



RUSHTON
GAS & OIL EQUIPMENT (1991) LTD.

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Edmonton, Alberta
T6S 1B2
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FEBRUARY 21, 1998

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EQUIPMENT IDENTIFICATION
FOR
EMULSION SEPARATOR

CUSTOMER: AEC West **PURCHASE ORDER NO:** 043-205-3

PROJECT: Clairmont Sour Oil / Gas Battery **RUSHTON JOB NO.:** C-639

LOCATION: 1-9-73-5 W6M

60" ID EMULSION SEPARATOR

MODEL NO: R-60-3-4875-66-8.0-0.125"

DESCRIPTION: 60" I.D. x 15'0" S/S x 4875 KPa x 66° C.;
0.125" C.A., 3-Phase Separator

SERIAL NO.: C639A.HS

C.R.N. NO.: N-9470.2

A#: 403373

ALBERTA LABOUR
Alber a Boilers Safety Association
200. +208 - 97 Street
Edmonton AB T6E 5Z9
Partial/ Partiel ☐

A 403373
TRC Dec 18/97
MANUFACTURER'S DATA REPORT
FOR PRESSURE VESSEL
DÉCLARATION DE CONFORMITÉ DU CONSTRUCTEUR
D'APPAREILS SOUS PRESSION

Upon shipment of a pressure vessel, this form fully and correctly filled in must be mailed to the office of the Chief Inspector in the province of installation in accordance with the regulations under the Act, governing the construction and installation of pressure vessels.
Au moment de l'expédition d'un appareil sous pression, ce formulaire complété correctement, doit être envoyé au bureau de l'inspecteur en chef de la province d'installation tel que prévu dans les règlements de la loi sur les appareils sous pression.

Manufactured by Construit par	Name and address of Manufacturer/ Nom et adresse du constructeur RUSHTON GAS & OIL EQUIPMENT (1991) LTD. 2331 - 121 Ave. N.E. Edmonton, AB
Manufactured for Construit pour	Name and address of Purchaser or Consignee/ Nom et adresse du client ou de son représentant AEC West Ltd.Suite 3700, 707-8th Ave. S.W. Calgary, AB. T2P 1H5
Ultimate owner Utilisateur	Name and address/ Nom et adresse AEC West Ltd.Suite 3700, 707-8th Ave. S.W. Calgary, AB. T2P 1H5
Location of installation Lieu d'installation	Address/ Adresse LSD# 1-9-73 S. CUMM

Pressure vessel/ Appareil			
Type/ Genre Horizontal Separator	Serial No./ N° de série C639A.HS	Year built/ Année de fabrication 1997	Overall Length/ Longueur totale 15'0" S/S
Provincial Registration No. - C.R.N./ N° d'enregistrement provincial - N.E.C. N-9470.2	National Board No./ N° National Board	Drawing No./ N° de dessin C-639-A Rev.1	Diameter/ Diametre 60" ID

The chemical and physical properties of all parts meet the requirements of material specifications of the A.S.M.E. Code.
Les propriétés chimiques et physiques de toutes les composantes respectent les exigences des spécifications de matériaux de code ASME.

The design, construction and workmanship conform to CSA B51. La conception, la construction et la façon sont conformes à ACNOR B51.	ASME Sec VIII	Division I	Addenda/ Supplément Dec1996	Code case No. N° de cas
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Manufacturers' partial data reports properly identified and signed by authorized inspectors have been furnished for the following items of the report, and attached to this report:
Les rapports partiels du constructeur adéquatement identifiés et signés par les inspecteurs autorisés ont été produits pour les items suivants du rapport, et attachés à ce rapport:

Names of parts/ Nom de la composante	Item No./ N° d'item	Manufacturer's Name/ Nom du constructeur	Identifying Stamp/ Estampe d'identification

Shell/ Virole

Description	Material	Thickness	Corr. Allow. Surépais.	Diameter	Overall Length Long	Number of courses Nombre de	Girth Joints Joints de circonférence		Longitudinal Joints Joints longitudinaux			P.W.H.T. Traitement therm	
							Type	R.T. Radiog	Type	R.T. Radiog	Efficiency Efficacité	Temp	Time Durée
Shell	SA-516-70N	1.375"	0.125"	60" ID	15'0" S/S	1	1	Full	1	Full	100%	620°C	82.5min

