



Client:
CNRL

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

EQUIPMENT DEFICIENCY SUMMARY

District:	Fort St John	Facility	Graham	Location/LSD	C-076-K/094-B-08
Equipment Name	HIGH PRESSURE FLARE KNOCKOUT DRUM			Prov Reg No.:	C34219
Serial No.:	04-94-M051-1	Equip No.:	C34219	National Board No.:	

UT SURVEY LATEST UT DATE USED IN SUMMARY April 21, 2018

LOCATION	Nom - CA	Low RDG	Avg RD	TMin	UT Flag	RECOMMENDATION	QUALITY ACTION	RESULT
30 90L 10 STD	0.32	0.22	0.25	0.00	LOW RDG < NOM-CA BY MORE THAN 20%	CONSIDER REDUCING THE INSPECTION INTERVAL.	OWNER TO DETERMINE	Reject

PSV INSPECTION LATEST PSV INSP DATE USED IN SUMMARY

DEFICIENCY	RECOMMENDATION	QUALITY ACTION	RESULT

VISUAL EXTERNAL INSPECTION LATEST VTE DATE USED IN SUMMARY April 21, 2018

DEFICIENCY	RECOMMENDATION	QUALITY ACTION	RESULT
No Deficiencies Found	N/A	N/A	Accept

VISUAL INTERNAL INSPECTION LATEST VTI DATE USED IN SUMMARY

DEFICIENCY	RECOMMENDATION	QUALITY ACTION	RESULT
N/A	N/A	N/A	N/A



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PRESSURE EQUIPMENT DATA REPORT

EQUIPMENT GENERAL INFORMATION

District:	Fort St John		
Facility:	Graham		
Location /LSD:	C-076-K/094-B-08	Operating Province:	British Columbia
Equipment Name:	HIGH PRESSURE FLARE KNOCKOUT DRUM		
Equipment Status:	Operating	Orientation:	Horizontal
Skid No.:	Unit:		

EQUIPMENT STATIC DATA

AB Registration No.:	C34219		Serial No.:	04-94-M051-1	
Registration No./Other:			Equipment No.:	C34219	
CRN NO.:	NON-CODE		Unique ID No.:		
National Board No.:			Oncor ID No.:	166970	
Manufacturer:	PYRAMID ELECTRIC CORPORATIO		Year Built:	1994	
MAWP:	14.00 (psi)	96.53 (Kpa)	Temperature:	150.00 (F)	65.56 (C)
Diameter.:	72.000 (In)	1828.80(mm)	Length:	264.00 (In)	6705.60 (mm)
Radiography:			Heat Treatment:		
Corrosion allowance:	(In)	0.000 (mm)	MDMT:	-20.00	
Lining Or Coated:			Painted:	Yes	
Insulated:	Yes		Internally Clad:		
Hand Hole:	No		Support Type:	Saddle	
Manway:	Yes		Manway Size(In):	24.00	
Capacity/Volume(m3):			Nozzle Rating:	150.00	

MATERIALS/COMPONENTS

Name	Joint Efficiency	Outside Diameter(in.)	Head Type	Material Type	Stress Value (PSI)	Nominal Thickness(In.)
SHELL	1.00	72.000		Unknown	17500	0.38
HEAD	1.00	72.000	Ellipsoidal	Unknown	17500	0.38

PIPING STATIC DATA

Primary Flange Rating:	150	ASME B16.5 - Table 2-1.1 @ 150F:	285 (psi)
Pressure Use For TMin:	Vess Design Press	Piping Operating Press:	14 (psi)
Stress Value:	20000 (psi)	E Value:	1.00 Joint: SMLS

SERVICE CONDITIONS

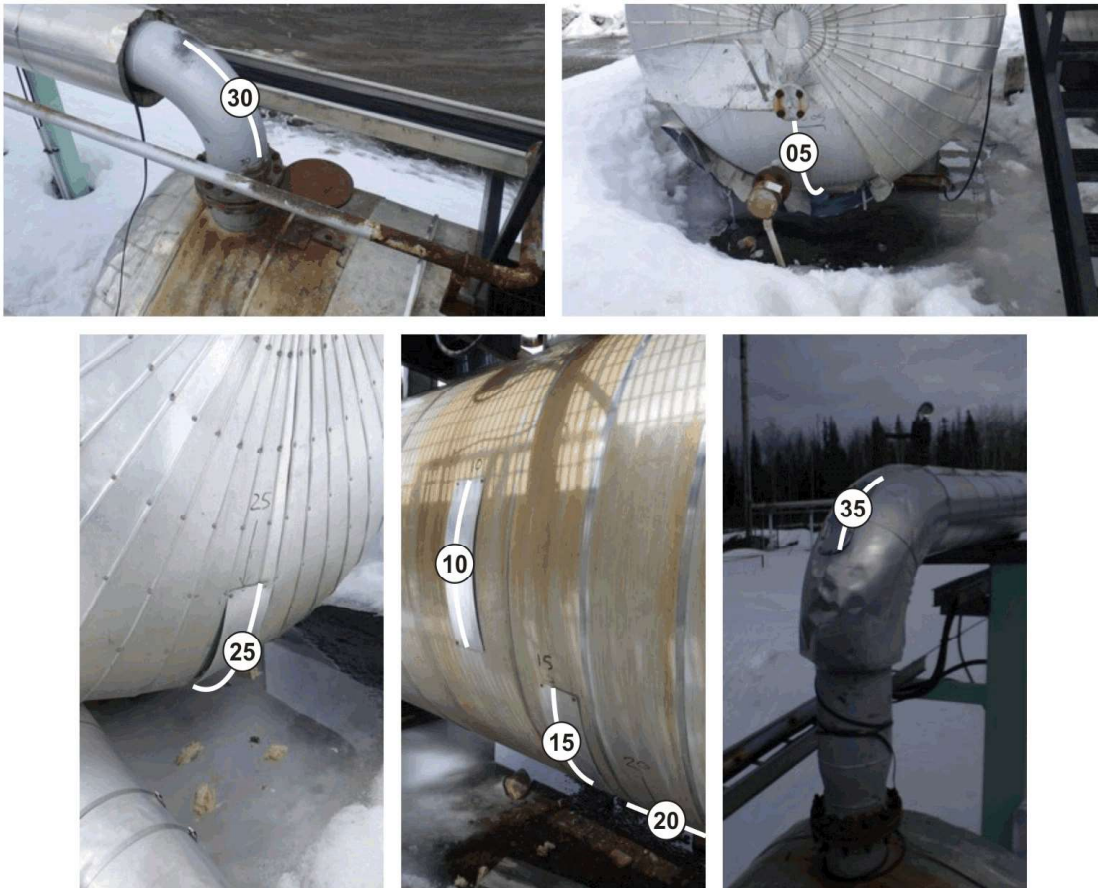
Sweet	Sour	Oil	Gas	Water
Amine	LPG	Condensate	Air	Glycol

COMMENTS

VESSEL IS ATMOSPHERIC, OUTLET TO FLAIR. NO PSV REQUIRED

EXAMINATION ILLUSTRATION

DISTRICT:	Fort St John	FACILITY:	Graham	LOCATION/LSD:	C-076-K/094-B-08
EQUIP NAME:	HIGH PRESSURE FLARE KNOCKOUT DRUM			PROV REG No.:	C34219
SERIAL No.:	04-94-M051-1	Equip No.:	C34219	National Board No.:	



NOTES:

C34219



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ULTRASONIC CORROSION SURVEY REPORT

DISTRICT:	Fort St John	FACILITY:	Graham	LOCATION/LSD:	C-076-K/094-B-08
EQUIP NAME:	HIGH PRESSURE FLARE KNOCKOUT DRUM			PROV REG No.:	C34219
SERIAL No.:	04-94-M051-1	Equip No.:	C34219	National Board No.:	

SUMMARY

TYPE	LAST INSPECTIONS	INSPECTION INTERVAL (YEARS)	CORROSION RATE (IN/YR)		REMAINING LIFE (YEARS)	NEXT INSPECTION DATE
			SHORT TERM	LONG TERM		
VESSEL	Apr 21, 2018	5.0	0.0003	0.0003	198.0	Apr 21, 2023
PIPING	Apr 21, 2018	5.0	0.0059	0.0059	36.4	

VESSEL SURVEY READINGS

POINT DATA (INCH)					SURVEY READINGS				CALCULATIONS			
POINT NUMBER	TYPE	NOM.	C.A.	NOM-CA	DATE	LOW	AVG	T Req (inch)	short term corr	long term	remaining life	Flag
05	HEAD	0.3750	0.0000	0.3750	Apr 21/18	0.378	0.385	0.029	0.0000	0.0000	198.0	NO COMMENTS
10	SHELL	0.3750	0.0000	0.3750	Apr 21/18	0.398	0.420	0.029	0.0000	0.0000	198.0	NO COMMENTS
15	SHELL	0.3750	0.0000	0.3750	Apr 21/18	0.372	0.390	0.029	0.0001	0.0001	2793.3	NO COMMENTS
20	SHELL	0.3750	0.0000	0.3750	Apr 21/18	0.381	0.390	0.029	0.0000	0.0000	198.0	NO COMMENTS
25	HEAD	0.3750	0.0000	0.3750	Apr 21/18	0.367	0.380	0.029	0.0003	0.0003	1032.3	NO COMMENTS

