



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

Regina, SK

TANK # 54-10-125

855 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 55' 6" Diameter X 35' Height

INNAGE TABLE

Reference Gauge Height - 12.104 Metres / 39' 8 9/16"; Located 51 Inches to Benchmark												Height in Inches; Capacities in Cubic Metres											
0	0*	0.643	4	0	258.887	8	0	531.305	12	0	803.661	16	0	1,076.060									
	1*	1.717		1	264.563		1	536.979		1	809.336		1	1,081.737									
	2*	3.492		2	270.239		2	542.652		2	815.010		2	1,087.414									
	3*	5.873		3	275.915		3	548.326		3	820.685		3	1,093.091									
	4*	9.417		4	281.591		4	554.000		4	826.359		4	1,098.767									
	5*	14.796		5	287.267		5	559.673		5	832.034		5	1,104.444									
	6	20.474		6	292.943		6	565.347		6	837.708		6	1,110.121									
	7	26.153		7	298.619		7	571.020		7	843.383		7	1,115.798									
	8	31.831		8	304.295		8	576.694		8	849.057		8	1,121.475									
	9	37.509		9	309.971		9	582.368		9	854.731		9	1,127.152									
	10	43.188		10	315.647		10	588.041		10	860.406		10	1,132.829									
	11	48.864		11	321.323		11	593.715		11	866.080		11	1,138.506									
1	0	54.540	5	0	326.999	9	0	599.388	13	0	871.755	17	0	1,144.183									
	1	60.216		1	332.675		1	605.062		1	877.429		1	1,149.859									
	2	65.893		2	338.351		2	610.736		2	883.104		2	1,155.536									
	3	71.569		3	344.027		3	616.409		3	888.778		3	1,161.213									
	4	77.246		4	349.703		4	622.083		4	894.453		4	1,166.890									
	5	82.922		5	355.379		5	627.756		5	900.127		5	1,172.567									
	6	88.599		6	361.055		6	633.430		6	905.802		6	1,178.244									
	7	94.276		7	366.731		7	639.104		7	911.476		7	1,183.921									
	8	99.952		8	372.407		8	644.777		8	917.151		8	1,189.598									
	9	105.629		9	378.083		9	650.451		9	922.825		9	1,195.274									
	10	111.306		10	383.759		10	656.124		10	928.500		10	1,200.951									
	11	116.982		11	389.435		11	661.799		11	934.174		11	1,206.628									
2	0	122.659	6	0	395.110	10	0	667.473	14	0	939.849	18	0	1,212.305									
	1	128.335		1	400.786		1	673.148		1	945.524		1	1,217.982									
	2	134.012		2	406.462		2	678.822		2	951.199		2	1,223.659									
	3	139.688		3	412.138		3	684.497		3	956.875		3	1,229.336									
	4	145.364		4	417.814		4	690.171		4	962.550		4	1,235.013									
	5	151.040		5	423.490		5	695.846		5	968.226		5	1,240.690									
	6	156.716		6	429.166		6	701.520		6	973.901		6	1,246.366									
	7	162.392		7	434.842		7	707.195		7	979.577		7	1,252.043									
	8	168.069		8	440.518		8	712.869		8	985.252		8	1,257.720									
	9	173.745		9	446.194		9	718.544		9	990.928		9	1,263.397									
	10	179.421		10	451.870		10	724.218		10	996.603		10	1,269.074									
	11	185.097		11	457.546		11	729.893		11	1,002.279		11	1,274.751									
3	0	190.773	7	0	463.222	11	0	735.567	15	0	1,007.954	19	0	1,280.428									
	1	196.449		1	468.896		1	741.242		1	1,013.630		1	1,286.105									
	2	202.126		2	474.569		2	746.916		2	1,019.305		2	1,291.782									
	3	207.802		3	480.243		3	752.591		3	1,024.981		3	1,297.458									
	4	213.478		4	485.916		4	758.265		4	1,030.656		4	1,303.135									
	5	219.154		5	491.590		5	763.940		5	1,036.332		5	1,308.812									
	6	224.830		6	497.264		6	769.614		6	1,042.007		6	1,314.489									
	7	230.506		7	502.937		7	775.289		7	1,047.683		7	1,320.166									
	8	236.182		8	508.611		8	780.963		8	1,053.358		8	1,325.843									
	9	241.858		9	514.284		9	786.638		9	1,059.033		9	1,331.520									
	10	247.534		10	519.958		10	792.312		10	1,064.709		10	1,337.197									
	11	253.211		11	525.632		11	797.987		11	1,070.384		11	1,342.873									

** Volume Below Strike Point. Located 0.75" above intersection of shell & bottom.

* Bottom volume based on Physical Survey Calculation. Average Inches not applicable

Volumes reflect a Shell Temperature of 15°C

Safe Fill Height @ 32' 7"

Foam Line Height @ 33' 10"

Tables produced by:
Nextgen Industrial Services Inc.
(306) 596-8330
www.nextgenis.net



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CO-OP Refinery Complex

TANK # 54-10-125

Regina, SK

855 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 55' 6" Diameter X 35' Height

INNAGE TABLE

Reference Gauge Height - 12.104 Metres / 39' 8 9/16"; Located 51 Inches to Benchmark											Height in Inches; Capacities in Cubic Metres										
20	0	1,348.550	24	0	1,621.247	28	0	1,894.015	32	0	2,167.387	36	0								
	1	1,354.227		1	1,626.930		1	1,899.705		1	2,173.083		1								
	2	1,359.904		2	1,632.612		2	1,905.400		2	2,178.778		2								
	3	1,365.581		3	1,638.295		3	1,911.096		3	2,184.474		3								
	4	1,371.258		4	1,643.978		4	1,916.791		4	2,190.169		4								
	5	1,376.935		5	1,649.660		5	1,922.486		5	2,195.864		5								
	6	1,382.612		6	1,655.343		6	1,928.182		6	2,201.560		6								
	7	1,388.289		7	1,661.026		7	1,933.877		7	2,207.255		7	SF							
	8	1,393.965		8	1,666.708		8	1,939.573		8	2,212.950		8								
	9	1,399.642		9	1,672.391		9	1,945.268		9	2,218.646		9								
	10	1,405.319		10	1,678.074		10	1,950.963		10	2,224.341		10								
	11	1,410.996		11	1,683.756		11	1,956.659		11	2,230.037		11								
21	0	1,416.673	25	0	1,689.439	29	0	1,962.354	33	0	2,235.732	37	0								
	1	1,422.354		1	1,695.122		1	1,968.049		1	2,241.427		1								
	2	1,428.036		2	1,700.804		2	1,973.745		2	2,247.123		2								
	3	1,433.719		3	1,706.487		3	1,979.440		3	2,252.818		3								
	4	1,439.402		4	1,712.170		4	1,985.135		4	2,258.513		4								
	5	1,445.084		5	1,717.852		5	1,990.831		5	2,264.209		5								
	6	1,450.767		6	1,723.535		6	1,996.526		6	2,269.904		6								
	7	1,456.450		7	1,729.218		7	2,002.222		7	2,275.599		7								
	8	1,462.132		8	1,734.901		8	2,007.917		8	2,281.295		8								
	9	1,467.815		9	1,740.583		9	2,013.612		9	2,286.990		9								
	10	1,473.498		10	1,746.266		10	2,019.308		10	2,292.686		10	FL							
	11	1,479.180		11	1,751.949		11	2,025.003		11	2,298.381		11								
22	0	1,484.863	26	0	1,757.631	30	0	2,030.698	34	0	2,304.076	38	0								
	1	1,490.546		1	1,763.314		1	2,036.394		1	2,309.772		1								
	2	1,496.228		2	1,768.997		2	2,042.089		2	2,315.467		2								
	3	1,501.911		3	1,774.679		3	2,047.785		3	2,321.162		3								
	4	1,507.594		4	1,780.362		4	2,053.480		4	2,326.858		4								
	5	1,513.276		5	1,786.045		5	2,059.175		5	2,332.553		5								
	6	1,518.959		6	1,791.727		6	2,064.871		6	2,338.249		6								
	7	1,524.642		7	1,797.410		7	2,070.566		7	2,343.944		7								
	8	1,530.324		8	1,803.093		8	2,076.261		8	2,349.639		8								
	9	1,536.007		9	1,808.775		9	2,081.957		9	2,355.335		9								
	10	1,541.690		10	1,814.458		10	2,087.652		10	2,361.030		10								
	11	1,547.372		11	1,820.141		11	2,093.348		11	2,366.725		11								
23	0	1,553.055	27	0	1,825.823	31	0	2,099.043	35	0	2,372.421	39	0								
	1	1,558.738		1	1,831.506		1	2,104.738		1	2,375.782		1								
	2	1,564.420		2	1,837.189		2	2,110.434		2			2								
	3	1,570.103		3	1,842.871		3	2,116.129		3			3								
	4	1,575.786		4	1,848.554		4	2,121.824		4			4								
	5	1,581.468		5	1,854.237		5	2,127.520		5			5								
	6	1,587.151		6	1,859.919		6	2,133.215		6			6								
	7	1,592.834		7	1,865.602		7	2,138.911		7			7								
	8	1,598.516		8	1,871.285		8	2,144.606		8			8								
	9	1,604.199		9	1,876.967		9	2,150.301		9			9								
	10	1,609.882		10	1,882.650		10	2,155.997		10			10								
	11	1,615.564		11	1,888.333		11	2,161.692		11			11								

Fractions

1/16	0.355578	9/16	3.200206
1/8	0.711157	5/8	3.555784
3/16	1.066735	11/16	3.911363
1/4	1.422314	3/4	4.266941
5/16	1.777892	13/16	4.622520
3/8	2.133471	7/8	4.978098
7/16	2.489049	15/16	5.333676
1/2	2.844627	1	5.689255

SF - Safe Fill Height @ 32' 7"
FL - Foam Line Height @ 33' 10"

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex **TANK # 54-10-125**

Regina, SK **855 kg/m3 @ 15°C**

Cone Roof Tank - Nominal Dimensions : 55' 6" Diameter X 35' Height

Volumes in: Cubic Metres

To Increment	Incs	Gross Volume per Increment	Deadwood Volume	Net Volume	Accumulated Volume
0	1	0.000000	0.642716	0.642716	0.642716
1	1	5.684850	-4.610197	1.074653	1.717369
2	1	5.684850	-3.910429	1.774421	3.491790
3	1	5.684850	-3.303643	2.381207	5.872997
4	1	5.684850	-2.140999	3.543852	9.416849
5	1	5.684850	-0.305551	5.379299	14.796148
10	5	5.684850	-0.006513	5.678337	43.187835
11	1	5.684850	-0.008822	5.676028	48.863863
12	1	5.684850	-0.008716	5.676134	54.539997
13	1	5.684850	-0.008551	5.676300	60.216297
14	1	5.684850	-0.008374	5.676476	65.892773
18	4	5.684850	-0.008279	5.676571	88.599059
22	4	5.684850	-0.008170	5.676680	111.305779
23	1	5.684850	-0.008347	5.676504	116.982283
24	1	5.684850	-0.008181	5.676669	122.658951
25	1	5.684850	-0.008453	5.676397	128.335349
26	1	5.684850	-0.008618	5.676232	134.011581
42	16	5.684850	-0.008688	5.676162	224.830178
44	2	5.684850	-0.008796	5.676054	236.182285
46	2	5.684850	-0.008892	5.675958	247.534202
47	1	5.684850	-0.007990	5.676860	253.211062
83	36	5.684850	-0.008873	5.675977	457.546248
84	1	5.684607	-0.008873	5.675734	463.221983
118	34	5.682476	-0.008873	5.673603	656.124477
168	50	5.682476	-0.007990	5.674486	939.848757
169	1	5.683162	-0.007990	5.675173	945.523930
192	23	5.683467	-0.007990	5.675477	1076.059901
252	60	5.683467	-0.006583	5.676884	1416.672958
253	1	5.687158	-0.006583	5.680576	1422.353534
336	83	5.689255	-0.006583	5.682672	1894.015333
337	1	5.696155	-0.006583	5.689572	1899.704905
420	83	5.701955	-0.006583	5.695373	2372.420828
421	1	3.367296	-0.006583	3.360714	2375.781542

Tables produced by:
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CO-OP Refinery Complex
Regina, SK

General Information

Tank Number	54-10-125
Date of Strapping Data	10/24/2016
Year Built	
Product in Service	Diesel
Product Service Density	0.86 g/cc (SG)

Tank Dimensions

Nominal Diameter	55' 6"
Nominal Height	35 Feet
Measured Tank Height	10.683 Metres
Tank Tilt	
Gauge Point Information	Benchmark in Hatch
Reference Gauge Height	12.104 Metres
Horizontal To Gauge	51 Inches

Roof & Bottom Survey

Roof Type	Cone
Floating Roof Shape	N/A
Floating Roof Weight	0 Kilograms
Roof Landed Height	N/A
Roof Full Floating Height	N/A
Bottom Description	Physical Survey

Report Constraints

Main Increment	Inches
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	391 Inches
Overflow Or Foamline	10.310 Metres

CO-OP Refinery Complex
Regina, SK

Strap Correction to 60°F

Shell Temperature (°F)	50.0	Master Tape Serial	11
Shell Material	Carbon Steel	Master Tape Span	100.0000 Metres
Shell Expansion (per Foot)	0.000006450	Master Tape Tension	5lbs
Certified Tape Factor	1.000000		
Tape Correction Factor	1+('Shell Temperature' - 68)'Tape Expansion'		
Shell Correction Factor	1+(60 - 'Shell Temperature')'Shell Expansion'		

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 0.99994839

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	53.085	174.163	0.001	174.154
2	53.085	174.163	0.001	174.154
3	53.085	174.163	0.001	174.154
4	53.085	174.163	0.001	174.154
5	53.085	174.163	0.001	174.154

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	678.250	0.000	0.000	53.082	174.154
2	682.500	4.250	-26.704	53.055	174.066
3	682.625	4.375	-27.489	53.055	174.063
4	679.188	0.938	-5.890	53.076	174.134
5	670.625	-7.625	47.909	53.130	174.311

CO-OP Refinery Complex
Regina, SK

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	174.154	0.312 Inches	2.131 Metres	2.131 Metres
2	174.066	0.250 Inches	2.144 Metres	4.275 Metres
3	174.063	0.250 Inches	2.135 Metres	6.410 Metres
4	174.134	0.250 Inches	2.136 Metres	8.546 Metres
5	174.311	0.250 Inches	2.137 Metres	10.683 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	11	0.750 Inches	1.000 Millimetres
2	Butt Weld	11	0.750 Inches	1.000 Millimetres
3	Butt Weld	11	0.750 Inches	1.000 Millimetres
4	Butt Weld	11	0.750 Inches	1.000 Millimetres
5	Butt Weld	11	0.750 Inches	1.000 Millimetres

CO-OP Refinery Complex
Regina, SK

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	174.154	0.312	0
2.00	62.428	1.000	0	174.066	0.250	0
3.00	62.428	1.000	0	174.063	0.250	0
4.00	62.428	1.000	0	174.134	0.250	0
5.00	62.428	1.000	0	174.311	0.250	0

CO-OP Refinery Complex
Regina, SK

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2 * D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	174.154	0.000	0.001	0.163	173.990
2	174.066	0.000	0.001	0.131	173.935
3	174.063	0.000	0.001	0.131	173.932
4	174.134	0.000	0.001	0.131	174.003
5	174.311	0.000	0.001	0.131	174.180

CO-OP Refinery Complex
Regina, SK

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Inch
1	173.990	0.004	173.994	5.685
2	173.935	0.009	173.944	5.682
3	173.932	0.009	173.941	5.681
4	174.003	0.009	174.012	5.686
5	174.180	0.009	174.189	5.698

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Regina, SK

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} \times \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi \times W \times G \times D^3}{4 \times E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Inch	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	5.685	0.001	0.000	5.685	5.685
2	5.682	0.001	0.001	5.683	5.682
3	5.681	0.001	0.002	5.684	5.683
4	5.686	0.001	0.003	5.689	5.689
5	5.698	0.000	0.004	5.702	5.702



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

Regina, SK

TANK # 54-10-63

1058 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 60 Feet X 26 Feet

INNAGE TABLE

Reference Gauge Height - 9.294 Metres / 30' 5 7/8"; Located 49 Inches to Benchmark												Height in Inches; Capacities in Cubic Metres									
0	0*	0.250	4	0	306.889	8	0	627.000	12	0	946.835	16	0	1,266.967							
1	1*	1.819	1	1	313.558	1	1	633.663	1	1	953.505	1	1	1,273.626							
2	2*	4.730	2	2	320.227	2	2	640.327	2	2	960.174	2	2	1,280.285							
3	3*	9.079	3	3	326.896	3	3	646.990	3	3	966.844	3	3	1,286.944							
4	4*	14.141	4	4	333.565	4	4	653.653	4	4	973.513	4	4	1,293.603							
5		20.805	5	5	340.234	5	5	660.316	5	5	980.183	5	5	1,300.262							
6		27.468	6	6	346.903	6	6	666.980	6	6	986.852	6	6	1,306.921							
7		34.132	7	7	353.572	7	7	673.643	7	7	993.521	7	7	1,313.580							
8		40.795	8	8	360.241	8	8	680.306	8	8	1,000.191	8	8	1,320.239							
9		47.459	9	9	366.910	9	9	686.969	9	9	1,006.860	9	9	1,326.898							
10		54.123	10	10	373.579	10	10	693.633	10	10	1,013.530	10	10	1,333.557							
11		60.787	11	11	380.248	11	11	700.296	11	11	1,020.199	11	11	1,340.215							
1	0	67.451	5	0	386.917	9	0	706.959	13	0	1,026.868	17	0	1,346.874							
1	1	74.114	1	1	393.586	1	1	713.622	1	1	1,033.538	1	1	1,353.533							
2	2	80.778	2	2	400.255	2	2	720.285	2	2	1,040.207	2	2	1,360.192							
3	3	87.442	3	3	406.924	3	3	726.949	3	3	1,046.877	3	3	1,366.851							
4	4	94.105	4	4	413.593	4	4	733.612	4	4	1,053.546	4	4	1,373.510							
5	5	100.770	5	5	420.262	5	5	740.275	5	5	1,060.216	5	5	1,380.169							
6	6	107.402	6	6	426.931	6	6	746.938	6	6	1,066.885	6	6	1,386.828							
7	7	114.034	7	7	433.600	7	7	753.602	7	7	1,073.554	7	7	1,393.487							
8	8	120.668	8	8	440.269	8	8	760.265	8	8	1,080.224	8	8	1,400.146							
9	9	127.302	9	9	446.938	9	9	766.928	9	9	1,086.893	9	9	1,406.805							
10	10	133.936	10	10	453.607	10	10	773.591	10	10	1,093.563	10	10	1,413.464							
11	11	140.571	11	11	460.276	11	11	780.255	11	11	1,100.232	11	11	1,420.123							
2	0	147.207	6	0	466.945	10	0	786.918	14	0	1,106.901	18	0	1,426.782							
1	1	153.843	1	1	473.614	1	1	793.581	1	1	1,113.571	1	1	1,433.441							
2	2	160.480	2	2	480.283	2	2	800.244	2	2	1,120.240	2	2	1,440.100							
3	3	167.116	3	3	486.952	3	3	806.907	3	3	1,126.910	3	3	1,446.759							
4	4	173.754	4	4	493.621	4	4	813.571	4	4	1,133.579	4	4	1,453.418							
5	5	180.393	5	5	500.290	5	5	820.234	5	5	1,140.249	5	5	1,460.077							
6	6	187.031	6	6	506.959	6	6	826.897	6	6	1,146.918	6	6	1,466.735							
7	7	193.669	7	7	513.628	7	7	833.560	7	7	1,153.587	7	7	1,473.394							
8	8	200.307	8	8	520.297	8	8	840.224	8	8	1,160.257	8	8	1,480.053							
9	9	206.945	9	9	526.966	9	9	846.887	9	9	1,166.926	9	9	1,486.712							
10	10	213.583	10	10	533.635	10	10	853.550	10	10	1,173.596	10	10	1,493.371							
11	11	220.220	11	11	540.304	11	11	860.213	11	11	1,180.265	11	11	1,500.030							
3	0	226.858	7	0	546.973	11	0	866.877	15	0	1,186.934	19	0	1,506.689							
1	1	233.527	1	1	553.642	1	1	873.540	1	1	1,193.604	1	1	1,513.348							
2	2	240.197	2	2	560.311	2	2	880.203	2	2	1,200.273	2	2	1,520.007							
3	3	246.866	3	3	566.980	3	3	886.866	3	3	1,206.943	3	3	1,526.666							
4	4	253.535	4	4	573.649	4	4	893.529	4	4	1,213.612	4	4	1,533.325							
5	5	260.205	5	5	580.318	5	5	900.193	5	5	1,220.282	5	5	1,539.984							
6	6	266.874	6	6	586.986	6	6	906.856	6	6	1,226.951	6	6	1,546.643							
7	7	273.543	7	7	593.655	7	7	913.519	7	7	1,233.620	7	7	1,553.302							
8	8	280.212	8	8	600.324	8	8	920.182	8	8	1,240.290	8	8	1,559.961							
9	9	286.881	9	9	606.993	9	9	926.846	9	9	1,246.959	9	9	1,566.620							
10	10	293.551	10	10	613.662	10	10	933.509	10	10	1,253.629	10	10	1,573.279							
11	11	300.220	11	11	620.331	11	11	940.172	11	11	1,260.298	11	11	1,579.938							

** Volume Below Strike Point. Located 0.35" above intersection of shell & bottom.

* Bottom volume based on Physical Survey Calculation. Average Inches not applicable

Volumes reflect a Shell Temperature of 15°C

Safe Fill Height @ 24' 0"

Tables produced by:
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Action Number P2190102940 - Exhibit G



CO-OP Refinery Complex

TANK # 54-10-63

Regina, SK

1058 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 60 Feet X 26 Feet

INNAGE TABLE

Reference Gauge Height - 9.294 Metres / 30' 5 7/8"; Located 49 Inches to Benchmark

Height in Inches; Capacities in Cubic Metres

20	0	1,586.597	24	0	SF	1,905.878	28	0	32	0	36	0
	1	1,593.255		1		1,912.522		1		1		1
	2	1,599.914		2		1,919.167		2		2		2
	3	1,606.573		3		1,925.811		3		3		3
	4	1,613.232		4		1,932.456		4		4		4
	5	1,619.891		5		1,939.100		5		5		5
	6	1,626.550		6		1,945.745		6		6		6
	7	1,633.209		7		1,952.389		7		7		7
	8	1,639.868		8		1,959.033		8		8		8
	9	1,646.527		9		1,965.678		9		9		9
	10	1,653.186		10		1,972.322		10		10		10
	11	1,659.845		11		1,978.967		11		11		11
21	0	1,666.504	25	0		1,985.611	29	0	33	0	37	0
	1	1,673.163		1		1,992.256		1		1		1
	2	1,679.822		2		1,998.900		2		2		2
	3	1,686.481		3		2,005.545		3		3		3
	4	1,693.140		4		2,012.189		4		4		4
	5	1,699.799		5		2,018.833		5		5		5
	6	1,706.458		6		2,025.478		6		6		6
	7	1,713.117		7		2,032.122		7		7		7
	8	1,719.775		8		2,038.767		8		8		8
	9	1,726.434		9		2,045.411		9		9		9
	10	1,733.093		10		2,052.056		10		10		10
	11	1,739.752		11		2,058.700		11		11		11
22	0	1,746.411	26	0		2,065.135	30	0	34	0	38	0
	1	1,753.055		1				1		1		1
	2	1,759.700		2				2		2		2
	3	1,766.344		3				3		3		3
	4	1,772.989		4				4		4		4
	5	1,779.633		5				5		5		5
	6	1,786.278		6				6		6		6
	7	1,792.922		7				7		7		7
	8	1,799.567		8				8		8		8
	9	1,806.211		9				9		9		9
	10	1,812.855		10				10		10		10
	11	1,819.500		11				11		11		11
23	0	1,826.144	27	0			31	0	35	0	39	0
	1	1,832.789		1				1		1		1
	2	1,839.433		2				2		2		2
	3	1,846.078		3				3		3		3
	4	1,852.722		4				4		4		4
	5	1,859.367		5				5		5		5
	6	1,866.011		6				6		6		6
	7	1,872.656		7				7		7		7
	8	1,879.300		8				8		8		8
	9	1,885.944		9				9		9		9
	10	1,892.589		10				10		10		10
	11	1,899.233		11				11		11		11

SF - Safe Fill Height @ 24'

Fractions

1/16	0.416184	9/16	3.745658
1/8	0.832368	5/8	4.161842
3/16	1.248553	11/16	4.578026
1/4	1.664737	3/4	4.994210
5/16	2.080921	13/16	5.410395
3/8	2.497105	7/8	5.826579
7/16	2.913289	15/16	6.242763
1/2	3.329474	1	6.658947

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-63

Regina, SK

1058 kg/m3 @ 15°C

Cone Roof Tank - Nominal Dimensions : 60 Feet X 26 Feet

Volumes in: Cubic Metres

To Increment	Incs	Gross Volume per Increment	Deadwood Volume	Net Volume	Accumulated Volume
0	1	0.000000	0.249762	0.249762	0.249762
1	1	6.669867	-5.100331	1.569536	1.819298
2	1	6.669867	-3.759176	2.910691	4.729989
3	1	6.669867	-2.321293	4.348574	9.078564
4	1	6.669867	-1.606947	5.062920	14.141484
7	3	6.669867	-0.006432	6.663435	34.131790
8	1	6.669867	-0.006236	6.663631	40.795420
9	1	6.669867	-0.006165	6.663702	47.459123
11	2	6.669867	-0.005985	6.663882	60.786886
16	5	6.669867	-0.006181	6.663686	94.105317
17	1	6.669867	-0.005666	6.664201	100.769517
18	1	6.669867	-0.037557	6.632310	107.401827
19	1	6.669867	-0.037460	6.632407	114.034234
20	1	6.669867	-0.035957	6.633910	120.668145
21	1	6.669867	-0.035793	6.634074	127.302218
22	1	6.669867	-0.035692	6.634175	133.936393
23	1	6.669867	-0.035511	6.634356	140.570749
26	3	6.669867	-0.033498	6.636369	160.479855
27	1	6.669867	-0.033574	6.636293	167.116148
28	1	6.669867	-0.031803	6.638064	173.754212
31	3	6.669867	-0.031493	6.638374	193.669335
32	1	6.669867	-0.031751	6.638116	200.307451
33	1	6.669867	-0.032102	6.637765	206.945216
36	3	6.669867	-0.032240	6.637627	226.858098
40	4	6.669867	-0.000528	6.669339	253.535452
42	2	6.669867	-0.000602	6.669265	266.873981
50	8	6.669867	-0.000700	6.669167	320.227320
51	1	6.669867	-0.000789	6.669078	326.896397
95	44	6.669867	-0.000890	6.668977	620.331372
96	1	6.669777	-0.000890	6.668886	627.000258
143	47	6.664121	-0.000890	6.663231	940.172116
144	1	6.664267	-0.000890	6.663377	946.835493
191	47	6.670305	-0.000890	6.669415	1260.297992
192	1	6.669975	-0.000890	6.669085	1266.967077
263	71	6.659837	-0.000890	6.658947	1739.752323
264	1	6.659495	-0.000890	6.658605	1746.410927
311	47	6.645343	-0.000890	6.644453	2058.700200
312	1	6.436041	-0.000890	6.435150	2065.135350

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CO-OP Refinery Complex
Regina, SK

General Information

Tank Number	54-10-63
Date of Strapping Data	11/08/2016
Year Built	
Product in Service	Slurry
Product Service Density	1.06 g/cc (SG)

Tank Dimensions

Nominal Diameter	60 Feet
Nominal Height	26 Feet
Measured Tank Height	26 Feet
Tank Tilt	
Gauge Point Information	Benchmark in Hatch
Reference Gauge Height	9.294 Metres
Horizontal To Gauge	49 Inches

Roof & Bottom Survey

Roof Type	Cone
Floating Roof Shape	
Floating Roof Weight	0 Kilograms
Roof Landed Height	N/A
Roof Full Floating Height	N/A
Bottom Description	Physical Survey

Report Constraints

Main Increment	Inches
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	24 Feet
Overflow Or Foamline	N/A

CO-OP Refinery Complex
Regina, SK

Strap Correction to 60°F

Shell Temperature (°F)	55.4	Master Tape Serial	11
Shell Material	Carbon Steel	Master Tape Span	100.0000 Metres
Shell Expansion (per Foot)	0.000006450	Master Tape Tension	5lbs
Certified Tape Factor	1.000000		
Tape Correction Factor	1+('Shell Temperature' - 68)'Tape Expansion'		
Shell Correction Factor	1+(60 - 'Shell Temperature')'Shell Expansion'		

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 0.99994840

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	57.515	188.698	0.001	188.687
2	57.515	188.698	0.001	188.687
3	57.515	188.698	0.001	188.687
4	57.515	188.698	0.001	188.687
5	57.515	188.698	0.001	188.687

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	548.625	0.000	0.000	57.512	188.687
2	557.188	8.563	-53.800	57.458	188.510
3	553.500	4.875	-30.631	57.481	188.586
4	562.750	14.125	-88.750	57.423	188.396
5	573.688	25.063	-157.472	57.354	188.170

CO-OP Refinery Complex
Regina, SK

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	188.687	0.433 Inches	2.438 Metres	2.438 Metres
2	188.510	0.293 Inches	1.219 Metres	3.657 Metres
3	188.586	0.301 Inches	1.219 Metres	4.876 Metres
4	188.396	0.259 Inches	1.829 Metres	6.705 Metres
5	188.170	0.262 Inches	1.219 Metres	7.924 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	12	0.750 Inches	1.000 Millimetres
2	Butt Weld	12	0.750 Inches	1.000 Millimetres
3	Butt Weld	12	0.750 Inches	1.000 Millimetres
4	Butt Weld	12	0.750 Inches	1.000 Millimetres
5	Butt Weld	12	0.750 Inches	1.000 Millimetres

CO-OP Refinery Complex
Regina, SK

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	188.687	0.433	0
2.00	62.428	1.000	0	188.510	0.293	0
3.00	62.428	1.000	0	188.586	0.301	0
4.00	62.428	1.000	0	188.396	0.259	0
5.00	62.428	1.000	0	188.170	0.262	0

CO-OP Refinery Complex
Regina, SK

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2 * D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	188.687	0.000	0.001	0.227	188.460
2	188.510	0.000	0.001	0.154	188.357
3	188.586	0.000	0.001	0.157	188.429
4	188.396	0.000	0.001	0.135	188.260
5	188.170	0.000	0.001	0.137	188.033

CO-OP Refinery Complex
Regina, SK

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Inch
1	188.460	0.006	188.467	6.670
2	188.357	0.008	188.365	6.663
3	188.429	0.008	188.436	6.668
4	188.260	0.013	188.273	6.656
5	188.033	0.009	188.042	6.640

CO-OP Refinery Complex
Regina, SK

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} \times \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi \times W \times G \times D^3}{4 \times E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Inch	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	6.670	0.001	0.000	6.670	6.670
2	6.663	0.001	0.001	6.664	6.664
3	6.668	0.001	0.003	6.670	6.670
4	6.656	0.002	0.004	6.660	6.660
5	6.640	0.000	0.005	6.645	6.645



Keyera Rimbey Edmonton Terminal

TANK # 101

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.273 Metres ; Located 106 cm to Benchmark							Height in Centimetres; Capacity in Cubic Metres					
.00 *	5.644	.50	242.073	1.00	Root Critical Zone	483.677	1.50	725.295	2.00	966.919	2.50	1,208.543
.01 *	8.482	.51	246.903	1.01		488.509	1.51	730.128	2.01	971.752	2.51	1,213.375
.02 *	12.316	.52	251.734	1.02		493.341	1.52	734.960	2.02	976.584	2.52	1,218.208
.03 *	16.354	.53	256.564	1.03		498.173	1.53	739.793	2.03	981.417	2.53	1,223.040
.04 *	20.533	.54	261.395	1.04		503.005	1.54	744.625	2.04	986.249	2.54	1,227.873
.05 *	24.925	.55	266.226	1.05		507.837	1.55	749.458	2.05	991.081	2.55	1,232.705
.06 *	29.644	.56	271.056	1.06		512.670	1.56	754.290	2.06	995.914	2.56	1,237.538
.07	34.398	.57	275.888	1.07		517.502	1.57	759.123	2.07	1,000.746	2.57	1,242.370
.08	39.229	.58	280.721	1.08		522.334	1.58	763.955	2.08	1,005.579	2.58	1,247.203
.09	44.060	.59	285.553	1.09		527.166	1.59	768.788	2.09	1,010.411	2.59	1,252.035
.10	48.890	.60	290.385	1.10		531.998	1.60	773.620	2.10	1,015.244	2.60	1,256.868
.11	53.721	.61	295.217	1.11		536.830	1.61	778.453	2.11	1,020.076	2.61	1,261.700
.12	58.551	.62	300.049	1.12		541.662	1.62	783.285	2.12	1,024.909	2.62	1,266.533
.13	63.382	.63	304.882	1.13		546.495	1.63	788.118	2.13	1,029.741	2.63	1,271.365
.14	68.212	.64	309.714	1.14		551.327	1.64	792.950	2.14	1,034.574	2.64	1,276.197
.15	73.043	.65	314.546	1.15		556.159	1.65	797.783	2.15	1,039.406	2.65	1,281.030
.16	77.873	.66	319.378	1.16		560.991	1.66	802.615	2.16	1,044.239	2.66	1,285.862
.17	82.702	.67	324.210	1.17	565.823	1.67	807.447	2.17	1,049.071	2.67	1,290.695	
.18	87.532	.68	329.043	1.18	570.656	1.68	812.280	2.18	1,053.904	2.68	1,295.527	
.19	92.361	.69	333.875	1.19	575.488	1.69	817.112	2.19	1,058.736	2.69	1,300.360	
.20	97.190	.70	338.707	1.20	580.321	1.70	821.945	2.20	1,063.569	2.70	1,305.192	
.21	102.019	.71	343.540	1.21	585.153	1.71	826.777	2.21	1,068.401	2.71	1,310.025	
.22	106.849	.72	348.372	1.22	589.986	1.72	831.610	2.22	1,073.234	2.72	1,314.857	
.23	111.678	.73	353.204	1.23	594.818	1.73	836.442	2.23	1,078.066	2.73	1,319.690	
.24	116.507	.74	358.037	1.24	599.651	1.74	841.275	2.24	1,082.898	2.74	1,324.522	
.25	121.336	.75	362.869	1.25	604.483	1.75	846.107	2.25	1,087.731	2.75	1,329.355	
.26	126.165	.76	367.701	1.26	609.316	1.76	850.940	2.26	1,092.563	2.76	1,334.187	
.27	130.995	.77	372.534	1.27	614.148	1.77	855.772	2.27	1,097.396	2.77	1,339.020	
.28	135.824	.78	377.366	1.28	618.981	1.78	860.605	2.28	1,102.228	2.78	1,343.852	
.29	140.654	.79	382.198	1.29	623.813	1.79	865.437	2.29	1,107.061	2.79	1,348.685	
.30	145.483	.80	387.031	1.30	628.646	1.80	870.270	2.30	1,111.893	2.80	1,353.517	
.31	150.313	.81	391.863	1.31	633.478	1.81	875.102	2.31	1,116.726	2.81	1,358.350	
.32	155.142	.82	396.696	1.32	638.311	1.82	879.935	2.32	1,121.558	2.82	1,363.182	
.33	159.971	.83	401.528	1.33	643.144	1.83	884.767	2.33	1,126.391	2.83	1,368.014	
.34	164.801	.84	406.360	1.34	647.976	1.84	889.600	2.34	1,131.223	2.84	1,372.847	
.35	169.630	.85	411.193	1.35	652.809	1.85	894.432	2.35	1,136.056	2.85	1,377.679	
.36	174.460	.86	416.025	1.36	657.641	1.86	899.264	2.36	1,140.888	2.86	1,382.512	
.37	179.289	.87	420.857	1.37	662.473	1.87	904.097	2.37	1,145.721	2.87	1,387.344	
.38	184.118	.88	425.690	1.38	667.306	1.88	908.929	2.38	1,150.553	2.88	1,392.177	
.39	188.948	.89	430.522	1.39	672.138	1.89	913.762	2.39	1,155.386	2.89	1,397.009	
.40	193.777	.90	435.354	1.40	676.971	1.90	918.594	2.40	1,160.218	2.90	1,401.842	
.41	198.606	.91	440.187	1.41	681.803	1.91	923.427	2.41	1,165.051	2.91	1,406.674	
.42	203.436	.92	445.019	1.42	686.636	1.92	928.259	2.42	1,169.883	2.92	1,411.507	
.43	208.265	.93	449.851	1.43	691.468	1.93	933.092	2.43	1,174.716	2.93	1,416.339	
.44	213.094	.94	454.683	1.44	696.301	1.94	937.924	2.44	1,179.548	2.94	1,421.172	
.45	217.924	.95	459.516	1.45	701.133	1.95	942.757	2.45	1,184.380	2.95	1,426.004	
.46	222.753	.96	464.348	1.46	705.965	1.96	947.589	2.46	1,189.213	2.96	1,430.837	
.47	227.583	.97	469.180	1.47	710.798	1.97	952.422	2.47	1,194.045	2.97	1,435.669	
.48	232.413	.98	474.012	1.48	715.630	1.98	957.254	2.48	1,198.878	2.98	1,440.502	
.49	237.242	.99	478.844	1.49	720.463	1.99	962.087	2.49	1,203.710	2.99	1,445.334	

Strike Point located 6.5 Centimetres above intersection of shell & bottom.

Page 1 of 9

* Bottom volume based on Physical Survey Calculation. Average Centimetres not applicable

Safe Fill Height @ 24.000 Metres

Volumes reflect a Shell Temperature of 20°C

Displacement for Floating Roof has been deducted

A total of 7.2721 Cubic Metres were deducted between 102 & 112 Centimetres based on a weight of 5635.8852 Kilograms and a density of 775 kg/m³. Gauged quantities above 112 Centimetres reflect this deduction but shall be adjusted for a differing gravity at 20°C according to the following formula (see page 2).

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 101

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.273 Metres ; Located 106 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
3.00	1,450.167	3.50	1,691.800	4.00	1,933.433	4.50	2,175.067	5.00	2,416.701	5.50	2,658.346
3.01	1,454.999	3.51	1,696.632	4.01	1,938.266	4.51	2,179.900	5.01	2,421.533	5.51	2,663.181
3.02	1,459.832	3.52	1,701.465	4.02	1,943.099	4.52	2,184.732	5.02	2,426.366	5.52	2,668.016
3.03	1,464.664	3.53	1,706.298	4.03	1,947.931	4.53	2,189.565	5.03	2,431.199	5.53	2,672.851
3.04	1,469.497	3.54	1,711.130	4.04	1,952.764	4.54	2,194.398	5.04	2,436.031	5.54	2,677.685
3.05	1,474.329	3.55	1,715.963	4.05	1,957.597	4.55	2,199.230	5.05	2,440.864	5.55	2,682.520
3.06	1,479.162	3.56	1,720.796	4.06	1,962.429	4.56	2,204.063	5.06	2,445.697	5.56	2,687.355
3.07	1,483.995	3.57	1,725.628	4.07	1,967.262	4.57	2,208.896	5.07	2,450.529	5.57	2,692.190
3.08	1,488.827	3.58	1,730.461	4.08	1,972.095	4.58	2,213.728	5.08	2,455.362	5.58	2,697.025
3.09	1,493.660	3.59	1,735.294	4.09	1,976.927	4.59	2,218.561	5.09	2,460.195	5.59	2,701.860
3.10	1,498.493	3.60	1,740.126	4.10	1,981.760	4.60	2,223.394	5.10	2,465.027	5.60	2,706.695
3.11	1,503.325	3.61	1,744.959	4.11	1,986.593	4.61	2,228.226	5.11	2,469.860	5.61	2,711.529
3.12	1,508.158	3.62	1,749.792	4.12	1,991.425	4.62	2,233.059	5.12	2,474.693	5.62	2,716.364
3.13	1,512.991	3.63	1,754.624	4.13	1,996.258	4.63	2,237.892	5.13	2,479.525	5.63	2,721.199
3.14	1,517.823	3.64	1,759.457	4.14	2,001.091	4.64	2,242.724	5.14	2,484.358	5.64	2,726.034
3.15	1,522.656	3.65	1,764.290	4.15	2,005.923	4.65	2,247.557	5.15	2,489.191	5.65	2,730.869
3.16	1,527.489	3.66	1,769.122	4.16	2,010.756	4.66	2,252.390	5.16	2,494.023	5.66	2,735.704
3.17	1,532.321	3.67	1,773.955	4.17	2,015.589	4.67	2,257.222	5.17	2,498.856	5.67	2,740.538
3.18	1,537.154	3.68	1,778.788	4.18	2,020.421	4.68	2,262.055	5.18	2,503.689	5.68	2,745.373
3.19	1,541.987	3.69	1,783.620	4.19	2,025.254	4.69	2,266.888	5.19	2,508.521	5.69	2,750.208
3.20	1,546.819	3.70	1,788.453	4.20	2,030.087	4.70	2,271.720	5.20	2,513.354	5.70	2,755.043
3.21	1,551.652	3.71	1,793.286	4.21	2,034.919	4.71	2,276.553	5.21	2,518.187	5.71	2,759.878
3.22	1,556.485	3.72	1,798.118	4.22	2,039.752	4.72	2,281.386	5.22	2,523.019	5.72	2,764.713
3.23	1,561.317	3.73	1,802.951	4.23	2,044.585	4.73	2,286.218	5.23	2,527.852	5.73	2,769.548
3.24	1,566.150	3.74	1,807.784	4.24	2,049.417	4.74	2,291.051	5.24	2,532.685	5.74	2,774.382
3.25	1,570.983	3.75	1,812.616	4.25	2,054.250	4.75	2,295.884	5.25	2,537.518	5.75	2,779.217
3.26	1,575.815	3.76	1,817.449	4.26	2,059.083	4.76	2,300.716	5.26	2,542.350	5.76	2,784.052
3.27	1,580.648	3.77	1,822.282	4.27	2,063.915	4.77	2,305.549	5.27	2,547.183	5.77	2,788.887
3.28	1,585.481	3.78	1,827.114	4.28	2,068.748	4.78	2,310.382	5.28	2,552.016	5.78	2,793.722
3.29	1,590.313	3.79	1,831.947	4.29	2,073.581	4.79	2,315.214	5.29	2,556.848	5.79	2,798.557
3.30	1,595.146	3.80	1,836.780	4.30	2,078.413	4.80	2,320.047	5.30	2,561.681	5.80	2,803.391
3.31	1,599.979	3.81	1,841.612	4.31	2,083.246	4.81	2,324.880	5.31	2,566.514	5.81	2,808.226
3.32	1,604.811	3.82	1,846.445	4.32	2,088.079	4.82	2,329.713	5.32	2,571.346	5.82	2,813.061
3.33	1,609.644	3.83	1,851.278	4.33	2,092.911	4.83	2,334.545	5.33	2,576.179	5.83	2,817.896
3.34	1,614.477	3.84	1,856.110	4.34	2,097.744	4.84	2,339.378	5.34	2,581.012	5.84	2,822.731
3.35	1,619.309	3.85	1,860.943	4.35	2,102.577	4.85	2,344.211	5.35	2,585.844	5.85	2,827.566
3.36	1,624.142	3.86	1,865.776	4.36	2,107.410	4.86	2,349.043	5.36	2,590.677	5.86	2,832.401
3.37	1,628.975	3.87	1,870.608	4.37	2,112.242	4.87	2,353.876	5.37	2,595.510	5.87	2,837.235
3.38	1,633.807	3.88	1,875.441	4.38	2,117.075	4.88	2,358.709	5.38	2,600.342	5.88	2,842.070
3.39	1,638.640	3.89	1,880.274	4.39	2,121.908	4.89	2,363.541	5.39	2,605.175	5.89	2,846.905
3.40	1,643.473	3.90	1,885.106	4.40	2,126.740	4.90	2,368.374	5.40	2,610.008	5.90	2,851.740
3.41	1,648.305	3.91	1,889.939	4.41	2,131.573	4.91	2,373.207	5.41	2,614.840	5.91	2,856.575
3.42	1,653.138	3.92	1,894.772	4.42	2,136.406	4.92	2,378.039	5.42	2,619.673	5.92	2,861.410
3.43	1,657.971	3.93	1,899.605	4.43	2,141.238	4.93	2,382.872	5.43	2,624.506	5.93	2,866.244
3.44	1,662.803	3.94	1,904.437	4.44	2,146.071	4.94	2,387.705	5.44	2,629.338	5.94	2,871.079
3.45	1,667.636	3.95	1,909.270	4.45	2,150.904	4.95	2,392.537	5.45	2,634.172	5.95	2,875.914
3.46	1,672.469	3.96	1,914.103	4.46	2,155.736	4.96	2,397.370	5.46	2,639.007	5.96	2,880.749
3.47	1,677.302	3.97	1,918.935	4.47	2,160.569	4.97	2,402.203	5.47	2,643.842	5.97	2,885.584
3.48	1,682.134	3.98	1,923.768	4.48	2,165.402	4.98	2,407.035	5.48	2,648.676	5.98	2,890.419
3.49	1,686.967	3.99	1,928.601	4.49	2,170.234	4.99	2,411.868	5.49	2,653.511	5.99	2,895.254

Displacement = 5635.8852 Kilograms - 7.2721 Cubic Metres
Correction Kilograms/Cubic Metre

If result is (-) negative : add volume
If result is (+) positive : subtract volume

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 101

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.273 Metres ; Located 106 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
6.00	2,900.088	6.50	3,141.831	7.00	3,383.573	7.50	3,625.315	8.00	3,867.099	8.50	4,108.989
6.01	2,904.923	6.51	3,146.665	7.01	3,388.408	7.51	3,630.150	8.01	3,871.937	8.51	4,113.827
6.02	2,909.758	6.52	3,151.500	7.02	3,393.243	7.52	3,634.985	8.02	3,876.775	8.52	4,118.665
6.03	2,914.593	6.53	3,156.335	7.03	3,398.077	7.53	3,639.820	8.03	3,881.613	8.53	4,123.503
6.04	2,919.428	6.54	3,161.170	7.04	3,402.912	7.54	3,644.655	8.04	3,886.450	8.54	4,128.341
6.05	2,924.263	6.55	3,166.005	7.05	3,407.747	7.55	3,649.489	8.05	3,891.288	8.55	4,133.178
6.06	2,929.097	6.56	3,170.840	7.06	3,412.582	7.56	3,654.324	8.06	3,896.126	8.56	4,138.016
6.07	2,933.932	6.57	3,175.675	7.07	3,417.417	7.57	3,659.159	8.07	3,900.964	8.57	4,142.854
6.08	2,938.767	6.58	3,180.509	7.08	3,422.252	7.58	3,663.994	8.08	3,905.802	8.58	4,147.692
6.09	2,943.602	6.59	3,185.344	7.09	3,427.086	7.59	3,668.829	8.09	3,910.639	8.59	4,152.530
6.10	2,948.437	6.60	3,190.179	7.10	3,431.921	7.60	3,673.664	8.10	3,915.477	8.60	4,157.367
6.11	2,953.272	6.61	3,195.014	7.11	3,436.756	7.61	3,678.498	8.11	3,920.315	8.61	4,162.205
6.12	2,958.106	6.62	3,199.849	7.12	3,441.591	7.62	3,683.333	8.12	3,925.153	8.62	4,167.043
6.13	2,962.941	6.63	3,204.684	7.13	3,446.426	7.63	3,688.168	8.13	3,929.991	8.63	4,171.881
6.14	2,967.776	6.64	3,209.518	7.14	3,451.261	7.64	3,693.003	8.14	3,934.828	8.64	4,176.719
6.15	2,972.611	6.65	3,214.353	7.15	3,456.096	7.65	3,697.838	8.15	3,939.666	8.65	4,181.556
6.16	2,977.446	6.66	3,219.188	7.16	3,460.930	7.66	3,702.673	8.16	3,944.504	8.66	4,186.394
6.17	2,982.281	6.67	3,224.023	7.17	3,465.765	7.67	3,707.508	8.17	3,949.342	8.67	4,191.232
6.18	2,987.116	6.68	3,228.858	7.18	3,470.600	7.68	3,712.342	8.18	3,954.180	8.68	4,196.070
6.19	2,991.950	6.69	3,233.693	7.19	3,475.435	7.69	3,717.177	8.19	3,959.017	8.69	4,200.908
6.20	2,996.785	6.70	3,238.528	7.20	3,480.270	7.70	3,722.012	8.20	3,963.855	8.70	4,205.745
6.21	3,001.620	6.71	3,243.362	7.21	3,485.105	7.71	3,726.847	8.21	3,968.693	8.71	4,210.583
6.22	3,006.455	6.72	3,248.197	7.22	3,489.939	7.72	3,731.682	8.22	3,973.531	8.72	4,215.421
6.23	3,011.290	6.73	3,253.032	7.23	3,494.774	7.73	3,736.517	8.23	3,978.369	8.73	4,220.259
6.24	3,016.125	6.74	3,257.867	7.24	3,499.609	7.74	3,741.351	8.24	3,983.206	8.74	4,225.097
6.25	3,020.959	6.75	3,262.702	7.25	3,504.444	7.75	3,746.186	8.25	3,988.044	8.75	4,229.934
6.26	3,025.794	6.76	3,267.537	7.26	3,509.279	7.76	3,751.021	8.26	3,992.882	8.76	4,234.772
6.27	3,030.629	6.77	3,272.371	7.27	3,514.114	7.77	3,755.856	8.27	3,997.720	8.77	4,239.610
6.28	3,035.464	6.78	3,277.206	7.28	3,518.949	7.78	3,760.691	8.28	4,002.558	8.78	4,244.448
6.29	3,040.299	6.79	3,282.041	7.29	3,523.783	7.79	3,765.526	8.29	4,007.395	8.79	4,249.286
6.30	3,045.134	6.80	3,286.876	7.30	3,528.618	7.80	3,770.361	8.30	4,012.233	8.80	4,254.123
6.31	3,049.969	6.81	3,291.711	7.31	3,533.453	7.81	3,775.195	8.31	4,017.071	8.81	4,258.961
6.32	3,054.803	6.82	3,296.546	7.32	3,538.288	7.82	3,780.030	8.32	4,021.909	8.82	4,263.799
6.33	3,059.638	6.83	3,301.381	7.33	3,543.123	7.83	3,784.865	8.33	4,026.747	8.83	4,268.637
6.34	3,064.473	6.84	3,306.215	7.34	3,547.958	7.84	3,789.700	8.34	4,031.584	8.84	4,273.475
6.35	3,069.308	6.85	3,311.050	7.35	3,552.792	7.85	3,794.535	8.35	4,036.422	8.85	4,278.312
6.36	3,074.143	6.86	3,315.885	7.36	3,557.627	7.86	3,799.370	8.36	4,041.260	8.86	4,283.150
6.37	3,078.978	6.87	3,320.720	7.37	3,562.462	7.87	3,804.208	8.37	4,046.098	8.87	4,287.988
6.38	3,083.812	6.88	3,325.555	7.38	3,567.297	7.88	3,809.045	8.38	4,050.936	8.88	4,292.826
6.39	3,088.647	6.89	3,330.390	7.39	3,572.132	7.89	3,813.883	8.39	4,055.773	8.89	4,297.664
6.40	3,093.482	6.90	3,335.224	7.40	3,576.967	7.90	3,818.721	8.40	4,060.611	8.90	4,302.501
6.41	3,098.317	6.91	3,340.059	7.41	3,581.802	7.91	3,823.559	8.41	4,065.449	8.91	4,307.339
6.42	3,103.152	6.92	3,344.894	7.42	3,586.636	7.92	3,828.397	8.42	4,070.287	8.92	4,312.177
6.43	3,107.987	6.93	3,349.729	7.43	3,591.471	7.93	3,833.235	8.43	4,075.125	8.93	4,317.015
6.44	3,112.822	6.94	3,354.564	7.44	3,596.306	7.94	3,838.072	8.44	4,079.962	8.94	4,321.853
6.45	3,117.656	6.95	3,359.399	7.45	3,601.141	7.95	3,842.910	8.45	4,084.800	8.95	4,326.690
6.46	3,122.491	6.96	3,364.234	7.46	3,605.976	7.96	3,847.748	8.46	4,089.638	8.96	4,331.528
6.47	3,127.326	6.97	3,369.068	7.47	3,610.811	7.97	3,852.586	8.47	4,094.476	8.97	4,336.366
6.48	3,132.161	6.98	3,373.903	7.48	3,615.645	7.98	3,857.424	8.48	4,099.314	8.98	4,341.204
6.49	3,136.996	6.99	3,378.738	7.49	3,620.480	7.99	3,862.261	8.49	4,104.151	8.99	4,346.042

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 101

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.273 Metres ; Located 106 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
9.00	4,350.879	9.50	4,592.770	10.00	4,834.660	10.50	5,076.550	11.00	5,318.504	11.50	5,560.661
9.01	4,355.717	9.51	4,597.607	10.01	4,839.498	10.51	5,081.388	11.01	5,323.347	11.51	5,565.504
9.02	4,360.555	9.52	4,602.445	10.02	4,844.335	10.52	5,086.226	11.02	5,328.190	11.52	5,570.347
9.03	4,365.393	9.53	4,607.283	10.03	4,849.173	10.53	5,091.063	11.03	5,333.033	11.53	5,575.190
9.04	4,370.231	9.54	4,612.121	10.04	4,854.011	10.54	5,095.901	11.04	5,337.877	11.54	5,580.033
9.05	4,375.068	9.55	4,616.959	10.05	4,858.849	10.55	5,100.739	11.05	5,342.720	11.55	5,584.876
9.06	4,379.906	9.56	4,621.796	10.06	4,863.687	10.56	5,105.577	11.06	5,347.563	11.56	5,589.720
9.07	4,384.744	9.57	4,626.634	10.07	4,868.524	10.57	5,110.415	11.07	5,352.406	11.57	5,594.563
9.08	4,389.582	9.58	4,631.472	10.08	4,873.362	10.58	5,115.252	11.08	5,357.249	11.58	5,599.406
9.09	4,394.420	9.59	4,636.310	10.09	4,878.200	10.59	5,120.090	11.09	5,362.092	11.59	5,604.249
9.10	4,399.257	9.60	4,641.148	10.10	4,883.038	10.60	5,124.928	11.10	5,366.935	11.60	5,609.092
9.11	4,404.095	9.61	4,645.985	10.11	4,887.876	10.61	5,129.766	11.11	5,371.779	11.61	5,613.935
9.12	4,408.933	9.62	4,650.823	10.12	4,892.713	10.62	5,134.604	11.12	5,376.622	11.62	5,618.778
9.13	4,413.771	9.63	4,655.661	10.13	4,897.551	10.63	5,139.441	11.13	5,381.465	11.63	5,623.622
9.14	4,418.609	9.64	4,660.499	10.14	4,902.389	10.64	5,144.279	11.14	5,386.308	11.64	5,628.465
9.15	4,423.447	9.65	4,665.337	10.15	4,907.227	10.65	5,149.117	11.15	5,391.151	11.65	5,633.308
9.16	4,428.284	9.66	4,670.174	10.16	4,912.065	10.66	5,153.955	11.16	5,395.994	11.66	5,638.151
9.17	4,433.122	9.67	4,675.012	10.17	4,916.902	10.67	5,158.793	11.17	5,400.837	11.67	5,642.994
9.18	4,437.960	9.68	4,679.850	10.18	4,921.740	10.68	5,163.630	11.18	5,405.680	11.68	5,647.837
9.19	4,442.798	9.69	4,684.688	10.19	4,926.578	10.69	5,168.468	11.19	5,410.524	11.69	5,652.680
9.20	4,447.636	9.70	4,689.526	10.20	4,931.416	10.70	5,173.306	11.20	5,415.367	11.70	5,657.523
9.21	4,452.473	9.71	4,694.363	10.21	4,936.254	10.71	5,178.144	11.21	5,420.210	11.71	5,662.367
9.22	4,457.311	9.72	4,699.201	10.22	4,941.091	10.72	5,182.982	11.22	5,425.053	11.72	5,667.210
9.23	4,462.149	9.73	4,704.039	10.23	4,945.929	10.73	5,187.819	11.23	5,429.896	11.73	5,672.053
9.24	4,466.987	9.74	4,708.877	10.24	4,950.767	10.74	5,192.657	11.24	5,434.739	11.74	5,676.896
9.25	4,471.825	9.75	4,713.715	10.25	4,955.605	10.75	5,197.495	11.25	5,439.582	11.75	5,681.739
9.26	4,476.662	9.76	4,718.553	10.26	4,960.443	10.76	5,202.333	11.26	5,444.426	11.76	5,686.582
9.27	4,481.500	9.77	4,723.390	10.27	4,965.280	10.77	5,207.171	11.27	5,449.269	11.77	5,691.425
9.28	4,486.338	9.78	4,728.228	10.28	4,970.118	10.78	5,212.008	11.28	5,454.112	11.78	5,696.269
9.29	4,491.176	9.79	4,733.066	10.29	4,974.956	10.79	5,216.846	11.29	5,458.955	11.79	5,701.112
9.30	4,496.014	9.80	4,737.904	10.30	4,979.794	10.80	5,221.684	11.30	5,463.798	11.80	5,705.955
9.31	4,500.851	9.81	4,742.742	10.31	4,984.632	10.81	5,226.522	11.31	5,468.641	11.81	5,710.798
9.32	4,505.689	9.82	4,747.579	10.32	4,989.469	10.82	5,231.360	11.32	5,473.484	11.82	5,715.641
9.33	4,510.527	9.83	4,752.417	10.33	4,994.307	10.83	5,236.197	11.33	5,478.327	11.83	5,720.484
9.34	4,515.365	9.84	4,757.255	10.34	4,999.145	10.84	5,241.035	11.34	5,483.171	11.84	5,725.327
9.35	4,520.203	9.85	4,762.093	10.35	5,003.983	10.85	5,245.873	11.35	5,488.014	11.85	5,730.170
9.36	4,525.040	9.86	4,766.931	10.36	5,008.821	10.86	5,250.711	11.36	5,492.857	11.86	5,735.014
9.37	4,529.878	9.87	4,771.768	10.37	5,013.659	10.87	5,255.549	11.37	5,497.700	11.87	5,739.857
9.38	4,534.716	9.88	4,776.606	10.38	5,018.496	10.88	5,260.386	11.38	5,502.543	11.88	5,744.700
9.39	4,539.554	9.89	4,781.444	10.39	5,023.334	10.89	5,265.230	11.39	5,507.386	11.89	5,749.543
9.40	4,544.392	9.90	4,786.282	10.40	5,028.172	10.90	5,270.073	11.40	5,512.229	11.90	5,754.386
9.41	4,549.229	9.91	4,791.120	10.41	5,033.010	10.91	5,274.916	11.41	5,517.073	11.91	5,759.229
9.42	4,554.067	9.92	4,795.957	10.42	5,037.848	10.92	5,279.759	11.42	5,521.916	11.92	5,764.072
9.43	4,558.905	9.93	4,800.795	10.43	5,042.685	10.93	5,284.602	11.43	5,526.759	11.93	5,768.916
9.44	4,563.743	9.94	4,805.633	10.44	5,047.523	10.94	5,289.445	11.44	5,531.602	11.94	5,773.759
9.45	4,568.581	9.95	4,810.471	10.45	5,052.361	10.95	5,294.288	11.45	5,536.445	11.95	5,778.602
9.46	4,573.418	9.96	4,815.309	10.46	5,057.199	10.96	5,299.132	11.46	5,541.288	11.96	5,783.445
9.47	4,578.256	9.97	4,820.146	10.47	5,062.037	10.97	5,303.975	11.47	5,546.131	11.97	5,788.288
9.48	4,583.094	9.98	4,824.984	10.48	5,066.874	10.98	5,308.818	11.48	5,550.975	11.98	5,793.131
9.49	4,587.932	9.99	4,829.822	10.49	5,071.712	10.99	5,313.661	11.49	5,555.818	11.99	5,797.974

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 101

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.273 Metres ; Located 106 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
12.00	5,802.817	12.50	6,044.974	13.00	6,287.131	13.50	6,529.288	14.00	6,771.470	14.50	7,013.760
12.01	5,807.661	12.51	6,049.817	13.01	6,291.974	13.51	6,534.131	14.01	6,776.316	14.51	7,018.606
12.02	5,812.504	12.52	6,054.660	13.02	6,296.817	13.52	6,538.974	14.02	6,781.162	14.52	7,023.452
12.03	5,817.347	12.53	6,059.504	13.03	6,301.660	13.53	6,543.817	14.03	6,786.007	14.53	7,028.297
12.04	5,822.190	12.54	6,064.347	13.04	6,306.503	13.54	6,548.660	14.04	6,790.853	14.54	7,033.143
12.05	5,827.033	12.55	6,069.190	13.05	6,311.346	13.55	6,553.503	14.05	6,795.699	14.55	7,037.989
12.06	5,831.876	12.56	6,074.033	13.06	6,316.190	13.56	6,558.346	14.06	6,800.545	14.56	7,042.835
12.07	5,836.719	12.57	6,078.876	13.07	6,321.033	13.57	6,563.189	14.07	6,805.391	14.57	7,047.681
12.08	5,841.563	12.58	6,083.719	13.08	6,325.876	13.58	6,568.033	14.08	6,810.236	14.58	7,052.526
12.09	5,846.406	12.59	6,088.562	13.09	6,330.719	13.59	6,572.876	14.09	6,815.082	14.59	7,057.372
12.10	5,851.249	12.60	6,093.405	13.10	6,335.562	13.60	6,577.719	14.10	6,819.928	14.60	7,062.218
12.11	5,856.092	12.61	6,098.249	13.11	6,340.405	13.61	6,582.562	14.11	6,824.774	14.61	7,067.064
12.12	5,860.935	12.62	6,103.092	13.12	6,345.248	13.62	6,587.405	14.12	6,829.620	14.62	7,071.910
12.13	5,865.778	12.63	6,107.935	13.13	6,350.092	13.63	6,592.248	14.13	6,834.465	14.63	7,076.755
12.14	5,870.621	12.64	6,112.778	13.14	6,354.935	13.64	6,597.091	14.14	6,839.311	14.64	7,081.601
12.15	5,875.464	12.65	6,117.621	13.15	6,359.778	13.65	6,601.935	14.15	6,844.157	14.65	7,086.447
12.16	5,880.308	12.66	6,122.464	13.16	6,364.621	13.66	6,606.778	14.16	6,849.003	14.66	7,091.293
12.17	5,885.151	12.67	6,127.307	13.17	6,369.464	13.67	6,611.621	14.17	6,853.849	14.67	7,096.139
12.18	5,889.994	12.68	6,132.151	13.18	6,374.307	13.68	6,616.464	14.18	6,858.694	14.68	7,100.985
12.19	5,894.837	12.69	6,136.994	13.19	6,379.150	13.69	6,621.307	14.19	6,863.540	14.69	7,105.830
12.20	5,899.680	12.70	6,141.837	13.20	6,383.993	13.70	6,626.150	14.20	6,868.386	14.70	7,110.676
12.21	5,904.523	12.71	6,146.680	13.21	6,388.837	13.71	6,630.993	14.21	6,873.232	14.71	7,115.522
12.22	5,909.366	12.72	6,151.523	13.22	6,393.680	13.72	6,635.836	14.22	6,878.078	14.72	7,120.368
12.23	5,914.210	12.73	6,156.366	13.23	6,398.523	13.73	6,640.680	14.23	6,882.923	14.73	7,125.214
12.24	5,919.053	12.74	6,161.209	13.24	6,403.366	13.74	6,645.523	14.24	6,887.769	14.74	7,130.059
12.25	5,923.896	12.75	6,166.052	13.25	6,408.209	13.75	6,650.366	14.25	6,892.615	14.75	7,134.905
12.26	5,928.739	12.76	6,170.896	13.26	6,413.052	13.76	6,655.209	14.26	6,897.461	14.76	7,139.751
12.27	5,933.582	12.77	6,175.739	13.27	6,417.895	13.77	6,660.052	14.27	6,902.307	14.77	7,144.597
12.28	5,938.425	12.78	6,180.582	13.28	6,422.739	13.78	6,664.895	14.28	6,907.152	14.78	7,149.443
12.29	5,943.268	12.79	6,185.425	13.29	6,427.582	13.79	6,669.738	14.29	6,911.998	14.79	7,154.288
12.30	5,948.111	12.80	6,190.268	13.30	6,432.425	13.80	6,674.582	14.30	6,916.844	14.80	7,159.134
12.31	5,952.955	12.81	6,195.111	13.31	6,437.268	13.81	6,679.425	14.31	6,921.690	14.81	7,163.980
12.32	5,957.798	12.82	6,199.954	13.32	6,442.111	13.82	6,684.268	14.32	6,926.536	14.82	7,168.826
12.33	5,962.641	12.83	6,204.798	13.33	6,446.954	13.83	6,689.111	14.33	6,931.381	14.83	7,173.672
12.34	5,967.484	12.84	6,209.641	13.34	6,451.797	13.84	6,693.954	14.34	6,936.227	14.84	7,178.517
12.35	5,972.327	12.85	6,214.484	13.35	6,456.640	13.85	6,698.797	14.35	6,941.073	14.85	7,183.363
12.36	5,977.170	12.86	6,219.327	13.36	6,461.484	13.86	6,703.640	14.36	6,945.919	14.86	7,188.209
12.37	5,982.013	12.87	6,224.170	13.37	6,466.327	13.87	6,708.483	14.37	6,950.765	14.87	7,193.055
12.38	5,986.857	12.88	6,229.013	13.38	6,471.170	13.88	6,713.327	14.38	6,955.610	14.88	7,197.901
12.39	5,991.700	12.89	6,233.856	13.39	6,476.013	13.89	6,718.170	14.39	6,960.456	14.89	7,202.746
12.40	5,996.543	12.90	6,238.699	13.40	6,480.856	13.90	6,723.013	14.40	6,965.302	14.90	7,207.592
12.41	6,001.386	12.91	6,243.543	13.41	6,485.699	13.91	6,727.858	14.41	6,970.148	14.91	7,212.438
12.42	6,006.229	12.92	6,248.386	13.42	6,490.542	13.92	6,732.704	14.42	6,974.994	14.92	7,217.284
12.43	6,011.072	12.93	6,253.229	13.43	6,495.386	13.93	6,737.549	14.43	6,979.839	14.93	7,222.130
12.44	6,015.915	12.94	6,258.072	13.44	6,500.229	13.94	6,742.395	14.44	6,984.685	14.94	7,226.975
12.45	6,020.758	12.95	6,262.915	13.45	6,505.072	13.95	6,747.241	14.45	6,989.531	14.95	7,231.821
12.46	6,025.602	12.96	6,267.758	13.46	6,509.915	13.96	6,752.087	14.46	6,994.377	14.96	7,236.667
12.47	6,030.445	12.97	6,272.601	13.47	6,514.758	13.97	6,756.933	14.47	6,999.223	14.97	7,241.513
12.48	6,035.288	12.98	6,277.445	13.48	6,519.601	13.98	6,761.778	14.48	7,004.068	14.98	7,246.359
12.49	6,040.131	12.99	6,282.288	13.49	6,524.444	13.99	6,766.624	14.49	7,008.914	14.99	7,251.204



Keyera Rimbey Edmonton Terminal

TANK # 101

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.273 Metres ; Located 106 cm to Benchmark				Height in Centimetres; Capacity in Cubic Metres			
15.00	7,256.050	15.50	7,498.340	16.00	7,740.630	16.50	7,982.920
15.01	7,260.896	15.51	7,503.186	16.01	7,745.476	16.51	7,987.766
15.02	7,265.742	15.52	7,508.032	16.02	7,750.322	16.52	7,992.612
15.03	7,270.588	15.53	7,512.878	16.03	7,755.168	16.53	7,997.458
15.04	7,275.433	15.54	7,517.723	16.04	7,760.013	16.54	8,002.303
15.05	7,280.279	15.55	7,522.569	16.05	7,764.859	16.55	8,007.149
15.06	7,285.125	15.56	7,527.415	16.06	7,769.705	16.56	8,011.995
15.07	7,289.971	15.57	7,532.261	16.07	7,774.551	16.57	8,016.841
15.08	7,294.817	15.58	7,537.107	16.08	7,779.397	16.58	8,021.687
15.09	7,299.662	15.59	7,541.952	16.09	7,784.242	16.59	8,026.532
15.10	7,304.508	15.60	7,546.798	16.10	7,789.088	16.60	8,031.378
15.11	7,309.354	15.61	7,551.644	16.11	7,793.934	16.61	8,036.224
15.12	7,314.200	15.62	7,556.490	16.12	7,798.780	16.62	8,041.070
15.13	7,319.046	15.63	7,561.336	16.13	7,803.626	16.63	8,045.916
15.14	7,323.891	15.64	7,566.181	16.14	7,808.471	16.64	8,050.761
15.15	7,328.737	15.65	7,571.027	16.15	7,813.317	16.65	8,055.607
15.16	7,333.583	15.66	7,575.873	16.16	7,818.163	16.66	8,060.453
15.17	7,338.429	15.67	7,580.719	16.17	7,823.009	16.67	8,065.299
15.18	7,343.275	15.68	7,585.565	16.18	7,827.855	16.68	8,070.145
15.19	7,348.120	15.69	7,590.410	16.19	7,832.700	16.69	8,074.990
15.20	7,352.966	15.70	7,595.256	16.20	7,837.546	16.70	8,079.836
15.21	7,357.812	15.71	7,600.102	16.21	7,842.392	16.71	8,084.682
15.22	7,362.658	15.72	7,604.948	16.22	7,847.238	16.72	8,089.528
15.23	7,367.504	15.73	7,609.794	16.23	7,852.084	16.73	8,094.374
15.24	7,372.349	15.74	7,614.639	16.24	7,856.929	16.74	8,099.219
15.25	7,377.195	15.75	7,619.485	16.25	7,861.775	16.75	8,104.065
15.26	7,382.041	15.76	7,624.331	16.26	7,866.621	16.76	8,108.911
15.27	7,386.887	15.77	7,629.177	16.27	7,871.467	16.77	8,113.757
15.28	7,391.733	15.78	7,634.023	16.28	7,876.313	16.78	8,118.603
15.29	7,396.578	15.79	7,638.868	16.29	7,881.158	16.79	8,123.448
15.30	7,401.424	15.80	7,643.714	16.30	7,886.004	16.80	8,128.294
15.31	7,406.270	15.81	7,648.560	16.31	7,890.850	16.81	8,133.140
15.32	7,411.116	15.82	7,653.406	16.32	7,895.696	16.82	8,137.986
15.33	7,415.962	15.83	7,658.252	16.33	7,900.542	16.83	8,142.832
15.34	7,420.807	15.84	7,663.097	16.34	7,905.387	16.84	8,147.677
15.35	7,425.653	15.85	7,667.943	16.35	7,910.233	16.85	8,152.523
15.36	7,430.499	15.86	7,672.789	16.36	7,915.079	16.86	8,157.369
15.37	7,435.345	15.87	7,677.635	16.37	7,919.925	16.87	8,162.215
15.38	7,440.191	15.88	7,682.481	16.38	7,924.771	16.88	8,167.061
15.39	7,445.036	15.89	7,687.326	16.39	7,929.616	16.89	8,171.906
15.40	7,449.882	15.90	7,692.172	16.40	7,934.462	16.90	8,176.752
15.41	7,454.728	15.91	7,697.018	16.41	7,939.308	16.91	8,181.598
15.42	7,459.574	15.92	7,701.864	16.42	7,944.154	16.92	8,186.444
15.43	7,464.420	15.93	7,706.710	16.43	7,949.000	16.93	8,191.291
15.44	7,469.265	15.94	7,711.555	16.44	7,953.845	16.94	8,196.139
15.45	7,474.111	15.95	7,716.401	16.45	7,958.691	16.95	8,200.988
15.46	7,478.957	15.96	7,721.247	16.46	7,963.537	16.96	8,205.837
15.47	7,483.803	15.97	7,726.093	16.47	7,968.383	16.97	8,210.686
15.48	7,488.649	15.98	7,730.939	16.48	7,973.229	16.98	8,215.534
15.49	7,493.494	15.99	7,735.784	16.49	7,978.074	16.99	8,220.383
17.00	8,225.232	17.50	8,467.666	17.01	8,230.080	17.51	8,472.515
17.02	8,234.929	17.52	8,477.363	17.03	8,239.778	17.53	8,482.212
17.04	8,244.626	17.54	8,487.061	17.05	8,249.475	17.55	8,491.909
17.06	8,254.324	17.56	8,496.758	17.07	8,259.172	17.57	8,501.607
17.08	8,264.021	17.58	8,506.455	17.09	8,268.870	17.59	8,511.304
17.10	8,273.718	17.60	8,516.153	17.11	8,278.567	17.61	8,521.001
17.12	8,283.416	17.62	8,525.850	17.13	8,288.265	17.63	8,530.699
17.14	8,293.113	17.64	8,535.547	17.15	8,297.962	17.65	8,540.396
17.16	8,302.811	17.66	8,545.245	17.17	8,307.659	17.67	8,550.094
17.18	8,312.508	17.68	8,554.942	17.19	8,317.357	17.69	8,559.791
17.20	8,322.205	17.70	8,564.640	17.21	8,327.054	17.71	8,569.488
17.22	8,331.903	17.72	8,574.337	17.23	8,336.751	17.73	8,579.186
17.24	8,341.600	17.74	8,584.034	17.25	8,346.449	17.75	8,588.883
17.26	8,351.297	17.76	8,593.732	17.27	8,356.146	17.77	8,598.580
17.28	8,360.995	17.78	8,603.429	17.29	8,365.843	17.79	8,608.278
17.30	8,370.692	17.80	8,613.126	17.31	8,375.541	17.81	8,617.975
17.32	8,380.390	17.82	8,622.824	17.33	8,385.238	17.83	8,627.672
17.34	8,390.087	17.84	8,632.521	17.35	8,394.936	17.85	8,637.370
17.36	8,399.784	17.86	8,642.219	17.37	8,404.633	17.87	8,647.067
17.38	8,409.482	17.88	8,651.916	17.39	8,414.330	17.89	8,656.765
17.40	8,419.179	17.90	8,661.613	17.41	8,424.028	17.91	8,666.462
17.42	8,428.876	17.92	8,671.311	17.43	8,433.725	17.93	8,676.159
17.44	8,438.574	17.94	8,681.008	17.45	8,443.422	17.95	8,685.857
17.46	8,448.271	17.96	8,690.705	17.47	8,453.120	17.97	8,695.554
17.48	8,457.968	17.98	8,700.403	17.49	8,462.817	17.99	8,705.251



