

Husky Energy *661 45364*
PRESSURE VESSEL INSPECTION REPORT *6614 5364*

N° 6080118
0# 6083488
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CV

FACILITY	Ansell Field	DATE	February 21, 2009	REPORT #	IR090221JNd
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VESSEL STATIC DATA

Prov. Insp. #	A#584715	CRN	P7217.2	Equip Tag #	-
Equipment Location (LSD)	06-03-051-19 w5m	Serial #	11369		
Equipment Description	Vertical Separator	Vessel Class	-		
Manufacturer	RJV Gas Field Services	Year Built	2008		
MAWP	1480 PSI	KPag / psig	@ 100°F	°C / °F	MDMT -20°F
CODE : UM	☐ U ☒ U2	RT : 1	☐ 2 ☒ 3	☐ 4	PWHT : YES ☐ NO ☒
Diameter	406mm (NPS)	Length	2285mm (S/S)	OAL	mm/in
Shell	Mat'l SA 106 B	Thickness	21.44mm	mm	Corr Allowance 1.6mm
Head	Mat'l SA 516-70	Thickness	20.63mm	mm	Corr Allowance 1.6mm
Nozzle	Mat'l	Thickness		mm/in	Corr Allowance
Internal Coating :	YES ☐ NO ☒	Internal Clad :	YES ☐ NO ☒	Capacity	N/A m ³
Manway :	YES ☐ NO ☒	Inspection Port :	YES ☐ NO ☒	Skirt ☒	Legs ☐ Saddle ☐
Nozzle Rating	600 lb ANSI	Painted :	YES ☒ NO ☐	Insulated	: YES ☐ NO ☒

PROCESS DATA

Product Description	Sweet Gas	Sweet ☒ Sour ☐ PPM:	
Operating Pressure	330 PSI	KPag / psig	Operating Temperature 50 °F

PSV STATIC DATA

Tag / Serial No.	Location	Size Inlet	Size Outlet	Set Pressure	Capacity SCFM / Lbs/Hr / GPM	Manufacturer	Model / Type	Service Date
38023-496	Vessel	1"	1"	1440 PSI	5180 SCFM	Taylor	82E8351 311	01/08

INSPECTION HISTORY

RBI Category	A ☐ B ☐ C ☐ D ☐	Last Inspection Date	W.O. #
Inspection Task List #		Inspection Type	Inspection Reason
Inspection Techniques Required		Next Inspection Type	Due Date
VE ☐ VI ☐ RT ☐ UT ☐ MT ☐ PT ☐ TT ☐		Outstanding Repairs	

INSPECTION SUMMARY

An external inspection was performed to verify the vessels integrity.
 The vessel is in-service and fully utilized.
 No immediate concerns were found and the vessel is considered acceptable for continued service.
 A level 3 IDR090304JNa was issued for mica-graphite gaskets found in piping connections.

RECOMMENDATIONS

Replace the mica-graphite gaskets in piping connections with approved flexible graphite-gaskets at the next available service interval.

REPAIRS COMPLETED

Object Name	Cause	Damage	Repair Activity
None			

VESSEL STATUS

Integrity Status	☒ Suitable for Continued Service	☐ Immediate Repairs Required	☐ Replace
		☐ Future Repairs Required	
Inventory Status	☒ In service Fully Utilized	☐ Idle	☐ Surplus
			☐ Scrap
This IR completes a thorough inspection. Reschedule as indicated		☒	Partial IR only. Do not reschedule ☐

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INSPECTION OBSERVATIONS

NONCOMPLIANCES OR INSPECTION DEFICIENCIES ISSUED

A level 3 IDR090304JNa was issued for mica-graphite gaskets found in piping connections.

EXTERNAL VISUAL INSPECTION

The overall condition of this vessel is good.

The vessel dataplate is legible and has the required information. / Data Plate Condition - Good

The vessel is protected with a PSV. The PSV is attached to the vessel, has a set pressure at or under MAWP and a current service date. / PSV Condition - Good

The gauges are clearly legible and appear to be functioning properly. / Gauges Condition - Good

The vessel appears to be properly secured and level. / Vessel Secure - Yes

The vessel is indirectly grounded. / Vessel Grounded - Yes

The piping, bolting, tubing and external attachments are secure with no active leaks. / Piping & Bolting Condition - Good

The vessel and piping are painted with some minor flaking but no notable corrosion found. / Vessel Paint Condition - Good

The floor is painted with no notable corrosion found. / Floor Condition - Good

The exterior piping is insulated and clad. / Insulation Condition - Good

EXTERNAL NDE EXAMINATION

An external ultrasonic corrosion survey was completed as requested.