PIPING SURVEY READINGS

POINT DATA (INCH)							SURVEY READINGS				CALCULATIONS			
POINT NUMBER	TYPE	SIZE	SCH	NOM.	Mill Tol./CA	NOM-CA	DATE	LOW	AVG	T Req (inch)	short term corr	long term corr rate	remaining life	Flag
30	90L 10 STD	10.00	STD	0.3650	0.0456	0.3194	Apr 21/18	0.220	0.250	0.004	0.0059	0.0059	36.4	LOW RDG < NOM-CA BY MORE THAN 20%
Comments: READING DOUBLE CHECKED. CALIBRATION CONFIRMED														
35	90L 10 STD	10.00	STD	0.3650	0.0456	0.3194	Apr 21/18	0.323	0.335	0.004	0.0017	0.0017	185.6	NO COMMENTS

INSPECTOR-EQUIPMENT DATA


Inspected By	Signature	CGSB Level	CGSB No.	Survey Dat	UT Equipment	Due Date OF Calibration	NDE Procedure #
Codey Chmilar		SNT LV 2	20906	04/21/2018	109_81583903_EPOCH 4	04/30/2018	WQS UT-001



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District	Fort St John	Facility	Graham	Location/LSD	C-076-K/094-B-08
Equipment Name:	HIGH PRESSURE FLARE KNOCKOUT DRUM			Prov Reg No.:	C34219
Serial No.:	04-94-M051-1	Equip No.:	C34219	National Board No.:	

External Inspection

Inspector:	Codey Chmilar	API510#:73856	Signature:		Date:	04/21/2018
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External Corrosion

There was no significant external corrosion found on the vessel/piping

Accept

External Damage

There was no external corrosion found on the vessel/piping

Accept

Leakage

No Leaks were found on the vessel or piping connections

Accept

Vessel and Piping Supports

Vessel support is Saddle and is acceptable

Accept

Vessel support anchor bolts are in place and acceptable

Accept

Vessel Foundation is Concrete and is acceptable

Accept

Piping is supported by clamp and is acceptable

Accept

Insulation/Paint

	Type	Findings	
Vessel	Insulated	Moderate Tearing, Minor Denting, Some Broken Banding, Some Broken	Accept
Inlet Piping	Insulated	Seals/Joints None Tearing, None Denting, Some Broken Banding, Some Broken Seals/Joints	Accept
Outlet Piping	Insulated	None Tearing, Minor Denting, Some Broken Banding, Some Broken Seals/Joints	Accept

Pressure Envelope Flanging

	Bolting	Thread engagement	Gaskets	Flange Rating	
Manway	Accept	Accept	Accept	Accept	Accept
Vessel	NA				Accept
Inlet Piping	Accept	Accept	Accept	Accept	Accept
Outlet Piping	Accept	Accept	Accept	Accept	Accept
Other Piping	NA				Accept

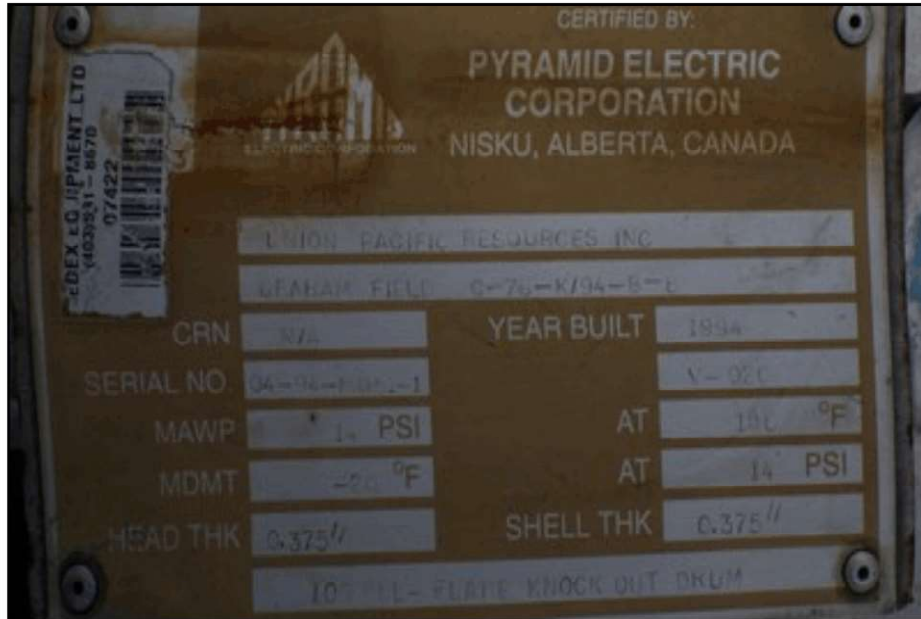
General

Grounding is acceptable, Vibration is acceptable, Platform is acceptable, Ladder/Stairway is acceptable,