Keyera Rimbey Edmonton Terminal

TANK # 101

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.273 Metres ; Located 106 cm to Benchmark				Height in Centimetres; Capacity in Cubic Metres							
18.00	8,710.100	18.50	8,952.534	19.00	9,194.969	19.50	9,437.403	20.00	9,679.855	20.50	9,922.449
18.01	8,714.949	18.51	8,957.383	19.01	9,199.817	19.51	9,442.252	20.01	9,684.707	20.51	9,927.301
18.02	8,719.798	18.52	8,962.232	19.02	9,204.666	19.52	9,447.100	20.02	9,689.559	20.52	9,932.153
18.03	8,724.646	18.53	8,967.080	19.03	9,209.515	19.53	9,451.949	20.03	9,694.411	20.53	9,937.005
18.04	8,729.495	18.54	8,971.929	19.04	9,214.363	19.54	9,456.798	20.04	9,699.263	20.54	9,941.856
18.05	8,734.344	18.55	8,976.778	19.05	9,219.212	19.55	9,461.646	20.05	9,704.115	20.55	9,946.708
18.06	8,739.192	18.56	8,981.627	19.06	9,224.061	19.56	9,466.495	20.06	9,708.967	20.56	9,951.560
18.07	8,744.041	18.57	8,986.475	19.07	9,228.909	19.57	9,471.344	20.07	9,713.818	20.57	9,956.412
18.08	8,748.890	18.58	8,991.324	19.08	9,233.758	19.58	9,476.192	20.08	9,718.670	20.58	9,961.264
18.09	8,753.738	18.59	8,996.173	19.09	9,238.607	19.59	9,481.041	20.09	9,723.522	20.59	9,966.116
18.10	8,758.587	18.60	9,001.021	19.10	9,243.456	19.60	9,485.890	20.10	9,728.374	20.60	9,970.968
18.11	8,763.436	18.61	9,005.870	19.11	9,248.304	19.61	9,490.738	20.11	9,733.226	20.61	9,975.820
18.12	8,768.284	18.62	9,010.719	19.12	9,253.153	19.62	9,495.587	20.12	9,738.078	20.62	9,980.671
18.13	8,773.133	18.63	9,015.567	19.13	9,258.002	19.63	9,500.436	20.13	9,742.930	20.63	9,985.523
18.14	8,777.982	18.64	9,020.416	19.14	9,262.850	19.64	9,505.285	20.14	9,747.782	20.64	9,990.375
18.15	8,782.830	18.65	9,025.265	19.15	9,267.699	19.65	9,510.133	20.15	9,752.633	20.65	9,995.227
18.16	8,787.679	18.66	9,030.113	19.16	9,272.548	19.66	9,514.982	20.16	9,757.485	20.66	10,000.079
18.17	8,792.528	18.67	9,034.962	19.17	9,277.396	19.67	9,519.831	20.17	9,762.337	20.67	10,004.931
18.18	8,797.376	18.68	9,039.811	19.18	9,282.245	19.68	9,524.679	20.18	9,767.189	20.68	10,009.783
18.19	8,802.225	18.69	9,044.659	19.19	9,287.094	19.69	9,529.528	20.19	9,772.041	20.69	10,014.635
18.20	8,807.074	18.70	9,049.508	19.20	9,291.942	19.70	9,534.377	20.20	9,776.893	20.70	10,019.486
18.21	8,811.923	18.71	9,054.357	19.21	9,296.791	19.71	9,539.225	20.21	9,781.745	20.71	10,024.338
18.22	8,816.771	18.72	9,059.205	19.22	9,301.640	19.72	9,544.074	20.22	9,786.597	20.72	10,029.190
18.23	8,821.620	18.73	9,064.054	19.23	9,306.488	19.73	9,548.923	20.23	9,791.448	20.73	10,034.042
18.24	8,826.469	18.74	9,068.903	19.24	9,311.337	19.74	9,553.771	20.24	9,796.300	20.74	10,038.894
18.25	8,831.317	18.75	9,073.752	19.25	9,316.186	19.75	9,558.620	20.25	9,801.152	20.75	10,043.746
18.26	8,836.166	18.76	9,078.600	19.26	9,321.034	19.76	9,563.469	20.26	9,806.004	20.76	10,048.598
18.27	8,841.015	18.77	9,083.449	19.27	9,325.883	19.77	9,568.317	20.27	9,810.856	20.77	10,053.450
18.28	8,845.863	18.78	9,088.298	19.28	9,330.732	19.78	9,573.166	20.28	9,815.708	20.78	10,058.301
18.29	8,850.712	18.79	9,093.146	19.29	9,335.581	19.79	9,578.015	20.29	9,820.560	20.79	10,063.153
18.30	8,855.561	18.80	9,097.995	19.30	9,340.429	19.80	9,582.864	20.30	9,825.412	20.80	10,068.005
18.31	8,860.409	18.81	9,102.844	19.31	9,345.278	19.81	9,587.712	20.31	9,830.263	20.81	10,072.857
18.32	8,865.258	18.82	9,107.692	19.32	9,350.127	19.82	9,592.561	20.32	9,835.115	20.82	10,077.709
18.33	8,870.107	18.83	9,112.541	19.33	9,354.975	19.83	9,597.410	20.33	9,839.967	20.83	10,082.561
18.34	8,874.955	18.84	9,117.390	19.34	9,359.824	19.84	9,602.258	20.34	9,844.819	20.84	10,087.413
18.35	8,879.804	18.85	9,122.238	19.35	9,364.673	19.85	9,607.107	20.35	9,849.671	20.85	10,092.264
18.36	8,884.653	18.86	9,127.087	19.36	9,369.521	19.86	9,611.956	20.36	9,854.523	20.86	10,097.116
18.37	8,889.501	18.87	9,131.936	19.37	9,374.370	19.87	9,616.804	20.37	9,859.375	20.87	10,101.968
18.38	8,894.350	18.88	9,136.784	19.38	9,379.219	19.88	9,621.653	20.38	9,864.227	20.88	10,106.820
18.39	8,899.199	18.89	9,141.633	19.39	9,384.067	19.89	9,626.502	20.39	9,869.078	20.89	10,111.672
18.40	8,904.048	18.90	9,146.482	19.40	9,388.916	19.90	9,631.350	20.40	9,873.930	20.90	10,116.524
18.41	8,908.896	18.91	9,151.331	19.41	9,393.765	19.91	9,636.199	20.41	9,878.782	20.91	10,121.376
18.42	8,913.745	18.92	9,156.179	19.42	9,398.613	19.92	9,641.048	20.42	9,883.634	20.92	10,126.228
18.43	8,918.594	18.93	9,161.028	19.43	9,403.462	19.93	9,645.896	20.43	9,888.486	20.93	10,131.079
18.44	8,923.442	18.94	9,165.877	19.44	9,408.311	19.94	9,650.745	20.44	9,893.338	20.94	10,135.931
18.45	8,928.291	18.95	9,170.725	19.45	9,413.160	19.95	9,655.596	20.45	9,898.190	20.95	10,140.783
18.46	8,933.140	18.96	9,175.574	19.46	9,418.008	19.96	9,660.448	20.46	9,903.041	20.96	10,145.635
18.47	8,937.988	18.97	9,180.423	19.47	9,422.857	19.97	9,665.300	20.47	9,907.893	20.97	10,150.487
18.48	8,942.837	18.98	9,185.271	19.48	9,427.706	19.98	9,670.152	20.48	9,912.745	20.98	10,155.339
18.49	8,947.686	18.99	9,190.120	19.49	9,432.554	19.99	9,675.004	20.49	9,917.597	20.99	10,160.191



Keyera Rimbey Edmonton Terminal

TANK # 101

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.273 Metres ; Located 106 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
21.00	10,165.043	21.50	10,407.636	22.00	10,650.230	22.50	10,892.823	23.00	11,135.417	23.50	11,378.007
21.01	10,169.894	21.51	10,412.488	22.01	10,655.082	22.51	10,897.675	23.01	11,140.269	23.51	11,382.859
21.02	10,174.746	21.52	10,417.340	22.02	10,659.933	22.52	10,902.527	23.02	11,145.120	23.52	11,387.711
21.03	10,179.598	21.53	10,422.192	22.03	10,664.785	22.53	10,907.379	23.03	11,149.972	23.53	11,392.563
21.04	10,184.450	21.54	10,427.044	22.04	10,669.637	22.54	10,912.231	23.04	11,154.824	23.54	11,397.415
21.05	10,189.302	21.55	10,431.896	22.05	10,674.489	22.55	10,917.083	23.05	11,159.676	23.55	11,402.266
21.06	10,194.154	21.56	10,436.747	22.06	10,679.341	22.56	10,921.935	23.06	11,164.528	23.56	11,407.118
21.07	10,199.006	21.57	10,441.599	22.07	10,684.193	22.57	10,926.786	23.07	11,169.379	23.57	11,411.970
21.08	10,203.858	21.58	10,446.451	22.08	10,689.045	22.58	10,931.638	23.08	11,174.231	23.58	11,416.822
21.09	10,208.709	21.59	10,451.303	22.09	10,693.897	22.59	10,936.490	23.09	11,179.083	23.59	11,421.674
21.10	10,213.561	21.60	10,456.155	22.10	10,698.748	22.60	10,941.342	23.10	11,183.935	23.60	11,426.525
21.11	10,218.413	21.61	10,461.007	22.11	10,703.600	22.61	10,946.194	23.11	11,188.787	23.61	11,431.377
21.12	10,223.265	21.62	10,465.859	22.12	10,708.452	22.62	10,951.046	23.12	11,193.638	23.62	11,436.229
21.13	10,228.117	21.63	10,470.710	22.13	10,713.304	22.63	10,955.898	23.13	11,198.490	23.63	11,441.081
21.14	10,232.969	21.64	10,475.562	22.14	10,718.156	22.64	10,960.750	23.14	11,203.342	23.64	11,445.933
21.15	10,237.821	21.65	10,480.414	22.15	10,723.008	22.65	10,965.601	23.15	11,208.194	23.65	11,450.784
21.16	10,242.673	21.66	10,485.266	22.16	10,727.860	22.66	10,970.453	23.16	11,213.046	23.66	11,455.636
21.17	10,247.524	21.67	10,490.118	22.17	10,732.712	22.67	10,975.305	23.17	11,217.898	23.67	11,460.488
21.18	10,252.376	21.68	10,494.970	22.18	10,737.563	22.68	10,980.157	23.18	11,222.749	23.68	11,465.340
21.19	10,257.228	21.69	10,499.822	22.19	10,742.415	22.69	10,985.009	23.19	11,227.601	23.69	11,470.192
21.20	10,262.080	21.70	10,504.674	22.20	10,747.267	22.70	10,989.861	23.20	11,232.453	23.70	11,475.044
21.21	10,266.932	21.71	10,509.525	22.21	10,752.119	22.71	10,994.713	23.21	11,237.305	23.71	11,479.895
21.22	10,271.784	21.72	10,514.377	22.22	10,756.971	22.72	10,999.565	23.22	11,242.157	23.72	11,484.747
21.23	10,276.636	21.73	10,519.229	22.23	10,761.823	22.73	11,004.416	23.23	11,247.008	23.73	11,489.599
21.24	10,281.487	21.74	10,524.081	22.24	10,766.675	22.74	11,009.268	23.24	11,251.860	23.74	11,494.451
21.25	10,286.339	21.75	10,528.933	22.25	10,771.527	22.75	11,014.120	23.25	11,256.712	23.75	11,499.303
21.26	10,291.191	21.76	10,533.785	22.26	10,776.378	22.76	11,018.972	23.26	11,261.564	23.76	11,504.154
21.27	10,296.043	21.77	10,538.637	22.27	10,781.230	22.77	11,023.824	23.27	11,266.416	23.77	11,509.006
21.28	10,300.895	21.78	10,543.489	22.28	10,786.082	22.78	11,028.676	23.28	11,271.267	23.78	11,513.858
21.29	10,305.747	21.79	10,548.340	22.29	10,790.934	22.79	11,033.528	23.29	11,276.119	23.79	11,518.710
21.30	10,310.599	21.80	10,553.192	22.30	10,795.786	22.80	11,038.379	23.30	11,280.971	23.80	11,523.562
21.31	10,315.451	21.81	10,558.044	22.31	10,800.638	22.81	11,043.231	23.31	11,285.823	23.81	11,528.413
21.32	10,320.302	21.82	10,562.896	22.32	10,805.490	22.82	11,048.083	23.32	11,290.675	23.82	11,533.265
21.33	10,325.154	21.83	10,567.748	22.33	10,810.342	22.83	11,052.935	23.33	11,295.527	23.83	11,538.117
21.34	10,330.006	21.84	10,572.600	22.34	10,815.193	22.84	11,057.787	23.34	11,300.378	23.84	11,542.969
21.35	10,334.858	21.85	10,577.452	22.35	10,820.045	22.85	11,062.639	23.35	11,305.230	23.85	11,547.821
21.36	10,339.710	21.86	10,582.304	22.36	10,824.897	22.86	11,067.491	23.36	11,310.082	23.86	11,552.672
21.37	10,344.562	21.87	10,587.155	22.37	10,829.749	22.87	11,072.343	23.37	11,314.934	23.87	11,557.524
21.38	10,349.414	21.88	10,592.007	22.38	10,834.601	22.88	11,077.194	23.38	11,319.786	23.88	11,562.376
21.39	10,354.266	21.89	10,596.859	22.39	10,839.453	22.89	11,082.046	23.39	11,324.637	23.89	11,567.228
21.40	10,359.117	21.90	10,601.711	22.40	10,844.305	22.90	11,086.898	23.40	11,329.489	23.90	11,572.080
21.41	10,363.969	21.91	10,606.563	22.41	10,849.156	22.91	11,091.750	23.41	11,334.341	23.91	11,576.932
21.42	10,368.821	21.92	10,611.415	22.42	10,854.008	22.92	11,096.602	23.42	11,339.193	23.92	11,581.783
21.43	10,373.673	21.93	10,616.267	22.43	10,858.860	22.93	11,101.454	23.43	11,344.045	23.93	11,586.635
21.44	10,378.525	21.94	10,621.119	22.44	10,863.712	22.94	11,106.306	23.44	11,348.896	23.94	11,591.487
21.45	10,383.377	21.95	10,625.970	22.45	10,868.564	22.95	11,111.158	23.45	11,353.748	23.95	11,596.339
21.46	10,388.229	21.96	10,630.822	22.46	10,873.416	22.96	11,116.009	23.46	11,358.600	23.96	11,601.191
21.47	10,393.081	21.97	10,635.674	22.47	10,878.268	22.97	11,120.861	23.47	11,363.452	23.97	11,606.042
21.48	10,397.932	21.98	10,640.526	22.48	10,883.120	22.98	11,125.713	23.48	11,368.304	23.98	11,610.894
21.49	10,402.784	21.99	10,645.378	22.49	10,887.971	22.99	11,130.565	23.49	11,373.155	23.99	11,615.746

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 101

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.273 Metres ; Located 106 cm to Benchmark							Height in Centimetres; Capacity in Cubic Metres			
24.00	SF	11631.659	24.50	11,863.188	25.00	12,105.779	25.50	12,348.370	26.00	26.50
24.01		11,625.450	24.51	11,868.040	25.01	12,110.631	25.51	12,353.222	26.01	26.51
24.02		11,630.301	24.52	11,872.892	25.02	12,115.483	25.52	12,358.074	26.02	26.52
24.03		11,635.153	24.53	11,877.744	25.03	12,120.334	25.53	12,362.926	26.03	26.53
24.04		11,640.005	24.54	11,882.596	25.04	12,125.186	25.54	12,367.778	26.04	26.54
24.05		11,644.857	24.55	11,887.447	25.05	12,130.038	25.55	12,372.629	26.05	26.55
24.06		11,649.709	24.56	11,892.299	25.06	12,134.890	25.56	12,377.481	26.06	26.56
24.07		11,654.561	24.57	11,897.151	25.07	12,139.742	25.57	12,382.333	26.07	26.57
24.08		11,659.412	24.58	11,902.003	25.08	12,144.593	25.58	12,387.185	26.08	26.58
24.09		11,664.264	24.59	11,906.855	25.09	12,149.445	25.59	12,392.037	26.09	26.59
24.10		11,669.116	24.60	11,911.707	25.10	12,154.297	25.60	12,396.889	26.10	26.60
24.11		11,673.968	24.61	11,916.558	25.11	12,159.149	25.61	12,401.741	26.11	26.61
24.12		11,678.820	24.62	11,921.410	25.12	12,164.001	25.62	12,406.593	26.12	26.62
24.13		11,683.671	24.63	11,926.262	25.13	12,168.852	25.63	12,411.444	26.13	26.63
24.14		11,688.523	24.64	11,931.114	25.14	12,173.704	25.64	12,416.296	26.14	26.64
24.15		11,693.375	24.65	11,935.966	25.15	12,178.556	25.65	12,421.148	26.15	26.65
24.16		11,698.227	24.66	11,940.817	25.16	12,183.408	25.66	12,426.000	26.16	26.66
24.17		11,703.079	24.67	11,945.669	25.17	12,188.260	25.67	12,430.852	26.17	26.67
24.18		11,707.930	24.68	11,950.521	25.18	12,193.112	25.68	12,435.704	26.18	26.68
24.19		11,712.782	24.69	OF 11966.641	25.19	12,197.963	25.69	12,440.556	26.19	26.69
24.20		11,717.634	24.70	11,960.225	25.20	12,202.815	25.70	12,445.407	26.20	26.70
24.21		11,722.486	24.71	11,965.076	25.21	12,207.667	25.71	12,450.259	26.21	26.71
24.22		11,727.338	24.72	11,969.928	25.22	12,212.519	25.72	12,455.111	26.22	26.72
24.23		11,732.189	24.73	11,974.780	25.23	12,217.371	25.73	12,459.963	26.23	26.73
24.24		11,737.041	24.74	11,979.632	25.24	12,222.222	25.74	12,464.815	26.24	26.74
24.25		11,741.893	24.75	11,984.484	25.25	12,227.074	25.75	12,469.667	26.25	26.75
24.26		11,746.745	24.76	11,989.335	25.26	12,231.926	25.76	12,474.519	26.26	26.76
24.27		11,751.597	24.77	11,994.187	25.27	12,236.778	25.77	12,479.371	26.27	26.77
24.28		11,756.449	24.78	11,999.039	25.28	12,241.630	25.78	12,484.222	26.28	26.78
24.29		11,761.300	24.79	12,003.891	25.29	12,246.481	25.79	12,489.074	26.29	26.79
24.30		11,766.152	24.80	12,008.743	25.30	12,251.333	25.80	12,493.926	26.30	26.80
24.31		11,771.004	24.81	12,013.595	25.31	12,256.185	25.81	12,498.778	26.31	26.81
24.32		11,775.856	24.82	12,018.446	25.32	12,261.037	25.82	12,503.630	26.32	26.82
24.33		11,780.708	24.83	12,023.298	25.33	12,265.889	25.83	12,508.482	26.33	26.83
24.34		11,785.559	24.84	12,028.150	25.34	12,270.741	25.84	12,513.334	26.34	26.84
24.35		11,790.411	24.85	12,033.002	25.35	12,275.592	25.85	12,518.185	26.35	26.85
24.36		11,795.263	24.86	12,037.854	25.36	12,280.444	25.86	12,523.037	26.36	26.86
24.37		11,800.115	24.87	12,042.705	25.37	12,285.296	25.87	12,527.889	26.37	26.87
24.38		11,804.967	24.88	12,047.557	25.38	12,290.148	25.88	12,532.741	26.38	26.88
24.39		11,809.818	24.89	12,052.409	25.39	12,295.000	25.89	12,537.593	26.39	26.89
24.40		11,814.670	24.90	12,057.261	25.40	12,299.851	25.90	12,542.445	26.40	26.90
24.41		11,819.522	24.91	12,062.113	25.41	12,304.703	25.91	12,547.297	26.41	26.91
24.42		11,824.374	24.92	12,066.964	25.42	12,309.555	25.92	12,552.148	26.42	26.92
24.43		11,829.226	24.93	12,071.816	25.43	12,314.407	25.93	12,557.000	26.43	26.93
24.44		11,834.078	24.94	12,076.668	25.44	12,319.259	25.94	12,561.852	26.44	26.94
24.45		11,838.929	24.95	12,081.520	25.45	12,324.111	25.95	12,566.704	26.45	26.95
24.46		11,843.781	24.96	12,086.372	25.46	12,328.963	25.96	12,570.100	26.46	26.96
24.47		11,848.633	24.97	12,091.224	25.47	12,333.815	25.97		26.47	26.97
24.48		11,853.485	24.98	12,096.075	25.48	12,338.666	25.98		26.48	26.98
24.49		11,858.337	24.99	12,100.927	25.49	12,343.518	25.99		26.49	26.99

Safe Fill Height @ 24.000 Metres
Overfill Height @ 24.690 Metres

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(306) 596-8330
www.nextgenis.net



Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

General Information

Tank Number	101
Date of Strapping Data	11/25/2016
Year Built	2016
Product in Service	Condensate
Product Service Density	0.775 g/cc (SG)

Tank Dimensions

Nominal Diameter	24.840 Metres
Nominal Height	26.000 Metres
Measured Tank Height	25.960 Metres
Tank Tilt	
Gauge Point Information	Edge of flange
Reference Gauge Height	26.273 Metres
Horizontal To Gauge	1060 Millimetres

Roof & Bottom Survey

Roof Type	Cone
Floating Roof Shape	
Floating Roof Weight	5635.885 Kilograms
Roof Landed Height	107 Centimetres
Roof Full Floating Height	107 Centimetres
Bottom Description	Physical Survey

Report Constraints

Main Increment	Centimetres
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	Feet
Safe Fill Height	24.000 Metres
Overflow Or Foamline	24.690 Metres

Keyera Rimbey Edmonton Terminal
Edmonton, AB

Strap Correction to 60°F

Shell Temperature (°F)	26.6	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 0.99994834

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	77.929	255.673	0.000	255.659
To				
9	77.929	255.673	0.000	255.659

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	547.200	0.000	0.000	77.925	255.659
2	546.500	-0.700	-4.398	77.921	255.645
3	548.500	1.300	8.168	77.933	255.686
4	551.250	4.050	25.447	77.950	255.743
5	556.700	9.500	59.690	77.985	255.855
6	558.500	11.300	71.000	77.996	255.892
7	560.200	13.000	81.681	78.007	255.927
8	562.000	14.800	92.991	78.018	255.964
9	559.650	12.450	78.226	78.003	255.916

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	255.659	17.000 Millimetres	3.037 Metres	3.037 Metres
2	255.645	15.000 Millimetres	2.409 Metres	5.446 Metres
3	255.686	13.000 Millimetres	2.413 Metres	7.859 Metres
4	255.743	11.000 Millimetres	3.021 Metres	10.880 Metres
5	255.855	9.000 Millimetres	3.023 Metres	13.903 Metres
6	255.892	8.000 Millimetres	3.023 Metres	16.926 Metres
7	255.927	6.000 Millimetres	3.017 Metres	19.943 Metres
8	255.964	6.000 Millimetres	3.026 Metres	22.969 Metres
9	255.916	6.000 Millimetres	2.988 Metres	25.957 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
2	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
3	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
4	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
5	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
6	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
7	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
8	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
9	Butt Weld	0	0.000 Millimetres	0.000 Millimetres

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	255.659	0.669	0
2.00	62.428	1.000	0	255.645	0.591	0
3.00	62.428	1.000	0	255.686	0.512	0
4.00	62.428	1.000	0	255.743	0.433	0
5.00	62.428	1.000	0	255.855	0.354	0
6.00	62.428	1.000	0	255.892	0.315	0
7.00	62.428	1.000	0	255.927	0.236	0
8.00	62.428	1.000	0	255.964	0.236	0
9.00	62.428	1.000	0	255.916	0.236	0

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2*D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	255.659	0.000	0.000	0.000	255.659
2	255.645	0.000	0.000	0.000	255.645
3	255.686	0.000	0.000	0.000	255.686
4	255.743	0.000	0.000	0.000	255.743
5	255.855	0.000	0.000	0.000	255.855
6	255.892	0.000	0.000	0.000	255.892
7	255.927	0.000	0.000	0.000	255.927
8	255.964	0.000	0.000	0.000	255.964
9	255.916	0.000	0.000	0.000	255.916

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Centimetre
1	255.659	0.005	255.664	4.832
2	255.645	0.007	255.652	4.832
3	255.686	0.009	255.695	4.834
4	255.743	0.013	255.756	4.836
5	255.855	0.016	255.871	4.840
6	255.892	0.018	255.910	4.842
7	255.927	0.024	255.951	4.843
8	255.964	0.024	255.988	4.845
9	255.916	0.023	255.939	4.843

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} + \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Centimetre	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 68 °F 1.0001032
1	4.832	0.001	0.000	4.832	4.833
2	4.832	0.001	0.001	4.833	4.833
3	4.834	0.001	0.001	4.835	4.835
4	4.836	0.001	0.002	4.838	4.838
5	4.840	0.001	0.003	4.843	4.844
6	4.842	0.001	0.004	4.846	4.846
7	4.843	0.002	0.005	4.849	4.849
8	4.845	0.002	0.007	4.852	4.852
9	4.843	0.000	0.009	4.852	4.852



Keyera Rimbey Edmonton Terminal

TANK # 102

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.267 Metres ; Located 110 cm to Benchmark					Height in Centimetres; Capacity in Cubic Metres							
.00*	5.935	.50	242.270	1.00	Root Critical Zone	484.182	1.50	726.110	2.00	968.042	2.50	1,209.974
.01*	8.879	.51	247.106	1.01		489.021	1.51	730.948	2.01	972.881	2.51	1,214.813
.02*	12.392	.52	251.943	1.02		493.859	1.52	735.787	2.02	977.719	2.52	1,219.651
.03*	16.380	.53	256.780	1.03		498.697	1.53	740.626	2.03	982.558	2.53	1,224.490
.04*	20.572	.54	261.616	1.04		503.536	1.54	745.464	2.04	987.397	2.54	1,229.329
.05*	24.869	.55	266.453	1.05		508.374	1.55	750.303	2.05	992.235	2.55	1,234.167
.06*	29.598	.56	271.290	1.06		513.212	1.56	755.142	2.06	997.074	2.56	1,239.006
.07	34.329	.57	276.128	1.07		518.051	1.57	759.980	2.07	1,001.913	2.57	1,243.845
.08	39.167	.58	280.967	1.08		522.889	1.58	764.819	2.08	1,006.751	2.58	1,248.683
.09	44.003	.59	285.805	1.09		527.727	1.59	769.658	2.09	1,011.590	2.59	1,253.522
.10	48.840	.60	290.643	1.10		532.566	1.60	774.496	2.10	1,016.428	2.60	1,258.361
.11	53.677	.61	295.482	1.11		537.404	1.61	779.335	2.11	1,021.267	2.61	1,263.199
.12	58.514	.62	300.320	1.12		542.242	1.62	784.174	2.12	1,026.106	2.62	1,268.038
.13	63.350	.63	305.158	1.13		547.081	1.63	789.012	2.13	1,030.944	2.63	1,272.877
.14	68.187	.64	309.997	1.14		551.919	1.64	793.851	2.14	1,035.783	2.64	1,277.715
.15	73.024	.65	314.835	1.15		556.757	1.65	798.689	2.15	1,040.622	2.65	1,282.554
.16	77.860	.66	319.674	1.16		561.596	1.66	803.528	2.16	1,045.460	2.66	1,287.393
.17	82.695	.67	324.512	1.17		566.434	1.67	808.367	2.17	1,050.299	2.67	1,292.231
.18	87.531	.68	329.350	1.18		571.273	1.68	813.205	2.18	1,055.138	2.68	1,297.070
.19	92.366	.69	334.189	1.19		576.111	1.69	818.044	2.19	1,059.976	2.69	1,301.908
.20	97.202	.70	339.027	1.20	580.950	1.70	822.883	2.20	1,064.815	2.70	1,306.747	
.21	102.037	.71	343.866	1.21	585.789	1.71	827.721	2.21	1,069.654	2.71	1,311.586	
.22	106.873	.72	348.704	1.22	590.627	1.72	832.560	2.22	1,074.492	2.72	1,316.424	
.23	111.708	.73	353.543	1.23	595.466	1.73	837.399	2.23	1,079.331	2.73	1,321.263	
.24	116.543	.74	358.382	1.24	600.305	1.74	842.237	2.24	1,084.169	2.74	1,326.102	
.25	121.379	.75	363.220	1.25	605.143	1.75	847.076	2.25	1,089.008	2.75	1,330.940	
.26	126.214	.76	368.059	1.26	609.982	1.76	851.915	2.26	1,093.847	2.76	1,335.779	
.27	131.050	.77	372.897	1.27	614.821	1.77	856.753	2.27	1,098.685	2.77	1,340.618	
.28	135.885	.78	377.736	1.28	619.660	1.78	861.592	2.28	1,103.524	2.78	1,345.456	
.29	140.721	.79	382.574	1.29	624.498	1.79	866.430	2.29	1,108.363	2.79	1,350.295	
.30	145.556	.80	387.413	1.30	629.337	1.80	871.269	2.30	1,113.201	2.80	1,355.134	
.31	150.392	.81	392.251	1.31	634.176	1.81	876.108	2.31	1,118.040	2.81	1,359.972	
.32	155.228	.82	397.090	1.32	639.014	1.82	880.946	2.32	1,122.879	2.82	1,364.811	
.33	160.063	.83	401.928	1.33	643.853	1.83	885.785	2.33	1,127.717	2.83	1,369.649	
.34	164.899	.84	406.767	1.34	648.692	1.84	890.624	2.34	1,132.556	2.84	1,374.488	
.35	169.735	.85	411.605	1.35	653.530	1.85	895.462	2.35	1,137.395	2.85	1,379.327	
.36	174.570	.86	416.444	1.36	658.369	1.86	900.301	2.36	1,142.233	2.86	1,384.165	
.37	179.406	.87	421.282	1.37	663.208	1.87	905.140	2.37	1,147.072	2.87	1,389.004	
.38	184.241	.88	426.121	1.38	668.046	1.88	909.978	2.38	1,151.910	2.88	1,393.843	
.39	189.077	.89	430.959	1.39	672.885	1.89	914.817	2.39	1,156.749	2.89	1,398.681	
.40	193.912	.90	435.798	1.40	677.723	1.90	919.656	2.40	1,161.588	2.90	1,403.520	
.41	198.748	.91	440.636	1.41	682.562	1.91	924.494	2.41	1,166.426	2.91	1,408.359	
.42	203.583	.92	445.475	1.42	687.401	1.92	929.333	2.42	1,171.265	2.92	1,413.197	
.43	208.419	.93	450.313	1.43	692.239	1.93	934.172	2.43	1,176.104	2.93	1,418.036	
.44	213.254	.94	455.152	1.44	697.078	1.94	939.010	2.44	1,180.942	2.94	1,422.875	
.45	218.090	.95	459.990	1.45	701.917	1.95	943.849	2.45	1,185.781	2.95	1,427.713	
.46	222.925	.96	464.829	1.46	706.755	1.96	948.687	2.46	1,190.620	2.96	1,432.552	
.47	227.761	.97	469.667	1.47	711.594	1.97	953.526	2.47	1,195.458	2.97	1,437.390	
.48	232.597	.98	474.505	1.48	716.433	1.98	958.365	2.48	1,200.297	2.98	1,442.229	
.49	237.433	.99	479.344	1.49	721.271	1.99	963.203	2.49	1,205.136	2.99	1,447.068	

Strike Point located 6.1 Centimetres above intersection of shell & bottom.

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* Bottom volume based on Physical Survey Calculation. Average Centimetres not applicable

Safe Fill Height @ 24.000 Metres

Volumes reflect a Shell Temperature of 20°C

Displacement for Floating Roof has been deducted

A total of 7.2721 Cubic Metres were deducted between 102 & 112 Centimetres based on a weight of 5635.8852 Kilograms and a density of 775 kg/m³. Gauged quantities above 112 Centimetres reflect this deduction but shall be adjusted for a differing gravity at 20°C according to the following formula (see page 2).

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 102

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.267 Metres ; Located 110 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
3.00	1,451.906	3.50	1,693.916	4.00	1,935.930	4.50	2,177.945	5.00	2,419.959	5.50	2,661.980
3.01	1,456.745	3.51	1,698.757	4.01	1,940.771	4.51	2,182.785	5.01	2,424.799	5.51	2,666.821
3.02	1,461.584	3.52	1,703.597	4.02	1,945.611	4.52	2,187.625	5.02	2,429.640	5.52	2,671.662
3.03	1,466.423	3.53	1,708.437	4.03	1,950.451	4.53	2,192.466	5.03	2,434.480	5.53	2,676.504
3.04	1,471.263	3.54	1,713.277	4.04	1,955.292	4.54	2,197.306	5.04	2,439.320	5.54	2,681.345
3.05	1,476.103	3.55	1,718.118	4.05	1,960.132	4.55	2,202.146	5.05	2,444.160	5.55	2,686.186
3.06	1,480.944	3.56	1,722.958	4.06	1,964.972	4.56	2,206.986	5.06	2,449.001	5.56	2,691.027
3.07	1,485.784	3.57	1,727.798	4.07	1,969.812	4.57	2,211.827	5.07	2,453.841	5.57	2,695.869
3.08	1,490.624	3.58	1,732.639	4.08	1,974.653	4.58	2,216.667	5.08	2,458.681	5.58	2,700.710
3.09	1,495.465	3.59	1,737.479	4.09	1,979.493	4.59	2,221.507	5.09	2,463.522	5.59	2,705.551
3.10	1,500.305	3.60	1,742.319	4.10	1,984.333	4.60	2,226.348	5.10	2,468.362	5.60	2,710.392
3.11	1,505.145	3.61	1,747.159	4.11	1,989.174	4.61	2,231.188	5.11	2,473.202	5.61	2,715.234
3.12	1,509.985	3.62	1,752.000	4.12	1,994.014	4.62	2,236.028	5.12	2,478.042	5.62	2,720.075
3.13	1,514.826	3.63	1,756.840	4.13	1,998.854	4.63	2,240.868	5.13	2,482.883	5.63	2,724.916
3.14	1,519.666	3.64	1,761.680	4.14	2,003.694	4.64	2,245.709	5.14	2,487.723	5.64	2,729.757
3.15	1,524.506	3.65	1,766.521	4.15	2,008.535	4.65	2,250.549	5.15	2,492.563	5.65	2,734.599
3.16	1,529.347	3.66	1,771.361	4.16	2,013.375	4.66	2,255.389	5.16	2,497.404	5.66	2,739.440
3.17	1,534.187	3.67	1,776.201	4.17	2,018.215	4.67	2,260.230	5.17	2,502.244	5.67	2,744.281
3.18	1,539.027	3.68	1,781.041	4.18	2,023.056	4.68	2,265.070	5.18	2,507.084	5.68	2,749.122
3.19	1,543.867	3.69	1,785.882	4.19	2,027.896	4.69	2,269.910	5.19	2,511.924	5.69	2,753.964
3.20	1,548.708	3.70	1,790.722	4.20	2,032.736	4.70	2,274.750	5.20	2,516.765	5.70	2,758.805
3.21	1,553.548	3.71	1,795.562	4.21	2,037.576	4.71	2,279.591	5.21	2,521.605	5.71	2,763.646
3.22	1,558.388	3.72	1,800.402	4.22	2,042.417	4.72	2,284.431	5.22	2,526.445	5.72	2,768.487
3.23	1,563.229	3.73	1,805.243	4.23	2,047.257	4.73	2,289.271	5.23	2,531.286	5.73	2,773.329
3.24	1,568.069	3.74	1,810.083	4.24	2,052.097	4.74	2,294.112	5.24	2,536.126	5.74	2,778.170
3.25	1,572.909	3.75	1,814.923	4.25	2,056.938	4.75	2,298.952	5.25	2,540.966	5.75	2,783.011
3.26	1,577.749	3.76	1,819.764	4.26	2,061.778	4.76	2,303.792	5.26	2,545.806	5.76	2,787.852
3.27	1,582.590	3.77	1,824.604	4.27	2,066.618	4.77	2,308.632	5.27	2,550.647	5.77	2,792.694
3.28	1,587.430	3.78	1,829.444	4.28	2,071.458	4.78	2,313.473	5.28	2,555.487	5.78	2,797.535
3.29	1,592.270	3.79	1,834.284	4.29	2,076.299	4.79	2,318.313	5.29	2,560.327	5.79	2,802.376
3.30	1,597.111	3.80	1,839.125	4.30	2,081.139	4.80	2,323.153	5.30	2,565.168	5.80	2,807.217
3.31	1,601.951	3.81	1,843.965	4.31	2,085.979	4.81	2,327.994	5.31	2,570.008	5.81	2,812.059
3.32	1,606.791	3.82	1,848.805	4.32	2,090.820	4.82	2,332.834	5.32	2,574.848	5.82	2,816.900
3.33	1,611.631	3.83	1,853.646	4.33	2,095.660	4.83	2,337.674	5.33	2,579.688	5.83	2,821.741
3.34	1,616.472	3.84	1,858.486	4.34	2,100.500	4.84	2,342.514	5.34	2,584.529	5.84	2,826.582
3.35	1,621.312	3.85	1,863.326	4.35	2,105.340	4.85	2,347.355	5.35	2,589.369	5.85	2,831.424
3.36	1,626.152	3.86	1,868.166	4.36	2,110.181	4.86	2,352.195	5.36	2,594.209	5.86	2,836.265
3.37	1,630.993	3.87	1,873.007	4.37	2,115.021	4.87	2,357.035	5.37	2,599.050	5.87	2,841.106
3.38	1,635.833	3.88	1,877.847	4.38	2,119.861	4.88	2,361.876	5.38	2,603.890	5.88	2,845.947
3.39	1,640.673	3.89	1,882.687	4.39	2,124.702	4.89	2,366.716	5.39	2,608.730	5.89	2,850.789
3.40	1,645.513	3.90	1,887.528	4.40	2,129.542	4.90	2,371.556	5.40	2,613.570	5.90	2,855.630
3.41	1,650.354	3.91	1,892.368	4.41	2,134.382	4.91	2,376.396	5.41	2,618.411	5.91	2,860.471
3.42	1,655.194	3.92	1,897.208	4.42	2,139.222	4.92	2,381.237	5.42	2,623.251	5.92	2,865.312
3.43	1,660.034	3.93	1,902.048	4.43	2,144.063	4.93	2,386.077	5.43	2,628.091	5.93	2,870.154
3.44	1,664.875	3.94	1,906.889	4.44	2,148.903	4.94	2,390.917	5.44	2,632.932	5.94	2,874.995
3.45	1,669.715	3.95	1,911.729	4.45	2,153.743	4.95	2,395.758	5.45	2,637.774	5.95	2,879.836
3.46	1,674.555	3.96	1,916.569	4.46	2,158.584	4.96	2,400.598	5.46	2,642.615	5.96	2,884.677
3.47	1,679.395	3.97	1,921.410	4.47	2,163.424	4.97	2,405.438	5.47	2,647.456	5.97	2,889.519
3.48	1,684.236	3.98	1,926.250	4.48	2,168.264	4.98	2,410.278	5.48	2,652.297	5.98	2,894.360
3.49	1,689.076	3.99	1,931.090	4.49	2,173.104	4.99	2,415.119	5.49	2,657.139	5.99	2,899.201

Displacement = 5635.8852 Kilograms - 7.2721 Cubic Metres
Correction Kilograms/Cubic Metre

If result is (-) negative : add volume
If result is (+) positive : subtract volume



Keyera Rimbey Edmonton Terminal

TANK # 102

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.267 Metres ; Located 110 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
6.00	2,904.042	6.50	3,146.105	7.00	3,388.167	7.50	3,630.230	8.00	3,872.339	8.50	4,114.557
6.01	2,908.884	6.51	3,150.946	7.01	3,393.009	7.51	3,635.071	8.01	3,877.183	8.51	4,119.401
6.02	2,913.725	6.52	3,155.787	7.02	3,397.850	7.52	3,639.912	8.02	3,882.027	8.52	4,124.246
6.03	2,918.566	6.53	3,160.629	7.03	3,402.691	7.53	3,644.754	8.03	3,886.872	8.53	4,129.090
6.04	2,923.407	6.54	3,165.470	7.04	3,407.532	7.54	3,649.595	8.04	3,891.716	8.54	4,133.934
6.05	2,928.249	6.55	3,170.311	7.05	3,412.374	7.55	3,654.436	8.05	3,896.561	8.55	4,138.779
6.06	2,933.090	6.56	3,175.152	7.06	3,417.215	7.56	3,659.277	8.06	3,901.405	8.56	4,143.623
6.07	2,937.931	6.57	3,179.994	7.07	3,422.056	7.57	3,664.119	8.07	3,906.249	8.57	4,148.468
6.08	2,942.772	6.58	3,184.835	7.08	3,426.897	7.58	3,668.960	8.08	3,911.094	8.58	4,153.312
6.09	2,947.614	6.59	3,189.676	7.09	3,431.739	7.59	3,673.801	8.09	3,915.938	8.59	4,158.156
6.10	2,952.455	6.60	3,194.517	7.10	3,436.580	7.60	3,678.642	8.10	3,920.782	8.60	4,163.001
6.11	2,957.296	6.61	3,199.359	7.11	3,441.421	7.61	3,683.484	8.11	3,925.627	8.61	4,167.845
6.12	2,962.137	6.62	3,204.200	7.12	3,446.262	7.62	3,688.325	8.12	3,930.471	8.62	4,172.689
6.13	2,966.979	6.63	3,209.041	7.13	3,451.104	7.63	3,693.166	8.13	3,935.315	8.63	4,177.534
6.14	2,971.820	6.64	3,213.882	7.14	3,455.945	7.64	3,698.007	8.14	3,940.160	8.64	4,182.378
6.15	2,976.661	6.65	3,218.724	7.15	3,460.786	7.65	3,702.849	8.15	3,945.004	8.65	4,187.223
6.16	2,981.502	6.66	3,223.565	7.16	3,465.627	7.66	3,707.690	8.16	3,949.849	8.66	4,192.067
6.17	2,986.344	6.67	3,228.406	7.17	3,470.469	7.67	3,712.531	8.17	3,954.693	8.67	4,196.911
6.18	2,991.185	6.68	3,233.247	7.18	3,475.310	7.68	3,717.372	8.18	3,959.537	8.68	4,201.756
6.19	2,996.026	6.69	3,238.089	7.19	3,480.151	7.69	3,722.214	8.19	3,964.382	8.69	4,206.600
6.20	3,000.867	6.70	3,242.930	7.20	3,484.992	7.70	3,727.055	8.20	3,969.226	8.70	4,211.444
6.21	3,005.709	6.71	3,247.771	7.21	3,489.834	7.71	3,731.896	8.21	3,974.070	8.71	4,216.289
6.22	3,010.550	6.72	3,252.612	7.22	3,494.675	7.72	3,736.737	8.22	3,978.915	8.72	4,221.133
6.23	3,015.391	6.73	3,257.454	7.23	3,499.516	7.73	3,741.579	8.23	3,983.759	8.73	4,225.977
6.24	3,020.232	6.74	3,262.295	7.24	3,504.357	7.74	3,746.420	8.24	3,988.603	8.74	4,230.822
6.25	3,025.074	6.75	3,267.136	7.25	3,509.199	7.75	3,751.261	8.25	3,993.448	8.75	4,235.666
6.26	3,029.915	6.76	3,271.977	7.26	3,514.040	7.76	3,756.102	8.26	3,998.292	8.76	4,240.511
6.27	3,034.756	6.77	3,276.819	7.27	3,518.881	7.77	3,760.944	8.27	4,003.137	8.77	4,245.355
6.28	3,039.597	6.78	3,281.660	7.28	3,523.722	7.78	3,765.785	8.28	4,007.981	8.78	4,250.199
6.29	3,044.439	6.79	3,286.501	7.29	3,528.564	7.79	3,770.626	8.29	4,012.825	8.79	4,255.044
6.30	3,049.280	6.80	3,291.342	7.30	3,533.405	7.80	3,775.467	8.30	4,017.670	8.80	4,259.888
6.31	3,054.121	6.81	3,296.184	7.31	3,538.246	7.81	3,780.309	8.31	4,022.514	8.81	4,264.732
6.32	3,058.962	6.82	3,301.025	7.32	3,543.087	7.82	3,785.150	8.32	4,027.358	8.82	4,269.577
6.33	3,063.804	6.83	3,305.866	7.33	3,547.929	7.83	3,789.991	8.33	4,032.203	8.83	4,274.421
6.34	3,068.645	6.84	3,310.707	7.34	3,552.770	7.84	3,794.832	8.34	4,037.047	8.84	4,279.265
6.35	3,073.486	6.85	3,315.549	7.35	3,557.611	7.85	3,799.674	8.35	4,041.892	8.85	4,284.110
6.36	3,078.327	6.86	3,320.390	7.36	3,562.452	7.86	3,804.518	8.36	4,046.736	8.86	4,288.954
6.37	3,083.169	6.87	3,325.231	7.37	3,567.294	7.87	3,809.362	8.37	4,051.580	8.87	4,293.799
6.38	3,088.010	6.88	3,330.072	7.38	3,572.135	7.88	3,814.206	8.38	4,056.425	8.88	4,298.643
6.39	3,092.851	6.89	3,334.914	7.39	3,576.976	7.89	3,819.051	8.39	4,061.269	8.89	4,303.487
6.40	3,097.692	6.90	3,339.755	7.40	3,581.817	7.90	3,823.895	8.40	4,066.113	8.90	4,308.332
6.41	3,102.534	6.91	3,344.596	7.41	3,586.659	7.91	3,828.739	8.41	4,070.958	8.91	4,313.176
6.42	3,107.375	6.92	3,349.437	7.42	3,591.500	7.92	3,833.584	8.42	4,075.802	8.92	4,318.020
6.43	3,112.216	6.93	3,354.279	7.43	3,596.341	7.93	3,838.428	8.43	4,080.646	8.93	4,322.865
6.44	3,117.057	6.94	3,359.120	7.44	3,601.182	7.94	3,843.272	8.44	4,085.491	8.94	4,327.709
6.45	3,121.899	6.95	3,363.961	7.45	3,606.024	7.95	3,848.117	8.45	4,090.335	8.95	4,332.554
6.46	3,126.740	6.96	3,368.802	7.46	3,610.865	7.96	3,852.961	8.46	4,095.180	8.96	4,337.398
6.47	3,131.581	6.97	3,373.644	7.47	3,615.706	7.97	3,857.806	8.47	4,100.024	8.97	4,342.242
6.48	3,136.422	6.98	3,378.485	7.48	3,620.547	7.98	3,862.650	8.48	4,104.868	8.98	4,347.087
6.49	3,141.264	6.99	3,383.326	7.49	3,625.389	7.99	3,867.494	8.49	4,109.713	8.99	4,351.931

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 102

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.267 Metres ; Located 110 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
9.00	4,356.775	9.50	4,598.994	10.00	4,841.212	10.50	5,083.430	11.00	5,325.689	11.50	5,568.061
9.01	4,361.620	9.51	4,603.838	10.01	4,846.056	10.51	5,088.275	11.01	5,330.537	11.51	5,572.908
9.02	4,366.464	9.52	4,608.682	10.02	4,850.901	10.52	5,093.119	11.02	5,335.384	11.52	5,577.756
9.03	4,371.308	9.53	4,613.527	10.03	4,855.745	10.53	5,097.963	11.03	5,340.231	11.53	5,582.603
9.04	4,376.153	9.54	4,618.371	10.04	4,860.589	10.54	5,102.808	11.04	5,345.079	11.54	5,587.451
9.05	4,380.997	9.55	4,623.216	10.05	4,865.434	10.55	5,107.652	11.05	5,349.926	11.55	5,592.298
9.06	4,385.842	9.56	4,628.060	10.06	4,870.278	10.56	5,112.497	11.06	5,354.774	11.56	5,597.146
9.07	4,390.686	9.57	4,632.904	10.07	4,875.123	10.57	5,117.341	11.07	5,359.621	11.57	5,601.993
9.08	4,395.530	9.58	4,637.749	10.08	4,879.967	10.58	5,122.185	11.08	5,364.469	11.58	5,606.840
9.09	4,400.375	9.59	4,642.593	10.09	4,884.811	10.59	5,127.030	11.09	5,369.316	11.59	5,611.688
9.10	4,405.219	9.60	4,647.437	10.10	4,889.656	10.60	5,131.874	11.10	5,374.164	11.60	5,616.535
9.11	4,410.063	9.61	4,652.282	10.11	4,894.500	10.61	5,136.718	11.11	5,379.011	11.61	5,621.383
9.12	4,414.908	9.62	4,657.126	10.12	4,899.344	10.62	5,141.563	11.12	5,383.858	11.62	5,626.230
9.13	4,419.752	9.63	4,661.970	10.13	4,904.189	10.63	5,146.407	11.13	5,388.706	11.63	5,631.078
9.14	4,424.596	9.64	4,666.815	10.14	4,909.033	10.64	5,151.251	11.14	5,393.553	11.64	5,635.925
9.15	4,429.441	9.65	4,671.659	10.15	4,913.877	10.65	5,156.096	11.15	5,398.401	11.65	5,640.773
9.16	4,434.285	9.66	4,676.504	10.16	4,918.722	10.66	5,160.940	11.16	5,403.248	11.66	5,645.620
9.17	4,439.130	9.67	4,681.348	10.17	4,923.566	10.67	5,165.785	11.17	5,408.096	11.67	5,650.467
9.18	4,443.974	9.68	4,686.192	10.18	4,928.411	10.68	5,170.629	11.18	5,412.943	11.68	5,655.315
9.19	4,448.818	9.69	4,691.037	10.19	4,933.255	10.69	5,175.473	11.19	5,417.790	11.69	5,660.162
9.20	4,453.663	9.70	4,695.881	10.20	4,938.099	10.70	5,180.318	11.20	5,422.638	11.70	5,665.010
9.21	4,458.507	9.71	4,700.725	10.21	4,942.944	10.71	5,185.162	11.21	5,427.485	11.71	5,669.857
9.22	4,463.351	9.72	4,705.570	10.22	4,947.788	10.72	5,190.006	11.22	5,432.333	11.72	5,674.705
9.23	4,468.196	9.73	4,710.414	10.23	4,952.632	10.73	5,194.851	11.23	5,437.180	11.73	5,679.552
9.24	4,473.040	9.74	4,715.258	10.24	4,957.477	10.74	5,199.695	11.24	5,442.028	11.74	5,684.399
9.25	4,477.885	9.75	4,720.103	10.25	4,962.321	10.75	5,204.539	11.25	5,446.875	11.75	5,689.247
9.26	4,482.729	9.76	4,724.947	10.26	4,967.166	10.76	5,209.384	11.26	5,451.723	11.76	5,694.094
9.27	4,487.573	9.77	4,729.792	10.27	4,972.010	10.77	5,214.228	11.27	5,456.570	11.77	5,698.942
9.28	4,492.418	9.78	4,734.636	10.28	4,976.854	10.78	5,219.073	11.28	5,461.417	11.78	5,703.789
9.29	4,497.262	9.79	4,739.480	10.29	4,981.699	10.79	5,223.917	11.29	5,466.265	11.79	5,708.637
9.30	4,502.106	9.80	4,744.325	10.30	4,986.543	10.80	5,228.761	11.30	5,471.112	11.80	5,713.484
9.31	4,506.951	9.81	4,749.169	10.31	4,991.387	10.81	5,233.606	11.31	5,475.960	11.81	5,718.332
9.32	4,511.795	9.82	4,754.013	10.32	4,996.232	10.82	5,238.450	11.32	5,480.807	11.82	5,723.179
9.33	4,516.639	9.83	4,758.858	10.33	5,001.076	10.83	5,243.294	11.33	5,485.655	11.83	5,728.026
9.34	4,521.484	9.84	4,763.702	10.34	5,005.920	10.84	5,248.139	11.34	5,490.502	11.84	5,732.874
9.35	4,526.328	9.85	4,768.546	10.35	5,010.765	10.85	5,252.983	11.35	5,495.349	11.85	5,737.721
9.36	4,531.173	9.86	4,773.391	10.36	5,015.609	10.86	5,257.828	11.36	5,500.197	11.86	5,742.569
9.37	4,536.017	9.87	4,778.235	10.37	5,020.454	10.87	5,262.673	11.37	5,505.044	11.87	5,747.416
9.38	4,540.861	9.88	4,783.080	10.38	5,025.298	10.88	5,267.520	11.38	5,509.892	11.88	5,752.264
9.39	4,545.706	9.89	4,787.924	10.39	5,030.142	10.89	5,272.367	11.39	5,514.739	11.89	5,757.111
9.40	4,550.550	9.90	4,792.768	10.40	5,034.987	10.90	5,277.215	11.40	5,519.587	11.90	5,761.958
9.41	4,555.394	9.91	4,797.613	10.41	5,039.831	10.91	5,282.062	11.41	5,524.434	11.91	5,766.806
9.42	4,560.239	9.92	4,802.457	10.42	5,044.675	10.92	5,286.910	11.42	5,529.282	11.92	5,771.653
9.43	4,565.083	9.93	4,807.301	10.43	5,049.520	10.93	5,291.757	11.43	5,534.129	11.93	5,776.501
9.44	4,569.927	9.94	4,812.146	10.44	5,054.364	10.94	5,296.605	11.44	5,538.976	11.94	5,781.348
9.45	4,574.772	9.95	4,816.990	10.45	5,059.208	10.95	5,301.452	11.45	5,543.824	11.95	5,786.196
9.46	4,579.616	9.96	4,821.835	10.46	5,064.053	10.96	5,306.299	11.46	5,548.671	11.96	5,791.043
9.47	4,584.461	9.97	4,826.679	10.47	5,068.897	10.97	5,311.147	11.47	5,553.519	11.97	5,795.891
9.48	4,589.305	9.98	4,831.523	10.48	5,073.742	10.98	5,315.994	11.48	5,558.366	11.98	5,800.738
9.49	4,594.149	9.99	4,836.368	10.49	5,078.586	10.99	5,320.842	11.49	5,563.214	11.99	5,805.585



Keyera Rimbey Edmonton Terminal

TANK # 102

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.267 Metres ; Located 110 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
12.00	5,810.433	12.50	6,052.805	13.00	6,295.176	13.50	6,537.548	14.00	6,779.946	14.50	7,022.434
12.01	5,815.280	12.51	6,057.652	13.01	6,300.024	13.51	6,542.396	14.01	6,784.796	14.51	7,027.284
12.02	5,820.128	12.52	6,062.500	13.02	6,304.871	13.52	6,547.243	14.02	6,789.646	14.52	7,032.134
12.03	5,824.975	12.53	6,067.347	13.03	6,309.719	13.53	6,552.091	14.03	6,794.496	14.53	7,036.983
12.04	5,829.823	12.54	6,072.194	13.04	6,314.566	13.54	6,556.938	14.04	6,799.345	14.54	7,041.833
12.05	5,834.670	12.55	6,077.042	13.05	6,319.414	13.55	6,561.785	14.05	6,804.195	14.55	7,046.683
12.06	5,839.517	12.56	6,081.889	13.06	6,324.261	13.56	6,566.633	14.06	6,809.045	14.56	7,051.533
12.07	5,844.365	12.57	6,086.737	13.07	6,329.109	13.57	6,571.480	14.07	6,813.895	14.57	7,056.382
12.08	5,849.212	12.58	6,091.584	13.08	6,333.956	13.58	6,576.328	14.08	6,818.744	14.58	7,061.232
12.09	5,854.060	12.59	6,096.432	13.09	6,338.803	13.59	6,581.175	14.09	6,823.594	14.59	7,066.082
12.10	5,858.907	12.60	6,101.279	13.10	6,343.651	13.60	6,586.023	14.10	6,828.444	14.60	7,070.932
12.11	5,863.755	12.61	6,106.126	13.11	6,348.498	13.61	6,590.870	14.11	6,833.294	14.61	7,075.781
12.12	5,868.602	12.62	6,110.974	13.12	6,353.346	13.62	6,595.718	14.12	6,838.143	14.62	7,080.631
12.13	5,873.449	12.63	6,115.821	13.13	6,358.193	13.63	6,600.565	14.13	6,842.993	14.63	7,085.481
12.14	5,878.297	12.64	6,120.669	13.14	6,363.041	13.64	6,605.412	14.14	6,847.843	14.64	7,090.331
12.15	5,883.144	12.65	6,125.516	13.15	6,367.888	13.65	6,610.260	14.15	6,852.693	14.65	7,095.180
12.16	5,887.992	12.66	6,130.364	13.16	6,372.735	13.66	6,615.107	14.16	6,857.542	14.66	7,100.030
12.17	5,892.839	12.67	6,135.211	13.17	6,377.583	13.67	6,619.955	14.17	6,862.392	14.67	7,104.880
12.18	5,897.687	12.68	6,140.059	13.18	6,382.430	13.68	6,624.802	14.18	6,867.242	14.68	7,109.730
12.19	5,902.534	12.69	6,144.906	13.19	6,387.278	13.69	6,629.650	14.19	6,872.092	14.69	7,114.579
12.20	5,907.382	12.70	6,149.753	13.20	6,392.125	13.70	6,634.497	14.20	6,876.941	14.70	7,119.429
12.21	5,912.229	12.71	6,154.601	13.21	6,396.973	13.71	6,639.344	14.21	6,881.791	14.71	7,124.279
12.22	5,917.076	12.72	6,159.448	13.22	6,401.820	13.72	6,644.192	14.22	6,886.641	14.72	7,129.129
12.23	5,921.924	12.73	6,164.296	13.23	6,406.668	13.73	6,649.039	14.23	6,891.491	14.73	7,133.978
12.24	5,926.771	12.74	6,169.143	13.24	6,411.515	13.74	6,653.887	14.24	6,896.340	14.74	7,138.828
12.25	5,931.619	12.75	6,173.991	13.25	6,416.362	13.75	6,658.734	14.25	6,901.190	14.75	7,143.678
12.26	5,936.466	12.76	6,178.838	13.26	6,421.210	13.76	6,663.582	14.26	6,906.040	14.76	7,148.528
12.27	5,941.314	12.77	6,183.685	13.27	6,426.057	13.77	6,668.429	14.27	6,910.890	14.77	7,153.377
12.28	5,946.161	12.78	6,188.533	13.28	6,430.905	13.78	6,673.277	14.28	6,915.739	14.78	7,158.227
12.29	5,951.008	12.79	6,193.380	13.29	6,435.752	13.79	6,678.124	14.29	6,920.589	14.79	7,163.077
12.30	5,955.856	12.80	6,198.228	13.30	6,440.600	13.80	6,682.971	14.30	6,925.439	14.80	7,167.927
12.31	5,960.703	12.81	6,203.075	13.31	6,445.447	13.81	6,687.819	14.31	6,930.289	14.81	7,172.776
12.32	5,965.551	12.82	6,207.923	13.32	6,450.294	13.82	6,692.666	14.32	6,935.138	14.82	7,177.626
12.33	5,970.398	12.83	6,212.770	13.33	6,455.142	13.83	6,697.514	14.33	6,939.988	14.83	7,182.476
12.34	5,975.246	12.84	6,217.617	13.34	6,459.989	13.84	6,702.361	14.34	6,944.838	14.84	7,187.326
12.35	5,980.093	12.85	6,222.465	13.35	6,464.837	13.85	6,707.209	14.35	6,949.688	14.85	7,192.175
12.36	5,984.941	12.86	6,227.312	13.36	6,469.684	13.86	6,712.056	14.36	6,954.537	14.86	7,197.025
12.37	5,989.788	12.87	6,232.160	13.37	6,474.532	13.87	6,716.903	14.37	6,959.387	14.87	7,201.875
12.38	5,994.635	12.88	6,237.007	13.38	6,479.379	13.88	6,721.751	14.38	6,964.237	14.88	7,206.725
12.39	5,999.483	12.89	6,241.855	13.39	6,484.226	13.89	6,726.599	14.39	6,969.087	14.89	7,211.574
12.40	6,004.330	12.90	6,246.702	13.40	6,489.074	13.90	6,731.449	14.40	6,973.936	14.90	7,216.424
12.41	6,009.178	12.91	6,251.550	13.41	6,493.921	13.91	6,736.299	14.41	6,978.786	14.91	7,221.274
12.42	6,014.025	12.92	6,256.397	13.42	6,498.769	13.92	6,741.148	14.42	6,983.636	14.92	7,226.124
12.43	6,018.873	12.93	6,261.244	13.43	6,503.616	13.93	6,745.998	14.43	6,988.486	14.93	7,230.973
12.44	6,023.720	12.94	6,266.092	13.44	6,508.464	13.94	6,750.848	14.44	6,993.336	14.94	7,235.823
12.45	6,028.567	12.95	6,270.939	13.45	6,513.311	13.95	6,755.698	14.45	6,998.185	14.95	7,240.673
12.46	6,033.415	12.96	6,275.787	13.46	6,518.159	13.96	6,760.547	14.46	7,003.035	14.96	7,245.523
12.47	6,038.262	12.97	6,280.634	13.47	6,523.006	13.97	6,765.397	14.47	7,007.885	14.97	7,250.372
12.48	6,043.110	12.98	6,285.482	13.48	6,527.853	13.98	6,770.247	14.48	7,012.735	14.98	7,255.222
12.49	6,047.957	12.99	6,290.329	13.49	6,532.701	13.99	6,775.097	14.49	7,017.584	14.99	7,260.072



Keyera Rimbey Edmonton Terminal

TANK # 102

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.267 Metres ; Located 110 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
15.00	7,264.922	15.50	7,507.409	16.00	7,749.897	16.50	7,992.385	17.00	8,234.871	17.50	8,477.349
15.01	7,269.771	15.51	7,512.259	16.01	7,754.747	16.51	7,997.235	17.01	8,239.720	17.51	8,482.198
15.02	7,274.621	15.52	7,517.109	16.02	7,759.597	16.52	8,002.084	17.02	8,244.570	17.52	8,487.048
15.03	7,279.471	15.53	7,521.959	16.03	7,764.446	16.53	8,006.934	17.03	8,249.420	17.53	8,491.898
15.04	7,284.321	15.54	7,526.808	16.04	7,769.296	16.54	8,011.784	17.04	8,254.269	17.54	8,496.747
15.05	7,289.171	15.55	7,531.658	16.05	7,774.146	16.55	8,016.634	17.05	8,259.119	17.55	8,501.597
15.06	7,294.020	15.56	7,536.508	16.06	7,778.996	16.56	8,021.483	17.06	8,263.968	17.56	8,506.446
15.07	7,298.870	15.57	7,541.358	16.07	7,783.845	16.57	8,026.333	17.07	8,268.818	17.57	8,511.296
15.08	7,303.720	15.58	7,546.207	16.08	7,788.695	16.58	8,031.183	17.08	8,273.667	17.58	8,516.145
15.09	7,308.570	15.59	7,551.057	16.09	7,793.545	16.59	8,036.033	17.09	8,278.517	17.59	8,520.995
15.10	7,313.419	15.60	7,555.907	16.10	7,798.395	16.60	8,040.882	17.10	8,283.367	17.60	8,525.845
15.11	7,318.269	15.61	7,560.757	16.11	7,803.244	16.61	8,045.732	17.11	8,288.216	17.61	8,530.694
15.12	7,323.119	15.62	7,565.607	16.12	7,808.094	16.62	8,050.582	17.12	8,293.066	17.62	8,535.544
15.13	7,327.969	15.63	7,570.456	16.13	7,812.944	16.63	8,055.432	17.13	8,297.915	17.63	8,540.393
15.14	7,332.818	15.64	7,575.306	16.14	7,817.794	16.64	8,060.281	17.14	8,302.765	17.64	8,545.243
15.15	7,337.668	15.65	7,580.156	16.15	7,822.643	16.65	8,065.131	17.15	8,307.614	17.65	8,550.092
15.16	7,342.518	15.66	7,585.006	16.16	7,827.493	16.66	8,069.981	17.16	8,312.464	17.66	8,554.942
15.17	7,347.368	15.67	7,589.855	16.17	7,832.343	16.67	8,074.831	17.17	8,317.313	17.67	8,559.791
15.18	7,352.217	15.68	7,594.705	16.18	7,837.193	16.68	8,079.680	17.18	8,322.163	17.68	8,564.641
15.19	7,357.067	15.69	7,599.555	16.19	7,842.043	16.69	8,084.530	17.19	8,327.013	17.69	8,569.491
15.20	7,361.917	15.70	7,604.405	16.20	7,846.892	16.70	8,089.380	17.20	8,331.862	17.70	8,574.340
15.21	7,366.767	15.71	7,609.254	16.21	7,851.742	16.71	8,094.230	17.21	8,336.712	17.71	8,579.190
15.22	7,371.616	15.72	7,614.104	16.22	7,856.592	16.72	8,099.079	17.22	8,341.561	17.72	8,584.039
15.23	7,376.466	15.73	7,618.954	16.23	7,861.442	16.73	8,103.929	17.23	8,346.411	17.73	8,588.889
15.24	7,381.316	15.74	7,623.804	16.24	7,866.291	16.74	8,108.779	17.24	8,351.260	17.74	8,593.738
15.25	7,386.166	15.75	7,628.653	16.25	7,871.141	16.75	8,113.629	17.25	8,356.110	17.75	8,598.588
15.26	7,391.015	15.76	7,633.503	16.26	7,875.991	16.76	8,118.479	17.26	8,360.959	17.76	8,603.437
15.27	7,395.865	15.77	7,638.353	16.27	7,880.841	16.77	8,123.328	17.27	8,365.809	17.77	8,608.287
15.28	7,400.715	15.78	7,643.203	16.28	7,885.690	16.78	8,128.178	17.28	8,370.659	17.78	8,613.137
15.29	7,405.565	15.79	7,648.052	16.29	7,890.540	16.79	8,133.028	17.29	8,375.508	17.79	8,617.986
15.30	7,410.414	15.80	7,652.902	16.30	7,895.390	16.80	8,137.878	17.30	8,380.358	17.80	8,622.836
15.31	7,415.264	15.81	7,657.752	16.31	7,900.240	16.81	8,142.727	17.31	8,385.207	17.81	8,627.685
15.32	7,420.114	15.82	7,662.602	16.32	7,905.089	16.82	8,147.577	17.32	8,390.057	17.82	8,632.535
15.33	7,424.964	15.83	7,667.451	16.33	7,909.939	16.83	8,152.427	17.33	8,394.906	17.83	8,637.384
15.34	7,429.813	15.84	7,672.301	16.34	7,914.789	16.84	8,157.277	17.34	8,399.756	17.84	8,642.234
15.35	7,434.663	15.85	7,677.151	16.35	7,919.639	16.85	8,162.126	17.35	8,404.606	17.85	8,647.084
15.36	7,439.513	15.86	7,682.001	16.36	7,924.488	16.86	8,166.976	17.36	8,409.455	17.86	8,651.933
15.37	7,444.363	15.87	7,686.850	16.37	7,929.338	16.87	8,171.826	17.37	8,414.305	17.87	8,656.783
15.38	7,449.212	15.88	7,691.700	16.38	7,934.188	16.88	8,176.676	17.38	8,419.154	17.88	8,661.632
15.39	7,454.062	15.89	7,696.550	16.39	7,939.038	16.89	8,181.525	17.39	8,424.004	17.89	8,666.482
15.40	7,458.912	15.90	7,701.400	16.40	7,943.887	16.90	8,186.375	17.40	8,428.853	17.90	8,671.331
15.41	7,463.762	15.91	7,706.249	16.41	7,948.737	16.91	8,191.225	17.41	8,433.703	17.91	8,676.181
15.42	7,468.611	15.92	7,711.099	16.42	7,953.587	16.92	8,196.074	17.42	8,438.552	17.92	8,681.030
15.43	7,473.461	15.93	7,715.949	16.43	7,958.437	16.93	8,200.924	17.43	8,443.402	17.93	8,685.880
15.44	7,478.311	15.94	7,720.799	16.44	7,963.286	16.94	8,205.774	17.44	8,448.252	17.94	8,690.730
15.45	7,483.161	15.95	7,725.648	16.45	7,968.136	16.95	8,210.623	17.45	8,453.101	17.95	8,695.579
15.46	7,488.010	15.96	7,730.498	16.46	7,972.986	16.96	8,215.473	17.46	8,457.951	17.96	8,700.429
15.47	7,492.860	15.97	7,735.348	16.47	7,977.836	16.97	8,220.322	17.47	8,462.800	17.97	8,705.278
15.48	7,497.710	15.98	7,740.198	16.48	7,982.685	16.98	8,225.172	17.48	8,467.650	17.98	8,710.128
15.49	7,502.560	15.99	7,745.047	16.49	7,987.535	16.99	8,230.021	17.49	8,472.499	17.99	8,714.977



Keyera Rimbey Edmonton Terminal

TANK # 102

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.267 Metres ; Located 110 cm to Benchmark				Height in Centimetres; Capacity in Cubic Metres							
18.00	8,719.827	18.50	8,962.305	19.00	9,204.783	19.50	9,447.261	20.00	9,689.769	20.50	9,932.475
18.01	8,724.677	18.51	8,967.155	19.01	9,209.633	19.51	9,452.111	20.01	9,694.623	20.51	9,937.329
18.02	8,729.526	18.52	8,972.004	19.02	9,214.482	19.52	9,456.960	20.02	9,699.477	20.52	9,942.183
18.03	8,734.376	18.53	8,976.854	19.03	9,219.332	19.53	9,461.810	20.03	9,704.331	20.53	9,947.037
18.04	8,739.225	18.54	8,981.703	19.04	9,224.181	19.54	9,466.659	20.04	9,709.186	20.54	9,951.891
18.05	8,744.075	18.55	8,986.553	19.05	9,229.031	19.55	9,471.509	20.05	9,714.040	20.55	9,956.746
18.06	8,748.924	18.56	8,991.402	19.06	9,233.880	19.56	9,476.358	20.06	9,718.894	20.56	9,961.600
18.07	8,753.774	18.57	8,996.252	19.07	9,238.730	19.57	9,481.208	20.07	9,723.748	20.57	9,966.454
18.08	8,758.623	18.58	9,001.101	19.08	9,243.579	19.58	9,486.057	20.08	9,728.602	20.58	9,971.308
18.09	8,763.473	18.59	9,005.951	19.09	9,248.429	19.59	9,490.907	20.09	9,733.456	20.59	9,976.162
18.10	8,768.323	18.60	9,010.801	19.10	9,253.279	19.60	9,495.757	20.10	9,738.310	20.60	9,981.016
18.11	8,773.172	18.61	9,015.650	19.11	9,258.128	19.61	9,500.606	20.11	9,743.164	20.61	9,985.870
18.12	8,778.022	18.62	9,020.500	19.12	9,262.978	19.62	9,505.456	20.12	9,748.019	20.62	9,990.724
18.13	8,782.871	18.63	9,025.349	19.13	9,267.827	19.63	9,510.305	20.13	9,752.873	20.63	9,995.578
18.14	8,787.721	18.64	9,030.199	19.14	9,272.677	19.64	9,515.155	20.14	9,757.727	20.64	10,000.433
18.15	8,792.570	18.65	9,035.048	19.15	9,277.526	19.65	9,520.004	20.15	9,762.581	20.65	10,005.287
18.16	8,797.420	18.66	9,039.898	19.16	9,282.376	19.66	9,524.854	20.16	9,767.435	20.66	10,010.141
18.17	8,802.269	18.67	9,044.747	19.17	9,287.226	19.67	9,529.704	20.17	9,772.289	20.67	10,014.995
18.18	8,807.119	18.68	9,049.597	19.18	9,292.075	19.68	9,534.553	20.18	9,777.143	20.68	10,019.849
18.19	8,811.969	18.69	9,054.447	19.19	9,296.925	19.69	9,539.403	20.19	9,781.997	20.69	10,024.703
18.20	8,816.818	18.70	9,059.296	19.20	9,301.774	19.70	9,544.252	20.20	9,786.851	20.70	10,029.557
18.21	8,821.668	18.71	9,064.146	19.21	9,306.624	19.71	9,549.102	20.21	9,791.706	20.71	10,034.411
18.22	8,826.517	18.72	9,068.995	19.22	9,311.473	19.72	9,553.951	20.22	9,796.560	20.72	10,039.266
18.23	8,831.367	18.73	9,073.845	19.23	9,316.323	19.73	9,558.801	20.23	9,801.414	20.73	10,044.120
18.24	8,836.216	18.74	9,078.694	19.24	9,321.172	19.74	9,563.650	20.24	9,806.268	20.74	10,048.974
18.25	8,841.066	18.75	9,083.544	19.25	9,326.022	19.75	9,568.500	20.25	9,811.122	20.75	10,053.828
18.26	8,845.916	18.76	9,088.394	19.26	9,330.872	19.76	9,573.350	20.26	9,815.976	20.76	10,058.682
18.27	8,850.765	18.77	9,093.243	19.27	9,335.721	19.77	9,578.199	20.27	9,820.830	20.77	10,063.536
18.28	8,855.615	18.78	9,098.093	19.28	9,340.571	19.78	9,583.049	20.28	9,825.684	20.78	10,068.390
18.29	8,860.464	18.79	9,102.942	19.29	9,345.420	19.79	9,587.898	20.29	9,830.538	20.79	10,073.244
18.30	8,865.314	18.80	9,107.792	19.30	9,350.270	19.80	9,592.748	20.30	9,835.393	20.80	10,078.098
18.31	8,870.163	18.81	9,112.641	19.31	9,355.119	19.81	9,597.597	20.31	9,840.247	20.81	10,082.953
18.32	8,875.013	18.82	9,117.491	19.32	9,359.969	19.82	9,602.447	20.32	9,845.101	20.82	10,087.807
18.33	8,879.862	18.83	9,122.340	19.33	9,364.818	19.83	9,607.297	20.33	9,849.955	20.83	10,092.661
18.34	8,884.712	18.84	9,127.190	19.34	9,369.668	19.84	9,612.146	20.34	9,854.809	20.84	10,097.515
18.35	8,889.562	18.85	9,132.040	19.35	9,374.518	19.85	9,616.996	20.35	9,859.663	20.85	10,102.369
18.36	8,894.411	18.86	9,136.889	19.36	9,379.367	19.86	9,621.845	20.36	9,864.517	20.86	10,107.223
18.37	8,899.261	18.87	9,141.739	19.37	9,384.217	19.87	9,626.695	20.37	9,869.371	20.87	10,112.077
18.38	8,904.110	18.88	9,146.588	19.38	9,389.066	19.88	9,631.544	20.38	9,874.226	20.88	10,116.931
18.39	8,908.960	18.89	9,151.438	19.39	9,393.916	19.89	9,636.394	20.39	9,879.080	20.89	10,121.786
18.40	8,913.809	18.90	9,156.287	19.40	9,398.765	19.90	9,641.243	20.40	9,883.934	20.90	10,126.640
18.41	8,918.659	18.91	9,161.137	19.41	9,403.615	19.91	9,646.093	20.41	9,888.788	20.91	10,131.494
18.42	8,923.508	18.92	9,165.987	19.42	9,408.465	19.92	9,650.943	20.42	9,893.642	20.92	10,136.348
18.43	8,928.358	18.93	9,170.836	19.43	9,413.314	19.93	9,655.792	20.43	9,898.496	20.93	10,141.202
18.44	8,933.208	18.94	9,175.686	19.44	9,418.164	19.94	9,660.644	20.44	9,903.350	20.94	10,146.056
18.45	8,938.057	18.95	9,180.535	19.45	9,423.013	19.95	9,665.499	20.45	9,908.204	20.95	10,150.910
18.46	8,942.907	18.96	9,185.385	19.46	9,427.863	19.96	9,670.353	20.46	9,913.058	20.96	10,155.764
18.47	8,947.756	18.97	9,190.234	19.47	9,432.712	19.97	9,675.207	20.47	9,917.913	20.97	10,160.618
18.48	8,952.606	18.98	9,195.084	19.48	9,437.562	19.98	9,680.061	20.48	9,922.767	20.98	10,165.473
18.49	8,957.455	18.99	9,199.933	19.49	9,442.411	19.99	9,684.915	20.49	9,927.621	20.99	10,170.327



Keyera Rimbey Edmonton Terminal

TANK # 102

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.267 Metres ; Located 110 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
21.00	10,175.181	21.50	10,417.887	22.00	10,660.593	22.50	10,903.298	23.00	11,146.007	23.50	11,388.745
21.01	10,180.035	21.51	10,422.741	22.01	10,665.447	22.51	10,908.152	23.01	11,150.862	23.51	11,393.600
21.02	10,184.889	21.52	10,427.595	22.02	10,670.301	22.52	10,913.007	23.02	11,155.716	23.52	11,398.454
21.03	10,189.743	21.53	10,432.449	22.03	10,675.155	22.53	10,917.861	23.03	11,160.571	23.53	11,403.309
21.04	10,194.597	21.54	10,437.303	22.04	10,680.009	22.54	10,922.715	23.04	11,165.426	23.54	11,408.164
21.05	10,199.451	21.55	10,442.157	22.05	10,684.863	22.55	10,927.569	23.05	11,170.281	23.55	11,413.019
21.06	10,204.306	21.56	10,447.011	22.06	10,689.717	22.56	10,932.423	23.06	11,175.135	23.56	11,417.873
21.07	10,209.160	21.57	10,451.865	22.07	10,694.571	22.57	10,937.277	23.07	11,179.990	23.57	11,422.728
21.08	10,214.014	21.58	10,456.720	22.08	10,699.425	22.58	10,942.131	23.08	11,184.845	23.58	11,427.583
21.09	10,218.868	21.59	10,461.574	22.09	10,704.280	22.59	10,946.985	23.09	11,189.700	23.59	11,432.438
21.10	10,223.722	21.60	10,466.428	22.10	10,709.134	22.60	10,951.840	23.10	11,194.554	23.60	11,437.293
21.11	10,228.576	21.61	10,471.282	22.11	10,713.988	22.61	10,956.694	23.11	11,199.409	23.61	11,442.147
21.12	10,233.430	21.62	10,476.136	22.12	10,718.842	22.62	10,961.548	23.12	11,204.264	23.62	11,447.002
21.13	10,238.284	21.63	10,480.990	22.13	10,723.696	22.63	10,966.402	23.13	11,209.119	23.63	11,451.857
21.14	10,243.138	21.64	10,485.844	22.14	10,728.550	22.64	10,971.256	23.14	11,213.973	23.64	11,456.712
21.15	10,247.993	21.65	10,490.698	22.15	10,733.404	22.65	10,976.110	23.15	11,218.828	23.65	11,461.566
21.16	10,252.847	21.66	10,495.553	22.16	10,738.258	22.66	10,980.964	23.16	11,223.683	23.66	11,466.421
21.17	10,257.701	21.67	10,500.407	22.17	10,743.113	22.67	10,985.818	23.17	11,228.538	23.67	11,471.276
21.18	10,262.555	21.68	10,505.261	22.18	10,747.967	22.68	10,990.672	23.18	11,233.393	23.68	11,476.131
21.19	10,267.409	21.69	10,510.115	22.19	10,752.821	22.69	10,995.527	23.19	11,238.247	23.69	11,480.985
21.20	10,272.263	21.70	10,514.969	22.20	10,757.675	22.70	11,000.381	23.20	11,243.102	23.70	11,485.840
21.21	10,277.117	21.71	10,519.823	22.21	10,762.529	22.71	11,005.235	23.21	11,247.957	23.71	11,490.695
21.22	10,281.971	21.72	10,524.677	22.22	10,767.383	22.72	11,010.089	23.22	11,252.812	23.72	11,495.550
21.23	10,286.826	21.73	10,529.531	22.23	10,772.237	22.73	11,014.943	23.23	11,257.666	23.73	11,500.404
21.24	10,291.680	21.74	10,534.385	22.24	10,777.091	22.74	11,019.797	23.24	11,262.521	23.74	11,505.259
21.25	10,296.534	21.75	10,539.240	22.25	10,781.945	22.75	11,024.651	23.25	11,267.376	23.75	11,510.114
21.26	10,301.388	21.76	10,544.094	22.26	10,786.800	22.76	11,029.505	23.26	11,272.231	23.76	11,514.969
21.27	10,306.242	21.77	10,548.948	22.27	10,791.654	22.77	11,034.360	23.27	11,277.085	23.77	11,519.823
21.28	10,311.096	21.78	10,553.802	22.28	10,796.508	22.78	11,039.214	23.28	11,281.940	23.78	11,524.678
21.29	10,315.950	21.79	10,558.656	22.29	10,801.362	22.79	11,044.068	23.29	11,286.795	23.79	11,529.533
21.30	10,320.804	21.80	10,563.510	22.30	10,806.216	22.80	11,048.922	23.30	11,291.650	23.80	11,534.388
21.31	10,325.658	21.81	10,568.364	22.31	10,811.070	22.81	11,053.776	23.31	11,296.504	23.81	11,539.243
21.32	10,330.513	21.82	10,573.218	22.32	10,815.924	22.82	11,058.630	23.32	11,301.359	23.82	11,544.097
21.33	10,335.367	21.83	10,578.073	22.33	10,820.778	22.83	11,063.484	23.33	11,306.214	23.83	11,548.952
21.34	10,340.221	21.84	10,582.927	22.34	10,825.632	22.84	11,068.338	23.34	11,311.069	23.84	11,553.807
21.35	10,345.075	21.85	10,587.781	22.35	10,830.487	22.85	11,073.192	23.35	11,315.923	23.85	11,558.662
21.36	10,349.929	21.86	10,592.635	22.36	10,835.341	22.86	11,078.047	23.36	11,320.778	23.86	11,563.516
21.37	10,354.783	21.87	10,597.489	22.37	10,840.195	22.87	11,082.901	23.37	11,325.633	23.87	11,568.371
21.38	10,359.637	21.88	10,602.343	22.38	10,845.049	22.88	11,087.755	23.38	11,330.488	23.88	11,573.226
21.39	10,364.491	21.89	10,607.197	22.39	10,849.903	22.89	11,092.609	23.39	11,335.343	23.89	11,578.081
21.40	10,369.345	21.90	10,612.051	22.40	10,854.757	22.90	11,097.463	23.40	11,340.197	23.90	11,582.935
21.41	10,374.200	21.91	10,616.905	22.41	10,859.611	22.91	11,102.317	23.41	11,345.052	23.91	11,587.790
21.42	10,379.054	21.92	10,621.760	22.42	10,864.465	22.92	11,107.171	23.42	11,349.907	23.92	11,592.645
21.43	10,383.908	21.93	10,626.614	22.43	10,869.320	22.93	11,112.025	23.43	11,354.762	23.93	11,597.500
21.44	10,388.762	21.94	10,631.468	22.44	10,874.174	22.94	11,116.880	23.44	11,359.616	23.94	11,602.354
21.45	10,393.616	21.95	10,636.322	22.45	10,879.028	22.95	11,121.734	23.45	11,364.471	23.95	11,607.209
21.46	10,398.470	21.96	10,641.176	22.46	10,883.882	22.96	11,126.588	23.46	11,369.326	23.96	11,612.064
21.47	10,403.324	21.97	10,646.030	22.47	10,888.736	22.97	11,131.443	23.47	11,374.181	23.97	11,616.919
21.48	10,408.178	21.98	10,650.884	22.48	10,893.590	22.98	11,136.297	23.48	11,379.035	23.98	11,621.773
21.49	10,413.033	21.99	10,655.738	22.49	10,898.444	22.99	11,141.152	23.49	11,383.890	23.99	11,626.628

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 102

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.267 Metres ; Located 110 cm to Benchmark				Height in Centimetres; Capacity in Cubic Metres			
24.00	SF 11631.659	24.50	11,874.221	25.00	12,116.959	25.50	12,359.701
24.01	11,636.338	24.51	11,879.076	25.01	12,121.814	25.51	12,364.556
24.02	11,641.193	24.52	11,883.931	25.02	12,126.669	25.52	12,369.411
24.03	11,646.047	24.53	11,888.785	25.03	12,131.523	25.53	12,374.266
24.04	11,650.902	24.54	11,893.640	25.04	12,136.378	25.54	12,379.121
24.05	11,655.757	24.55	11,898.495	25.05	12,141.233	25.55	12,383.977
24.06	11,660.612	24.56	11,903.350	25.06	12,146.088	25.56	12,388.832
24.07	11,665.466	24.57	11,908.204	25.07	12,150.942	25.57	12,393.687
24.08	11,670.321	24.58	11,913.059	25.08	12,155.797	25.58	12,398.542
24.09	11,675.176	24.59	11,917.914	25.09	12,160.652	25.59	12,403.397
24.10	11,680.031	24.60	11,922.769	25.10	12,165.507	25.60	12,408.252
24.11	11,684.885	24.61	11,927.623	25.11	12,170.362	25.61	12,413.107
24.12	11,689.740	24.62	11,932.478	25.12	12,175.216	25.62	12,417.962
24.13	11,694.595	24.63	11,937.333	25.13	12,180.071	25.63	12,422.817
24.14	11,699.450	24.64	11,942.188	25.14	12,184.926	25.64	12,427.672
24.15	11,704.304	24.65	11,947.042	25.15	12,189.781	25.65	12,432.527
24.16	11,709.159	24.66	11,951.897	25.16	12,194.635	25.66	12,437.383
24.17	11,714.014	24.67	11,956.752	25.17	12,199.490	25.67	12,442.238
24.18	11,718.869	24.68	11,961.607	25.18	12,204.345	25.68	12,447.093
24.19	11,723.723	24.69	OF 11966.641	25.19	12,209.200	25.69	12,451.948
24.20	11,728.578	24.70	11,971.316	25.20	12,214.054	25.70	12,456.803
24.21	11,733.433	24.71	11,976.171	25.21	12,218.909	25.71	12,461.658
24.22	11,738.288	24.72	11,981.026	25.22	12,223.764	25.72	12,466.513
24.23	11,743.142	24.73	11,985.881	25.23	12,228.619	25.73	12,471.368
24.24	11,747.997	24.74	11,990.735	25.24	12,233.473	25.74	12,476.223
24.25	11,752.852	24.75	11,995.590	25.25	12,238.328	25.75	12,481.078
24.26	11,757.707	24.76	12,000.445	25.26	12,243.183	25.76	12,485.933
24.27	11,762.562	24.77	12,005.300	25.27	12,248.038	25.77	12,490.788
24.28	11,767.416	24.78	12,010.154	25.28	12,252.892	25.78	12,495.644
24.29	11,772.271	24.79	12,015.009	25.29	12,257.747	25.79	12,500.499
24.30	11,777.126	24.80	12,019.864	25.30	12,262.602	25.80	12,505.354
24.31	11,781.981	24.81	12,024.719	25.31	12,267.457	25.81	12,510.209
24.32	11,786.835	24.82	12,029.573	25.32	12,272.312	25.82	12,515.064
24.33	11,791.690	24.83	12,034.428	25.33	12,277.166	25.83	12,519.919
24.34	11,796.545	24.84	12,039.283	25.34	12,282.021	25.84	12,524.774
24.35	11,801.400	24.85	12,044.138	25.35	12,286.876	25.85	12,529.629
24.36	11,806.254	24.86	12,048.992	25.36	12,291.731	25.86	12,534.484
24.37	11,811.109	24.87	12,053.847	25.37	12,296.585	25.87	12,539.339
24.38	11,815.964	24.88	12,058.702	25.38	12,301.440	25.88	12,544.194
24.39	11,820.819	24.89	12,063.557	25.39	12,306.295	25.89	12,549.049
24.40	11,825.673	24.90	12,068.412	25.40	12,311.150	25.90	12,553.905
24.41	11,830.528	24.91	12,073.266	25.41	12,316.005	25.91	12,558.760
24.42	11,835.383	24.92	12,078.121	25.42	12,320.860	25.92	12,563.615
24.43	11,840.238	24.93	12,082.976	25.43	12,325.716	25.93	12,568.470
24.44	11,845.092	24.94	12,087.831	25.44	12,330.571	25.94	12,573.325
24.45	11,849.947	24.95	12,092.685	25.45	12,335.426	25.95	12,578.180
24.46	11,854.802	24.96	12,097.540	25.46	12,340.281	25.96	12,578.665
24.47	11,859.657	24.97	12,102.395	25.47	12,345.136	25.97	
24.48	11,864.512	24.98	12,107.250	25.48	12,349.991	25.98	
24.49	11,869.366	24.99	12,112.104	25.49	12,354.846	25.99	

Safe Fill Height @ 24.000 Metres
Overfill Height @ 24.690 Metres

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Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

General Information

Tank Number	102
Date of Strapping Data	11/25/2016
Year Built	2016
Product in Service	Condensate
Product Service Density	0.775 g/cc (SG)

Tank Dimensions

Nominal Diameter	24.840 Metres
Nominal Height	26.000 Metres
Measured Tank Height	25.951 Metres
Tank Tilt	
Gauge Point Information	Edge of flange
Reference Gauge Height	26.267 Metres
Horizontal To Gauge	1110 Millimetres

Roof & Bottom Survey

Roof Type	Cone
Floating Roof Shape	
Floating Roof Weight	5635.885 Kilograms
Roof Landed Height	107 Centimetres
Roof Full Floating Height	107 Centimetres
Bottom Description	Physical Survey

Report Constraints

Main Increment	Centimetres
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	24.000 Metres
Overflow Or Foamline	24.690 Metres

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Strap Correction to 60°F

Shell Temperature (°F)	26.6	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + (\text{'Shell Temperature'} - 68) \times \text{'Tape Expansion'}$
Shell Correction Factor	$1 + (60 - \text{'Shell Temperature'}) \times \text{'Shell Expansion'}$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 0.99994834

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	77.979	255.836	0.000	255.823
To				
9	77.979	255.836	0.000	255.823

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	448.100	0.000	0.000	77.975	255.823
2	449.250	1.150	7.226	77.982	255.846
3	449.700	1.600	10.053	77.985	255.855
4	452.650	4.550	28.588	78.003	255.916
5	455.200	7.100	44.611	78.019	255.969
6	456.550	8.450	53.093	78.028	255.997
7	454.300	6.200	38.956	78.014	255.950
8	457.850	9.750	61.261	78.036	256.023
9	456.400	8.300	52.150	78.027	255.994

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	255.823	17.000 Millimetres	3.027 Metres	3.027 Metres
2	255.846	15.000 Millimetres	2.405 Metres	5.432 Metres
3	255.855	13.000 Millimetres	2.419 Metres	7.851 Metres
4	255.916	11.000 Millimetres	3.017 Metres	10.868 Metres
5	255.969	9.000 Millimetres	3.019 Metres	13.887 Metres
6	255.997	8.000 Millimetres	3.025 Metres	16.912 Metres
7	255.950	6.000 Millimetres	3.022 Metres	19.934 Metres
8	256.023	6.000 Millimetres	3.026 Metres	22.960 Metres
9	255.994	6.000 Millimetres	2.991 Metres	25.951 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
2	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
3	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
4	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
5	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
6	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
7	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
8	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
9	Butt Weld	0	0.000 Millimetres	0.000 Millimetres

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	255.823	0.669	0
2.00	62.428	1.000	0	255.846	0.591	0
3.00	62.428	1.000	0	255.855	0.512	0
4.00	62.428	1.000	0	255.916	0.433	0
5.00	62.428	1.000	0	255.969	0.354	0
6.00	62.428	1.000	0	255.997	0.315	0
7.00	62.428	1.000	0	255.950	0.236	0
8.00	62.428	1.000	0	256.023	0.236	0
9.00	62.428	1.000	0	255.994	0.236	0

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2*D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	255.823	0.000	0.000	0.000	255.823
2	255.846	0.000	0.000	0.000	255.846
3	255.855	0.000	0.000	0.000	255.855
4	255.916	0.000	0.000	0.000	255.916
5	255.969	0.000	0.000	0.000	255.969
6	255.997	0.000	0.000	0.000	255.997
7	255.950	0.000	0.000	0.000	255.950
8	256.023	0.000	0.000	0.000	256.023
9	255.994	0.000	0.000	0.000	255.994

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Centimetre
1	255.823	0.004	255.827	4.839
2	255.846	0.007	255.854	4.840
3	255.855	0.009	255.864	4.840
4	255.916	0.013	255.929	4.842
5	255.969	0.016	255.985	4.844
6	255.997	0.018	256.014	4.846
7	255.950	0.024	255.974	4.844
8	256.023	0.024	256.047	4.847
9	255.994	0.023	256.017	4.846

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} + \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Centimetre	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 68 °F 1.0001032
1	4.839	0.001	0.000	4.839	4.839
2	4.840	0.001	0.001	4.840	4.841
3	4.840	0.001	0.001	4.841	4.842
4	4.842	0.001	0.002	4.844	4.845
5	4.844	0.001	0.003	4.847	4.848
6	4.846	0.001	0.004	4.850	4.850
7	4.844	0.002	0.005	4.849	4.850
8	4.847	0.002	0.007	4.854	4.854
9	4.846	0.000	0.009	4.855	4.855



Keyera Rimbey Edmonton Terminal

TANK # 103

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.285 Metres ; Located 108 cm to Benchmark					Height in Centimetres; Capacity in Cubic Metres				
.00*	7.481	.50	243.947	1.00	485.551	1.50	727.170	2.00	968.795
.01*	10.334	.51	248.777	1.01	490.383	1.51	732.003	2.01	973.627
.02*	13.659	.52	253.608	1.02	495.215	1.52	736.835	2.02	978.460
.03*	17.547	.53	258.438	1.03	500.048	1.53	741.668	2.03	983.292
.04*	21.979	.54	263.269	1.04	504.880	1.54	746.500	2.04	988.125
.05*	26.684	.55	268.099	1.05	509.712	1.55	751.333	2.05	992.957
.06	31.450	.56	272.930	1.06	514.544	1.56	756.165	2.06	997.790
.07	36.271	.57	277.762	1.07	519.376	1.57	760.998	2.07	1,002.622
.08	41.102	.58	282.594	1.08	524.208	1.58	765.830	2.08	1,007.455
.09	45.933	.59	287.427	1.09	529.041	1.59	770.663	2.09	1,012.287
.10	50.764	.60	292.259	1.10	533.873	1.60	775.495	2.10	1,017.120
.11	55.594	.61	297.091	1.11	538.705	1.61	780.328	2.11	1,021.952
.12	60.425	.62	301.923	1.12	543.537	1.62	785.160	2.12	1,026.785
.13	65.255	.63	306.756	1.13	548.369	1.63	789.993	2.13	1,031.617
.14	70.086	.64	311.588	1.14	553.201	1.64	794.825	2.14	1,036.449
.15	74.917	.65	316.420	1.15	558.033	1.65	799.658	2.15	1,041.282
.16	79.746	.66	321.252	1.16	562.866	1.66	804.490	2.16	1,046.114
.17	84.576	.67	326.084	1.17	567.698	1.67	809.323	2.17	1,050.947
.18	89.405	.68	330.917	1.18	572.530	1.68	814.155	2.18	1,055.779
.19	94.234	.69	335.749	1.19	577.363	1.69	818.988	2.19	1,060.612
.20	99.064	.70	340.581	1.20	582.195	1.70	823.820	2.20	1,065.444
.21	103.893	.71	345.414	1.21	587.028	1.71	828.653	2.21	1,070.277
.22	108.722	.72	350.246	1.22	591.860	1.72	833.485	2.22	1,075.109
.23	113.551	.73	355.078	1.23	596.693	1.73	838.318	2.23	1,079.942
.24	118.381	.74	359.911	1.24	601.525	1.74	843.150	2.24	1,084.774
.25	123.210	.75	364.743	1.25	606.358	1.75	847.983	2.25	1,089.607
.26	128.039	.76	369.576	1.26	611.190	1.76	852.815	2.26	1,094.439
.27	132.868	.77	374.408	1.27	616.023	1.77	857.647	2.27	1,099.272
.28	137.698	.78	379.240	1.28	620.856	1.78	862.480	2.28	1,104.104
.29	142.527	.79	384.073	1.29	625.688	1.79	867.312	2.29	1,108.937
.30	147.357	.80	388.905	1.30	630.521	1.80	872.145	2.30	1,113.769
.31	152.186	.81	393.737	1.31	635.353	1.81	876.977	2.31	1,118.602
.32	157.016	.82	398.570	1.32	640.186	1.82	881.810	2.32	1,123.434
.33	161.845	.83	403.402	1.33	645.018	1.83	886.642	2.33	1,128.267
.34	166.675	.84	408.234	1.34	649.851	1.84	891.475	2.34	1,133.099
.35	171.504	.85	413.067	1.35	654.683	1.85	896.307	2.35	1,137.932
.36	176.333	.86	417.899	1.36	659.516	1.86	901.140	2.36	1,142.764
.37	181.163	.87	422.732	1.37	664.348	1.87	905.972	2.37	1,147.597
.38	185.992	.88	427.564	1.38	669.181	1.88	910.805	2.38	1,152.429
.39	190.821	.89	432.396	1.39	674.013	1.89	915.637	2.39	1,157.262
.40	195.651	.90	437.229	1.40	678.846	1.90	920.470	2.40	1,162.094
.41	200.480	.91	442.061	1.41	683.678	1.91	925.302	2.41	1,166.927
.42	205.309	.92	446.893	1.42	688.510	1.92	930.135	2.42	1,171.759
.43	210.139	.93	451.725	1.43	693.343	1.93	934.967	2.43	1,176.592
.44	214.968	.94	456.558	1.44	698.175	1.94	939.800	2.44	1,181.424
.45	219.798	.95	461.390	1.45	703.008	1.95	944.632	2.45	1,186.257
.46	224.627	.96	466.222	1.46	707.840	1.96	949.465	2.46	1,191.089
.47	229.457	.97	471.055	1.47	712.673	1.97	954.297	2.47	1,195.922
.48	234.286	.98	475.887	1.48	717.505	1.98	959.130	2.48	1,200.754
.49	239.116	.99	480.719	1.49	722.338	1.99	963.962	2.49	1,205.586

Strike Point located 5.2 Centimetres above intersection of shell & bottom.

Page 1 of 9

* Bottom volume based on Physical Survey Calculation. Average Centimetres not applicable

Safe Fill Height @ 24.000 Metres

Volumes reflect a Shell Temperature of 20°C

Displacement for Floating Roof has been deducted

A total of 7.2721 Cubic Metres were deducted between 102 & 112 Centimetres based on a weight of 5635.8852 Kilograms and a density of 775 kg/m³. Gauged quantities above 112 Centimetres reflect this deduction but shall be adjusted for a differing gravity at 20°C according to the following formula (see page 2).

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 103

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.285 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
3.00	1,452.043	3.50	1,693.829	4.00	1,935.621	4.50	2,177.413	5.00	2,419.205	5.50	2,661.017
3.01	1,456.876	3.51	1,698.664	4.01	1,940.456	4.51	2,182.249	5.01	2,424.041	5.51	2,665.855
3.02	1,461.708	3.52	1,703.500	4.02	1,945.292	4.52	2,187.084	5.02	2,428.876	5.52	2,670.694
3.03	1,466.544	3.53	1,708.336	4.03	1,950.128	4.53	2,191.920	5.03	2,433.712	5.53	2,675.533
3.04	1,471.380	3.54	1,713.172	4.04	1,954.964	4.54	2,196.756	5.04	2,438.548	5.54	2,680.372
3.05	1,476.216	3.55	1,718.008	4.05	1,959.800	4.55	2,201.592	5.05	2,443.384	5.55	2,685.210
3.06	1,481.052	3.56	1,722.844	4.06	1,964.636	4.56	2,206.428	5.06	2,448.220	5.56	2,690.049
3.07	1,485.887	3.57	1,727.679	4.07	1,969.472	4.57	2,211.264	5.07	2,453.056	5.57	2,694.888
3.08	1,490.723	3.58	1,732.515	4.08	1,974.307	4.58	2,216.099	5.08	2,457.891	5.58	2,699.727
3.09	1,495.559	3.59	1,737.351	4.09	1,979.143	4.59	2,220.935	5.09	2,462.727	5.59	2,704.565
3.10	1,500.395	3.60	1,742.187	4.10	1,983.979	4.60	2,225.771	5.10	2,467.563	5.60	2,709.404
3.11	1,505.231	3.61	1,747.023	4.11	1,988.815	4.61	2,230.607	5.11	2,472.399	5.61	2,714.243
3.12	1,510.067	3.62	1,751.859	4.12	1,993.651	4.62	2,235.443	5.12	2,477.235	5.62	2,719.082
3.13	1,514.902	3.63	1,756.695	4.13	1,998.487	4.63	2,240.279	5.13	2,482.071	5.63	2,723.920
3.14	1,519.738	3.64	1,761.530	4.14	2,003.322	4.64	2,245.114	5.14	2,486.906	5.64	2,728.759
3.15	1,524.574	3.65	1,766.366	4.15	2,008.158	4.65	2,249.950	5.15	2,491.742	5.65	2,733.598
3.16	1,529.410	3.66	1,771.202	4.16	2,012.994	4.66	2,254.786	5.16	2,496.578	5.66	2,738.437
3.17	1,534.246	3.67	1,776.038	4.17	2,017.830	4.67	2,259.622	5.17	2,501.414	5.67	2,743.275
3.18	1,539.082	3.68	1,780.874	4.18	2,022.666	4.68	2,264.458	5.18	2,506.250	5.68	2,748.114
3.19	1,543.918	3.69	1,785.710	4.19	2,027.502	4.69	2,269.294	5.19	2,511.086	5.69	2,752.953
3.20	1,548.753	3.70	1,790.545	4.20	2,032.337	4.70	2,274.129	5.20	2,515.922	5.70	2,757.792
3.21	1,553.589	3.71	1,795.381	4.21	2,037.173	4.71	2,278.965	5.21	2,520.757	5.71	2,762.630
3.22	1,558.425	3.72	1,800.217	4.22	2,042.009	4.72	2,283.801	5.22	2,525.593	5.72	2,767.469
3.23	1,563.261	3.73	1,805.053	4.23	2,046.845	4.73	2,288.637	5.23	2,530.429	5.73	2,772.308
3.24	1,568.097	3.74	1,809.889	4.24	2,051.681	4.74	2,293.473	5.24	2,535.265	5.74	2,777.147
3.25	1,572.933	3.75	1,814.725	4.25	2,056.517	4.75	2,298.309	5.25	2,540.101	5.75	2,781.985
3.26	1,577.768	3.76	1,819.560	4.26	2,061.352	4.76	2,303.145	5.26	2,544.937	5.76	2,786.824
3.27	1,582.604	3.77	1,824.396	4.27	2,066.188	4.77	2,307.980	5.27	2,549.772	5.77	2,791.663
3.28	1,587.440	3.78	1,829.232	4.28	2,071.024	4.78	2,312.816	5.28	2,554.608	5.78	2,796.502
3.29	1,592.276	3.79	1,834.068	4.29	2,075.860	4.79	2,317.652	5.29	2,559.444	5.79	2,801.340
3.30	1,597.112	3.80	1,838.904	4.30	2,080.696	4.80	2,322.488	5.30	2,564.280	5.80	2,806.179
3.31	1,601.948	3.81	1,843.740	4.31	2,085.532	4.81	2,327.324	5.31	2,569.116	5.81	2,811.018
3.32	1,606.783	3.82	1,848.575	4.32	2,090.368	4.82	2,332.160	5.32	2,573.952	5.82	2,815.857
3.33	1,611.619	3.83	1,853.411	4.33	2,095.203	4.83	2,336.995	5.33	2,578.787	5.83	2,820.695
3.34	1,616.455	3.84	1,858.247	4.34	2,100.039	4.84	2,341.831	5.34	2,583.623	5.84	2,825.534
3.35	1,621.291	3.85	1,863.083	4.35	2,104.875	4.85	2,346.667	5.35	2,588.459	5.85	2,830.373
3.36	1,626.127	3.86	1,867.919	4.36	2,109.711	4.86	2,351.503	5.36	2,593.295	5.86	2,835.212
3.37	1,630.963	3.87	1,872.755	4.37	2,114.547	4.87	2,356.339	5.37	2,598.131	5.87	2,840.050
3.38	1,635.798	3.88	1,877.591	4.38	2,119.383	4.88	2,361.175	5.38	2,602.967	5.88	2,844.889
3.39	1,640.634	3.89	1,882.426	4.39	2,124.218	4.89	2,366.010	5.39	2,607.802	5.89	2,849.728
3.40	1,645.470	3.90	1,887.262	4.40	2,129.054	4.90	2,370.846	5.40	2,612.638	5.90	2,854.567
3.41	1,650.306	3.91	1,892.098	4.41	2,133.890	4.91	2,375.682	5.41	2,617.474	5.91	2,859.406
3.42	1,655.142	3.92	1,896.934	4.42	2,138.726	4.92	2,380.518	5.42	2,622.310	5.92	2,864.244
3.43	1,659.978	3.93	1,901.770	4.43	2,143.562	4.93	2,385.354	5.43	2,627.146	5.93	2,869.083
3.44	1,664.814	3.94	1,906.606	4.44	2,148.398	4.94	2,390.190	5.44	2,631.984	5.94	2,873.922
3.45	1,669.649	3.95	1,911.441	4.45	2,153.233	4.95	2,395.026	5.45	2,636.823	5.95	2,878.761
3.46	1,674.485	3.96	1,916.277	4.46	2,158.069	4.96	2,399.861	5.46	2,641.662	5.96	2,883.599
3.47	1,679.321	3.97	1,921.113	4.47	2,162.905	4.97	2,404.697	5.47	2,646.500	5.97	2,888.438
3.48	1,684.157	3.98	1,925.949	4.48	2,167.741	4.98	2,409.533	5.48	2,651.339	5.98	2,893.277
3.49	1,688.993	3.99	1,930.785	4.49	2,172.577	4.99	2,414.369	5.49	2,656.178	5.99	2,898.116

Displacement = 5635.8852 Kilograms - 7.2721 Cubic Metres
Correction Kilograms/Cubic Metre

If result is (-) negative : add volume
If result is (+) positive : subtract volume



Keyera Rimbey Edmonton Terminal

TANK # 103

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.285 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
6.00	2,902.954	6.50	3,144.892	7.00	3,386.830	7.50	3,628.768	8.00	3,870.741	8.50	4,112.795
6.01	2,907.793	6.51	3,149.731	7.01	3,391.669	7.51	3,633.606	8.01	3,875.582	8.51	4,117.636
6.02	2,912.632	6.52	3,154.570	7.02	3,396.507	7.52	3,638.445	8.02	3,880.423	8.52	4,122.477
6.03	2,917.471	6.53	3,159.408	7.03	3,401.346	7.53	3,643.284	8.03	3,885.264	8.53	4,127.318
6.04	2,922.309	6.54	3,164.247	7.04	3,406.185	7.54	3,648.123	8.04	3,890.105	8.54	4,132.159
6.05	2,927.148	6.55	3,169.086	7.05	3,411.024	7.55	3,652.961	8.05	3,894.946	8.55	4,137.000
6.06	2,931.987	6.56	3,173.925	7.06	3,415.862	7.56	3,657.800	8.06	3,899.787	8.56	4,141.842
6.07	2,936.826	6.57	3,178.763	7.07	3,420.701	7.57	3,662.639	8.07	3,904.628	8.57	4,146.683
6.08	2,941.664	6.58	3,183.602	7.08	3,425.540	7.58	3,667.478	8.08	3,909.469	8.58	4,151.524
6.09	2,946.503	6.59	3,188.441	7.09	3,430.379	7.59	3,672.316	8.09	3,914.310	8.59	4,156.365
6.10	2,951.342	6.60	3,193.280	7.10	3,435.217	7.60	3,677.155	8.10	3,919.151	8.60	4,161.206
6.11	2,956.181	6.61	3,198.118	7.11	3,440.056	7.61	3,681.994	8.11	3,923.992	8.61	4,166.047
6.12	2,961.019	6.62	3,202.957	7.12	3,444.895	7.62	3,686.833	8.12	3,928.834	8.62	4,170.888
6.13	2,965.858	6.63	3,207.796	7.13	3,449.734	7.63	3,691.671	8.13	3,933.675	8.63	4,175.729
6.14	2,970.697	6.64	3,212.635	7.14	3,454.572	7.64	3,696.510	8.14	3,938.516	8.64	4,180.570
6.15	2,975.536	6.65	3,217.473	7.15	3,459.411	7.65	3,701.349	8.15	3,943.357	8.65	4,185.411
6.16	2,980.374	6.66	3,222.312	7.16	3,464.250	7.66	3,706.188	8.16	3,948.198	8.66	4,190.252
6.17	2,985.213	6.67	3,227.151	7.17	3,469.089	7.67	3,711.026	8.17	3,953.039	8.67	4,195.094
6.18	2,990.052	6.68	3,231.990	7.18	3,473.927	7.68	3,715.865	8.18	3,957.880	8.68	4,199.935
6.19	2,994.891	6.69	3,236.828	7.19	3,478.766	7.69	3,720.704	8.19	3,962.721	8.69	4,204.776
6.20	2,999.729	6.70	3,241.667	7.20	3,483.605	7.70	3,725.543	8.20	3,967.562	8.70	4,209.617
6.21	3,004.568	6.71	3,246.506	7.21	3,488.444	7.71	3,730.381	8.21	3,972.403	8.71	4,214.458
6.22	3,009.407	6.72	3,251.345	7.22	3,493.282	7.72	3,735.220	8.22	3,977.244	8.72	4,219.299
6.23	3,014.246	6.73	3,256.183	7.23	3,498.121	7.73	3,740.059	8.23	3,982.086	8.73	4,224.140
6.24	3,019.084	6.74	3,261.022	7.24	3,502.960	7.74	3,744.898	8.24	3,986.927	8.74	4,228.981
6.25	3,023.923	6.75	3,265.861	7.25	3,507.799	7.75	3,749.736	8.25	3,991.768	8.75	4,233.822
6.26	3,028.762	6.76	3,270.700	7.26	3,512.637	7.76	3,754.575	8.26	3,996.609	8.76	4,238.663
6.27	3,033.601	6.77	3,275.538	7.27	3,517.476	7.77	3,759.414	8.27	4,001.450	8.77	4,243.504
6.28	3,038.439	6.78	3,280.377	7.28	3,522.315	7.78	3,764.253	8.28	4,006.291	8.78	4,248.345
6.29	3,043.278	6.79	3,285.216	7.29	3,527.154	7.79	3,769.091	8.29	4,011.132	8.79	4,253.187
6.30	3,048.117	6.80	3,290.055	7.30	3,531.992	7.80	3,773.930	8.30	4,015.973	8.80	4,258.028
6.31	3,052.956	6.81	3,294.893	7.31	3,536.831	7.81	3,778.769	8.31	4,020.814	8.81	4,262.869
6.32	3,057.794	6.82	3,299.732	7.32	3,541.670	7.82	3,783.608	8.32	4,025.655	8.82	4,267.710
6.33	3,062.633	6.83	3,304.571	7.33	3,546.509	7.83	3,788.446	8.33	4,030.496	8.83	4,272.551
6.34	3,067.472	6.84	3,309.410	7.34	3,551.347	7.84	3,793.285	8.34	4,035.338	8.84	4,277.392
6.35	3,072.311	6.85	3,314.248	7.35	3,556.186	7.85	3,798.124	8.35	4,040.179	8.85	4,282.233
6.36	3,077.149	6.86	3,319.087	7.36	3,561.025	7.86	3,802.965	8.36	4,045.020	8.86	4,287.074
6.37	3,081.988	6.87	3,323.926	7.37	3,565.864	7.87	3,807.806	8.37	4,049.861	8.87	4,291.915
6.38	3,086.827	6.88	3,328.765	7.38	3,570.702	7.88	3,812.647	8.38	4,054.702	8.88	4,296.756
6.39	3,091.666	6.89	3,333.603	7.39	3,575.541	7.89	3,817.489	8.39	4,059.543	8.89	4,301.597
6.40	3,096.504	6.90	3,338.442	7.40	3,580.380	7.90	3,822.330	8.40	4,064.384	8.90	4,306.439
6.41	3,101.343	6.91	3,343.281	7.41	3,585.219	7.91	3,827.171	8.41	4,069.225	8.91	4,311.280
6.42	3,106.182	6.92	3,348.120	7.42	3,590.057	7.92	3,832.012	8.42	4,074.066	8.92	4,316.121
6.43	3,111.021	6.93	3,352.958	7.43	3,594.896	7.93	3,836.853	8.43	4,078.907	8.93	4,320.962
6.44	3,115.860	6.94	3,357.797	7.44	3,599.735	7.94	3,841.694	8.44	4,083.748	8.94	4,325.803
6.45	3,120.698	6.95	3,362.636	7.45	3,604.574	7.95	3,846.535	8.45	4,088.590	8.95	4,330.644
6.46	3,125.537	6.96	3,367.475	7.46	3,609.412	7.96	3,851.376	8.46	4,093.431	8.96	4,335.485
6.47	3,130.376	6.97	3,372.314	7.47	3,614.251	7.97	3,856.217	8.47	4,098.272	8.97	4,340.326
6.48	3,135.215	6.98	3,377.152	7.48	3,619.090	7.98	3,861.058	8.48	4,103.113	8.98	4,345.167
6.49	3,140.053	6.99	3,381.991	7.49	3,623.929	7.99	3,865.899	8.49	4,107.954	8.99	4,350.008



Keyera Rimbey Edmonton Terminal

TANK # 103

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.285 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
9.00	4,354.849	9.50	4,596.904	10.00	4,838.958	10.50	5,081.013	11.00	5,323.131	11.50	5,565.417
9.01	4,359.691	9.51	4,601.745	10.01	4,843.800	10.51	5,085.854	11.01	5,327.977	11.51	5,570.263
9.02	4,364.532	9.52	4,606.586	10.02	4,848.641	10.52	5,090.695	11.02	5,332.822	11.52	5,575.108
9.03	4,369.373	9.53	4,611.427	10.03	4,853.482	10.53	5,095.536	11.03	5,337.668	11.53	5,579.954
9.04	4,374.214	9.54	4,616.268	10.04	4,858.323	10.54	5,100.377	11.04	5,342.514	11.54	5,584.800
9.05	4,379.055	9.55	4,621.109	10.05	4,863.164	10.55	5,105.218	11.05	5,347.359	11.55	5,589.645
9.06	4,383.896	9.56	4,625.950	10.06	4,868.005	10.56	5,110.059	11.06	5,352.205	11.56	5,594.491
9.07	4,388.737	9.57	4,630.792	10.07	4,872.846	10.57	5,114.901	11.07	5,357.051	11.57	5,599.337
9.08	4,393.578	9.58	4,635.633	10.08	4,877.687	10.58	5,119.742	11.08	5,361.897	11.58	5,604.183
9.09	4,398.419	9.59	4,640.474	10.09	4,882.528	10.59	5,124.583	11.09	5,366.742	11.59	5,609.028
9.10	4,403.260	9.60	4,645.315	10.10	4,887.369	10.60	5,129.424	11.10	5,371.588	11.60	5,613.874
9.11	4,408.101	9.61	4,650.156	10.11	4,892.210	10.61	5,134.265	11.11	5,376.434	11.61	5,618.720
9.12	4,412.943	9.62	4,654.997	10.12	4,897.052	10.62	5,139.106	11.12	5,381.279	11.62	5,623.565
9.13	4,417.784	9.63	4,659.838	10.13	4,901.893	10.63	5,143.947	11.13	5,386.125	11.63	5,628.411
9.14	4,422.625	9.64	4,664.679	10.14	4,906.734	10.64	5,148.788	11.14	5,390.971	11.64	5,633.257
9.15	4,427.466	9.65	4,669.520	10.15	4,911.575	10.65	5,153.629	11.15	5,395.817	11.65	5,638.103
9.16	4,432.307	9.66	4,674.361	10.16	4,916.416	10.66	5,158.470	11.16	5,400.662	11.66	5,642.948
9.17	4,437.148	9.67	4,679.202	10.17	4,921.257	10.67	5,163.311	11.17	5,405.508	11.67	5,647.794
9.18	4,441.989	9.68	4,684.044	10.18	4,926.098	10.68	5,168.153	11.18	5,410.354	11.68	5,652.640
9.19	4,446.830	9.69	4,688.885	10.19	4,930.939	10.69	5,172.994	11.19	5,415.199	11.69	5,657.485
9.20	4,451.671	9.70	4,693.726	10.20	4,935.780	10.70	5,177.835	11.20	5,420.045	11.70	5,662.331
9.21	4,456.512	9.71	4,698.567	10.21	4,940.621	10.71	5,182.676	11.21	5,424.891	11.71	5,667.177
9.22	4,461.353	9.72	4,703.408	10.22	4,945.462	10.72	5,187.517	11.22	5,429.737	11.72	5,672.023
9.23	4,466.195	9.73	4,708.249	10.23	4,950.303	10.73	5,192.358	11.23	5,434.582	11.73	5,676.868
9.24	4,471.036	9.74	4,713.090	10.24	4,955.145	10.74	5,197.199	11.24	5,439.428	11.74	5,681.714
9.25	4,475.877	9.75	4,717.931	10.25	4,959.986	10.75	5,202.040	11.25	5,444.274	11.75	5,686.560
9.26	4,480.718	9.76	4,722.772	10.26	4,964.827	10.76	5,206.881	11.26	5,449.120	11.76	5,691.405
9.27	4,485.559	9.77	4,727.613	10.27	4,969.668	10.77	5,211.722	11.27	5,453.965	11.77	5,696.251
9.28	4,490.400	9.78	4,732.454	10.28	4,974.509	10.78	5,216.563	11.28	5,458.811	11.78	5,701.097
9.29	4,495.241	9.79	4,737.296	10.29	4,979.350	10.79	5,221.405	11.29	5,463.657	11.79	5,705.943
9.30	4,500.082	9.80	4,742.137	10.30	4,984.191	10.80	5,226.246	11.30	5,468.502	11.80	5,710.788
9.31	4,504.923	9.81	4,746.978	10.31	4,989.032	10.81	5,231.087	11.31	5,473.348	11.81	5,715.634
9.32	4,509.764	9.82	4,751.819	10.32	4,993.873	10.82	5,235.928	11.32	5,478.194	11.82	5,720.480
9.33	4,514.605	9.83	4,756.660	10.33	4,998.714	10.83	5,240.769	11.33	5,483.040	11.83	5,725.326
9.34	4,519.447	9.84	4,761.501	10.34	5,003.555	10.84	5,245.610	11.34	5,487.885	11.84	5,730.171
9.35	4,524.288	9.85	4,766.342	10.35	5,008.397	10.85	5,250.451	11.35	5,492.731	11.85	5,735.017
9.36	4,529.129	9.86	4,771.183	10.36	5,013.238	10.86	5,255.292	11.36	5,497.577	11.86	5,739.863
9.37	4,533.970	9.87	4,776.024	10.37	5,018.079	10.87	5,260.136	11.37	5,502.422	11.87	5,744.708
9.38	4,538.811	9.88	4,780.865	10.38	5,022.920	10.88	5,264.982	11.38	5,507.268	11.88	5,749.554
9.39	4,543.652	9.89	4,785.706	10.39	5,027.761	10.89	5,269.828	11.39	5,512.114	11.89	5,754.400
9.40	4,548.493	9.90	4,790.548	10.40	5,032.602	10.90	5,274.674	11.40	5,516.960	11.90	5,759.246
9.41	4,553.334	9.91	4,795.389	10.41	5,037.443	10.91	5,279.519	11.41	5,521.805	11.91	5,764.091
9.42	4,558.175	9.92	4,800.230	10.42	5,042.284	10.92	5,284.365	11.42	5,526.651	11.92	5,768.937
9.43	4,563.016	9.93	4,805.071	10.43	5,047.125	10.93	5,289.211	11.43	5,531.497	11.93	5,773.783
9.44	4,567.857	9.94	4,809.912	10.44	5,051.966	10.94	5,294.057	11.44	5,536.342	11.94	5,778.628
9.45	4,572.699	9.95	4,814.753	10.45	5,056.807	10.95	5,298.902	11.45	5,541.188	11.95	5,783.474
9.46	4,577.540	9.96	4,819.594	10.46	5,061.649	10.96	5,303.748	11.46	5,546.034	11.96	5,788.320
9.47	4,582.381	9.97	4,824.435	10.47	5,066.490	10.97	5,308.594	11.47	5,550.880	11.97	5,793.166
9.48	4,587.222	9.98	4,829.276	10.48	5,071.331	10.98	5,313.439	11.48	5,555.725	11.98	5,798.011
9.49	4,592.063	9.99	4,834.117	10.49	5,076.172	10.99	5,318.285	11.49	5,560.571	11.99	5,802.857



Keyera Rimbey Edmonton Terminal

TANK # 103

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.285 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
12.00	5,807.703	12.50	6,049.989	13.00	6,292.275	13.50	6,534.561	14.00	6,776.899	14.50	7,019.418
12.01	5,812.548	12.51	6,054.834	13.01	6,297.120	13.51	6,539.406	14.01	6,781.749	14.51	7,024.268
12.02	5,817.394	12.52	6,059.680	13.02	6,301.966	13.52	6,544.252	14.02	6,786.600	14.52	7,029.118
12.03	5,822.240	12.53	6,064.526	13.03	6,306.812	13.53	6,549.098	14.03	6,791.450	14.53	7,033.969
12.04	5,827.086	12.54	6,069.372	13.04	6,311.658	13.54	6,553.944	14.04	6,796.300	14.54	7,038.819
12.05	5,831.931	12.55	6,074.217	13.05	6,316.503	13.55	6,558.789	14.05	6,801.151	14.55	7,043.670
12.06	5,836.777	12.56	6,079.063	13.06	6,321.349	13.56	6,563.635	14.06	6,806.001	14.56	7,048.520
12.07	5,841.623	12.57	6,083.909	13.07	6,326.195	13.57	6,568.481	14.07	6,810.851	14.57	7,053.370
12.08	5,846.469	12.58	6,088.754	13.08	6,331.040	13.58	6,573.326	14.08	6,815.702	14.58	7,058.221
12.09	5,851.314	12.59	6,093.600	13.09	6,335.886	13.59	6,578.172	14.09	6,820.552	14.59	7,063.071
12.10	5,856.160	12.60	6,098.446	13.10	6,340.732	13.60	6,583.018	14.10	6,825.403	14.60	7,067.922
12.11	5,861.006	12.61	6,103.292	13.11	6,345.578	13.61	6,587.864	14.11	6,830.253	14.61	7,072.772
12.12	5,865.851	12.62	6,108.137	13.12	6,350.423	13.62	6,592.709	14.12	6,835.103	14.62	7,077.622
12.13	5,870.697	12.63	6,112.983	13.13	6,355.269	13.63	6,597.555	14.13	6,839.954	14.63	7,082.473
12.14	5,875.543	12.64	6,117.829	13.14	6,360.115	13.64	6,602.401	14.14	6,844.804	14.64	7,087.323
12.15	5,880.389	12.65	6,122.675	13.15	6,364.960	13.65	6,607.246	14.15	6,849.654	14.65	7,092.173
12.16	5,885.234	12.66	6,127.520	13.16	6,369.806	13.66	6,612.092	14.16	6,854.505	14.66	7,097.024
12.17	5,890.080	12.67	6,132.366	13.17	6,374.652	13.67	6,616.938	14.17	6,859.355	14.67	7,101.874
12.18	5,894.926	12.68	6,137.212	13.18	6,379.498	13.68	6,621.784	14.18	6,864.206	14.68	7,106.725
12.19	5,899.771	12.69	6,142.057	13.19	6,384.343	13.69	6,626.629	14.19	6,869.056	14.69	7,111.575
12.20	5,904.617	12.70	6,146.903	13.20	6,389.189	13.70	6,631.475	14.20	6,873.906	14.70	7,116.425
12.21	5,909.463	12.71	6,151.749	13.21	6,394.035	13.71	6,636.321	14.21	6,878.757	14.71	7,121.276
12.22	5,914.309	12.72	6,156.595	13.22	6,398.881	13.72	6,641.166	14.22	6,883.607	14.72	7,126.126
12.23	5,919.154	12.73	6,161.440	13.23	6,403.726	13.73	6,646.012	14.23	6,888.458	14.73	7,130.976
12.24	5,924.000	12.74	6,166.286	13.24	6,408.572	13.74	6,650.858	14.24	6,893.308	14.74	7,135.827
12.25	5,928.846	12.75	6,171.132	13.25	6,413.418	13.75	6,655.704	14.25	6,898.158	14.75	7,140.677
12.26	5,933.691	12.76	6,175.977	13.26	6,418.263	13.76	6,660.549	14.26	6,903.009	14.76	7,145.528
12.27	5,938.537	12.77	6,180.823	13.27	6,423.109	13.77	6,665.395	14.27	6,907.859	14.77	7,150.378
12.28	5,943.383	12.78	6,185.669	13.28	6,427.955	13.78	6,670.241	14.28	6,912.709	14.78	7,155.228
12.29	5,948.229	12.79	6,190.515	13.29	6,432.801	13.79	6,675.087	14.29	6,917.560	14.79	7,160.079
12.30	5,953.074	12.80	6,195.360	13.30	6,437.646	13.80	6,679.932	14.30	6,922.410	14.80	7,164.929
12.31	5,957.920	12.81	6,200.206	13.31	6,442.492	13.81	6,684.778	14.31	6,927.261	14.81	7,169.779
12.32	5,962.766	12.82	6,205.052	13.32	6,447.338	13.82	6,689.624	14.32	6,932.111	14.82	7,174.630
12.33	5,967.612	12.83	6,209.897	13.33	6,452.183	13.83	6,694.469	14.33	6,936.961	14.83	7,179.480
12.34	5,972.457	12.84	6,214.743	13.34	6,457.029	13.84	6,699.315	14.34	6,941.812	14.84	7,184.331
12.35	5,977.303	12.85	6,219.589	13.35	6,461.875	13.85	6,704.161	14.35	6,946.662	14.85	7,189.181
12.36	5,982.149	12.86	6,224.435	13.36	6,466.721	13.86	6,709.007	14.36	6,951.512	14.86	7,194.031
12.37	5,986.994	12.87	6,229.280	13.37	6,471.566	13.87	6,713.852	14.37	6,956.363	14.87	7,198.882
12.38	5,991.840	12.88	6,234.126	13.38	6,476.412	13.88	6,718.698	14.38	6,961.213	14.88	7,203.732
12.39	5,996.686	12.89	6,238.972	13.39	6,481.258	13.89	6,723.545	14.39	6,966.064	14.89	7,208.582
12.40	6,001.532	12.90	6,243.818	13.40	6,486.103	13.90	6,728.395	14.40	6,970.914	14.90	7,213.433
12.41	6,006.377	12.91	6,248.663	13.41	6,490.949	13.91	6,733.245	14.41	6,975.764	14.91	7,218.283
12.42	6,011.223	12.92	6,253.509	13.42	6,495.795	13.92	6,738.096	14.42	6,980.615	14.92	7,223.134
12.43	6,016.069	12.93	6,258.355	13.43	6,500.641	13.93	6,742.946	14.43	6,985.465	14.93	7,227.984
12.44	6,020.914	12.94	6,263.200	13.44	6,505.486	13.94	6,747.797	14.44	6,990.315	14.94	7,232.834
12.45	6,025.760	12.95	6,268.046	13.45	6,510.332	13.95	6,752.647	14.45	6,995.166	14.95	7,237.685
12.46	6,030.606	12.96	6,272.892	13.46	6,515.178	13.96	6,757.497	14.46	7,000.016	14.96	7,242.535
12.47	6,035.452	12.97	6,277.738	13.47	6,520.024	13.97	6,762.348	14.47	7,004.867	14.97	7,247.386
12.48	6,040.297	12.98	6,282.583	13.48	6,524.869	13.98	6,767.198	14.48	7,009.717	14.98	7,252.236
12.49	6,045.143	12.99	6,287.429	13.49	6,529.715	13.99	6,772.048	14.49	7,014.567	14.99	7,257.086



Keyera Rimbey Edmonton Terminal

TANK # 103

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.285 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
15.00	7,261.937	15.50	7,504.456	16.00	7,746.975	16.50	7,989.493	17.00	8,232.031	17.50	8,474.658
15.01	7,266.787	15.51	7,509.306	16.01	7,751.825	16.51	7,994.344	17.01	8,236.884	17.51	8,479.510
15.02	7,271.637	15.52	7,514.156	16.02	7,756.675	16.52	7,999.194	17.02	8,241.736	17.52	8,484.363
15.03	7,276.488	15.53	7,519.007	16.03	7,761.526	16.53	8,004.045	17.03	8,246.589	17.53	8,489.215
15.04	7,281.338	15.54	7,523.857	16.04	7,766.376	16.54	8,008.895	17.04	8,251.442	17.54	8,494.068
15.05	7,286.189	15.55	7,528.707	16.05	7,771.226	16.55	8,013.745	17.05	8,256.294	17.55	8,498.920
15.06	7,291.039	15.56	7,533.558	16.06	7,776.077	16.56	8,018.596	17.06	8,261.147	17.56	8,503.773
15.07	7,295.889	15.57	7,538.408	16.07	7,780.927	16.57	8,023.446	17.07	8,265.999	17.57	8,508.625
15.08	7,300.740	15.58	7,543.259	16.08	7,785.778	16.58	8,028.296	17.08	8,270.852	17.58	8,513.478
15.09	7,305.590	15.59	7,548.109	16.09	7,790.628	16.59	8,033.147	17.09	8,275.704	17.59	8,518.330
15.10	7,310.440	15.60	7,552.959	16.10	7,795.478	16.60	8,037.997	17.10	8,280.557	17.60	8,523.183
15.11	7,315.291	15.61	7,557.810	16.11	7,800.329	16.61	8,042.848	17.11	8,285.409	17.61	8,528.035
15.12	7,320.141	15.62	7,562.660	16.12	7,805.179	16.62	8,047.698	17.12	8,290.262	17.62	8,532.888
15.13	7,324.992	15.63	7,567.510	16.13	7,810.029	16.63	8,052.548	17.13	8,295.114	17.63	8,537.740
15.14	7,329.842	15.64	7,572.361	16.14	7,814.880	16.64	8,057.399	17.14	8,299.967	17.64	8,542.593
15.15	7,334.692	15.65	7,577.211	16.15	7,819.730	16.65	8,062.249	17.15	8,304.819	17.65	8,547.445
15.16	7,339.543	15.66	7,582.062	16.16	7,824.581	16.66	8,067.099	17.16	8,309.672	17.66	8,552.298
15.17	7,344.393	15.67	7,586.912	16.17	7,829.431	16.67	8,071.950	17.17	8,314.524	17.67	8,557.151
15.18	7,349.243	15.68	7,591.762	16.18	7,834.281	16.68	8,076.800	17.18	8,319.377	17.68	8,562.003
15.19	7,354.094	15.69	7,596.613	16.19	7,839.132	16.69	8,081.651	17.19	8,324.229	17.69	8,566.856
15.20	7,358.944	15.70	7,601.463	16.20	7,843.982	16.70	8,086.501	17.20	8,329.082	17.70	8,571.708
15.21	7,363.795	15.71	7,606.314	16.21	7,848.832	16.71	8,091.351	17.21	8,333.934	17.71	8,576.561
15.22	7,368.645	15.72	7,611.164	16.22	7,853.683	16.72	8,096.202	17.22	8,338.787	17.72	8,581.413
15.23	7,373.495	15.73	7,616.014	16.23	7,858.533	16.73	8,101.052	17.23	8,343.639	17.73	8,586.266
15.24	7,378.346	15.74	7,620.865	16.24	7,863.384	16.74	8,105.903	17.24	8,348.492	17.74	8,591.118
15.25	7,383.196	15.75	7,625.715	16.25	7,868.234	16.75	8,110.753	17.25	8,353.345	17.75	8,595.971
15.26	7,388.046	15.76	7,630.565	16.26	7,873.084	16.76	8,115.603	17.26	8,358.197	17.76	8,600.823
15.27	7,392.897	15.77	7,635.416	16.27	7,877.935	16.77	8,120.454	17.27	8,363.050	17.77	8,605.676
15.28	7,397.747	15.78	7,640.266	16.28	7,882.785	16.78	8,125.304	17.28	8,367.902	17.78	8,610.528
15.29	7,402.598	15.79	7,645.117	16.29	7,887.635	16.79	8,130.154	17.29	8,372.755	17.79	8,615.381
15.30	7,407.448	15.80	7,649.967	16.30	7,892.486	16.80	8,135.005	17.30	8,377.607	17.80	8,620.233
15.31	7,412.298	15.81	7,654.817	16.31	7,897.336	16.81	8,139.855	17.31	8,382.460	17.81	8,625.086
15.32	7,417.149	15.82	7,659.668	16.32	7,902.187	16.82	8,144.706	17.32	8,387.312	17.82	8,629.938
15.33	7,421.999	15.83	7,664.518	16.33	7,907.037	16.83	8,149.556	17.33	8,392.165	17.83	8,634.791
15.34	7,426.850	15.84	7,669.368	16.34	7,911.887	16.84	8,154.406	17.34	8,397.017	17.84	8,639.643
15.35	7,431.700	15.85	7,674.219	16.35	7,916.738	16.85	8,159.257	17.35	8,401.870	17.85	8,644.496
15.36	7,436.550	15.86	7,679.069	16.36	7,921.588	16.86	8,164.107	17.36	8,406.722	17.86	8,649.348
15.37	7,441.401	15.87	7,683.920	16.37	7,926.439	16.87	8,168.957	17.37	8,411.575	17.87	8,654.201
15.38	7,446.251	15.88	7,688.770	16.38	7,931.289	16.88	8,173.808	17.38	8,416.427	17.88	8,659.054
15.39	7,451.101	15.89	7,693.620	16.39	7,936.139	16.89	8,178.658	17.39	8,421.280	17.89	8,663.906
15.40	7,455.952	15.90	7,698.471	16.40	7,940.990	16.90	8,183.509	17.40	8,426.132	17.90	8,668.759
15.41	7,460.802	15.91	7,703.321	16.41	7,945.840	16.91	8,188.359	17.41	8,430.985	17.91	8,673.611
15.42	7,465.653	15.92	7,708.171	16.42	7,950.690	16.92	8,193.211	17.42	8,435.837	17.92	8,678.464
15.43	7,470.503	15.93	7,713.022	16.43	7,955.541	16.93	8,198.064	17.43	8,440.690	17.93	8,683.316
15.44	7,475.353	15.94	7,717.872	16.44	7,960.391	16.94	8,202.916	17.44	8,445.542	17.94	8,688.169
15.45	7,480.204	15.95	7,722.723	16.45	7,965.242	16.95	8,207.769	17.45	8,450.395	17.95	8,693.021
15.46	7,485.054	15.96	7,727.573	16.46	7,970.092	16.96	8,212.621	17.46	8,455.248	17.96	8,697.874
15.47	7,489.904	15.97	7,732.423	16.47	7,974.942	16.97	8,217.474	17.47	8,460.100	17.97	8,702.726
15.48	7,494.755	15.98	7,737.274	16.48	7,979.793	16.98	8,222.326	17.48	8,464.953	17.98	8,707.579
15.49	7,499.605	15.99	7,742.124	16.49	7,984.643	16.99	8,227.179	17.49	8,469.805	17.99	8,712.431



Keyera Rimbey Edmonton Terminal

TANK # 103

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.285 Metres ; Located 108 cm to Benchmark				Height in Centimetres; Capacity in Cubic Metres			
18.00	8,717.284	18.50	8,959.910	19.00	9,202.536	19.50	9,445.162
18.01	8,722.136	18.51	8,964.763	19.01	9,207.389	19.51	9,450.015
18.02	8,726.989	18.52	8,969.615	19.02	9,212.241	19.52	9,454.867
18.03	8,731.841	18.53	8,974.468	19.03	9,217.094	19.53	9,459.720
18.04	8,736.694	18.54	8,979.320	19.04	9,221.946	19.54	9,464.572
18.05	8,741.546	18.55	8,984.173	19.05	9,226.799	19.55	9,469.425
18.06	8,746.399	18.56	8,989.025	19.06	9,231.651	19.56	9,474.278
18.07	8,751.251	18.57	8,993.878	19.07	9,236.504	19.57	9,479.130
18.08	8,756.104	18.58	8,998.730	19.08	9,241.356	19.58	9,483.983
18.09	8,760.957	18.59	9,003.583	19.09	9,246.209	19.59	9,488.835
18.10	8,765.809	18.60	9,008.435	19.10	9,251.061	19.60	9,493.688
18.11	8,770.662	18.61	9,013.288	19.11	9,255.914	19.61	9,498.540
18.12	8,775.514	18.62	9,018.140	19.12	9,260.766	19.62	9,503.393
18.13	8,780.367	18.63	9,022.993	19.13	9,265.619	19.63	9,508.245
18.14	8,785.219	18.64	9,027.845	19.14	9,270.472	19.64	9,513.098
18.15	8,790.072	18.65	9,032.698	19.15	9,275.324	19.65	9,517.950
18.16	8,794.924	18.66	9,037.550	19.16	9,280.177	19.66	9,522.803
18.17	8,799.777	18.67	9,042.403	19.17	9,285.029	19.67	9,527.655
18.18	8,804.629	18.68	9,047.255	19.18	9,289.882	19.68	9,532.508
18.19	8,809.482	18.69	9,052.108	19.19	9,294.734	19.69	9,537.360
18.20	8,814.334	18.70	9,056.960	19.20	9,299.587	19.70	9,542.213
18.21	8,819.187	18.71	9,061.813	19.21	9,304.439	19.71	9,547.065
18.22	8,824.039	18.72	9,066.666	19.22	9,309.292	19.72	9,551.918
18.23	8,828.892	18.73	9,071.518	19.23	9,314.144	19.73	9,556.770
18.24	8,833.744	18.74	9,076.371	19.24	9,318.997	19.74	9,561.623
18.25	8,838.597	18.75	9,081.223	19.25	9,323.849	19.75	9,566.475
18.26	8,843.449	18.76	9,086.076	19.26	9,328.702	19.76	9,571.328
18.27	8,848.302	18.77	9,090.928	19.27	9,333.554	19.77	9,576.181
18.28	8,853.154	18.78	9,095.781	19.28	9,338.407	19.78	9,581.033
18.29	8,858.007	18.79	9,100.633	19.29	9,343.259	19.79	9,585.886
18.30	8,862.860	18.80	9,105.486	19.30	9,348.112	19.80	9,590.738
18.31	8,867.712	18.81	9,110.338	19.31	9,352.964	19.81	9,595.591
18.32	8,872.565	18.82	9,115.191	19.32	9,357.817	19.82	9,600.443
18.33	8,877.417	18.83	9,120.043	19.33	9,362.669	19.83	9,605.296
18.34	8,882.270	18.84	9,124.896	19.34	9,367.522	19.84	9,610.148
18.35	8,887.122	18.85	9,129.748	19.35	9,372.375	19.85	9,615.001
18.36	8,891.975	18.86	9,134.601	19.36	9,377.227	19.86	9,619.853
18.37	8,896.827	18.87	9,139.453	19.37	9,382.080	19.87	9,624.706
18.38	8,901.680	18.88	9,144.306	19.38	9,386.932	19.88	9,629.558
18.39	8,906.532	18.89	9,149.158	19.39	9,391.785	19.89	9,634.411
18.40	8,911.385	18.90	9,154.011	19.40	9,396.637	19.90	9,639.263
18.41	8,916.237	18.91	9,158.863	19.41	9,401.490	19.91	9,644.116
18.42	8,921.090	18.92	9,163.716	19.42	9,406.342	19.92	9,648.968
18.43	8,925.942	18.93	9,168.569	19.43	9,411.195	19.93	9,653.821
18.44	8,930.795	18.94	9,173.421	19.44	9,416.047	19.94	9,658.675
18.45	8,935.647	18.95	9,178.274	19.45	9,420.900	19.95	9,663.528
18.46	8,940.500	18.96	9,183.126	19.46	9,425.752	19.96	9,668.382
18.47	8,945.352	18.97	9,187.979	19.47	9,430.605	19.97	9,673.235
18.48	8,950.205	18.98	9,192.831	19.48	9,435.457	19.98	9,678.089
18.49	8,955.057	18.99	9,197.684	19.49	9,440.310	19.99	9,682.942



Keyera Rimbey Edmonton Terminal

TANK # 103

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.285 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
21.00	10,173.148	21.50	10,415.824	22.00	10,658.501	22.50	10,901.177	23.00	11,143.848	23.50	11,386.472
21.01	10,178.002	21.51	10,420.678	22.01	10,663.354	22.51	10,906.030	23.01	11,148.701	23.51	11,391.325
21.02	10,182.855	21.52	10,425.531	22.02	10,668.208	22.52	10,910.884	23.02	11,153.553	23.52	11,396.177
21.03	10,187.709	21.53	10,430.385	22.03	10,673.061	22.53	10,915.738	23.03	11,158.406	23.53	11,401.030
21.04	10,192.562	21.54	10,435.239	22.04	10,677.915	22.54	10,920.591	23.04	11,163.258	23.54	11,405.882
21.05	10,197.416	21.55	10,440.092	22.05	10,682.768	22.55	10,925.445	23.05	11,168.110	23.55	11,410.735
21.06	10,202.269	21.56	10,444.946	22.06	10,687.622	22.56	10,930.298	23.06	11,172.963	23.56	11,415.587
21.07	10,207.123	21.57	10,449.799	22.07	10,692.475	22.57	10,935.152	23.07	11,177.815	23.57	11,420.440
21.08	10,211.976	21.58	10,454.653	22.08	10,697.329	22.58	10,940.005	23.08	11,182.668	23.58	11,425.292
21.09	10,216.830	21.59	10,459.506	22.09	10,702.182	22.59	10,944.859	23.09	11,187.520	23.59	11,430.145
21.10	10,221.683	21.60	10,464.360	22.10	10,707.036	22.60	10,949.712	23.10	11,192.373	23.60	11,434.997
21.11	10,226.537	21.61	10,469.213	22.11	10,711.889	22.61	10,954.566	23.11	11,197.225	23.61	11,439.850
21.12	10,231.390	21.62	10,474.067	22.12	10,716.743	22.62	10,959.419	23.12	11,202.078	23.62	11,444.702
21.13	10,236.244	21.63	10,478.920	22.13	10,721.597	22.63	10,964.273	23.13	11,206.930	23.63	11,449.555
21.14	10,241.098	21.64	10,483.774	22.14	10,726.450	22.64	10,969.126	23.14	11,211.783	23.64	11,454.407
21.15	10,245.951	21.65	10,488.627	22.15	10,731.304	22.65	10,973.980	23.15	11,216.635	23.65	11,459.260
21.16	10,250.805	21.66	10,493.481	22.16	10,736.157	22.66	10,978.833	23.16	11,221.488	23.66	11,464.112
21.17	10,255.658	21.67	10,498.334	22.17	10,741.011	22.67	10,983.687	23.17	11,226.340	23.67	11,468.965
21.18	10,260.512	21.68	10,503.188	22.18	10,745.864	22.68	10,988.540	23.18	11,231.193	23.68	11,473.817
21.19	10,265.365	21.69	10,508.041	22.19	10,750.718	22.69	10,993.394	23.19	11,236.045	23.69	11,478.670
21.20	10,270.219	21.70	10,512.895	22.20	10,755.571	22.70	10,998.247	23.20	11,240.898	23.70	11,483.522
21.21	10,275.072	21.71	10,517.748	22.21	10,760.425	22.71	11,003.101	23.21	11,245.750	23.71	11,488.375
21.22	10,279.926	21.72	10,522.602	22.22	10,765.278	22.72	11,007.955	23.22	11,250.603	23.72	11,493.227
21.23	10,284.779	21.73	10,527.456	22.23	10,770.132	22.73	11,012.808	23.23	11,255.455	23.73	11,498.080
21.24	10,289.633	21.74	10,532.309	22.24	10,774.985	22.74	11,017.662	23.24	11,260.308	23.74	11,502.932
21.25	10,294.486	21.75	10,537.163	22.25	10,779.839	22.75	11,022.515	23.25	11,265.160	23.75	11,507.785
21.26	10,299.340	21.76	10,542.016	22.26	10,784.692	22.76	11,027.369	23.26	11,270.013	23.76	11,512.637
21.27	10,304.193	21.77	10,546.870	22.27	10,789.546	22.77	11,032.222	23.27	11,274.865	23.77	11,517.490
21.28	10,309.047	21.78	10,551.723	22.28	10,794.399	22.78	11,037.076	23.28	11,279.718	23.78	11,522.342
21.29	10,313.900	21.79	10,556.577	22.29	10,799.253	22.79	11,041.929	23.29	11,284.570	23.79	11,527.195
21.30	10,318.754	21.80	10,561.430	22.30	10,804.106	22.80	11,046.783	23.30	11,289.423	23.80	11,532.047
21.31	10,323.607	21.81	10,566.284	22.31	10,808.960	22.81	11,051.636	23.31	11,294.275	23.81	11,536.900
21.32	10,328.461	21.82	10,571.137	22.32	10,813.814	22.82	11,056.490	23.32	11,299.128	23.82	11,541.752
21.33	10,333.315	21.83	10,575.991	22.33	10,818.667	22.83	11,061.343	23.33	11,303.980	23.83	11,546.605
21.34	10,338.168	21.84	10,580.844	22.34	10,823.521	22.84	11,066.197	23.34	11,308.833	23.84	11,551.457
21.35	10,343.022	21.85	10,585.698	22.35	10,828.374	22.85	11,071.050	23.35	11,313.685	23.85	11,556.310
21.36	10,347.875	21.86	10,590.551	22.36	10,833.228	22.86	11,075.904	23.36	11,318.538	23.86	11,561.162
21.37	10,352.729	21.87	10,595.405	22.37	10,838.081	22.87	11,080.757	23.37	11,323.390	23.87	11,566.015
21.38	10,357.582	21.88	10,600.258	22.38	10,842.935	22.88	11,085.611	23.38	11,328.243	23.88	11,570.867
21.39	10,362.436	21.89	10,605.112	22.39	10,847.788	22.89	11,090.464	23.39	11,333.095	23.89	11,575.720
21.40	10,367.289	21.90	10,609.965	22.40	10,852.642	22.90	11,095.318	23.40	11,337.948	23.90	11,580.572
21.41	10,372.143	21.91	10,614.819	22.41	10,857.495	22.91	11,100.171	23.41	11,342.800	23.91	11,585.424
21.42	10,376.996	21.92	10,619.673	22.42	10,862.349	22.92	11,105.025	23.42	11,347.653	23.92	11,590.277
21.43	10,381.850	21.93	10,624.526	22.43	10,867.202	22.93	11,109.879	23.43	11,352.505	23.93	11,595.129
21.44	10,386.703	21.94	10,629.380	22.44	10,872.056	22.94	11,114.732	23.44	11,357.358	23.94	11,599.982
21.45	10,391.557	21.95	10,634.233	22.45	10,876.909	22.95	11,119.586	23.45	11,362.210	23.95	11,604.834
21.46	10,396.410	21.96	10,639.087	22.46	10,881.763	22.96	11,124.438	23.46	11,367.063	23.96	11,609.687
21.47	10,401.264	21.97	10,643.940	22.47	10,886.616	22.97	11,129.291	23.47	11,371.915	23.97	11,614.539
21.48	10,406.117	21.98	10,648.794	22.48	10,891.470	22.98	11,134.143	23.48	11,376.767	23.98	11,619.392
21.49	10,410.971	21.99	10,653.647	22.49	10,896.323	22.99	11,138.996	23.49	11,381.620	23.99	11,624.244

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 103

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.285 Metres ; Located 108 cm to Benchmark				Height in Centimetres; Capacity in Cubic Metres			
24.00	SF 11631.659	24.50	11,871.721	25.00	12,114.346	25.50	12,356.971
24.01	11,633.949	24.51	11,876.574	25.01	12,119.198	25.51	12,361.823
24.02	11,638.802	24.52	11,881.426	25.02	12,124.051	25.52	12,366.676
24.03	11,643.654	24.53	11,886.279	25.03	12,128.903	25.53	12,371.528
24.04	11,648.507	24.54	11,891.131	25.04	12,133.756	25.54	12,376.381
24.05	11,653.359	24.55	11,895.984	25.05	12,138.608	25.55	12,381.234
24.06	11,658.212	24.56	11,900.836	25.06	12,143.461	25.56	12,386.086
24.07	11,663.064	24.57	11,905.689	25.07	12,148.313	25.57	12,390.939
24.08	11,667.917	24.58	11,910.541	25.08	12,153.166	25.58	12,395.791
24.09	11,672.769	24.59	11,915.394	25.09	12,158.018	25.59	12,400.644
24.10	11,677.622	24.60	11,920.246	25.10	12,162.871	25.60	12,405.496
24.11	11,682.474	24.61	11,925.099	25.11	12,167.723	25.61	12,410.349
24.12	11,687.327	24.62	11,929.951	25.12	12,172.576	25.62	12,415.201
24.13	11,692.179	24.63	11,934.804	25.13	12,177.428	25.63	12,420.054
24.14	11,697.032	24.64	11,939.656	25.14	12,182.281	25.64	12,424.906
24.15	11,701.884	24.65	11,944.509	25.15	12,187.133	25.65	12,429.759
24.16	11,706.737	24.66	11,949.361	25.16	12,191.986	25.66	12,434.611
24.17	11,711.589	24.67	11,954.214	25.17	12,196.838	25.67	12,439.464
24.18	11,716.442	24.68	11,959.066	25.18	12,201.691	25.68	12,444.317
24.19	11,721.294	24.69	OF 11966.641	25.19	12,206.543	25.69	12,449.169
24.20	11,726.147	24.70	11,968.771	25.20	12,211.395	25.70	12,454.022
24.21	11,730.999	24.71	11,973.624	25.21	12,216.248	25.71	12,458.874
24.22	11,735.852	24.72	11,978.476	25.22	12,221.100	25.72	12,463.727
24.23	11,740.704	24.73	11,983.329	25.23	12,225.953	25.73	12,468.579
24.24	11,745.557	24.74	11,988.181	25.24	12,230.805	25.74	12,473.432
24.25	11,750.409	24.75	11,993.034	25.25	12,235.658	25.75	12,478.284
24.26	11,755.262	24.76	11,997.886	25.26	12,240.510	25.76	12,483.137
24.27	11,760.114	24.77	12,002.738	25.27	12,245.363	25.77	12,487.989
24.28	11,764.967	24.78	12,007.591	25.28	12,250.215	25.78	12,492.842
24.29	11,769.819	24.79	12,012.443	25.29	12,255.068	25.79	12,497.695
24.30	11,774.672	24.80	12,017.296	25.30	12,259.920	25.80	12,502.547
24.31	11,779.524	24.81	12,022.148	25.31	12,264.773	25.81	12,507.400
24.32	11,784.377	24.82	12,027.001	25.32	12,269.625	25.82	12,512.252
24.33	11,789.229	24.83	12,031.853	25.33	12,274.478	25.83	12,517.105
24.34	11,794.081	24.84	12,036.706	25.34	12,279.330	25.84	12,521.957
24.35	11,798.934	24.85	12,041.558	25.35	12,284.183	25.85	12,526.810
24.36	11,803.786	24.86	12,046.411	25.36	12,289.035	25.86	12,531.662
24.37	11,808.639	24.87	12,051.263	25.37	12,293.888	25.87	12,536.515
24.38	11,813.491	24.88	12,056.116	25.38	12,298.740	25.88	12,541.367
24.39	11,818.344	24.89	12,060.968	25.39	12,303.593	25.89	12,546.220
24.40	11,823.196	24.90	12,065.821	25.40	12,308.445	25.90	12,551.073
24.41	11,828.049	24.91	12,070.673	25.41	12,313.298	25.91	12,555.925
24.42	11,832.901	24.92	12,075.526	25.42	12,318.150	25.92	12,560.778
24.43	11,837.754	24.93	12,080.378	25.43	12,323.003	25.93	12,565.630
24.44	11,842.606	24.94	12,085.231	25.44	12,327.856	25.94	12,569.512
24.45	11,847.459	24.95	12,090.083	25.45	12,332.708	25.95	
24.46	11,852.311	24.96	12,094.936	25.46	12,337.561	25.96	
24.47	11,857.164	24.97	12,099.788	25.47	12,342.413	25.97	
24.48	11,862.016	24.98	12,104.641	25.48	12,347.266	25.98	
24.49	11,866.869	24.99	12,109.493	25.49	12,352.118	25.99	

Safe Fill Height @ 24.000 Metres
Overfill Height @ 24.690 Metres

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Tables produced by:
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Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

General Information

Tank Number	103
Date of Strapping Data	11/29/2016
Year Built	2016
Product in Service	Condensate
Product Service Density	0.775 g/cc (SG)

Tank Dimensions

Nominal Diameter	24.840 Metres
Nominal Height	26.000 Metres
Measured Tank Height	25.938 Metres
Tank Tilt	
Gauge Point Information	South side of flange
Reference Gauge Height	26.285 Metres
Horizontal To Gauge	1080 Millimetres

Roof & Bottom Survey

Roof Type	Cone
Floating Roof Shape	
Floating Roof Weight	5635.89 Kilograms
Roof Landed Height	107 Centimetres
Roof Full Floating Height	107 Centimetres
Bottom Description	Physical Survey

Report Constraints

Main Increment	Centimetres
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	24.000 Metres
Overflow Or Foamline	24.690 Metres

Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

Strap Correction to 60°F

Shell Temperature (°F)	24.8	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 0.99994834

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	77.929	255.673	0.000	255.660
To				
9	77.929	255.673	0.000	255.660

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	434.100	0.000	0.000	77.925	255.660
2	437.450	3.350	21.049	77.946	255.729
3	440.400	6.300	39.584	77.965	255.790
4	442.350	8.250	51.836	77.977	255.830
5	446.900	12.800	80.425	78.005	255.924
6	451.250	17.150	107.757	78.033	256.013
7	452.000	17.900	112.469	78.038	256.029
8	451.000	16.900	106.186	78.031	256.008
9	447.400	13.300	83.566	78.009	255.934

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Sherwood Park, AB

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	255.660	17.000 Millimetres	3.020 Metres	3.020 Metres
2	255.729	15.000 Millimetres	2.412 Metres	5.432 Metres
3	255.790	13.000 Millimetres	2.417 Metres	7.849 Metres
4	255.830	11.000 Millimetres	3.014 Metres	10.863 Metres
5	255.924	9.000 Millimetres	3.025 Metres	13.888 Metres
6	256.013	8.000 Millimetres	3.023 Metres	16.911 Metres
7	256.029	6.000 Millimetres	3.018 Metres	19.929 Metres
8	256.008	6.000 Millimetres	3.021 Metres	22.950 Metres
9	255.934	6.000 Millimetres	2.988 Metres	25.938 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
2	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
3	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
4	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
5	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
6	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
7	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
8	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
9	Butt Weld	0	0.000 Millimetres	0.000 Millimetres

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Sherwood Park, AB

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	255.660	0.669	0
2.00	62.428	1.000	0	255.729	0.591	0
3.00	62.428	1.000	0	255.790	0.512	0
4.00	62.428	1.000	0	255.830	0.433	0
5.00	62.428	1.000	0	255.924	0.354	0
6.00	62.428	1.000	0	256.013	0.315	0
7.00	62.428	1.000	0	256.029	0.236	0
8.00	62.428	1.000	0	256.008	0.236	0
9.00	62.428	1.000	0	255.934	0.236	0

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Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2*D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	255.660	0.000	0.000	0.000	255.660
2	255.729	0.000	0.000	0.000	255.729
3	255.790	0.000	0.000	0.000	255.790
4	255.830	0.000	0.000	0.000	255.830
5	255.924	0.000	0.000	0.000	255.924
6	256.013	0.000	0.000	0.000	256.013
7	256.029	0.000	0.000	0.000	256.029
8	256.008	0.000	0.000	0.000	256.008
9	255.934	0.000	0.000	0.000	255.934

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Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Centimetre
1	255.660	0.004	255.664	4.832
2	255.729	0.008	255.736	4.835
3	255.790	0.009	255.798	4.837
4	255.830	0.013	255.843	4.839
5	255.924	0.016	255.939	4.843
6	256.013	0.018	256.031	4.846
7	256.029	0.024	256.052	4.847
8	256.008	0.024	256.032	4.846
9	255.934	0.023	255.957	4.843

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Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} \times \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi \times W \times G \times D^3}{4 \times E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Centimetre	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 68 °F 1.0001032
1	4.832	0.001	0.000	4.832	4.833
2	4.835	0.001	0.001	4.836	4.836
3	4.837	0.001	0.001	4.839	4.839
4	4.839	0.001	0.002	4.841	4.841
5	4.843	0.001	0.003	4.846	4.846
6	4.846	0.001	0.004	4.850	4.851
7	4.847	0.002	0.005	4.852	4.853
8	4.846	0.002	0.007	4.853	4.854
9	4.843	0.000	0.009	4.852	4.853



Keyera Rimbey Edmonton Terminal

TANK # 104

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.272 Metres ; Located 108 cm to Benchmark					Height in Centimetres; Capacity in Cubic Metres							
.00 *	12.190	.50	251.101	1.00	Root Critical Zone	492.744	1.50	734.402	2.00	976.064	2.50	1,217.727
.01 *	16.046	.51	255.932	1.01		497.577	1.51	739.235	2.01	980.898	2.51	1,222.560
.02 *	20.185	.52	260.764	1.02		502.410	1.52	744.068	2.02	985.731	2.52	1,227.394
.03 *	24.432	.53	265.595	1.03		507.243	1.53	748.901	2.03	990.564	2.53	1,232.227
.04 *	29.036	.54	270.426	1.04		512.076	1.54	753.735	2.04	995.397	2.54	1,237.060
.05 *	33.762	.55	275.258	1.05		516.908	1.55	758.568	2.05	1,000.231	2.55	1,241.893
.06	38.560	.56	280.089	1.06		521.741	1.56	763.401	2.06	1,005.064	2.56	1,246.727
.07	43.392	.57	284.922	1.07		526.574	1.57	768.234	2.07	1,009.897	2.57	1,251.560
.08	48.224	.58	289.755	1.08		531.407	1.58	773.068	2.08	1,014.730	2.58	1,256.393
.09	53.056	.59	294.588	1.09		536.240	1.59	777.901	2.09	1,019.564	2.59	1,261.226
.10	57.887	.60	299.421	1.10		541.073	1.60	782.734	2.10	1,024.397	2.60	1,266.060
.11	62.718	.61	304.254	1.11		545.906	1.61	787.567	2.11	1,029.230	2.61	1,270.893
.12	67.550	.62	309.087	1.12		550.739	1.62	792.401	2.12	1,034.063	2.62	1,275.726
.13	72.381	.63	313.920	1.13		555.572	1.63	797.234	2.13	1,038.897	2.63	1,280.559
.14	77.212	.64	318.753	1.14		560.405	1.64	802.067	2.14	1,043.730	2.64	1,285.393
.15	82.044	.65	323.586	1.15		565.238	1.65	806.900	2.15	1,048.563	2.65	1,290.226
.16	86.874	.66	328.419	1.16		570.071	1.66	811.734	2.16	1,053.396	2.66	1,295.059
.17	91.704	.67	333.252	1.17		574.903	1.67	816.567	2.17	1,058.230	2.67	1,299.892
.18	96.535	.68	338.085	1.18		579.737	1.68	821.400	2.18	1,063.063	2.68	1,304.726
.19	101.365	.69	342.918	1.19		584.570	1.69	826.233	2.19	1,067.896	2.69	1,309.559
.20	106.195	.70	347.751	1.20	589.403	1.70	831.067	2.20	1,072.729	2.70	1,314.392	
.21	111.025	.71	352.584	1.21	594.237	1.71	835.900	2.21	1,077.563	2.71	1,319.225	
.22	115.855	.72	357.417	1.22	599.070	1.72	840.733	2.22	1,082.396	2.72	1,324.059	
.23	120.685	.73	362.250	1.23	603.903	1.73	845.566	2.23	1,087.229	2.73	1,328.892	
.24	125.515	.74	367.084	1.24	608.737	1.74	850.400	2.24	1,092.062	2.74	1,333.725	
.25	130.345	.75	371.917	1.25	613.570	1.75	855.233	2.25	1,096.896	2.75	1,338.558	
.26	135.175	.76	376.750	1.26	618.403	1.76	860.066	2.26	1,101.729	2.76	1,343.392	
.27	140.005	.77	381.583	1.27	623.237	1.77	864.899	2.27	1,106.562	2.77	1,348.225	
.28	144.835	.78	386.416	1.28	628.070	1.78	869.733	2.28	1,111.395	2.78	1,353.058	
.29	149.665	.79	391.249	1.29	632.903	1.79	874.566	2.29	1,116.229	2.79	1,357.891	
.30	154.496	.80	396.082	1.30	637.736	1.80	879.399	2.30	1,121.062	2.80	1,362.725	
.31	159.326	.81	400.915	1.31	642.570	1.81	884.232	2.31	1,125.895	2.81	1,367.558	
.32	164.156	.82	405.749	1.32	647.403	1.82	889.066	2.32	1,130.728	2.82	1,372.391	
.33	168.986	.83	410.582	1.33	652.236	1.83	893.899	2.33	1,135.562	2.83	1,377.225	
.34	173.817	.84	415.415	1.34	657.070	1.84	898.732	2.34	1,140.395	2.84	1,382.058	
.35	178.647	.85	420.248	1.35	661.903	1.85	903.565	2.35	1,145.228	2.85	1,386.891	
.36	183.477	.86	425.081	1.36	666.736	1.86	908.399	2.36	1,150.062	2.86	1,391.724	
.37	188.307	.87	429.914	1.37	671.570	1.87	913.232	2.37	1,154.895	2.87	1,396.558	
.38	193.137	.88	434.747	1.38	676.403	1.88	918.065	2.38	1,159.728	2.88	1,401.391	
.39	197.967	.89	439.580	1.39	681.236	1.89	922.899	2.39	1,164.561	2.89	1,406.224	
.40	202.797	.90	444.414	1.40	686.069	1.90	927.732	2.40	1,169.395	2.90	1,411.057	
.41	207.627	.91	449.247	1.41	690.902	1.91	932.565	2.41	1,174.228	2.91	1,415.891	
.42	212.458	.92	454.080	1.42	695.736	1.92	937.398	2.42	1,179.061	2.92	1,420.724	
.43	217.288	.93	458.913	1.43	700.569	1.93	942.232	2.43	1,183.894	2.93	1,425.557	
.44	222.118	.94	463.746	1.44	705.402	1.94	947.065	2.44	1,188.728	2.94	1,430.390	
.45	226.948	.95	468.579	1.45	710.235	1.95	951.898	2.45	1,193.561	2.95	1,435.224	
.46	231.778	.96	473.412	1.46	715.069	1.96	956.731	2.46	1,198.394	2.96	1,440.057	
.47	236.609	.97	478.245	1.47	719.902	1.97	961.565	2.47	1,203.227	2.97	1,444.890	
.48	241.439	.98	483.078	1.48	724.735	1.98	966.398	2.48	1,208.061	2.98	1,449.723	
.49	246.270	.99	487.911	1.49	729.568	1.99	971.231	2.49	1,212.894	2.99	1,454.557	

Strike Point located 5.7 Centimetres above intersection of shell & bottom.

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* Bottom volume based on Physical Survey Calculation. Average Centimetres not applicable

Safe Fill Height @ 24.000 Metres

Volumes reflect a Shell Temperature of 20°C

Displacement for Floating Roof has been deducted

A total of 7.2721 Cubic Metres were deducted between 102 & 112 Centimetres based on a weight of 5635.8852 Kilograms and a density of 775 kg/m³. Gauged quantities above 112 Centimetres reflect this deduction but shall be adjusted for a differing gravity at 20°C according to the following formula (see page 2).

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 104

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.272 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
3.00	1,459.390	3.50	1,701.190	4.00	1,942.997	4.50	2,184.804	5.00	2,426.611	5.50	2,668.428
3.01	1,464.223	3.51	1,706.026	4.01	1,947.833	4.51	2,189.640	5.01	2,431.447	5.51	2,673.266
3.02	1,469.056	3.52	1,710.862	4.02	1,952.669	4.52	2,194.476	5.02	2,436.283	5.52	2,678.104
3.03	1,473.891	3.53	1,715.698	4.03	1,957.505	4.53	2,199.312	5.03	2,441.120	5.53	2,682.941
3.04	1,478.727	3.54	1,720.534	4.04	1,962.341	4.54	2,204.148	5.04	2,445.956	5.54	2,687.779
3.05	1,483.563	3.55	1,725.370	4.05	1,967.177	4.55	2,208.985	5.05	2,450.792	5.55	2,692.617
3.06	1,488.399	3.56	1,730.206	4.06	1,972.014	4.56	2,213.821	5.06	2,455.628	5.56	2,697.455
3.07	1,493.235	3.57	1,735.043	4.07	1,976.850	4.57	2,218.657	5.07	2,460.464	5.57	2,702.293
3.08	1,498.071	3.58	1,739.879	4.08	1,981.686	4.58	2,223.493	5.08	2,465.300	5.58	2,707.130
3.09	1,502.908	3.59	1,744.715	4.09	1,986.522	4.59	2,228.329	5.09	2,470.136	5.59	2,711.968
3.10	1,507.744	3.60	1,749.551	4.10	1,991.358	4.60	2,233.165	5.10	2,474.973	5.60	2,716.806
3.11	1,512.580	3.61	1,754.387	4.11	1,996.194	4.61	2,238.001	5.11	2,479.809	5.61	2,721.644
3.12	1,517.416	3.62	1,759.223	4.12	2,001.030	4.62	2,242.838	5.12	2,484.645	5.62	2,726.482
3.13	1,522.252	3.63	1,764.059	4.13	2,005.867	4.63	2,247.674	5.13	2,489.481	5.63	2,731.319
3.14	1,527.088	3.64	1,768.896	4.14	2,010.703	4.64	2,252.510	5.14	2,494.317	5.64	2,736.157
3.15	1,531.924	3.65	1,773.732	4.15	2,015.539	4.65	2,257.346	5.15	2,499.153	5.65	2,740.995
3.16	1,536.761	3.66	1,778.568	4.16	2,020.375	4.66	2,262.182	5.16	2,503.989	5.66	2,745.833
3.17	1,541.597	3.67	1,783.404	4.17	2,025.211	4.67	2,267.018	5.17	2,508.826	5.67	2,750.671
3.18	1,546.433	3.68	1,788.240	4.18	2,030.047	4.68	2,271.854	5.18	2,513.662	5.68	2,755.509
3.19	1,551.269	3.69	1,793.076	4.19	2,034.883	4.69	2,276.691	5.19	2,518.498	5.69	2,760.346
3.20	1,556.105	3.70	1,797.912	4.20	2,039.720	4.70	2,281.527	5.20	2,523.334	5.70	2,765.184
3.21	1,560.941	3.71	1,802.749	4.21	2,044.556	4.71	2,286.363	5.21	2,528.170	5.71	2,770.022
3.22	1,565.778	3.72	1,807.585	4.22	2,049.392	4.72	2,291.199	5.22	2,533.006	5.72	2,774.860
3.23	1,570.614	3.73	1,812.421	4.23	2,054.228	4.73	2,296.035	5.23	2,537.842	5.73	2,779.698
3.24	1,575.450	3.74	1,817.257	4.24	2,059.064	4.74	2,300.871	5.24	2,542.679	5.74	2,784.535
3.25	1,580.286	3.75	1,822.093	4.25	2,063.900	4.75	2,305.707	5.25	2,547.515	5.75	2,789.373
3.26	1,585.122	3.76	1,826.929	4.26	2,068.736	4.76	2,310.544	5.26	2,552.351	5.76	2,794.211
3.27	1,589.958	3.77	1,831.765	4.27	2,073.573	4.77	2,315.380	5.27	2,557.187	5.77	2,799.049
3.28	1,594.794	3.78	1,836.602	4.28	2,078.409	4.78	2,320.216	5.28	2,562.023	5.78	2,803.887
3.29	1,599.631	3.79	1,841.438	4.29	2,083.245	4.79	2,325.052	5.29	2,566.859	5.79	2,808.724
3.30	1,604.467	3.80	1,846.274	4.30	2,088.081	4.80	2,329.888	5.30	2,571.695	5.80	2,813.562
3.31	1,609.303	3.81	1,851.110	4.31	2,092.917	4.81	2,334.724	5.31	2,576.532	5.81	2,818.400
3.32	1,614.139	3.82	1,855.946	4.32	2,097.753	4.82	2,339.561	5.32	2,581.368	5.82	2,823.238
3.33	1,618.975	3.83	1,860.782	4.33	2,102.589	4.83	2,344.397	5.33	2,586.204	5.83	2,828.076
3.34	1,623.811	3.84	1,865.618	4.34	2,107.426	4.84	2,349.233	5.34	2,591.040	5.84	2,832.913
3.35	1,628.647	3.85	1,870.455	4.35	2,112.262	4.85	2,354.069	5.35	2,595.876	5.85	2,837.751
3.36	1,633.484	3.86	1,875.291	4.36	2,117.098	4.86	2,358.905	5.36	2,600.712	5.86	2,842.589
3.37	1,638.320	3.87	1,880.127	4.37	2,121.934	4.87	2,363.741	5.37	2,605.548	5.87	2,847.427
3.38	1,643.156	3.88	1,884.963	4.38	2,126.770	4.88	2,368.577	5.38	2,610.385	5.88	2,852.265
3.39	1,647.992	3.89	1,889.799	4.39	2,131.606	4.89	2,373.414	5.39	2,615.221	5.89	2,857.103
3.40	1,652.828	3.90	1,894.635	4.40	2,136.442	4.90	2,378.250	5.40	2,620.057	5.90	2,861.940
3.41	1,657.664	3.91	1,899.471	4.41	2,141.279	4.91	2,383.086	5.41	2,624.893	5.91	2,866.778
3.42	1,662.500	3.92	1,904.308	4.42	2,146.115	4.92	2,387.922	5.42	2,629.729	5.92	2,871.616
3.43	1,667.337	3.93	1,909.144	4.43	2,150.951	4.93	2,392.758	5.43	2,634.565	5.93	2,876.454
3.44	1,672.173	3.94	1,913.980	4.44	2,155.787	4.94	2,397.594	5.44	2,639.401	5.94	2,881.292
3.45	1,677.009	3.95	1,918.816	4.45	2,160.623	4.95	2,402.430	5.45	2,644.239	5.95	2,886.129
3.46	1,681.845	3.96	1,923.652	4.46	2,165.459	4.96	2,407.267	5.46	2,649.077	5.96	2,890.967
3.47	1,686.681	3.97	1,928.488	4.47	2,170.295	4.97	2,412.103	5.47	2,653.915	5.97	2,895.805
3.48	1,691.517	3.98	1,933.324	4.48	2,175.132	4.98	2,416.939	5.48	2,658.752	5.98	2,900.643
3.49	1,696.353	3.99	1,938.161	4.49	2,179.968	4.99	2,421.775	5.49	2,663.590	5.99	2,905.481

Displacement = 5635.8852 Kilograms - 7.2721 Cubic Metres
Correction Kilograms/Cubic Metre

If result is (-) negative : add volume
If result is (+) positive : subtract volume



Keyera Rimbey Edmonton Terminal

TANK # 104

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.272 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
6.00	2,910.318	6.50	3,152.209	7.00	3,394.099	7.50	3,635.990	8.00	3,877.911	8.50	4,119.907
6.01	2,915.156	6.51	3,157.047	7.01	3,398.937	7.51	3,640.828	8.01	3,882.751	8.51	4,124.747
6.02	2,919.994	6.52	3,161.885	7.02	3,403.775	7.52	3,645.665	8.02	3,887.591	8.52	4,129.586
6.03	2,924.832	6.53	3,166.722	7.03	3,408.613	7.53	3,650.503	8.03	3,892.431	8.53	4,134.426
6.04	2,929.670	6.54	3,171.560	7.04	3,413.451	7.54	3,655.341	8.04	3,897.271	8.54	4,139.266
6.05	2,934.507	6.55	3,176.398	7.05	3,418.288	7.55	3,660.179	8.05	3,902.111	8.55	4,144.106
6.06	2,939.345	6.56	3,181.236	7.06	3,423.126	7.56	3,665.017	8.06	3,906.951	8.56	4,148.946
6.07	2,944.183	6.57	3,186.074	7.07	3,427.964	7.57	3,669.855	8.07	3,911.790	8.57	4,153.786
6.08	2,949.021	6.58	3,190.911	7.08	3,432.802	7.58	3,674.692	8.08	3,916.630	8.58	4,158.626
6.09	2,953.859	6.59	3,195.749	7.09	3,437.640	7.59	3,679.530	8.09	3,921.470	8.59	4,163.466
6.10	2,958.697	6.60	3,200.587	7.10	3,442.477	7.60	3,684.368	8.10	3,926.310	8.60	4,168.306
6.11	2,963.534	6.61	3,205.425	7.11	3,447.315	7.61	3,689.206	8.11	3,931.150	8.61	4,173.146
6.12	2,968.372	6.62	3,210.263	7.12	3,452.153	7.62	3,694.044	8.12	3,935.990	8.62	4,177.986
6.13	2,973.210	6.63	3,215.100	7.13	3,456.991	7.63	3,698.881	8.13	3,940.830	8.63	4,182.825
6.14	2,978.048	6.64	3,219.938	7.14	3,461.829	7.64	3,703.719	8.14	3,945.670	8.64	4,187.665
6.15	2,982.886	6.65	3,224.776	7.15	3,466.667	7.65	3,708.557	8.15	3,950.510	8.65	4,192.505
6.16	2,987.723	6.66	3,229.614	7.16	3,471.504	7.66	3,713.395	8.16	3,955.350	8.66	4,197.345
6.17	2,992.561	6.67	3,234.452	7.17	3,476.342	7.67	3,718.233	8.17	3,960.190	8.67	4,202.185
6.18	2,997.399	6.68	3,239.289	7.18	3,481.180	7.68	3,723.070	8.18	3,965.029	8.68	4,207.025
6.19	3,002.237	6.69	3,244.127	7.19	3,486.018	7.69	3,727.908	8.19	3,969.869	8.69	4,211.865
6.20	3,007.075	6.70	3,248.965	7.20	3,490.856	7.70	3,732.746	8.20	3,974.709	8.70	4,216.705
6.21	3,011.912	6.71	3,253.803	7.21	3,495.693	7.71	3,737.584	8.21	3,979.549	8.71	4,221.545
6.22	3,016.750	6.72	3,258.641	7.22	3,500.531	7.72	3,742.422	8.22	3,984.389	8.72	4,226.385
6.23	3,021.588	6.73	3,263.479	7.23	3,505.369	7.73	3,747.259	8.23	3,989.229	8.73	4,231.225
6.24	3,026.426	6.74	3,268.316	7.24	3,510.207	7.74	3,752.097	8.24	3,994.069	8.74	4,236.064
6.25	3,031.264	6.75	3,273.154	7.25	3,515.045	7.75	3,756.935	8.25	3,998.909	8.75	4,240.904
6.26	3,036.101	6.76	3,277.992	7.26	3,519.882	7.76	3,761.773	8.26	4,003.749	8.76	4,245.744
6.27	3,040.939	6.77	3,282.830	7.27	3,524.720	7.77	3,766.611	8.27	4,008.589	8.77	4,250.584
6.28	3,045.777	6.78	3,287.668	7.28	3,529.558	7.78	3,771.449	8.28	4,013.429	8.78	4,255.424
6.29	3,050.615	6.79	3,292.505	7.29	3,534.396	7.79	3,776.286	8.29	4,018.268	8.79	4,260.264
6.30	3,055.453	6.80	3,297.343	7.30	3,539.234	7.80	3,781.124	8.30	4,023.108	8.80	4,265.104
6.31	3,060.291	6.81	3,302.181	7.31	3,544.071	7.81	3,785.962	8.31	4,027.948	8.81	4,269.944
6.32	3,065.128	6.82	3,307.019	7.32	3,548.909	7.82	3,790.800	8.32	4,032.788	8.82	4,274.784
6.33	3,069.966	6.83	3,311.857	7.33	3,553.747	7.83	3,795.638	8.33	4,037.628	8.83	4,279.624
6.34	3,074.804	6.84	3,316.694	7.34	3,558.585	7.84	3,800.475	8.34	4,042.468	8.84	4,284.464
6.35	3,079.642	6.85	3,321.532	7.35	3,563.423	7.85	3,805.313	8.35	4,047.308	8.85	4,289.303
6.36	3,084.480	6.86	3,326.370	7.36	3,568.261	7.86	3,810.152	8.36	4,052.148	8.86	4,294.143
6.37	3,089.317	6.87	3,331.208	7.37	3,573.098	7.87	3,814.992	8.37	4,056.988	8.87	4,298.983
6.38	3,094.155	6.88	3,336.046	7.38	3,577.936	7.88	3,819.832	8.38	4,061.828	8.88	4,303.823
6.39	3,098.993	6.89	3,340.883	7.39	3,582.774	7.89	3,824.672	8.39	4,066.668	8.89	4,308.663
6.40	3,103.831	6.90	3,345.721	7.40	3,587.612	7.90	3,829.512	8.40	4,071.507	8.90	4,313.503
6.41	3,108.669	6.91	3,350.559	7.41	3,592.450	7.91	3,834.352	8.41	4,076.347	8.91	4,318.343
6.42	3,113.506	6.92	3,355.397	7.42	3,597.287	7.92	3,839.192	8.42	4,081.187	8.92	4,323.183
6.43	3,118.344	6.93	3,360.235	7.43	3,602.125	7.93	3,844.032	8.43	4,086.027	8.93	4,328.023
6.44	3,123.182	6.94	3,365.073	7.44	3,606.963	7.94	3,848.872	8.44	4,090.867	8.94	4,332.863
6.45	3,128.020	6.95	3,369.910	7.45	3,611.801	7.95	3,853.711	8.45	4,095.707	8.95	4,337.703
6.46	3,132.858	6.96	3,374.748	7.46	3,616.639	7.96	3,858.551	8.46	4,100.547	8.96	4,342.543
6.47	3,137.695	6.97	3,379.586	7.47	3,621.476	7.97	3,863.391	8.47	4,105.387	8.97	4,347.382
6.48	3,142.533	6.98	3,384.424	7.48	3,626.314	7.98	3,868.231	8.48	4,110.227	8.98	4,352.222
6.49	3,147.371	6.99	3,389.262	7.49	3,631.152	7.99	3,873.071	8.49	4,115.067	8.99	4,357.062



Keyera Rimbey Edmonton Terminal

TANK # 104

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.272 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
9.00	4,381.902	9.50	4,603.898	10.00	4,845.893	10.50	5,087.889	11.00	5,329.944	11.50	5,572.185
9.01	4,366.742	9.51	4,608.738	10.01	4,850.733	10.51	5,092.729	11.01	5,334.789	11.51	5,577.030
9.02	4,371.582	9.52	4,613.578	10.02	4,855.573	10.52	5,097.569	11.02	5,339.634	11.52	5,581.875
9.03	4,376.422	9.53	4,618.417	10.03	4,860.413	10.53	5,102.409	11.03	5,344.479	11.53	5,586.719
9.04	4,381.262	9.54	4,623.257	10.04	4,865.253	10.54	5,107.248	11.04	5,349.323	11.54	5,591.564
9.05	4,386.102	9.55	4,628.097	10.05	4,870.093	10.55	5,112.088	11.05	5,354.168	11.55	5,596.409
9.06	4,390.942	9.56	4,632.937	10.06	4,874.933	10.56	5,116.928	11.06	5,359.013	11.56	5,601.254
9.07	4,395.782	9.57	4,637.777	10.07	4,879.773	10.57	5,121.768	11.07	5,363.858	11.57	5,606.099
9.08	4,400.621	9.58	4,642.617	10.08	4,884.613	10.58	5,126.608	11.08	5,368.703	11.58	5,610.943
9.09	4,405.461	9.59	4,647.457	10.09	4,889.452	10.59	5,131.448	11.09	5,373.548	11.59	5,615.788
9.10	4,410.301	9.60	4,652.297	10.10	4,894.292	10.60	5,136.288	11.10	5,378.392	11.60	5,620.633
9.11	4,415.141	9.61	4,657.137	10.11	4,899.132	10.61	5,141.128	11.11	5,383.237	11.61	5,625.478
9.12	4,419.981	9.62	4,661.977	10.12	4,903.972	10.62	5,145.968	11.12	5,388.082	11.62	5,630.323
9.13	4,424.821	9.63	4,666.817	10.13	4,908.812	10.63	5,150.808	11.13	5,392.927	11.63	5,635.167
9.14	4,429.661	9.64	4,671.656	10.14	4,913.652	10.64	5,155.648	11.14	5,397.772	11.64	5,640.012
9.15	4,434.501	9.65	4,676.496	10.15	4,918.492	10.65	5,160.487	11.15	5,402.616	11.65	5,644.857
9.16	4,439.341	9.66	4,681.336	10.16	4,923.332	10.66	5,165.327	11.16	5,407.461	11.66	5,649.702
9.17	4,444.181	9.67	4,686.176	10.17	4,928.172	10.67	5,170.167	11.17	5,412.306	11.67	5,654.547
9.18	4,449.021	9.68	4,691.016	10.18	4,933.012	10.68	5,175.007	11.18	5,417.151	11.68	5,659.392
9.19	4,453.860	9.69	4,695.856	10.19	4,937.852	10.69	5,179.847	11.19	5,421.996	11.69	5,664.236
9.20	4,458.700	9.70	4,700.696	10.20	4,942.691	10.70	5,184.687	11.20	5,426.840	11.70	5,669.081
9.21	4,463.540	9.71	4,705.536	10.21	4,947.531	10.71	5,189.527	11.21	5,431.685	11.71	5,673.926
9.22	4,468.380	9.72	4,710.376	10.22	4,952.371	10.72	5,194.367	11.22	5,436.530	11.72	5,678.771
9.23	4,473.220	9.73	4,715.216	10.23	4,957.211	10.73	5,199.207	11.23	5,441.375	11.73	5,683.616
9.24	4,478.060	9.74	4,720.056	10.24	4,962.051	10.74	5,204.047	11.24	5,446.220	11.74	5,688.460
9.25	4,482.900	9.75	4,724.895	10.25	4,966.891	10.75	5,208.887	11.25	5,451.065	11.75	5,693.305
9.26	4,487.740	9.76	4,729.735	10.26	4,971.731	10.76	5,213.726	11.26	5,455.909	11.76	5,698.150
9.27	4,492.580	9.77	4,734.575	10.27	4,976.571	10.77	5,218.566	11.27	5,460.754	11.77	5,702.995
9.28	4,497.420	9.78	4,739.415	10.28	4,981.411	10.78	5,223.406	11.28	5,465.599	11.78	5,707.840
9.29	4,502.260	9.79	4,744.255	10.29	4,986.251	10.79	5,228.246	11.29	5,470.444	11.79	5,712.684
9.30	4,507.099	9.80	4,749.095	10.30	4,991.091	10.80	5,233.086	11.30	5,475.289	11.80	5,717.529
9.31	4,511.939	9.81	4,753.935	10.31	4,995.930	10.81	5,237.926	11.31	5,480.133	11.81	5,722.374
9.32	4,516.779	9.82	4,758.775	10.32	5,000.770	10.82	5,242.766	11.32	5,484.978	11.82	5,727.219
9.33	4,521.619	9.83	4,763.615	10.33	5,005.610	10.83	5,247.606	11.33	5,489.823	11.83	5,732.064
9.34	4,526.459	9.84	4,768.455	10.34	5,010.450	10.84	5,252.446	11.34	5,494.668	11.84	5,736.909
9.35	4,531.299	9.85	4,773.295	10.35	5,015.290	10.85	5,257.286	11.35	5,499.513	11.85	5,741.753
9.36	4,536.139	9.86	4,778.134	10.36	5,020.130	10.86	5,262.126	11.36	5,504.357	11.86	5,746.598
9.37	4,540.979	9.87	4,782.974	10.37	5,024.970	10.87	5,266.966	11.37	5,509.202	11.87	5,751.443
9.38	4,545.819	9.88	4,787.814	10.38	5,029.810	10.88	5,271.806	11.38	5,514.047	11.88	5,756.288
9.39	4,550.659	9.89	4,792.654	10.39	5,034.650	10.89	5,276.651	11.39	5,518.892	11.89	5,761.133
9.40	4,555.499	9.90	4,797.494	10.40	5,039.490	10.90	5,281.496	11.40	5,523.737	11.90	5,765.977
9.41	4,560.338	9.91	4,802.334	10.41	5,044.330	10.91	5,286.341	11.41	5,528.582	11.91	5,770.822
9.42	4,565.178	9.92	4,807.174	10.42	5,049.170	10.92	5,291.186	11.42	5,533.426	11.92	5,775.667
9.43	4,570.018	9.93	4,812.014	10.43	5,054.009	10.93	5,296.030	11.43	5,538.271	11.93	5,780.512
9.44	4,574.858	9.94	4,816.854	10.44	5,058.849	10.94	5,300.875	11.44	5,543.116	11.94	5,785.357
9.45	4,579.698	9.95	4,821.694	10.45	5,063.689	10.95	5,305.720	11.45	5,547.961	11.95	5,790.202
9.46	4,584.538	9.96	4,826.534	10.46	5,068.529	10.96	5,310.565	11.46	5,552.806	11.96	5,795.046
9.47	4,589.378	9.97	4,831.374	10.47	5,073.369	10.97	5,315.410	11.47	5,557.650	11.97	5,799.891
9.48	4,594.218	9.98	4,836.213	10.48	5,078.209	10.98	5,320.255	11.48	5,562.495	11.98	5,804.736
9.49	4,599.058	9.99	4,841.053	10.49	5,083.049	10.99	5,325.099	11.49	5,567.340	11.99	5,809.581



