



2669283

C.V.I.C.S.
Vessel Inspection Report
for
Alliance Engineering & Inspection Ltd. (Rio Alta Explorations)

Equip. Location: 15-36-65-4W6 Equip. #: _____ Equip. Description: Dehy Tower
Service : Gas Date of Inspection: 2001.05.10 & 11 Next Inspection Date: _____
Registration #: A2669283, CRN #: K-1401.2, Serial #: LS3944
Standard Inspected Under: CSA B51, ✓; ASME Sec. VIII Div. I, ✓; Other, _____
Type of Inspection: External ✓; Internal ✓; VT ✓; UT _____; RT _____; MT _____; PT _____
HT _____; LT _____; Other _____
Reason for Inspection : Routine _____; Scheduled ✓; Unscheduled _____

GENERAL:

Code : UM _____; U ✓;
MAWP : PSI 1150 ; kPa 7929 ; at MAWT : 150°F/66°C ; Capacity _____
Vessel has Manway : Yes ✓ ; No _____
Nozzle / Manway Repads T. T. holes; Leakage Evident : Yes _____; No ✓
Internal Random Visual Shell / Nozzle Welds Condition : Good ✓; Fair _____; Poor _____; Failure _____
External Random Visual Shell / Nozzle Welds Condition : Good ✓; Fair _____; Poor _____; Failure _____
Internal Random Visual Shell Condition : Good ✓; Fair _____; Poor _____; Failure _____
External Random Visual Shell Condition : Good ✓; Fair _____; Poor _____; Failure _____
Shell Material : SA516-70N ; Head Material : Top SA516-70N , Bottom SA516-70N
Internally Coated : Yes _____; No ✓
Coating Condition if applicable: Good _____; Fair _____; Poor _____; Failure _____; N/A ✓
Internally Cladded / Strip Lined : Yes _____; No ✓; Material : _____
Cladding Condition if applicable: Good _____; Fair _____; Poor _____; Failure _____; N/A ✓
Number of Internal Anodes : n/a ; Percentage of Anodes Remaining: n/a
Foundation Condition : Good ✓; Fair _____; Poor _____; Failure _____
Cathodic Protection Evident : Yes _____; No ✓; Unknown _____
Number of Safety Devices : _____; ID #s : _____; Inlet Sizes : _____; CRN #s : _____
Setting : PSI _____ ; / kPa _____; Serial #s : _____; Codes : _____
Capacities : USGM _____ , SCFM _____ , PPHS _____
Last PSV Service Date : _____

REMARKS : Additional vessel data : Vessel manufacture NATCO, year fabricated 1990, RTI, HT, shell nominal thickness 2.25", head nominal thickness 2.226", corrosion allowance 0.0625"
UT survey was done earlier this year and Rio Alto Exploration has the results on file.

External: Tower is insulated c/w cladding excluding the top head and the shell section in the building.
External coating is in satisfactory condition. Skirt bolts are satisfactory. Skirt cleanliness is satisfactory.
The PSV has been set out for servicing.

Internal: The tower was steamed out over night causing the product in the tower to bake onto the trays.
The coil located in the bottom head of the tower is in satisfactory condition. There is only a general mild corrosion evident, at the time of inspection.

The bottom and top heads as well as the shell is in satisfactory condition.

The bottom tray is above the coil is in satisfactory condition.

The demister above the lower manway is in poor to failed condition.

The demister above the top manway is plugged off.

The top five trays of the nine trays, caps are stuck in the closed position, due to the steaming process. The remaining trays the caps are sticking.

The chimney tray is in satisfactory condition. There is a water level at this tray level.

All of the down comer and tray clips / hardware is in place at the time of inspection.

TESTING:

Hydrostatic _____; Pneumatic _____; Shell / Tube Test Pressure _____; Repads Test Pressure _____
Test : Pass _____; Fail _____; N/A ✓.

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Equip. Location: 15-36-65-4W6 Equip. #: _____ Equip. Description: Dehy Tower

RECOMMENDATIONS: Prior to recommissioning the top demister should be cleaned and reinstalled; the bottom demister be replaced or removed if not require in the process; all tray caps to be loosened / freed up.

DO NOT STEAM THE TOWER THE NEXT SCHEDULE TA PRIOR TO INSPECTION. TO AVOID THE TRAY CAPS BEING BAKED ON.

STATUS :

Suitable for further service : Yes ; No
Repairs required : Yes ; No ; N/A
Repairs completed : Yes ; No ; N/A
Attached Reports : Yes ; No ; N/A

Inspected By :  _____
Board (API Certification # 902)

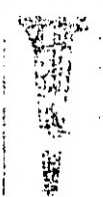
By: ML Date: 5/01 Dwg: 62

ULTRATEST NDT Services Inc.

