

Client: EOG Resources

PRESSURE EQUIPMENT DATA REPORT EQUIPMENT GENERAL INFORMATION **District:** SOUTHERN/ALBERTA DRUMHELLER Facility: 04-01-028-18W4 Location /LSD: **Operating Province: Equipment Name:** REBOILER **Orientation:** Horizontal **Equipment Status:** Operating Skid No.: Unit: EQUIPMENT STATIC DATA Serial No.: 94C-5213-10 **AB Registration No.:** 4787 **Registration No./Other:** Equipment No.: CRN NO .: Unique ID No.: National Board No.: Oncor ID No.: 148644 Manufacturer: Year Built: 1994 Alco Gas and Oil Equipment (psi) 102.73 (Kpa) MAWP: 100.00 (F) 37.78 (C) 14.90 Temperature: 120.00 Diameter.: 42.000 (In) 1066.80((mm) Length: (In) 3048.00 (mm) None Heat Treatment: No Radiography: **Corrosion allowance:** (In) 0.000 (mm) MDMT: No Yes Lining Or Coated: Painted: Yes Internally Clad: No Insulated: No Saddle Hand Hole: Support Type: No Manway: Manway Size(In): Capacity/Volume(m3): Nozzle Rating: **MATERIALS/COMPONENTS** Outside Material Joint Nominal Stress Name Head Type Diameter(in.) Efficiency Thickness(In.) Value (PSI) Type 42.000 1.00 SA-36 14500 0.25 SHELL 1.00 42.000 SA-36 14500 0.25 HEAD 1.00 30.000 Unknown 15000 HEAD-SURGE TANK 1.00 30.000 Unknown 15000 SHELL-SURGE TAN **PIPING STATIC DATA Primary Flange Rating:** ASME B16.5 - Table 2-1.1 @ 150F: (psi) Vess Design Press Pressure Use For TMin: **Piping Operating Press:** 15 (psi) SMLS Stress Value: 20000 (psi) E Value: 1.00 Joint: SERVICE CONDITIONS Oil Water Sweet Sour Gas \checkmark LPG Condensate Amine Air Glycol ✓ **COMMENTS**

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TOTAL INTEGRITY MANAGEMENT SOLUTIONS

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Quality Services

ULTRASONIC CORROSION SURVEY REPORT

DISTRICT:	SOUTHERN/ALBERTA	FACILITY:	DRUMHELLER	LOCATION/LSD:	04-01-028-18W4
EQUIP NAME:	REBOILER		PROV REG No.:		
SERIAL No.:	94C-5213-10	Equip No.:	4787	National Board No.:	

SUMMARY

TYPE	LAST	INSPECTION INTERVAL	CORROSION R	ATE (IN/YR)	REMAINING LIFE	NEXT INSPECTION DATE						
TYPE	INSPECTIONS	(YEARS)	SHORT TERM	LONG TERM	(YEARS)							
VESSEL	Apr 16, 2013	0.0	0.0000	0.0000	198.0	Apr 16, 2013						
PIPING	Apr 16, 2013	0.0	0.0000	0.0000	198.0	7.0110, 2010						
	VESSEL SURVEY READINGS											

		PO	INT DATA (IN	NCH)		SURVEY F	READINGS	CALCULATIONS			
POINT NUMBER	TYPE	NOM. C.A. NOM-CA		DATE	LOW	AVG	T Req (inch)	short term corr rate	long term corr rate	remaining life	
05	D-SURGE T	0.0000	0.0000	0.0000	Apr 16/13	0.263	0.270	0.000	0.0000	0.0000	198.0
10	ELL-SURGE	0.0000	0.0000	0.0000	Apr 16/13	0.256	0.270	0.015	0.0000	0.0000	198.0
15	ELL-SURGE	0.0000	0.0000	0.0000	Apr 16/13	0.253	0.260	0.015	0.0000	0.0000	198.0

PIPING SURVEY READINGS

				POINT DATA (INCH)			5	SURVEY READINGS				CALCULATIONS		
POINT NUMBER	TYPE	SIZE	SCH	NOM.	Mill Tol./CA	NOM- CA	DATE	LOW	AVG	T Req (inch)	short term corr rate	long term corr rate	remaining life	
20	90L 3 STD	3.00	STD	0.2160	0.0270	0.1890	Apr 16/13	0.233	0.250	0.001	0.0000	0.0000	198.0	
25	90L 3 STD	3.00	STD	0.2160	0.0270	0.1890	Apr 16/13	0.224	0.230	0.001	0.0000	0.0000	198.0	

INSPECTOR-EQUIPMENT DATA

Inspected By	Signature	CGSB Level	CGSB No.	Survey Date	UT Equipment	Due Date OF Calibration	NDE Procedure #
Gordon Derewianko	line	1	13896	04/16/2013			WQS UT-001

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VISUAL INSPECTION REPORT

District:	SOUTHERN/A	LBERTA	Facility:	DRUMHELLER		Location/LSD:	04-0	1-028-18W4			
Equipment Name	REBOILER		·			Prov Reg No. :					
Serial No.:	94C-5213-10		Equip No.:	4787		National Board No.:	:				
-			EXTER	NAL INSPEC	CTION	1					
INSPECTION DATE:	Apr 16, 2013	INSPE		L	NEXT II	NSPECTION DATE:					
ITEM	·		CONDITION	INSPECTION COMMENTS							
INSULATION		/	ACCEPT	INSULATION ON REBOILER IN GOOD CONDITION, NO DAMAGE. SURGE							
EXTERNAL CONDIT	ION	/	ACCEPT	TANK HAS NO INSULATION SURGE TANK IN GOOD CONDITION, NO EXT DAMAGE							
LEAKAGE		1	ACCEPT	NO LEAK/WEEPS	3						
SKIRT/SADDLE		/	ACCEPT	NO DAMAGE							
ANCHOR BOLTS		/	ACCEPT	SECURE VESSE	L TO FLOOR						
CONCRETE FOUND	ATION	1	N/A								
LADDER/PLATFORM	1	1	N/A								
NOZZLE		/	ACCEPT	FLANGED AND THREADED CONNECTIONS, NO DAMAGE, FULLY ENGAGED, NO SHORTBOLTING							
GAUGES		/	ACCEPT	GOOD WORKING ORDER/RANGE							
EXTERNAL PIPING		1	ACCEPT	SECURE/SUPPORTED							
VALVING		1	ACCEPT	NO LEAKS/WEEPS							
PSV		1	ACCEPT	INTERNAL COILS PROTECTED BY PSV ON VESSEL 4790							
NDE METHODS		/	ACCEPT	UT/VE							
OTHER		(CONCERN	PLEASE NOTE REBOIL SECTION OF VESSEL IS 42" DIAMETER/SA-35, 0.250" THICK, SURGE TANK IS 30" DIAMETER, UNKNOWN MATERIAL AND							
			RECO	THICKNESS	ONS:						
REBOILER ATMOSPI				IPMENT NUMBER	4790, PSV SET A	AT 400 PSI AND SERVI	JED 2009),	,			
I have performed the ab	ove inspections and ce	ertify that they ha	ve been done in acc	ordance with our app	roved manual and t	hat the information is accu	rate.				
Inspector: Roger Di	Jgosz	ABSA PESL #:	000566	Signature:	Jogen	- China	Date:	Apr 16, 2013			
		1	REP	ORT SIGN-C	FF						
Where required , the	above reports has	been reviewed	and accepted as	noted below:							
WQS Supervisor N	lame:		Eric Jense	Isen							
WQS Supervisor 1	itle/Cert No.:		Chief Inspe	ector		Cert No.: Al	3SA PESI	_ #:000239			
WQS Supervisor S	Signature/Date:		\subset	Date: 4-Jun-2014							
Where required , the	Where required , the above reports has been reviewed and accepted as noted below:										
Client Supervisor	Name:										
Client Supervisor	Title/Cert No.:										
Client/Supervisor	Signature/Date:					Date:					



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