



CA1101-NDT-105 p 5/6

Tank Inspection Report

Location: D4 104/1-3-49-2w4 sfc:16-3-49-2w4

Tank Type: Sales / Water TK#2

Date: Jun. 29.18

Mfg: Universal Industries

Year blt: 2012

S/N: 027499-6

CAP: 1000 bbl

Floor Thk: 1/4"

Shell Thk: 1/4-3/16"

Roof Thk: 3/16"

Requisitioned by: Randy Chiurka

Approver: Shane Gustavson

Approver Code: 2Z-2001456

WO #: 81298259

PO#: 8401273576

CC:

SAP #: 66232321

EXTERNAL INSPECTION:

ID	Item	Yes	Good	N/A	See Notes
	GENERAL				
T1	Other (Please Explain)				
T2	Corrosion				
T3	Leaks				
T4	Vibration				
T5	Dissimilar Flange Rating				
T6	Ladder/Stairway				
T7	Platform				
T8	Electrical Ground				
T9	Cathodic Protection				
T10	Painted Inactive Corrosion				
T11	Coating/Painting				
T12	Level Gauge				
T13	Bottom				
T14	Secondary Containment				
T15	Shell				
T16	Roof				
T17	Agitator/ Mixer				
	SUPPORTS				
T31	Other (Please Explain)				
T32	Foundation				
T33	Anchor Bolts				
T34	Windgirders				
	CONNECTIONS				
T41	Other (Please explain)				
T42	Small Branches				
T43	Nozzles				
T44	Pipe Manifolds				
T45	Swing Lines				
T46	Manways/Hatches				
T47	Reinforcing Pads				
T48	Inadequate Thread Engagement				
T49	Bolting				
T50	Flanges				
T51	Leak Clamps				
	INSULATION				
T61	Other (Please explain)				
T62	Damage				
T63	Penetrations				
T64	Jacket				
T65	Banding				
T66	Seals/Joints				
	RELIEF DEVICE				
T7t	Other (Please explain)				
T72	Corrosion				
T73	Leaks				
T74	Restricted Inlet/Outlet				
T75	Manual Operation Lever				

INTERNAL INSPECTION:

ID	Item	Yes	Good	N/A	See Notes
	GENERAL				
T1	Other (Please Explain)				
T2	Corrosion	<input checked="" type="checkbox"/>			1
T3	Erosion			<input checked="" type="checkbox"/>	
T4	Distortion			<input checked="" type="checkbox"/>	
T5	Blisters			<input checked="" type="checkbox"/>	
T6	Deposits	<input checked="" type="checkbox"/>			2
T7	Welds	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
T8	Nozzles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
T9	Shell	<input checked="" type="checkbox"/>			1
T10	Roof	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
T11	Floor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	GENERAL				
T21	Other - Firetube	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
T21	Other - Anodes			<input checked="" type="checkbox"/>	
T22	Annular Ring			<input checked="" type="checkbox"/>	
T23	Sump			<input checked="" type="checkbox"/>	
T24	Roof Supports			<input checked="" type="checkbox"/>	
T25	Thermowells	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
T26	Metallic Linings			<input checked="" type="checkbox"/>	
T27	Non Metallic Linings			<input checked="" type="checkbox"/>	
T28	Internal Steam Coil / other Piping	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
T29	Level Gauge	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
T30	Other Welded Attachments	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	Backwelding Req'd			<input checked="" type="checkbox"/>	

ID	Notes
1	<p>* Areas of moderate to severe corrosion on internal shell etc. Worst areas UT inspected - see next page</p> <p>- Pitting appears confined to Bottom 3-4 feet</p> <p>2 Scale on shell</p>
	<p>* Note: Recommend tank be placed on 1 yr inspection interval to re-assess progression of shell corrosion</p> <p>- Further assessment by Husky QA/QC recommended</p>



Without MFE		
.170 - up	5 yr	
.160 - .169	4 yr	
.150 - .159	3 yr	
.140 - .149	2 yr	
.130 - .139	1 yr	✓
under .130	Patch	
	Replace	
	Floor	
	Shell	