Accept

Comment

PHOTOGRAPHS



NAMEPLATE



LSD



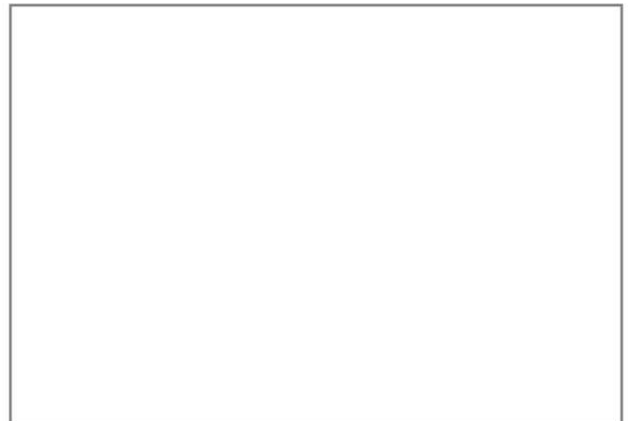
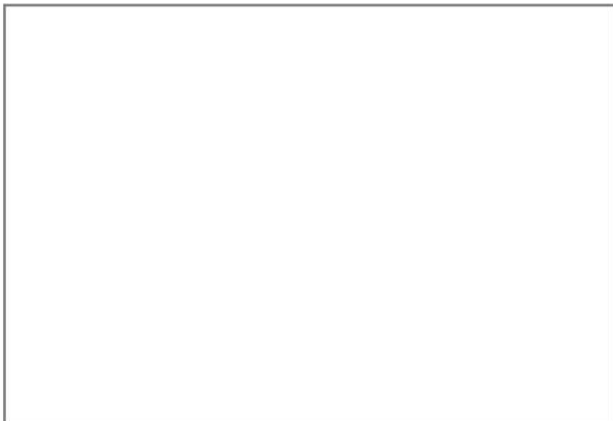
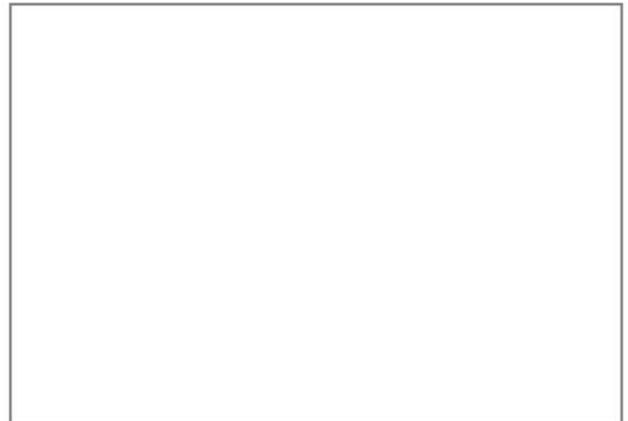
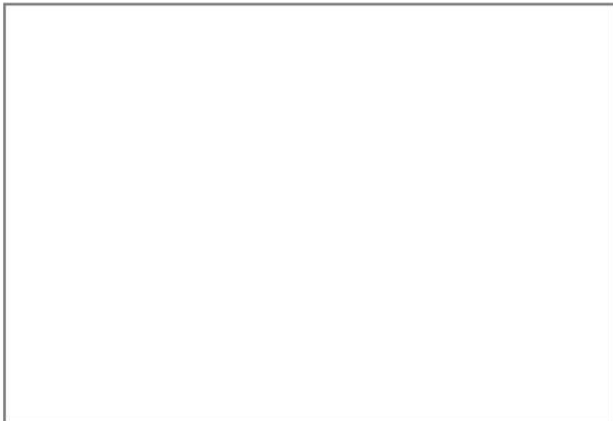
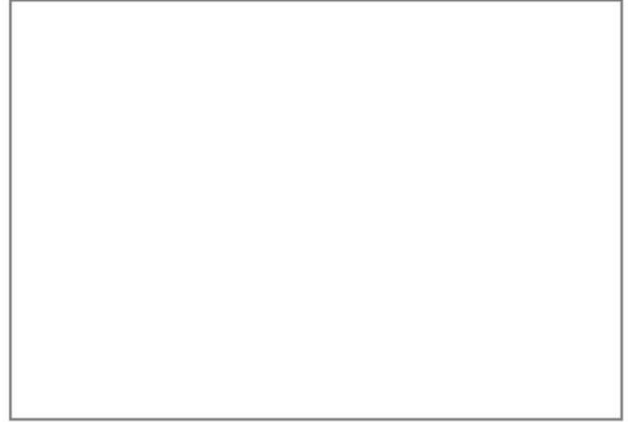
OVERALL

NOTES:

PHOTOGRAPHS



WEST HEAD



NOTES: