |                             |                                  |                        |                             |              |                |       |  |



### Client:

## **CNRL**

TOTAL INTEGRITY MANAGEMENT SOLUTIONS

| District                        | GRANDE PRA   | AIRIE                           | Facility       |            | Belloy   |                     | Location/LSD           |          | 15-23-077-01W6              |  |
|---------------------------------|--|---------------------------------|----------------|------------|----------|---------------------|------------------------|----------|-----------------------------|--|
| Equipment Name:                 | LINE HEATER  |                                 | Prov Reg       |            |          | g No.:              |                        |          |                             |  |
| Serial No.: 6053-14             |  |                                 | Equip No.: N/S |            |          |                     | National Board<br>No.: |          | N/S                         |  |
|                                 |  |                                 | Extern         | nal Ins    | pect     | ion                 | ·                      |          |                             |  |
| Inspector:                      | Justin Orichowski  | ABSA PE                         | SL #:758       | Signatur   | e:       |                     | <u> </u>               | Date:    | 08/11/2015                  |  |
| External Corro                  |  | rosion found on the vess        | el/piping      | •          |          |                     |                        |          | Accept                      |  |
| External Dama There was no ex   |  | nd on the vessel/piping         |                |            |          |                     |                        |          | Accept                      |  |
| <b>Leakage</b> No Leaks were fo | ound on the vessel o   | r piping connections            |                |            |          |                     |                        |          | Accept                      |  |
| Vessel support a                | ing Supports s Saddle and is accordanchor bolts are in p ion is Ground and is tted by clamp and is | lace and acceptable acceptable  |                |            |          |                     |                        |          | Accept Accept Accept Accept |  |
| Insulation/Pain                 | t<br>Type  | Fi                              | ndings         |            |          |                     |                        |          |                             |  |
| Vessel                          | Insulated  | None Tearing, Non               | e Denting, A   | Accept Bar | nding, A | Accept Seals/Joints |                        |          | Accept                      |  |
| Inlet Piping                    | Insulated  | None Tearing, Non               | e Denting, A   | Accept Bar | nding, A | Accept Seals/Joints |                        |          | Accept                      |  |
| Outlet Piping                   | Insulated  | None Tearing, Non               | e Denting, A   | Accept Bar | nding, A | Accept Seals/Joints |                        |          | Accept                      |  |
| Pressure Enve                   | lope Flanging  |                                 |                |            |          |                     |                        | <u> </u> |                             |  |
|                                 | Bolting  | Thread enga                     | agement        | G          | askets   | Flang               | je Rating              |          |                             |  |
| Manway                          | Accept   | Accept                          |                | Acce       | ept      | Accep               | t                      |          | Accept                      |  |
| Vessel                          | Accept   | Accept                          |                | Acce       | ept      | Accep               | t                      |          | Accept                      |  |
| Inlet Piping                    | Accept   | Accept                          |                | Acce       |          | Accep               |                        |          | Accept                      |  |
| Outlet Piping                   | Accept   | Accept                          |                | Acce       | ept      | Accep               | t                      |          | Accept                      |  |
| Other Piping                    | Accept   | Accept                          |                | Acce       | ept      | Accep               | t                      |          | Accept                      |  |
| General                         |  |                                 |                |            |          |                     |                        |          |                             |  |
| Pressure Gauge is               | acceptable, Temp G<br>/Stairway is accepta   | auge is acceptable, Gro<br>ble, | unding is ac   | ceptable,  | Vibratio | on is               |                        |          | Accept                      |  |

| GENERAL INTERNAL COMPONENT INFORMATION                                     |   |                                 |           |         |          |  |  |  |  |
|--|---|---------------------------------|-----------|---------|----------|--|--|--|--|
| District: GRANDE PRAIRIE   | Skid No.:                                     |                                 |           |         |          |  |  |  |  |
| Facility: Belloy   |   | Location (LSD): 15-23-077-01W6  |           |         |          |  |  |  |  |
| Name & Equip No: LINE HEATER - N/S   |   | Orientation:                    | Horizont  | al      |          |  |  |  |  |
| Company: CNRL  |   | Cost Code:                      |           |         |          |  |  |  |  |
| Status: Shut-In  |   | Operating Pr                    | ovince:   | Alberta |          |  |  |  |  |
|  | NAMEPL  | ATE DATA                        |           |         |          |  |  |  |  |
| Registration Number: 0563166   |   | Registration                    | Number (O | ther):  |          |  |  |  |  |
| Serial Number: 6053-14   |   | Manufacturer: Priority Projects |           |         |          |  |  |  |  |
| Year Built: 2006   | Design Pressure: 3130.00 (psi) 21580.72 (Kpa) |                                 |           |         |          |  |  |  |  |
| Internal Component: COIL A & COIL B  | Design Temp                                   | perature:                       | 200.00    | (F)     | 0.00 (C) |  |  |  |  |
| Equipment Type: coil   | Size Diameter: 3.00 (In) 76.20 (mm)           |                                 |           |         |          |  |  |  |  |
| Material Type: Unknown   |   | Size Length: (In) (mm)          |           |         | (mm)     |  |  |  |  |
| S Value: 20000.00  |   | CRN: F-3325.231                 |           |         |          |  |  |  |  |
| Joint Efficiency: 1.00   |   |                                 |           |         |          |  |  |  |  |
|  | ASSOCIATED                                    | EQUIPMEN                        | Т         |         |          |  |  |  |  |
| Registration Number  | Equipment Name                                |                                 |           |         |          |  |  |  |  |
|  | LINE HEATER                                   |                                 |           |         |          |  |  |  |  |
| GENERAL COMMENTS   |   |                                 |           |         |          |  |  |  |  |
| RT 100% HT   |   |                                 |           |         |          |  |  |  |  |
| COIL B - CRN F-3319.231 1629 PSI THICKNESS 0.30<br>COIL A THICKNESS 0.438" | 0"  |                                 |           |         |          |  |  |  |  |
| 7012 71 111101111200 01 100  |   |                                 |           |         |          |  |  |  |  |



# Client: CNRL

## **PHOTOGRAPHS**

| EQUIP NAME: | LINE HEATER |            | PROV REG No.: | 0563166             |  |
|-------------|-------------|------------|---------------|---------------------|--|
| SERIAL No.: | 6053-14     | Equip No.: |               | National Board No.: |  |















NOTES: