FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS (Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only) As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1



| 1. Manufactured and certified by Enerflex Ltd., 3615 34 th Street N.E. Calgary, AB, T1Y 6Z8 | | | | | | | | | | | | | | |
|--|--|----------------------------|---------------------|-------------------|----------------|--|------------------|---------------------------|---------------------------------|--------------------------------|------------------------------|--------------------------|--|--|
| (Name and address of Manufacturer) Manufactured for Husky Oil Operations Ltd, Box 4490, Stn D, Calgary, AB, T2P 3G7 | | | | | | | | | | | | | | |
| 3 Location of installa | 3. Location of installation (Name and address of Purchaser) McMullen TCP, LSD: 03-35-078-25 W4M | | | | | | | | | | | | | |
| | | | | | | (Name a | ind address) | | | | | | | |
| | (Mtg | E 31967222 V2128.213 (CRN) | | | | 31833-V403 Rev.1 2012 (Drawing no.) (Nat'l Bd. No.) (Year built | | | | | | | | |
| 5. The chemical a | nd physi | cal propertie | s of all part | s meet the re | auire | ments of m | aterial speci | ications of | the ASME BOI | LED AND I | DDECCII | DE | (,, | |
| VESSEL COD | | | struction, an | d workmansi | пр со | ontorm to Ac | SME Rules, | Section VII | I, Division 1 | | | 2010 Year | | |
| to | to 2011 Addenda (Date) | | | | | | 14 ase Nos. | | Special Service per UG 120(d) | | | | | |
| | | | | | 0.500" 0.0625" | | | | 11.75" 3' 0" \$/\$ | | | | | |
| Matl. (Spec. No., Grade) | | | Nom. Thk. (in.) | | | | r. Allow. (in.) | | Diam. I.D. (ft. & in.) | | Length (overall) (ft. & in.) | | | |
| 7. Seams: <u>SMLS</u> <u>N/A</u> Long. (Welded, Dbl., R.T. (Spot | | | (Snot | 100 Eff. (%) | | H.T. Time (hr) | | Gidh (| TYPE 1 Girth (Welded, Dbl., | | SPOT 7 | | 70 1 Eff No. of Courses | |
| Sngl., Lap, Butt) or Fu | | | uli) | Eff. (%) | | np (°F) | | Sngl., L | .ap, Butt) | or Full) | Full) (%) | | o. of Courses | |
| 8. Heads: (a) Matl. SA-51 | | | SA-516 (Spec No. | ·70N (Grade) | | | (b) Matl | | SA-516-7 | SA-516-70N Spec No., Grade) | | | | |
| Location (Top, | Mini | imum C | orrosion | Crown | | Knuckle Ell | | Conic | | Hemispherical | | Flat Side to Pressure | | |
| (a) Bottom, Ends) | | | lowance | Radius | Radius | | Ratio | Apex A | | | | eter (Convex or Concave) | | |
| (b) END | 200000 | | 0.0625" | | _ | | 2:1 | | | | | | ICAVE | |
| If removable, bolt | 2000110 | 10111111 | | | | | 2:1 | | •• | CONCAVE | | | | |
| | | | | | | | | (Matl., Spec | . No., Gr., Size, No.) | | | | 711 | |
| 9. MAWP 645 | | | | N/A p (external) | | | osi at max. tem | at max. temp. | | | - | N/A (external) | | |
| Min. design metal | temp | | -20 | | | 645 | psi. Hydro., p | neu., or cor | (internal) mb. Test pressure | HYC | ORO AT | 839 |) psi. | |
| Proof Test | | | | | | | | | | | | | | |
| 10. Nozzles, inspection | on and sa | Diameter | enings: | | Mat | erial | Nozzle 1 | hickness | Reinforcement | Δtts | achment D | otails | | |
| (Inlet, Outlet, Drain) | | or Size | Туре | Nozzl | | Flange | Nom. | Corr. | Matl. | Nozzl | | Flange | Location | |
| INLET/INSP OUTLET | 1 | 4" | RFWN CL.4 | | | SA-105-N | 100.59 | 0.0625" | | FIG UW-16 | | TYPE1 | SHELL | |
| INSPECTION | 1 | 4" 1 ½" | RFWN CL.3 | | | | 120,000 | 0.0625" | | FIG UW-16 | | TYPE1 | HEAD | |
| DRAIN | + + | 3/4" | STUDDING | 3 | | SA-105-N SA-105-N | | 0.0625" 0.0625" | | FIG UW-16 | | WELDED | HEAD | |
| 0.0 | | 0/4 | OUTLET | 3.55 | | 3A-103-N | 1,935 | 0.0625 | | FIG UW-16 | 5.1(c) \ | WELDED | SHELL | |