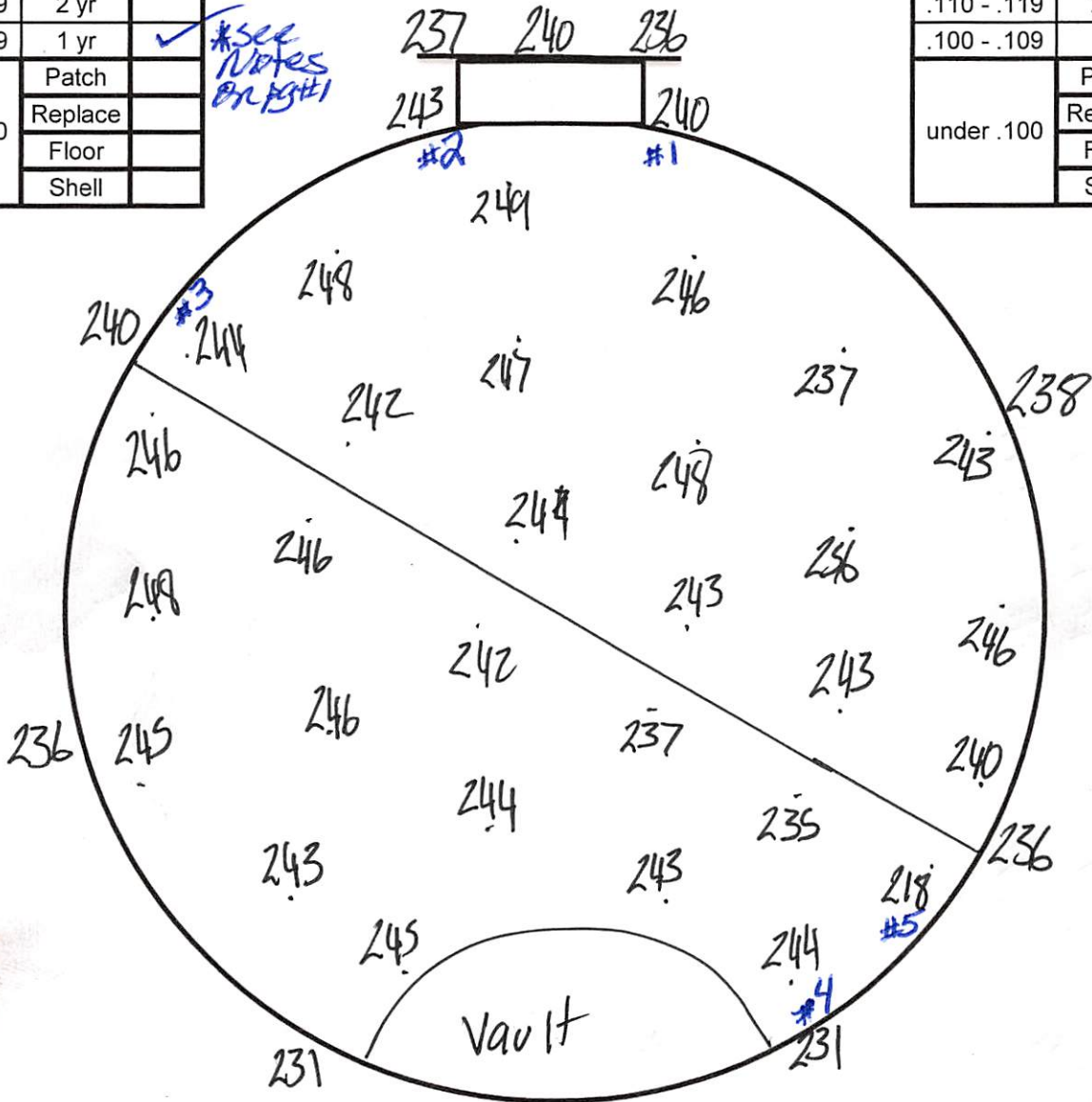
S/N: 027499-6

Location: D4 104/1-3-49-2w4 sfc:16-3-49-2w4

With MFE		
.140 - .150	5 yr	
.130 - .139	4 yr	
.120 - .129	3 yr	
.110 - .119	2 yr	
.100 - .109	1 yr	
under .100	Patch	
	Replace	
	Floor	
	Shell	

R.L.

*see notes on p5 #1



Comments:

#1 = .190
 #2 = .213
 #3 = .203
 #4 = .207
 #5 = .213

Areas #1 to #5 areas of worst corrosion UT inspected.