Locations: 6200 - 6280

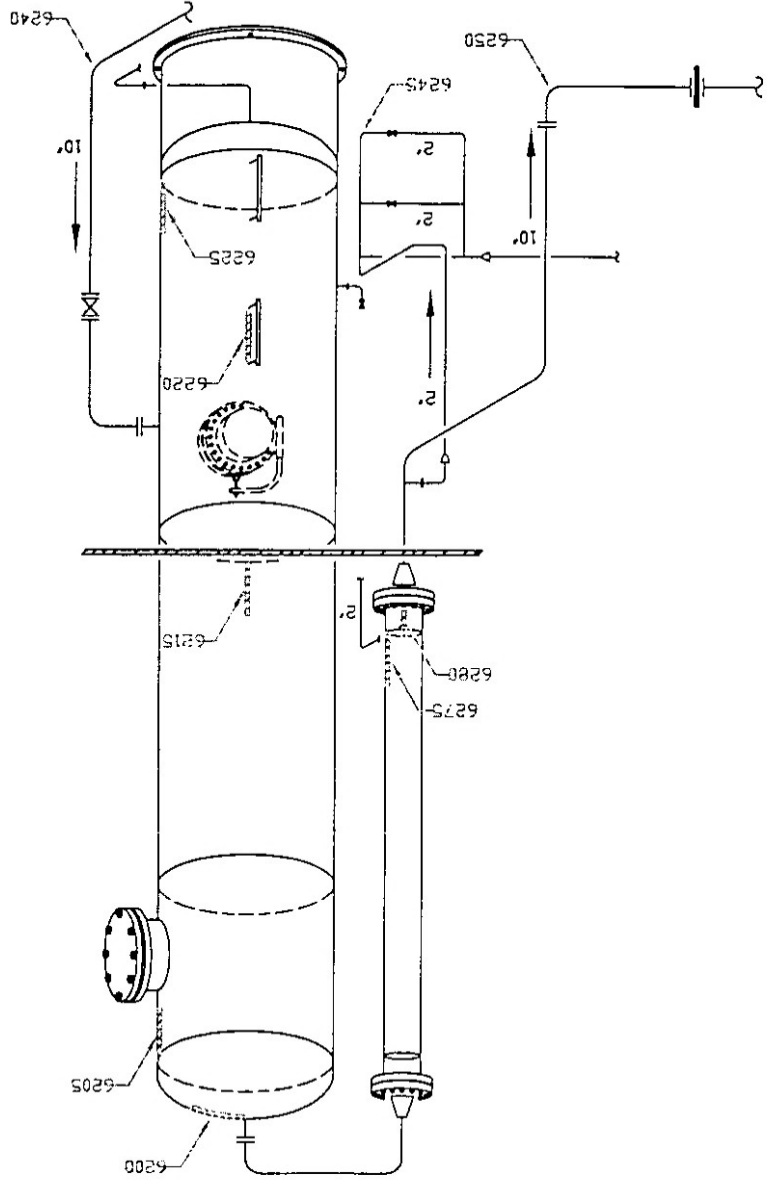
Rio Alito Exploration Ltd.
Karr Creek - North
15-36-65-4W6

RAX



Glycol Exchanger
Reg. No.: A 2645003
Built: 1990
Design S: 1150 PSI @ 300 F
Design T: 1150 PSI @ 300 F
Size SH: 12.75" OD x 12'
Size CH: 12.75" OD x 8"
J.E.: 100 %
C.A.: .063
Shell SH: 688 SA 106 B
Shell CH: 688 SA 106 B

Dehy 15-36
Glycol Contactor
Reg. No.: A 2669283
Built: 1990
Design: 1150 PSI @ 150 F
Size: 60" OD x 25'
J.E.: 100 %
C.A.: .063
Shell: 2,250 SA 516,70N
Head: 2,226 SA 516,70N



Index : 62a Dehy 15-36 Glycol Contactor

Reg. # : A 2669283

Item : 6200 V-BAND ON TOP SOUTH HEAD

Dwg. # : 62

Service : 3 Residue Gas

MWP : 1150 PSI @ 150 Ft

INSPECTION

May

DATES

2001

Temperatures F
Probe selection

50
7

After nozzle

1 2.232*

2 2.234

3 2.237

4 2.232*

5 2.244

6 2.252

7 2.249

8 2.244

9 2.259

10 2.269

11 2.267

12 2.272

Bottom

Average Reading 2.249
 Period Average Loss MPY
 Period Maximum Loss MPY
 Life Expectancy (Years)