Heads/ Tetes

Description	Material Matériau	Min. Thickn Épais min.	Corr. Allow Surép. Corr.	Crown Radius Rayon couron.	Knuckle Radius Petit rayon	Ellipse Ratio Rapp. ellipse	Conical Apex Angle Angle conique	Hemisph. Radius Ray. Hémisph	Flat Diameter Diam. plat.	Side to pressure Côte sous pression
Heads	SA-516-70N	1.347"	0.125"			2:1				Concave
Removable bolts used (describe other fastenings) Boulons amovible utilisés (décrire tout autre attache)					Mat'l Spec./ Spéc. du mat.			Grade		Size/ Dimension

Pressure - Temperature/ Pression - température

Pressure Vessel Part Partie de l'appareil	Constructed for max. allowable working pressure Construit pour une pression maximale de marche permise	At max. temp. A une temp. max.	Min. Temp. (when less than 29°C) Temp. min. (inférieure à 29°C)	Test pressure (hydro-pneumatic or combination) Pression d'épreuve (hydro-pneumatique ou combinaison)
Vessel	4875 Kpa	66°C	-28 °C	7315 KPa

Tube Section. Faisceau tubulaire

AB-25 (side 2) 97/02

Tubesheet/ Plaque tubulaire	Material/ Matériau	Diameter/ Diamètre	Nominal Thickness Épaisseur nominale	Corr. Allow. Surepals. corrosion	Attachment Mode d'attachement
Tube material/ Matériau des tubes	Diameter/ Diamètre	Nominal Thickness (gauge) Épaisseur nominale (calibre)	Number/ Nbre	Type (Straight or U) Type (Droit ou U)	Heating Surface Surface de chauffe

Jacket/ Chemise				
Type of jacket/ Genre de chemise	Jacket closure Fermeture de chemise	Proof Test Pression d'épreuve	Heating Surface Surface de chauffe	Sketch/ Schéma

Safety Valve Outlets/ Soupapes de sûreté		
Number/ Nombre 1	Dimension 2"	Location/ Endroit Located on shell.

Nozzles and Openings/ Tubulures et ouvertures								
Purpose/ But	Number Nombre	Dimension	Type	Material Matériau	Nominal Thickness Épaisseur nominale	Reinforcement material Matériau de renfort	Now attached Genre d'attaches	Location/ Endroit

Supports/ Supports				
Skirt/ Jupe	Lugs/ Oreilles No. Nbre	Legs/ Pieds No./ Nbre	Other/ Autres (Description) SADDLE	Attached/ Attaches (Where and How/ Méthode et endroit) Welded to shell.
Yes/ Oui ☐	No/ Non ☒			

Remarks/ Observations (Cubical capacity/ Volume)
Volume = 9.38m3 M.D.M.T. = -28°C @ 4875 KPa Impact test not required as per UG-20(f) & UCS-66(a) *****See Supplementary Sheet for Form No. CB118 for Nozzles & Openings. Vessel Tested in Horizontal position. Registered Dwg.# C-639-A Rev.1 U.S. - 11(a)