No relevant indications were noted at the time of inspection.

For more details see formal UT report by Hunt Inspection - Project C2946

Mica-graphite gaskets were found in piping connections.

INTERNAL VISUAL INSPECTION

There was no internal Visual at time of inspection.

INTERNAL NDE EXAMINATION

There was no internal NDE at time of inspection.

PRESSURE TEST

Test Completed ☐ Yes ☒ No Test Acceptable ☐ Yes ☐ No Test Report #

INSPECTOR CERTIFICATION

I, the undersigned certify that the above equipment has been inspected in accordance with the assigned task list and that statements within this report are correct and represent inspection findings

Inspectors Name Joel Norman

Inspector's Signature 

Inspection Company Hunt Inspection Ltd.

Date February 21, 2009

LEAD INSPECTOR'S ACCEPTANCE & SCHEDULE CONFIRMATION

Lead Inspector Bob Marchak

Signature 

Date Apr. 23, 2009

Vessel Inspection Interval 5 Years

Leave "as-is" ☐

Change to

PSV Inspection Interval 5 Years

Leave "as-is" ☐

Change to

Office Use Only Report Entered to SEQA Database by

Date

Static Data Verified by

Date

SEIM Changes

Equip Text & Tech Desc - 1480 psi ✓

X-Ray - RT2 ✓

Stress Relief - No ✓

MAWP - 1480 psi ✓

Orientation - Vertical ✓

Manway - No ✓

Husky Energy
PRESSURE VESSEL INSPECTION REPORT

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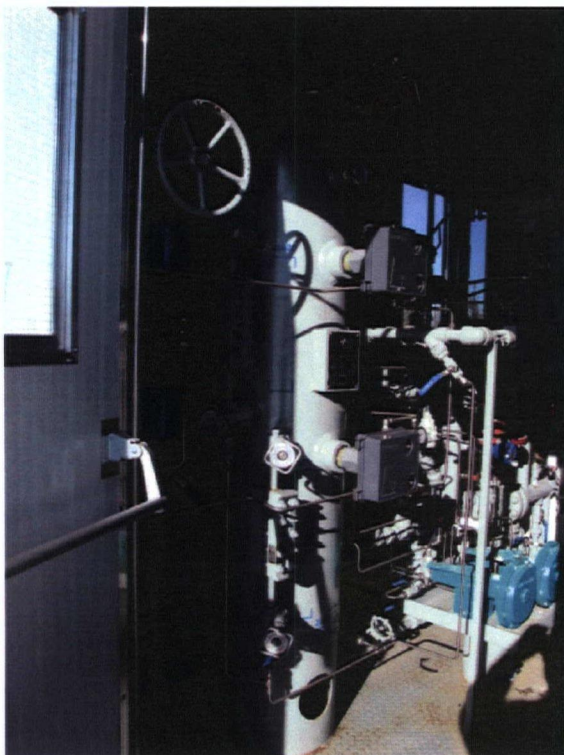
FACILITY	Ansell Field	DATE	February 21, 2009	REPORT #	IR090221JNd
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Photos