Nominal thickness : 2.226

Critical : 1.900

Material : SA 516.70N

Total Total Avg. Period
 Loss Loss Loss
 (Mils) % MPY MPY

Index : 62a Dehy 15-36 Glycol Contactor
 Item : 6205 V-BAND ON TOP SOUTH SHELL
 Service : 3 Residue Gas
 Reg. # : A 2669283
 DWG. # : 62
 MWP : 1150 PSI @ 150 F°

Nominal thickness : 2.250
 Critical : 1.898
 Material : SA 516.70N

INSPECTION

May
 2001

Temperatures F°
 Probe selection

50
 7

After weld

1 2.262*
 2 2.277
 3 2.279
 4 2.274
 5 2.272
 6 2.274
 7 2.274

Bottom

Average Reading
 Period Average Loss MPY
 Period Maximum Loss MPY
 Life Expectancy (Years)

2.273

Index : 62a Dehy 15-36 Glycol Contactor

Reg. # : A 2669283

Item : 6215 V-BAND ON LOWER EAST SHELL

Dwg. # : 62

Service : 3 Residue Gas

MWP : 1150 PSI @ 150 F.

Material : SA 516.70N

Critical : 1.898

Nominal thickness : 2.250

INSPECTION

May 2001

DATES

Temperatures F

50

Probe selection

7

After support

1 2.307

2 2.309

3 2.314

4 2.314

5 2.312

6 2.312

7 2.309

8 2.307

9 2.304

10 2.307

11 2.309

12 2.299*

Before weld

Average Reading

2.309

Period Average Loss MPY

Period Maximum Loss MPY

Life Expectancy (Years)

Index : 62a Dehy 15-36 Glycol Contactor Reg. # : A 2669283

Item : 6220 V-BAND ON LOWER WEST SHELL Dwg. # : 62

Service : 1 Inlet gas MWP : 1150 PSI @ 150 ft

Material : SA 516.70N

Nominal thickness : 2.250

Critical : 1.898

INSPECTION

May 2001

DATES

Temperatures 50
Probe selection 7

Total loss (Mils) %
Total loss MPY Avg. Period
Total loss MPY

After nozzle

1 2.274*

After nozzle

2 2.282
3 2.284
4 2.294
5 2.284
6 2.282
7 2.284
8 2.289
9 2.282
10 2.282
11 2.282
12 2.289

Bottom

Average Reading 2.284
Period Average Loss MPY
Period Maximum Loss MPY
Life Expectancy (Years)

Index : 62a Dehy 15-36 glycol Contactor

Reg. # : A 2669283

Item : 6225 V-BAND ON BOTTOM SOUTH SHELL

Dwg. # : 62

Service : 6 Rich glycol

MWP : 1150 PSI @ 150 F

Nominal thickness : 2.250

Critical : 1.898

Material : SA 516.70M

INSPECTION

May 2001

DATES

Temperatures F

50

Probe selection

7

Top

1 2.289

2 2.284

3 2.284

4 2.282

5 2.284

6 2.284

7 2.284

8 2.277*

9 2.282

10 2.284

11 2.289

12 2.277*

Before weld

Average Reading

2.283

Period Average Loss MPY

Period Maximum Loss MPY

Life Expectancy (Years)

Total Loss Loss Loss
Total Avg. Period
(Mils) % MPY MPY

Index : 62a Dehy 15-36 Glycol Contactor

Reg. # : A 2669283

Item : 6245 V-BAND ON 2 IN. ELL

Dwg. # : 62

Service : 3 Residue Gas

MWP : 1150 PSI @ 150 F¹

Material : A 234 WPB

Nominal thickness : .218

Critical : .083

INSPECTION

May
2001

DATES

Temperatures F¹
50

Probe selection
1

Top
1
2
3
4
5
Bottom

.222
.217*
.222
.230
.228

Average Reading
Period Average Loss MPY
Period Maximum Loss MPY
Life Expectancy (Years)

.224

Index : 62a Dehy 15-36 Glycol Contactor

Reg. # : A 2669283

Item : 6250 V-BAND ON 10 IN. ELL

Dwg. # : 62

Service : 3 Residue Gas

MWP : 1150 PSI @ 150 F

Material : A 234 WPB

Nominal thickness : .594

Critical : .302

INSPECTION

May

DATES

2001

Temperatures F

50

Probe selection

1

Total	Total	Avg.	Period
Loss	Loss	Loss	Loss
(Mils)	%	MPY	MPY

Top

1 .657

2 .627

3 .618

4 .610

5 .600

6 .592

7 .592

8 .592

9 .592

10 .588

11 .585*

12 .592

13 .595

14 .595

15 .595

16 .612

17 .603

18 .607

19 .600

20 .610

21 .603

22 .620

23 .620

Bottom

Average Reading

.605

Period Average Loss MPY

Period Maximum Loss MPY

Life Expectancy (Years)