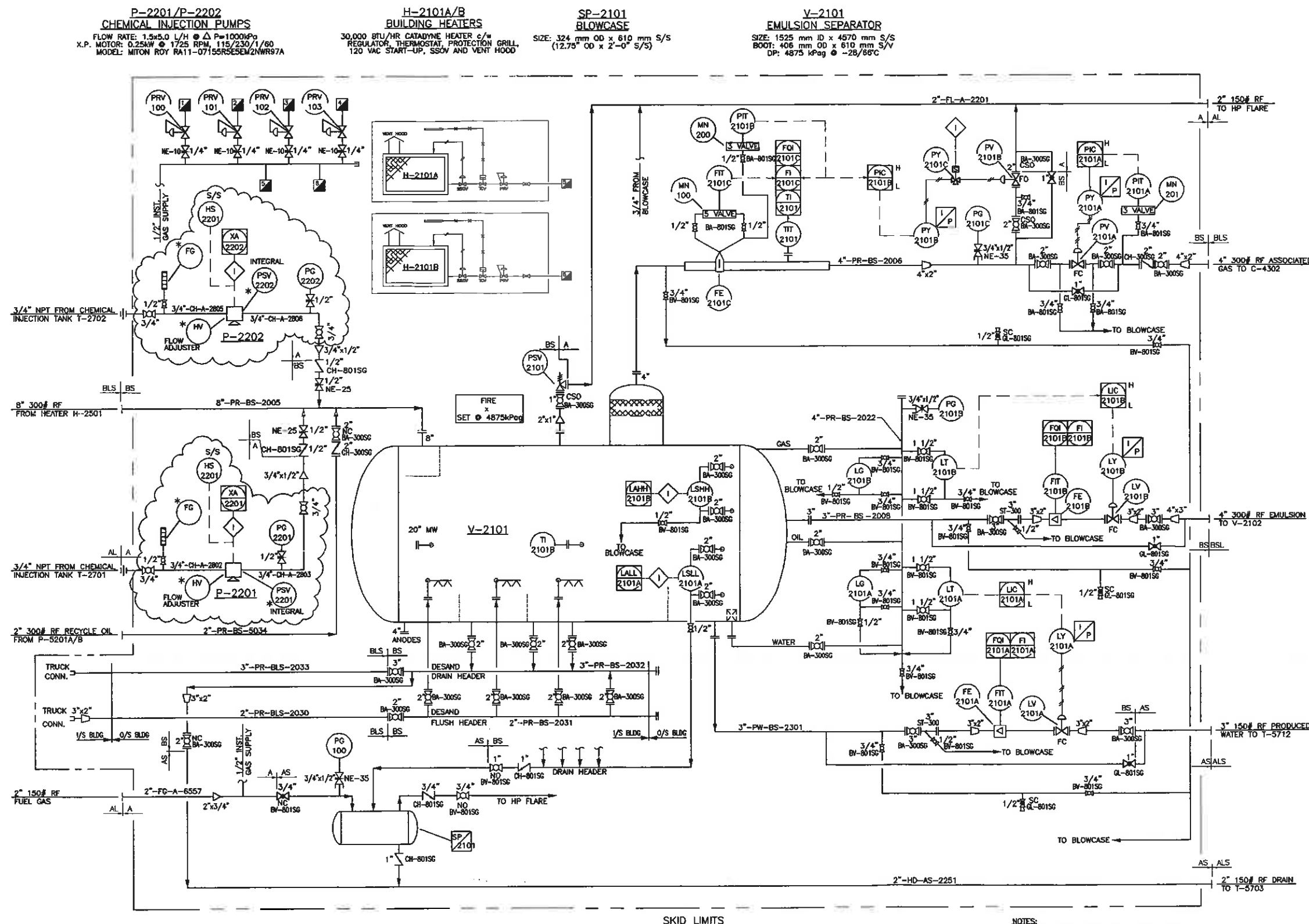
Certificate of Compliance/ Certificat de conformité We certify that the statements made in this data report are correct and that the said vessel has been constructed in accordance with the Provincial Registered design below and the requirements of standard CSA B51. Nous certifions que les données de la déclaration de conformité sont correctes et que l'appareil a été construit en accord avec l'enregistrement provincial ci-dessous et les exigences de la norme ACNOR B51. Provincial Registered Design Enregistrement provincial Manufacturer RUSHTON GAS & OIL EQUIPMENT (199) LTD. Constructeur Signature <i>Albert L. Luff</i> Date <i>Dec. 15/97</i>	Certificate of Shop Inspection/ Certificat d'inspection en usine I, the undersigned, a duly authorized Boiler and Pressure Vessel Inspector Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression employed by employé par ALBERTA BOILERS SAFETY ASSOCIATION of/ de ALBERTA have inspected the above vessel and state that to the best of my knowledge and belief, the manufacturer has constructed the vessel in accordance with the Provincial registration CRN and the requirements of standard CSA B51. ai inspecté l'appareil précité et autant que je sache, crois que le constructeur a construit l'appareil en accord avec l'enregistrement provincial NEC et les exigences de la norme ACNOR B51. Inspector's Name Nom de l'inspecteur <i>Tom Cheliseux</i> Signature <i>TR Cheliseux AB78</i> Date <i>Dec 18/97</i>
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Certificate of Compliance - Field Work/ Certificat de conformité - Installation au chantier We certify that the field installation of all parts of the vessel conforms with the requirements of Provincial Regulations. Nous certifions que l'installation au chantier de toutes les composantes de l'appareil est conforme aux règlements provinciaux. Inspector's Name Nom de l'installateur Signature Date	Certificate of Field Inspection/ Certificat d'inspection - Installation au chantier I, the undersigned, a duly authorized Boiler and Pressure Vessel Inspector Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression employed by employé par have inspected the items not covered by the Shop Inspection Certificate and the installation of the items and state that to the best of my knowledge and belief the construction and assembly of the items are in accordance with the Provincial Regulations. ai inspecté les composantes non couvertes par le certificat d'inspection en usine et l'installation de l'appareil et, autant que je sache, la construction et l'assemblage de l'appareil sont en accord avec les règlements provinciaux. Inspector's Name Nom de l'inspecteur Signature Date
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BILL OF MATERIALS

TAG NO.	QTY.	DESCRIPTIONS
FE-2101C	1	4" 300# DANIEL SENIOR METER RUN SCH 40, NACE TRIM, BEVELED OUTER ENDS, AGA 3C CONFIG. c/w 3/4" & 1" TOL DOWNSTREAM CONNECTIONS
FE-2101B	2	ROSEMOUNT #8800A0205A3N1P1M5C8 SMART VORTEX FLOWMETER WAFER STYLE SCALED PULSE, 4-20 MA OUTPUT
FE-2101A	1	ROSEMOUNT 1151DP4S22B1M1C8 DIFFERENTIAL PRESSURE TRANSMITTER 0-150" WC
LG-2101A	1	DANIEL TM41 NACE c/w 3/4" NPT 1-S NACE GAUGE VALVES
LG-2101B	1	DANIEL RM41 NACE c/w 3/4" NPT 1-S NACE GAUGE VALVES
LV-2101A	2	1 1/2" 300# RF FISHER 2390 LEVEL TRANSMITTER c/w EXTERNAL CAGE
LSH-2101B	1	1 1/2" NPT SOR ELECTRIC LEVEL SWITCH MODEL 1510C-GSA-C-W1-ES-CSNC c/w CAGE
LSL-2101A	1	1 1/2" NPT SOR ELECTRIC LEVEL SWITCH MODEL 1510C-GSA-C-W1-ES-CSNC c/w CAGE
LV-2101B	2	2" 300# RF FISHER 357 CONTROL VALVE, NACE c/w SIZE 40 ACTUATOR
LV-2101A	2	FISHER 546 I/P TRANSDUCER 6-30 psi OUTPUT, 4-20 MA INPUT, YOKE MOUNTED
MN-100	1	CENTURY 5-VALVE MANIFOLD, CM5-2-F44-CD-T
MN-200/201	2	CENTURY 3-VALVE MANIFOLD, CM3R-2-F44-C-T
PCV-2101A	1	2" 300# RF FISHER 857-ET CONTROL VALVE, c/w SIZE 40 ACTUATOR, 2 5/16" TRIM
PCV-2101B	1	2" 300# RF FISHER 857-D CONTROL VALVE, SIZE 46 ACTUATOR, FO, 1" TRIM
PRV-100-103	4	1/4" NPT FISHER 67 AFR PRESSURE REGULATOR
PSV-2101	1	FARRIS 1D2 PRESSURE RELIEF VALVE MODEL #26DA12-120-S7
PT-2101A/B	2	ROSEMOUNT 1151GP8S22B1M1C8 GAUGE PRESSURE TRANSMITTER
PY-2101B/A	2	FISHER 546 I/P TRANSDUCER 0-60 psi OUTPUT, 4-20 MA INPUT
PY-2101C	1	ASCO EF3333 3-WAY SOLENOID VALVE
PG-100	1	0-300#, 4" DIAL, DUAL SCALE . L.F., 1/2" B.M. WKA 233.54
PG-2101B	1	0-1000#, 4" DIAL, DUAL SCALE . L.F., 1/2" B.M. WKA 233.54
PG-2101C	1	0-1000#, 4" DIAL, DUAL SCALE . L.F., 1/2" B.M. WKA 233.54
TI-2101B	1	TREND 50120, -20 to 120°C, 5" DIAL FACE, DUAL SCALE c/w 1/2" x 3/4" x 12" LG 318 SS TW
TT-2101	1	ROSEMOUNT 3144D1C6B4M5 TEMPERATURE TRANSMITTER c/w 1/2" B.M. 68N21N00N070E6 SENSOR AND 6" TW
BV-300SG	5	3" 300# RF BALL VALVE NUTRON NACE, T3-R30R03S
BV-300SG	21	2" 300# RF BALL VALVE NUTRON NACE, T3-R20R03S
BV-300SG	1	1" 300# RF BALL VALVE NUTRON FULL PORT NACE, T3-R10R03S
BV-801SG	4	1 1/2" SW BALL VALVE NUTRON NACE, B3-R15W20S
BV-801SG	1	1" SW BALL VALVE NUTRON NACE, B3-R10W20S
BV-801SG	18	3/4" SW BALL VALVE NUTRON NACE, B3-R07W20S
BV-801SG	9	1/2" SW BALL VALVE NUTRON NACE, B3-F05W20S
CH-300SG	2	2" 300# RF SWING CHECK VALVE WHEATLEY, 910, 025072-822
CH-801SG	2	1" SW SWING CHECK VALVE CRANE, B-367SLUN-W
CH-801SG	1	3/4" SW SWING CHECK VALVE CRANE, B-367LUN-W
CH-801SG	2	1/2" SW SWING CHECK VALVE CRANE, B-367SLUN-W
GL-801SG	4	1" SW 800# GLOBE VALVE CRANE NACE, 1B-3644LUN-W
GL-801SG	3	1/2" SW x NPT 800# GLOBE VALVE CRANE NACE, B-3644LUN-W/T
GL-801SG	1	3/4" SW 800# GLOBE VALVE CRANE NACE, B-3644LUN-W
NE-35	3	3/4" SW x 1/2" NPT NEEDLE CENTURY VALVE, CM7-2-M64S-BA
NE-25	2	1/2" NPT NEEDLE VALVE CENTURY NACE, CM2-1-F44T-BA
NE-10	4	1/4" NPT NEEDLE VALVE CENTURY SWEET, CM2-3-F22T-BA
ST-300	2	3" 300# RF Y-STRAINER ALTA STRAINER, NACE, YF-300