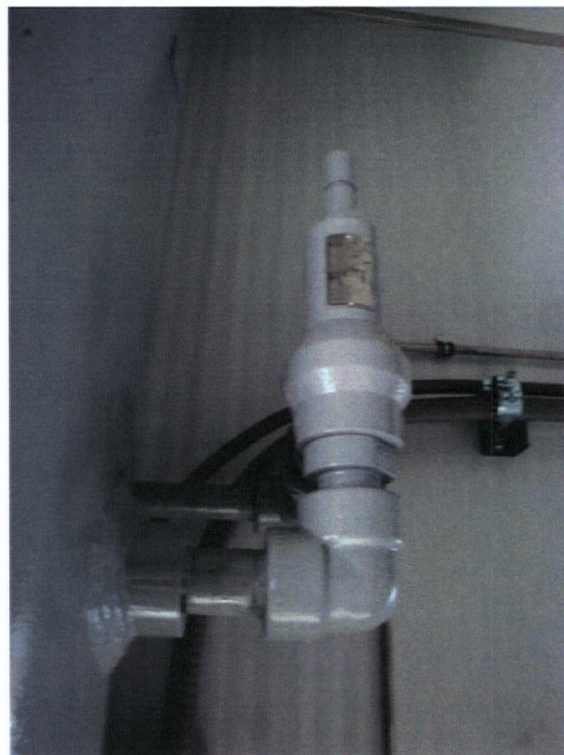
Data Plate

W RT-2		CERTIFIED BY RJV GASFIELD SERVICES VEGREVILLE, ALBERTA PHONE (780) 632-7774	
0584715 UNIT NAME			
VERT. 3 PHASE SEPARATOR			
C. R. NO. P7217.2		SERIAL NO. 11369	
M.A.W.P. 1480 p.s.i. 10204 Kpa	HYDRO TEST 2220 p.s.i. 15307 Kpa	DESIGN TEMP. 100 °F 38 °C	
CORR. ALLOW. 1.6 mm	HEAT TREATMENT NIL	SIZE 406x2285 mm	
SHELL MATERIAL SA-106-B	HEAD MATERIAL SA-516-70	WEIGHT 685 Kg	
SHELL THICKNESS 21.44 mm	DATE MFG 2008-01	M. D. M. T. -20 °F -29 °C	
HEAD THICKNESS 20.63 mm			

Vessel



PSV



Husky Energy
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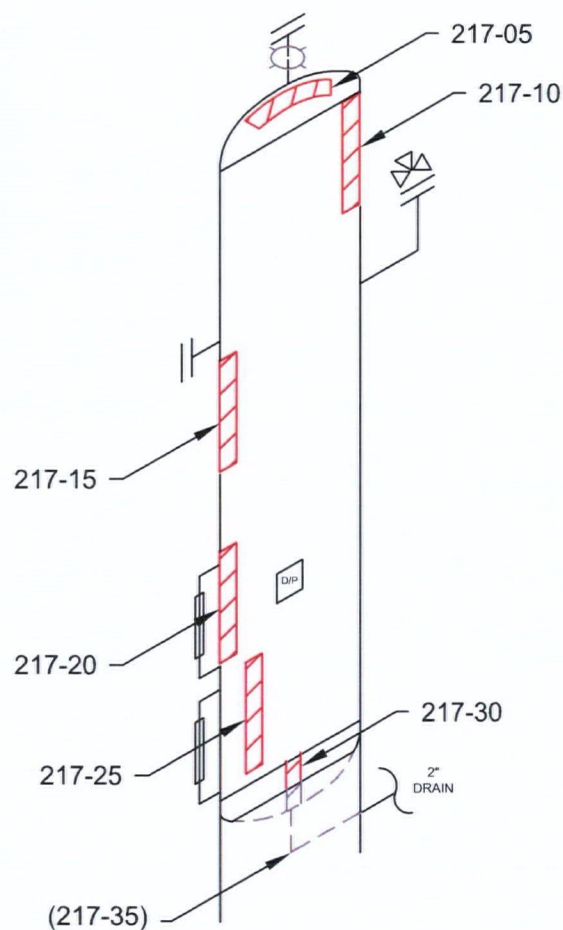
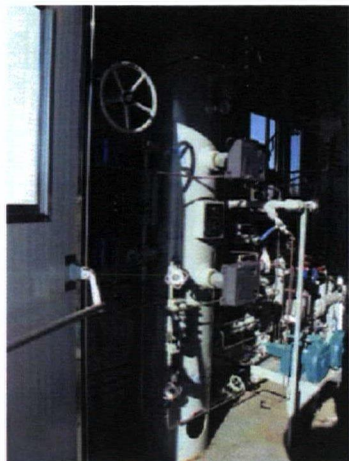
Photos

Building	LSD Sign
	

ITEM:

SEPARATOR

A 0584715



STETTLER, AB (403) 742-4868
 LACOMBE, AB (403) 782-7855
 BROOKS, AB (403) 501-8029
 GRANDE PRAIRIE, AB (866) 422-9732

TECHNICIAN:

JOEL NORMAN
 SNT LEVEL III
 CGSB 48.9712
 LEVEL III # 6951

DATE: **02/21/09**DWG # **217**CLIENT: **HUSKY ENERGY**LSD: **06-03-051-19-W5M**

INSPECTOR : BOB MARCHAK

LOCATION : ANSELL FIELD

DISTRICT UNIT : FH-FW

BLDG/SKID : -

PROCESS : SWEET

CODE : ASME SEC VIII DIV 1

SPECIFICATION : AS PER ASME SE 797

TECHNIQUE : UT 1-1, REV .1

METHOD : UT CONTINUOUS / A SCAN

SURFACE COND : PAINTED

SURFACE TEMP : AMBIENT

VESSEL INFORMATIONVESSEL # : **A 0584715**

CRN # : P7217.2

SERIAL # : 11369

MANUFACTURER : RJV

DATE BUILT : 2008-01

CLIENT ID / TAG : -

M.A.W.P. : 1480 PSI

M.A.W.T. : 100 °F

JOINT EFFICIENCY/RT : RT 2

STRESS RELIEVED : NO

INSULATED : NO

MANWAY : NO

VESSEL SPECIFICATIONS

	OD	NOMINAL	MATERIAL	CA
VESSEL HEAD	16"	.812"	SA-516-70	.063"
VESSEL SHELL	16"	.844"	SA-106-B	.063"
BOOT HEAD	-	-	-	-
BOOT SHELL	-	-	-	-

COMMENTS:

PROJECT:

C2946



ULTRASONIC CORROSION SURVEY

Survey Name: HUSKY ENERGY

LSD: 06-03-051-19W5 Dwg: 217

Vessel Number: A0584715

Manufacturer: RJV

Survey Date: 2/21/09

District Unit: FH-FW

Vessel Name: SEPARATOR

Serial Number: 11369

Inspector: BOB MARCHAK

Location: ANSELL FIELD

Year Built: 2008

Shell MAWP PSI: 1480 MAWT F: 100

Process: SWEET

Skid: -

Tag Number: -

Tube MAWP PSI: 0 MAWT F: 0

Project #: C2946

CRN: P7217.2

Vessel CA: 0.0630

Band	Description			Readings						Year	Avg Inches	Min Inches	Nominal	CA	TMIN	Recommended Next Inspection	Recommended Retirement Date
				1	2	3	4	5	6								
217-05	Top	Head	Baseline	0.847	0.854	0.856	0.855	0.851	0.839	2009	0.850	0.839	0.8120	0.0630	0.5359	2010	2029
Shape	Ellipsoidal	Shell Side	Previous										Comments-->				
OD	16		Current	0.847	0.854	0.856	0.855	0.851	0.839	2009	0.850	0.839					
Spec.	VIII Div 1								ST Loss MPY				OK				
Material	SA 516 - 70								LT Loss MPY		0.000						
217-10	Upper	Shell	Baseline	0.826	0.829	0.830	0.836	0.835	0.837	2009	0.832	0.826	0.8440	0.0630	0.6533	2010	2029
Shape	Cylindrical	Shell Side	Previous										Comments-->				
OD	16		Current	0.826	0.829	0.830	0.836	0.835	0.837	2009	0.832	0.826					
Spec.	VIII Div 1								ST Loss MPY				OK				
Material	SA 106 - B								LT Loss MPY		0.000						
217-15	Mid	Shell	Baseline	0.857	0.857	0.851	0.861	0.858	0.852	2009	0.856	0.851	0.8440	0.0630	0.6533	2010	2029
Shape	Cylindrical	Shell Side	Previous										Comments-->				
OD	16		Current	0.857	0.857	0.851	0.861	0.858	0.852	2009	0.856	0.851					
Spec.	VIII Div 1								ST Loss MPY				OK				
Material	SA 106 - B								LT Loss MPY		0.000						
217-20	Mid	Shell	Baseline	0.845	0.839	0.840	0.842	0.838	0.830	2009	0.839	0.830	0.8440	0.0630	0.6533	2010	2029
Shape	Cylindrical	Shell Side	Previous										Comments-->				
OD	16		Current	0.845	0.839	0.840	0.842	0.838	0.830	2009	0.839	0.830					
Spec.	VIII Div 1								ST Loss MPY				OK				
Material	SA 106 - B								LT Loss MPY		0.000						



ULTRASONIC CORROSION SURVEY

Survey Name: HUSKY ENERGY

LSD: 06-03-051-19W5 Dwg: 217 Vessel Number: A0584715
District Unit: FH-FW Vessel Name: SEPARATOR
Location: ANSELL FIELD Year Built: 2008
Skid: - Tag Number: -
CRN: P7217.2