| 11. Supports: Skirt _ | NO | O Lugs | N/A | ALegs | | N/A | Other | | N/A | Attached | | N/A | | |
| | 11. Supports: Skirt NO (Yes or No) | | (No | .) | (No.) | | | (D | escribe) | , | | (Where and how) | | |
| 12. Remarks: Manufa | cturer's F | Partial Data R | eports proper | ly identified and | d signe | ed by Commis | ssioned Inspe | ctors have b | een furnished for | the following | items of t | his report | | |
| | | | | | | NO | ONE | | | | , 1101110 01 1 | потероп. | | |
| (Name of part, item number. Mfgr's name and identifying stamp) N3: RFBLIND FLG, CL 300, SA-105-N.(4) STUDS, 3/4" X 4 ½ LG UNC, SA-193-B7.(8)NUTS, 3/4"DIA, UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-193-B7.(8)NUTS, 5/8"DIA, UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-193-B7.(8)NUTS, 5/8"DIA, UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-193-B7.(8)NUTS, 5/8"DIA, UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-193-B7.(8)NUTS, 5/8"DIA, UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-193-B7.(8)NUTS, 5/8"DIA, UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-193-B7.(8)NUTS, 5/8"DIA, UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-193-B7.(8)NUTS, 5/8"DIA, UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-193-B7.(8)NUTS, 5/8"DIA, UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-193-B7.(8)NUTS, 5/8"DIA, UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-193-B7.(8)NUTS, 5/8"DIA, UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-194-2H, N4: RFBLIND FLG, CL 300, SA-105-N. (4) STUDS, 5/8" X 3 LG UNC, SA-194-2H, N4: RFBLIND FLG, SA-194- | | | | | | | | | | | | | | |
| SERVICE: SWEET PSV ON PIPE AS PER UG-125 CONST. DRAWING NO.: 31967-V-0603 REV.0 RADIOGRAPHY: SPOT PER LIW-11(a)5b | | | | | | | | | | | | | | |
| TESTING: NO CHARPY IMPACT TEST REQUIRED PER UG-20(f)/UCS-66(c) RADIOGRAPHY:SPOT PER UW-11(a) CUBIC CAPACITY: 2.9 CUBIC FE | | | | | | | | | | | | | | |
| | | | | CERT | IFICA | TE OF SHO | P/FIELD CO | MPLIANCE | | - 000 | 071171 | J1111 E.O O | OBIOTELI | |
| We certify that the | statemer | nts made in t | his report are | e correct and t | hat al | I details of de | esign, materi | al, construc | | anship of th | is vessel o | conform to | | |
| the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No | | | | | | | | | | | | | | |
| Date | | | | | | | | | | | | | | |
| CERTIFICATE OF SHOP/FIELD INSPECTION (Representative) | | | | | | | | | | | | | | |
| | Vessel constructed by at CALGARY, ALBERTA, CANADA | | | | | | | | | | | | | |
| I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of | | | | | | | | | | | | | | |
| ALBERTA and employed by have inspected have inspected | | | | | | | | | | | | | | |
| | | | | | | N 18 201 | | , an | d state that, to | the best of | f my know | wledge and | belief, the | |
| Manufacturer has co | nstructed | inis pressur | e vessel in a | ccordance with | ı ASM | IE Code, Sec | tion VIII, Divis | ion 1. By s | signing this certific | ate neither t | the Inspec | tor nor his/he | er employer | |
| makes any warranty | manner | for any norse | , concerning i | ine pressure vi | essel | described in t | this Manufactu | ırer's Data F | Report. Furtherm | ore, neither | the Inspec | tor nor his/he | er employer | |
| all be liable in any ate _JUN 18 | | Signed | | noperty damage | | N 64 | | n or connec nissions _ | | Ction. ABAL | BERTA | 24 | 2 | |
| | | | | /Milhorizod I | none | otor) / | | | /A1-## P | (!1 · | | 01 1 - | Contract of the Contract of th | |