NOTES:
 -ALL INSTRUMENT TUBING TO BE 3/8" 316SS.
 -ALL TUBE FITTINGS TO BE 3/8" 316SS SWAGELOK.
 -CLOUDED AREA TO BE SUPPLIED BY CUSTOMER AND INSTALLED BY RUSHTON.
 (PUMPS, INSTRUMENTS & VALVING)



(1) REQ'D
 TIME CARD
 C-639-PP

DWG. NO.	REFERENCE DRAWINGS	REV	DESCRIPTION	DATE	BY
		A	REVISED AS PER CUSTOMERS MARK-UP, CHANGE BLOWCASE AND HEATER TAG #'S, CHANGED SPECS AS SHOWN.	12/10/97	K.B.

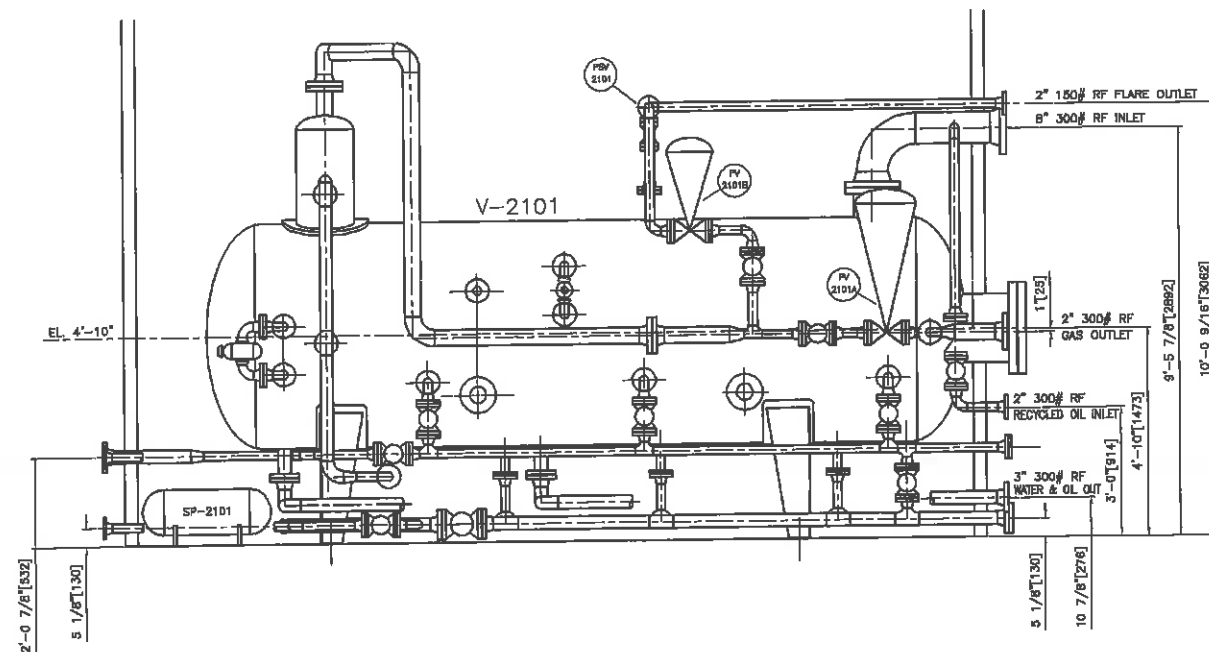


CUSTOMER:		AEC WEST		LOCATION:	
c/o TITAN PROJECTS LTD.					
MECHANICAL FLOW SHEET					
60" ID x 720# EMULSION SEPARATOR SKID PKG.					
DATE:	DRN BY:	SCALE:	CHKD BY:	APPRD BY:	DWG NO:
10/20/97	KB	NTS			C-639-B
					REV: 1

1. ALL ELEVATIONS ARE FROM TOP OF SKID FLOOR.
2. MAIN PIPING PLAN TO BE READ IN CONJUNCTION WITH MECHANICAL FLOW DIAGRAM.
3. ALL BUTTWELD PIPING TO BE BUILT IN ACCORDANCE WITH THE LATEST EDITION OF B31.3 PRESSURE PIPING CODE.
4. ALL BUTTWELD PIPING 2" & LARGER TO BE SCH 40 AND SA-1088 SML'S PIPE c/w SA-234-WPB FITTINGS & SA-105H FLANGES.
5. ALL BUTTWELD PIPING TO BE 10% RADIOGRAPHED, BUT NOT PWHT & HYDROTESTED TO 1.5 TIMES OF WORKING PRESSURE.
6. ALL THREADED PIPING AND SOCKET WELD PROCESS PIPING TO BE SCH 160 SA-1088 SML'S PIPE c/w 3000# FITTINGS.