Manufacturer: RJV
Serial Number: 11369
Shell MAWP PSI: 1480
Tube MAWP PSI: 0
Vessel CA: 0.0630

Survey Date: 2/21/09
Inspector: BOB MARCHAK
Process: SWEET
Project #: C2946

Band	Description			Readings						Year	Avg Inches	Min Inches	Nominal	CA	TMIN	Recommended Next Inspection	Recommended Retirement Date
				1	2	3	4	5	6								
217-25	Lower	Shell	Baseline	0.850	0.849	0.845	0.845	0.861	0.844	2009	0.849	0.844	0.8440	0.0630	0.6533	2010	2029
Shape	Cylindrical	Shell Side	Previous										Comments-->				
OD	16		Current	0.850	0.849	0.845	0.845	0.861	0.844	2009	0.849	0.844					
Spec.	VIII Div 1								ST Loss MPY				OK				
Material	SA 106 - B								LT Loss MPY		0.000						
217-30	Bottom	Head	Baseline	0.858	0.848	0.847	0.851	0.852	0.854	2009	0.852	0.847	0.8120	0.0630	0.5359	2010	2029
Shape	Ellipsoidal	Shell Side	Previous										Comments-->				
OD	16		Current	0.858	0.848	0.847	0.851	0.852	0.854	2009	0.852	0.847					
Spec.	VIII Div 1								ST Loss MPY				OK				
Material	SA 516 - 70								LT Loss MPY		0.000						
217-35	Drain	Nozzle	Baseline	0.334	0.322	0.322	0.309	0.308	0.322	2009	0.320	0.308	0.3430	0.0630	0.0771	2010	2029
Shape	90° Elbow	Shell Side	Previous										Comments-->				
OD	2.375		Current	0.334	0.322	0.322	0.309	0.308	0.322	2009	0.320	0.308					
Spec.	VIII Div 1								ST Loss MPY				OK				
Material	SA 234 - WPB								LT Loss MPY		0.000						
217-40		Piping	Baseline	0.308	0.301	0.301	0.312	0.315	0.315	2009	0.309	0.301	0.3430	0.0429	0.0847	2010	2029
Shape	90° Elbow	Shell Side	Previous										Comments-->				
OD	2.375		Current	0.308	0.301	0.301	0.312	0.315	0.315	2009	0.309	0.301					
Spec.	B31.3								ST Loss MPY				OK				
Material	A 234 - WPB								LT Loss MPY		0.000						



ULTRASONIC CORROSION SURVEY

Survey Name: HUSKY ENERGY

LSD: 06-03-051-19W5 Dwg: 217 Vessel Number: A0584715
District Unit: FH-FW Vessel Name: SEPARATOR
Location: ANSELL FIELD Year Built: 2008
Skid: - Tag Number: -
CRN: P7217.2

Manufacturer: RJV
Serial Number: 11369
Shell MAWP PSI: 1480 MAWT F: 100
Tube MAWP PSI: 0 MAWT F: 0
Vessel CA: 0.0630

Survey Date: 2/21/09
Inspector: BOB MARCHAK
Process: SWEET
Project #: C2946

				Readings						Year	Avg Inches	Min Inches	Nominal	CA	TMIN	Recommended Next Inspection	Recommended Retirement Date
Band	Description			1	2	3	4	5	6								
217-45		Piping	Baseline	0.201	0.198	0.193	0.201	0.203	0.201	2009	0.200	0.193	0.2160	0.0270	0.1249	2010	2029
Shape	90° Elbow	Shell Side	Previous												Comments-->		
OD	3.5		Current	0.201	0.198	0.193	0.201	0.203	0.201	2009	0.200	0.193					
Spec.	B31.3			ST Loss MPY							OK						
Material	A 234 - WPB			LT Loss MPY							0.000						
217-50		Piping	Baseline	0.304	0.296	0.296	0.298	0.296	0.295	2009	0.298	0.295	0.3000	0.0375	0.1249	2010	2029
Shape	90° Elbow	Shell Side	Previous												Comments-->		
OD	3.5		Current	0.304	0.296	0.296	0.298	0.296	0.295	2009	0.298	0.295					
Spec.	B31.3			ST Loss MPY							OK						
Material	A 234 - WPB			LT Loss MPY							0.000						