Inspected by: Sheldon Trachuk

Date: Jun. 29. 18

Husky Inspector: _____

Date: _____

Type of Inspection: VT / UT	Rev: n/a	Client: HUSKY OIL OPERATIONS LIMITED	Date: 29-Jun-18
Test Technique: Visual / UT / thickness inspection	IRISNDT #: LYN1800958	WO #: 81298259	
Equipment: DMS GO+, Generator, Grinder	Location: (D4) 104/1-3-49-2w4 sfc:16-3-49-2w4	PO #: 8401273576	
Code / Standard: Client Spec.	Item Inspected: 1000BBL Tank		

A Visual / UT inspection was carried out as requested on (1) - 1000BBL Tank

@ (D4) 104/1-3-49-2w4 sfc: 16-3-49-2w4

Tank#2 sn# 027499-6

Recommendations / Notes of inspection :

- MODERATE - SEVERE Corrosion evident throughout internal shell surface worst areas seen visually were UT inspected - (5) areas total UT inspected = #1= 0.190" #2= 0.213" #3= 0.203" #4= 0.207" #5= 0.213"
- Due to severity of corrosion found coupled with age of set up - Recommend tank be placed on a 1yr. inspection interval to further assess progression of corrosion found - Further Assessment required by Husky QA/QC

UNIVERSAL INDUSTRIES	
BONNVILLE • ALBERTA	
DATE BUILT 2012	DESIGN PRESSURE 1000 PSI
NOMINAL DIAMETER 18-3	DESIGN SPECIFIC GRAVITY 1
NOMINAL HEIGHT 32-0	
NOMINAL CAPACITY 1000 BBL	MAX. OPER. TEMP. 200
SHELL THK. COURSE 1 1.250	REVISION NUMBER
SHELL THK. COURSE 2 1.187	APPENDIX 125 35 0100
SHELL THK. COURSE 3 1.187	EDITION 125 35 0100
SHELL THK. COURSE 4 1.187	DESIGN LIQUID LEVEL 125 35 0100
FLOOR THICKNESS 1.187	PARTIAL STRESS RELIEF
ROOF THICKNESS 1.187	PURCHASER'S TANK NO. 125 35 0100
MANUFACTURER'S SERIAL NUMBER 037499-6	



For additional inspection results see attached inspection sheets.

REQ:Randy Chiurka APP: Shane Gustavson 2Z-2001456

Inspection Limitation(s):

Unit#: 1000 Kilometers: _____ In: _____ Out: _____ Hrs: _____ In: _____ Out: _____ Hrs: _____ Personnel: Sheldon Trachuk Brayden McGinnis	Consumables: MIN	Interpretation by: Sheldon Trachuk (Print) _____ (Sign) _____ Client Representative: (Print) Karen Hawryluk (Sign) _____ I am in full agreement with report contents	SNT-TC-1A: 1 C.G.S.B.: UT-2 (Level) C.G.S.B #: 11405
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Corrosion UT locations #1 - #3



Corrosion UT locations #4 - #5

IRISNDT #: LYN1800958

Date: 29-Jun-18

Client: HUSKY OIL OPERATIONS LIMITED

Sheldon Trachuk

(Print)

(Sign)

5311 - 86 Street NW, Edmonton, Alberta T6E 5T8 Phone (780) 437-4747 Fax (780) 436-4873
 Calgary (403) 279-6121
 Lloydminster (780) 875-6455
 Barrhead (780) 674-3018
 Nisku (780) 955-7616

Cold Lake
 Fort McMurray
 Red Deer

(780) 826-6105
 (780) 743-1536
 (403) 347-1742

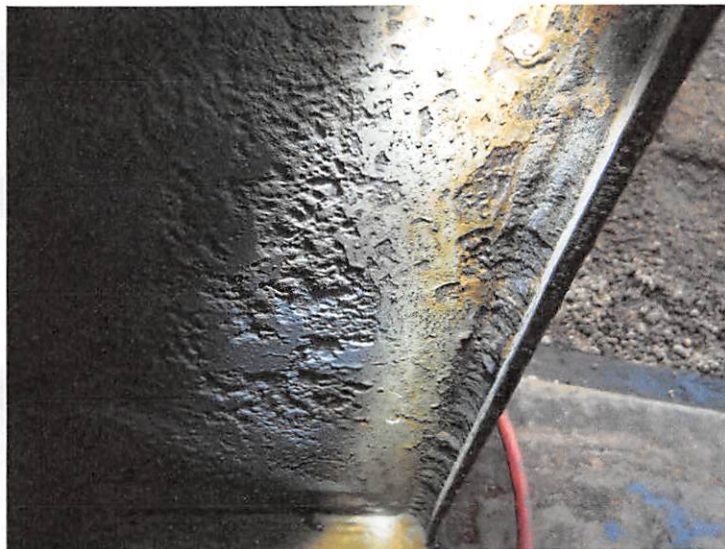
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Engineering, Calgary
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 Rope Access Services
 Offices also located in USA and UK

(403) 217-9684
 (780) 437-2022
 (780) 437-2022



UT Location#1



UT Location#2



UT Location#3



UT Location#4

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UT Location#5

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(Print)

(Sign)

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