7. ALL BOLTING TO BE SA-193-87M c/w 2HM NUTS & 304SS FLEX. GASKET.
8. ALL OPENINGS TO BE COVERED PRIOR TO SHIPMENT.
9. UNIT TO BE COMMERCIALY SANDBLASTED PRIOR TO:
 - (1) SHOP COAT OF PRIMER
 - (2) SHOP COAT OF FINISH COAT

10. ESTIMATED SHIPPING DIMENSIONS : 13'-0" x 21'-0" x 13'-0" HIGH
WEIGHT :

- 13' x 20' x 0"-0" HIGH GABLE TYPE 22 GA. GALVANIZED STEEL, DORFAC SURF WHITE c/w SLATE BLUE TRIM (INCLUDING DOORS) c/w 24 GA FLUTED WHITE ALUMINUM UNER.
- R20 INSULATION IN ROOF AND R12 WALLS WITH 6 MIL VAPOR BARRIER
- (2) 3' x 7' WALK-IN DOOR-PANIC HARDWARE, LOCK-SET, 2 x 2 IWG WINDOW, CHECKCHAIN, WEATHER STRIPPING, CANOPY AND HYDRAULIC CLOSURE
- (1) 48" x 36" DOUBLE GLAZED SLIDING WINDOW c/w SCREENS
- (2) 18" x 18" LOUVERS WITH SLIDE CLOSURES
- (1) FULL LENGTH RIDGE VENT c/w MANUAL CHAIN OPERATOR & BIRDSCREEN
- (1) EXHAUST FAN FOR 12 ACHP, 1/4 HP, 110 VAC, EXPLOSION PROOF.
- EAVESTROUGHS, DOWNSPOUTS AND ICE RAKES (LOW SIDE)

[illegible]

CUSTOMER:		AEC WEST			LOCATION:	
c/o TITAN PROJECTS LTD.					"SK-2101"	
MAIN PIPING PLAN 60" ID x 720# EMULSION SEPARATOR SKID PKG						
DATE:	DRN BY:	SCALE:	CHKD BY:	APPRD BY:	DWG NO:	REV:
10/24/97	KB	NTS			C-839-C	①

(1) REQ'D
TIME CARD

C-639-PL