Keyera Rimbey Edmonton Terminal

TANK # 104

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.272 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
12.00	5,814.426	12.50	6,056.666	13.00	6,298.907	13.50	6,541.148	14.00	6,783.408	14.50	7,025.749
12.01	5,819.270	12.51	6,061.511	13.01	6,303.752	13.51	6,545.993	14.01	6,788.255	14.51	7,030.596
12.02	5,824.115	12.52	6,066.356	13.02	6,308.597	13.52	6,550.837	14.02	6,793.102	14.52	7,035.443
12.03	5,828.960	12.53	6,071.201	13.03	6,313.441	13.53	6,555.682	14.03	6,797.949	14.53	7,040.290
12.04	5,833.805	12.54	6,076.046	13.04	6,318.286	13.54	6,560.527	14.04	6,802.796	14.54	7,045.137
12.05	5,838.650	12.55	6,080.890	13.05	6,323.131	13.55	6,565.372	14.05	6,807.643	14.55	7,049.983
12.06	5,843.494	12.56	6,085.735	13.06	6,327.976	13.56	6,570.217	14.06	6,812.489	14.56	7,054.830
12.07	5,848.339	12.57	6,090.580	13.07	6,332.821	13.57	6,575.061	14.07	6,817.336	14.57	7,059.677
12.08	5,853.184	12.58	6,095.425	13.08	6,337.665	13.58	6,579.906	14.08	6,822.183	14.58	7,064.524
12.09	5,858.029	12.59	6,100.270	13.09	6,342.510	13.59	6,584.751	14.09	6,827.030	14.59	7,069.371
12.10	5,862.874	12.60	6,105.114	13.10	6,347.355	13.60	6,589.596	14.10	6,831.877	14.60	7,074.218
12.11	5,867.719	12.61	6,109.959	13.11	6,352.200	13.61	6,594.441	14.11	6,836.723	14.61	7,079.064
12.12	5,872.563	12.62	6,114.804	13.12	6,357.045	13.62	6,599.285	14.12	6,841.570	14.62	7,083.911
12.13	5,877.408	12.63	6,119.649	13.13	6,361.890	13.63	6,604.130	14.13	6,846.417	14.63	7,088.758
12.14	5,882.253	12.64	6,124.494	13.14	6,366.734	13.64	6,608.975	14.14	6,851.264	14.64	7,093.605
12.15	5,887.098	12.65	6,129.338	13.15	6,371.579	13.65	6,613.820	14.15	6,856.111	14.65	7,098.452
12.16	5,891.943	12.66	6,134.183	13.16	6,376.424	13.66	6,618.665	14.16	6,860.958	14.66	7,103.298
12.17	5,896.787	12.67	6,139.028	13.17	6,381.269	13.67	6,623.510	14.17	6,865.804	14.67	7,108.145
12.18	5,901.632	12.68	6,143.873	13.18	6,386.114	13.68	6,628.354	14.18	6,870.651	14.68	7,112.992
12.19	5,906.477	12.69	6,148.718	13.19	6,390.958	13.69	6,633.199	14.19	6,875.498	14.69	7,117.839
12.20	5,911.322	12.70	6,153.563	13.20	6,395.803	13.70	6,638.044	14.20	6,880.345	14.70	7,122.686
12.21	5,916.167	12.71	6,158.407	13.21	6,400.648	13.71	6,642.889	14.21	6,885.192	14.71	7,127.533
12.22	5,921.011	12.72	6,163.252	13.22	6,405.493	13.72	6,647.734	14.22	6,890.038	14.72	7,132.379
12.23	5,925.856	12.73	6,168.097	13.23	6,410.338	13.73	6,652.578	14.23	6,894.885	14.73	7,137.226
12.24	5,930.701	12.74	6,172.942	13.24	6,415.183	13.74	6,657.423	14.24	6,899.732	14.74	7,142.073
12.25	5,935.546	12.75	6,177.787	13.25	6,420.027	13.75	6,662.268	14.25	6,904.579	14.75	7,146.920
12.26	5,940.391	12.76	6,182.631	13.26	6,424.872	13.76	6,667.113	14.26	6,909.426	14.76	7,151.767
12.27	5,945.236	12.77	6,187.476	13.27	6,429.717	13.77	6,671.958	14.27	6,914.273	14.77	7,156.613
12.28	5,950.080	12.78	6,192.321	13.28	6,434.562	13.78	6,676.802	14.28	6,919.119	14.78	7,161.460
12.29	5,954.925	12.79	6,197.166	13.29	6,439.407	13.79	6,681.647	14.29	6,923.966	14.79	7,166.307
12.30	5,959.770	12.80	6,202.011	13.30	6,444.251	13.80	6,686.492	14.30	6,928.813	14.80	7,171.154
12.31	5,964.615	12.81	6,206.856	13.31	6,449.096	13.81	6,691.337	14.31	6,933.660	14.81	7,176.001
12.32	5,969.460	12.82	6,211.700	13.32	6,453.941	13.82	6,696.182	14.32	6,938.507	14.82	7,180.848
12.33	5,974.304	12.83	6,216.545	13.33	6,458.786	13.83	6,701.027	14.33	6,943.353	14.83	7,185.694
12.34	5,979.149	12.84	6,221.390	13.34	6,463.631	13.84	6,705.871	14.34	6,948.200	14.84	7,190.541
12.35	5,983.994	12.85	6,226.235	13.35	6,468.475	13.85	6,710.716	14.35	6,953.047	14.85	7,195.388
12.36	5,988.839	12.86	6,231.080	13.36	6,473.320	13.86	6,715.561	14.36	6,957.894	14.86	7,200.235
12.37	5,993.684	12.87	6,235.924	13.37	6,478.165	13.87	6,720.406	14.37	6,962.741	14.87	7,205.082
12.38	5,998.529	12.88	6,240.769	13.38	6,483.010	13.88	6,725.251	14.38	6,967.588	14.88	7,209.929
12.39	6,003.373	12.89	6,245.614	13.39	6,487.855	13.89	6,730.095	14.39	6,972.434	14.89	7,214.775
12.40	6,008.218	12.90	6,250.459	13.40	6,492.700	13.90	6,734.940	14.40	6,977.281	14.90	7,219.622
12.41	6,013.063	12.91	6,255.304	13.41	6,497.544	13.91	6,739.787	14.41	6,982.128	14.91	7,224.469
12.42	6,017.908	12.92	6,260.148	13.42	6,502.389	13.92	6,744.634	14.42	6,986.975	14.92	7,229.316
12.43	6,022.753	12.93	6,264.993	13.43	6,507.234	13.93	6,749.481	14.43	6,991.822	14.93	7,234.163
12.44	6,027.597	12.94	6,269.838	13.44	6,512.079	13.94	6,754.328	14.44	6,996.668	14.94	7,239.009
12.45	6,032.442	12.95	6,274.683	13.45	6,516.924	13.95	6,759.174	14.45	7,001.515	14.95	7,243.856
12.46	6,037.287	12.96	6,279.528	13.46	6,521.768	13.96	6,764.021	14.46	7,006.362	14.96	7,248.703
12.47	6,042.132	12.97	6,284.373	13.47	6,526.613	13.97	6,768.868	14.47	7,011.209	14.97	7,253.550
12.48	6,046.977	12.98	6,289.217	13.48	6,531.458	13.98	6,773.715	14.48	7,016.056	14.98	7,258.397
12.49	6,051.821	12.99	6,294.062	13.49	6,536.303	13.99	6,778.562	14.49	7,020.903	14.99	7,263.244



Keyera Rimbey Edmonton Terminal

TANK # 104

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.272 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
15.00	7,268.090	15.50	7,510.431	16.00	7,752.772	16.50	7,995.113	17.00	8,237.463	17.50	8,479.867
15.01	7,272.937	15.51	7,515.278	16.01	7,757.619	16.51	7,999.960	17.01	8,242.311	17.51	8,484.715
15.02	7,277.784	15.52	7,520.125	16.02	7,762.466	16.52	8,004.807	17.02	8,247.159	17.52	8,489.563
15.03	7,282.631	15.53	7,524.972	16.03	7,767.313	16.53	8,009.654	17.03	8,252.008	17.53	8,494.411
15.04	7,287.478	15.54	7,529.819	16.04	7,772.160	16.54	8,014.500	17.04	8,256.856	17.54	8,499.259
15.05	7,292.324	15.55	7,534.665	16.05	7,777.006	16.55	8,019.347	17.05	8,261.704	17.55	8,504.107
15.06	7,297.171	15.56	7,539.512	16.06	7,781.853	16.56	8,024.194	17.06	8,266.552	17.56	8,508.955
15.07	7,302.018	15.57	7,544.359	16.07	7,786.700	16.57	8,029.041	17.07	8,271.400	17.57	8,513.803
15.08	7,306.865	15.58	7,549.206	16.08	7,791.547	16.58	8,033.888	17.08	8,276.248	17.58	8,518.651
15.09	7,311.712	15.59	7,554.053	16.09	7,796.394	16.59	8,038.735	17.09	8,281.096	17.59	8,523.499
15.10	7,316.559	15.60	7,558.899	16.10	7,801.240	16.60	8,043.581	17.10	8,285.944	17.60	8,528.347
15.11	7,321.405	15.61	7,563.746	16.11	7,806.087	16.61	8,048.428	17.11	8,290.792	17.61	8,533.195
15.12	7,326.252	15.62	7,568.593	16.12	7,810.934	16.62	8,053.275	17.12	8,295.640	17.62	8,538.043
15.13	7,331.099	15.63	7,573.440	16.13	7,815.781	16.63	8,058.122	17.13	8,300.488	17.63	8,542.892
15.14	7,335.946	15.64	7,578.287	16.14	7,820.628	16.64	8,062.969	17.14	8,305.336	17.64	8,547.740
15.15	7,340.793	15.65	7,583.134	16.15	7,825.475	16.65	8,067.815	17.15	8,310.184	17.65	8,552.588
15.16	7,345.639	15.66	7,587.980	16.16	7,830.321	16.66	8,072.662	17.16	8,315.032	17.66	8,557.436
15.17	7,350.486	15.67	7,592.827	16.17	7,835.168	16.67	8,077.509	17.17	8,319.880	17.67	8,562.284
15.18	7,355.333	15.68	7,597.674	16.18	7,840.015	16.68	8,082.356	17.18	8,324.729	17.68	8,567.132
15.19	7,360.180	15.69	7,602.521	16.19	7,844.862	16.69	8,087.203	17.19	8,329.577	17.69	8,571.980
15.20	7,365.027	15.70	7,607.368	16.20	7,849.709	16.70	8,092.050	17.20	8,334.425	17.70	8,576.828
15.21	7,369.874	15.71	7,612.214	16.21	7,854.555	16.71	8,096.896	17.21	8,339.273	17.71	8,581.676
15.22	7,374.720	15.72	7,617.061	16.22	7,859.402	16.72	8,101.743	17.22	8,344.121	17.72	8,586.524
15.23	7,379.567	15.73	7,621.908	16.23	7,864.249	16.73	8,106.590	17.23	8,348.969	17.73	8,591.372
15.24	7,384.414	15.74	7,626.755	16.24	7,869.096	16.74	8,111.437	17.24	8,353.817	17.74	8,596.220
15.25	7,389.261	15.75	7,631.602	16.25	7,873.943	16.75	8,116.284	17.25	8,358.665	17.75	8,601.068
15.26	7,394.108	15.76	7,636.449	16.26	7,878.790	16.76	8,121.130	17.26	8,363.513	17.76	8,605.916
15.27	7,398.954	15.77	7,641.295	16.27	7,883.636	16.77	8,125.977	17.27	8,368.361	17.77	8,610.764
15.28	7,403.801	15.78	7,646.142	16.28	7,888.483	16.78	8,130.824	17.28	8,373.209	17.78	8,615.613
15.29	7,408.648	15.79	7,650.989	16.29	7,893.330	16.79	8,135.671	17.29	8,378.057	17.79	8,620.461
15.30	7,413.495	15.80	7,655.836	16.30	7,898.177	16.80	8,140.518	17.30	8,382.905	17.80	8,625.309
15.31	7,418.342	15.81	7,660.683	16.31	7,903.024	16.81	8,145.365	17.31	8,387.753	17.81	8,630.157
15.32	7,423.189	15.82	7,665.529	16.32	7,907.870	16.82	8,150.211	17.32	8,392.601	17.82	8,635.005
15.33	7,428.035	15.83	7,670.376	16.33	7,912.717	16.83	8,155.058	17.33	8,397.450	17.83	8,639.853
15.34	7,432.882	15.84	7,675.223	16.34	7,917.564	16.84	8,159.905	17.34	8,402.298	17.84	8,644.701
15.35	7,437.729	15.85	7,680.070	16.35	7,922.411	16.85	8,164.752	17.35	8,407.146	17.85	8,649.549
15.36	7,442.576	15.86	7,684.917	16.36	7,927.258	16.86	8,169.599	17.36	8,411.994	17.86	8,654.397
15.37	7,447.423	15.87	7,689.764	16.37	7,932.105	16.87	8,174.445	17.37	8,416.842	17.87	8,659.245
15.38	7,452.269	15.88	7,694.610	16.38	7,936.951	16.88	8,179.292	17.38	8,421.690	17.88	8,664.093
15.39	7,457.116	15.89	7,699.457	16.39	7,941.798	16.89	8,184.139	17.39	8,426.538	17.89	8,668.941
15.40	7,461.963	15.90	7,704.304	16.40	7,946.645	16.90	8,188.986	17.40	8,431.386	17.90	8,673.789
15.41	7,466.810	15.91	7,709.151	16.41	7,951.492	16.91	8,193.833	17.41	8,436.234	17.91	8,678.637
15.42	7,471.657	15.92	7,713.998	16.42	7,956.339	16.92	8,198.680	17.42	8,441.082	17.92	8,683.485
15.43	7,476.504	15.93	7,718.845	16.43	7,961.185	16.93	8,203.527	17.43	8,445.930	17.93	8,688.334
15.44	7,481.350	15.94	7,723.691	16.44	7,966.032	16.94	8,208.375	17.44	8,450.778	17.94	8,693.182
15.45	7,486.197	15.95	7,728.538	16.45	7,970.879	16.95	8,213.223	17.45	8,455.626	17.95	8,698.030
15.46	7,491.044	15.96	7,733.385	16.46	7,975.726	16.96	8,218.071	17.46	8,460.474	17.96	8,702.878
15.47	7,495.891	15.97	7,738.232	16.47	7,980.573	16.97	8,222.919	17.47	8,465.322	17.97	8,707.726
15.48	7,500.738	15.98	7,743.079	16.48	7,985.420	16.98	8,227.767	17.48	8,470.171	17.98	8,712.574
15.49	7,505.584	15.99	7,747.925	16.49	7,990.266	16.99	8,232.615	17.49	8,475.019	17.99	8,717.422



Keyera Rimbey Edmonton Terminal

TANK # 104

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.272 Metres ; Located 108 cm to Benchmark				Height in Centimetres; Capacity in Cubic Metres							
18.00	8,722.270	18.50	8,964.673	19.00	9,207.077	19.50	9,449.480	20.00	9,691.899	20.50	9,934.438
18.01	8,727.118	18.51	8,969.521	19.01	9,211.925	19.51	9,454.328	20.01	9,696.750	20.51	9,939.289
18.02	8,731.966	18.52	8,974.369	19.02	9,216.773	19.52	9,459.176	20.02	9,701.600	20.52	9,944.140
18.03	8,736.814	18.53	8,979.218	19.03	9,221.621	19.53	9,464.024	20.03	9,706.451	20.53	9,948.990
18.04	8,741.662	18.54	8,984.066	19.04	9,226.469	19.54	9,468.872	20.04	9,711.302	20.54	9,953.841
18.05	8,746.510	18.55	8,988.914	19.05	9,231.317	19.55	9,473.720	20.05	9,716.153	20.55	9,958.692
18.06	8,751.358	18.56	8,993.762	19.06	9,236.165	19.56	9,478.568	20.06	9,721.003	20.56	9,963.543
18.07	8,756.206	18.57	8,998.610	19.07	9,241.013	19.57	9,483.416	20.07	9,725.854	20.57	9,968.393
18.08	8,761.055	18.58	9,003.458	19.08	9,245.861	19.58	9,488.264	20.08	9,730.705	20.58	9,973.244
18.09	8,765.903	18.59	9,008.306	19.09	9,250.709	19.59	9,493.113	20.09	9,735.556	20.59	9,978.095
18.10	8,770.751	18.60	9,013.154	19.10	9,255.557	19.60	9,497.961	20.10	9,740.407	20.60	9,982.946
18.11	8,775.599	18.61	9,018.002	19.11	9,260.405	19.61	9,502.809	20.11	9,745.257	20.61	9,987.797
18.12	8,780.447	18.62	9,022.850	19.12	9,265.253	19.62	9,507.657	20.12	9,750.108	20.62	9,992.647
18.13	8,785.295	18.63	9,027.698	19.13	9,270.101	19.63	9,512.505	20.13	9,754.959	20.63	9,997.498
18.14	8,790.143	18.64	9,032.546	19.14	9,274.950	19.64	9,517.353	20.14	9,759.810	20.64	10,002.349
18.15	8,794.991	18.65	9,037.394	19.15	9,279.798	19.65	9,522.201	20.15	9,764.661	20.65	10,007.200
18.16	8,799.839	18.66	9,042.242	19.16	9,284.646	19.66	9,527.049	20.16	9,769.511	20.66	10,012.050
18.17	8,804.687	18.67	9,047.090	19.17	9,289.494	19.67	9,531.897	20.17	9,774.362	20.67	10,016.901
18.18	8,809.535	18.68	9,051.939	19.18	9,294.342	19.68	9,536.745	20.18	9,779.213	20.68	10,021.752
18.19	8,814.383	18.69	9,056.787	19.19	9,299.190	19.69	9,541.593	20.19	9,784.064	20.69	10,026.603
18.20	8,819.231	18.70	9,061.635	19.20	9,304.038	19.70	9,546.441	20.20	9,788.914	20.70	10,031.454
18.21	8,824.079	18.71	9,066.483	19.21	9,308.886	19.71	9,551.289	20.21	9,793.765	20.71	10,036.304
18.22	8,828.927	18.72	9,071.331	19.22	9,313.734	19.72	9,556.137	20.22	9,798.616	20.72	10,041.155
18.23	8,833.776	18.73	9,076.179	19.23	9,318.582	19.73	9,560.985	20.23	9,803.467	20.73	10,046.006
18.24	8,838.624	18.74	9,081.027	19.24	9,323.430	19.74	9,565.834	20.24	9,808.318	20.74	10,050.857
18.25	8,843.472	18.75	9,085.875	19.25	9,328.278	19.75	9,570.682	20.25	9,813.168	20.75	10,055.708
18.26	8,848.320	18.76	9,090.723	19.26	9,333.126	19.76	9,575.530	20.26	9,818.019	20.76	10,060.558
18.27	8,853.168	18.77	9,095.571	19.27	9,337.974	19.77	9,580.378	20.27	9,822.870	20.77	10,065.409
18.28	8,858.016	18.78	9,100.419	19.28	9,342.822	19.78	9,585.226	20.28	9,827.721	20.78	10,070.260
18.29	8,862.864	18.79	9,105.267	19.29	9,347.671	19.79	9,590.074	20.29	9,832.571	20.79	10,075.111
18.30	8,867.712	18.80	9,110.115	19.30	9,352.519	19.80	9,594.922	20.30	9,837.422	20.80	10,079.961
18.31	8,872.560	18.81	9,114.963	19.31	9,357.367	19.81	9,599.770	20.31	9,842.273	20.81	10,084.812
18.32	8,877.408	18.82	9,119.811	19.32	9,362.215	19.82	9,604.618	20.32	9,847.124	20.82	10,089.663
18.33	8,882.256	18.83	9,124.659	19.33	9,367.063	19.83	9,609.466	20.33	9,851.975	20.83	10,094.514
18.34	8,887.104	18.84	9,129.508	19.34	9,371.911	19.84	9,614.314	20.34	9,856.825	20.84	10,099.365
18.35	8,891.952	18.85	9,134.356	19.35	9,376.759	19.85	9,619.162	20.35	9,861.676	20.85	10,104.215
18.36	8,896.800	18.86	9,139.204	19.36	9,381.607	19.86	9,624.010	20.36	9,866.527	20.86	10,109.066
18.37	8,901.648	18.87	9,144.052	19.37	9,386.455	19.87	9,628.858	20.37	9,871.378	20.87	10,113.917
18.38	8,906.497	18.88	9,148.900	19.38	9,391.303	19.88	9,633.706	20.38	9,876.229	20.88	10,118.768
18.39	8,911.345	18.89	9,153.748	19.39	9,396.151	19.89	9,638.555	20.39	9,881.079	20.89	10,123.619
18.40	8,916.193	18.90	9,158.596	19.40	9,400.999	19.90	9,643.403	20.40	9,885.930	20.90	10,128.469
18.41	8,921.041	18.91	9,163.444	19.41	9,405.847	19.91	9,648.251	20.41	9,890.781	20.91	10,133.320
18.42	8,925.889	18.92	9,168.292	19.42	9,410.695	19.92	9,653.099	20.42	9,895.632	20.92	10,138.171
18.43	8,930.737	18.93	9,173.140	19.43	9,415.543	19.93	9,657.947	20.43	9,900.482	20.93	10,143.022
18.44	8,935.585	18.94	9,177.988	19.44	9,420.392	19.94	9,662.795	20.44	9,905.333	20.94	10,147.872
18.45	8,940.433	18.95	9,182.836	19.45	9,425.240	19.95	9,667.645	20.45	9,910.184	20.95	10,152.723
18.46	8,945.281	18.96	9,187.684	19.46	9,430.088	19.96	9,672.496	20.46	9,915.035	20.96	10,157.574
18.47	8,950.129	18.97	9,192.532	19.47	9,434.936	19.97	9,677.346	20.47	9,919.886	20.97	10,162.425
18.48	8,954.977	18.98	9,197.380	19.48	9,439.784	19.98	9,682.197	20.48	9,924.736	20.98	10,167.276
18.49	8,959.825	18.99	9,202.229	19.49	9,444.632	19.99	9,687.048	20.49	9,929.587	20.99	10,172.126



Keyera Rimbey Edmonton Terminal

TANK # 104

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.272 Metres ; Located 108 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
21.00	10,176.977	21.50	10,419.516	22.00	10,662.056	22.50	10,904.595	23.00	11,147.143	23.50	11,389.810
21.01	10,181.828	21.51	10,424.367	22.01	10,666.906	22.51	10,909.446	23.01	11,151.996	23.51	11,394.663
21.02	10,186.679	21.52	10,429.218	22.02	10,671.757	22.52	10,914.296	23.02	11,156.850	23.52	11,399.517
21.03	10,191.530	21.53	10,434.069	22.03	10,676.608	22.53	10,919.147	23.03	11,161.703	23.53	11,404.370
21.04	10,196.380	21.54	10,438.919	22.04	10,681.459	22.54	10,923.998	23.04	11,166.556	23.54	11,409.223
21.05	10,201.231	21.55	10,443.770	22.05	10,686.309	22.55	10,928.849	23.05	11,171.410	23.55	11,414.077
21.06	10,206.082	21.56	10,448.621	22.06	10,691.160	22.56	10,933.699	23.06	11,176.263	23.56	11,418.930
21.07	10,210.933	21.57	10,453.472	22.07	10,696.011	22.57	10,938.550	23.07	11,181.116	23.57	11,423.783
21.08	10,215.783	21.58	10,458.323	22.08	10,700.862	22.58	10,943.401	23.08	11,185.970	23.58	11,428.637
21.09	10,220.634	21.59	10,463.173	22.09	10,705.713	22.59	10,948.252	23.09	11,190.823	23.59	11,433.490
21.10	10,225.485	21.60	10,468.024	22.10	10,710.563	22.60	10,953.103	23.10	11,195.676	23.60	11,438.343
21.11	10,230.336	21.61	10,472.875	22.11	10,715.414	22.61	10,957.953	23.11	11,200.530	23.61	11,443.197
21.12	10,235.187	21.62	10,477.726	22.12	10,720.265	22.62	10,962.804	23.12	11,205.383	23.62	11,448.050
21.13	10,240.037	21.63	10,482.577	22.13	10,725.116	22.63	10,967.655	23.13	11,210.236	23.63	11,452.903
21.14	10,244.888	21.64	10,487.427	22.14	10,729.967	22.64	10,972.506	23.14	11,215.090	23.64	11,457.757
21.15	10,249.739	21.65	10,492.278	22.15	10,734.817	22.65	10,977.357	23.15	11,219.943	23.65	11,462.610
21.16	10,254.590	21.66	10,497.129	22.16	10,739.668	22.66	10,982.207	23.16	11,224.796	23.66	11,467.463
21.17	10,259.440	21.67	10,501.980	22.17	10,744.519	22.67	10,987.058	23.17	11,229.650	23.67	11,472.317
21.18	10,264.291	21.68	10,506.830	22.18	10,749.370	22.68	10,991.909	23.18	11,234.503	23.68	11,477.170
21.19	10,269.142	21.69	10,511.681	22.19	10,754.220	22.69	10,996.760	23.19	11,239.356	23.69	11,482.023
21.20	10,273.993	21.70	10,516.532	22.20	10,759.071	22.70	11,001.610	23.20	11,244.210	23.70	11,486.877
21.21	10,278.844	21.71	10,521.383	22.21	10,763.922	22.71	11,006.461	23.21	11,249.063	23.71	11,491.730
21.22	10,283.694	21.72	10,526.234	22.22	10,768.773	22.72	11,011.312	23.22	11,253.916	23.72	11,496.583
21.23	10,288.545	21.73	10,531.084	22.23	10,773.624	22.73	11,016.163	23.23	11,258.770	23.73	11,501.437
21.24	10,293.396	21.74	10,535.935	22.24	10,778.474	22.74	11,021.014	23.24	11,263.623	23.74	11,506.290
21.25	10,298.247	21.75	10,540.786	22.25	10,783.325	22.75	11,025.864	23.25	11,268.476	23.75	11,511.143
21.26	10,303.098	21.76	10,545.637	22.26	10,788.176	22.76	11,030.715	23.26	11,273.330	23.76	11,515.997
21.27	10,307.948	21.77	10,550.488	22.27	10,793.027	22.77	11,035.566	23.27	11,278.183	23.77	11,520.850
21.28	10,312.799	21.78	10,555.338	22.28	10,797.878	22.78	11,040.417	23.28	11,283.036	23.78	11,525.703
21.29	10,317.650	21.79	10,560.189	22.29	10,802.728	22.79	11,045.267	23.29	11,287.890	23.79	11,530.557
21.30	10,322.501	21.80	10,565.040	22.30	10,807.579	22.80	11,050.118	23.30	11,292.743	23.80	11,535.410
21.31	10,327.351	21.81	10,569.891	22.31	10,812.430	22.81	11,054.969	23.31	11,297.596	23.81	11,540.263
21.32	10,332.202	21.82	10,574.741	22.32	10,817.281	22.82	11,059.820	23.32	11,302.450	23.82	11,545.117
21.33	10,337.053	21.83	10,579.592	22.33	10,822.131	22.83	11,064.671	23.33	11,307.303	23.83	11,549.970
21.34	10,341.904	21.84	10,584.443	22.34	10,826.982	22.84	11,069.521	23.34	11,312.156	23.84	11,554.823
21.35	10,346.755	21.85	10,589.294	22.35	10,831.833	22.85	11,074.372	23.35	11,317.010	23.85	11,559.677
21.36	10,351.605	21.86	10,594.145	22.36	10,836.684	22.86	11,079.223	23.36	11,321.863	23.86	11,564.530
21.37	10,356.456	21.87	10,598.995	22.37	10,841.535	22.87	11,084.074	23.37	11,326.716	23.87	11,569.383
21.38	10,361.307	21.88	10,603.846	22.38	10,846.385	22.88	11,088.925	23.38	11,331.570	23.88	11,574.237
21.39	10,366.158	21.89	10,608.697	22.39	10,851.236	22.89	11,093.775	23.39	11,336.423	23.89	11,579.090
21.40	10,371.009	21.90	10,613.548	22.40	10,856.087	22.90	11,098.626	23.40	11,341.276	23.90	11,583.943
21.41	10,375.859	21.91	10,618.398	22.41	10,860.938	22.91	11,103.477	23.41	11,346.130	23.91	11,588.797
21.42	10,380.710	21.92	10,623.249	22.42	10,865.788	22.92	11,108.328	23.42	11,350.983	23.92	11,593.650
21.43	10,385.561	21.93	10,628.100	22.43	10,870.639	22.93	11,113.178	23.43	11,355.836	23.93	11,598.503
21.44	10,390.412	21.94	10,632.951	22.44	10,875.490	22.94	11,118.029	23.44	11,360.690	23.94	11,603.357
21.45	10,395.262	21.95	10,637.802	22.45	10,880.341	22.95	11,122.880	23.45	11,365.543	23.95	11,608.210
21.46	10,400.113	21.96	10,642.652	22.46	10,885.192	22.96	11,127.731	23.46	11,370.396	23.96	11,613.063
21.47	10,404.964	21.97	10,647.503	22.47	10,890.042	22.97	11,132.583	23.47	11,375.250	23.97	11,617.917
21.48	10,409.815	21.98	10,652.354	22.48	10,894.893	22.98	11,137.436	23.48	11,380.103	23.98	11,622.770
21.49	10,414.666	21.99	10,657.205	22.49	10,899.744	22.99	11,142.290	23.49	11,384.957	23.99	11,627.623

Action Number P2190102940 - Exhibit G



Keyera Rimbey Edmonton Terminal

TANK # 104

Sherwood Park, AB

775 kg/m³ @ 20°C

Cone Roof Tank - Nominal Dimensions : 24.840 Metres (D) X 26.000 Metres (H)

INNAGE TABLE

Reference Gauge Height - 26.272 Metres ; Located 108 cm to Benchmark				Height in Centimetres; Capacity in Cubic Metres			
24.00	SF 11631.659	24.50	11,875.144	25.00	12,117.811	25.50	12,360.478
24.01	11,637.330	24.51	11,879.997	25.01	12,122.664	25.51	12,365.332
24.02	11,642.183	24.52	11,884.850	25.02	12,127.517	25.52	12,370.185
24.03	11,647.037	24.53	11,889.704	25.03	12,132.371	25.53	12,375.039
24.04	11,651.890	24.54	11,894.557	25.04	12,137.224	25.54	12,379.892
24.05	11,656.744	24.55	11,899.410	25.05	12,142.077	25.55	12,384.745
24.06	11,661.597	24.56	11,904.264	25.06	12,146.931	25.56	12,389.599
24.07	11,666.450	24.57	11,909.117	25.07	12,151.784	25.57	12,394.452
24.08	11,671.304	24.58	11,913.970	25.08	12,156.637	25.58	12,399.305
24.09	11,676.157	24.59	11,918.824	25.09	12,161.491	25.59	12,404.159
24.10	11,681.010	24.60	11,923.677	25.10	12,166.344	25.60	12,409.012
24.11	11,685.864	24.61	11,928.530	25.11	12,171.197	25.61	12,413.866
24.12	11,690.717	24.62	11,933.384	25.12	12,176.051	25.62	12,418.719
24.13	11,695.570	24.63	11,938.237	25.13	12,180.904	25.63	12,423.572
24.14	11,700.424	24.64	11,943.091	25.14	12,185.757	25.64	12,428.426
24.15	11,705.277	24.65	11,947.944	25.15	12,190.611	25.65	12,433.279
24.16	11,710.130	24.66	11,952.797	25.16	12,195.464	25.66	12,438.133
24.17	11,714.984	24.67	11,957.651	25.17	12,200.317	25.67	12,442.986
24.18	11,719.837	24.68	11,962.504	25.18	12,205.171	25.68	12,447.839
24.19	11,724.690	24.69	OF 11966.641	25.19	12,210.024	25.69	12,452.693
24.20	11,729.544	24.70	11,972.211	25.20	12,214.878	25.70	12,457.546
24.21	11,734.397	24.71	11,977.064	25.21	12,219.731	25.71	12,462.400
24.22	11,739.250	24.72	11,981.917	25.22	12,224.584	25.72	12,467.253
24.23	11,744.104	24.73	11,986.771	25.23	12,229.438	25.73	12,472.106
24.24	11,748.957	24.74	11,991.624	25.24	12,234.291	25.74	12,476.960
24.25	11,753.810	24.75	11,996.477	25.25	12,239.144	25.75	12,481.813
24.26	11,758.664	24.76	12,001.331	25.26	12,243.998	25.76	12,486.667
24.27	11,763.517	24.77	12,006.184	25.27	12,248.851	25.77	12,491.520
24.28	11,768.370	24.78	12,011.037	25.28	12,253.704	25.78	12,496.373
24.29	11,773.224	24.79	12,015.891	25.29	12,258.558	25.79	12,501.227
24.30	11,778.077	24.80	12,020.744	25.30	12,263.411	25.80	12,506.080
24.31	11,782.930	24.81	12,025.597	25.31	12,268.264	25.81	12,510.934
24.32	11,787.784	24.82	12,030.451	25.32	12,273.118	25.82	12,515.787
24.33	11,792.637	24.83	12,035.304	25.33	12,277.971	25.83	12,520.640
24.34	11,797.490	24.84	12,040.157	25.34	12,282.824	25.84	12,525.494
24.35	11,802.344	24.85	12,045.011	25.35	12,287.678	25.85	12,530.347
24.36	11,807.197	24.86	12,049.864	25.36	12,292.531	25.86	12,535.200
24.37	11,812.050	24.87	12,054.717	25.37	12,297.384	25.87	12,540.054
24.38	11,816.904	24.88	12,059.571	25.38	12,302.238	25.88	12,544.907
24.39	11,821.757	24.89	12,064.424	25.39	12,307.091	25.89	12,549.761
24.40	11,826.610	24.90	12,069.277	25.40	12,311.944	25.90	12,554.614
24.41	11,831.464	24.91	12,074.131	25.41	12,316.798	25.91	12,559.467
24.42	11,836.317	24.92	12,078.984	25.42	12,321.651	25.92	12,564.321
24.43	11,841.170	24.93	12,083.837	25.43	12,326.505	25.93	12,569.174
24.44	11,846.024	24.94	12,088.691	25.44	12,331.358	25.94	12,574.028
24.45	11,850.877	24.95	12,093.544	25.45	12,336.211	25.95	12,578.881
24.46	11,855.730	24.96	12,098.397	25.46	12,341.065	25.96	12,583.734
24.47	11,860.584	24.97	12,103.251	25.47	12,345.918	25.97	12,583.734
24.48	11,865.437	24.98	12,108.104	25.48	12,350.772	25.98	
24.49	11,870.290	24.99	12,112.957	25.49	12,355.625	25.99	

Safe Fill Height @ 24.000 Metres
Overfill Height @ 24.690 Metres

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Keyera Rimbey Edmonton Terminal
Sherwood Park, AB

General Information

Tank Number	104
Date of Strapping Data	11/28/2016
Year Built	2016
Product in Service	Condensate
Product Service Density	0.775 g/cc (SG)

Tank Dimensions

Nominal Diameter	24.840 Metres
Nominal Height	26.000 Metres
Measured Tank Height	25.960 Metres
Tank Tilt	
Gauge Point Information	South side of flange
Reference Gauge Height	26.272 Metres
Horizontal To Gauge	1080 Millimetres

Roof & Bottom Survey

Roof Type	Cone
Floating Roof Shape	
Floating Roof Weight	5635.885 Kilograms
Roof Landed Height	107 Centimetres
Roof Full Floating Height	107 Centimetres
Bottom Description	Physical Survey

Report Constraints

Main Increment	Centimetres
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	24.000 Metres
Overflow Or Foamline	24.690 Metres

Keyera Rimbey Edmonton Terminal
Edmonton, AB

Strap Correction to 60°F

Shell Temperature (°F)	26.6	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 0.99994834

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	77.935	255.693	0.000	255.680
To				
9	77.935	255.693	0.000	255.680

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	656.000	0.000	0.000	77.931	255.680
2	658.750	2.750	17.279	77.949	255.737
3	660.100	4.100	25.761	77.957	255.765
4	661.750	5.750	36.128	77.967	255.799
5	666.650	10.650	66.916	77.998	255.900
6	667.600	11.600	72.885	78.004	255.919
7	667.200	11.200	70.372	78.002	255.911
8	668.400	12.400	77.911	78.009	255.936
9	669.400	13.400	84.195	78.015	255.956

Keyera Edmonton Terminal
Sherwood Park, AB

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	255.680	17.000 Millimetres	3.026 Metres	3.026 Metres
2	255.737	15.000 Millimetres	2.416 Metres	5.442 Metres
3	255.765	13.000 Millimetres	2.412 Metres	7.854 Metres
4	255.799	11.000 Millimetres	3.024 Metres	10.878 Metres
5	255.900	9.000 Millimetres	3.022 Metres	13.900 Metres
6	255.919	8.000 Millimetres	3.026 Metres	16.926 Metres
7	255.911	6.000 Millimetres	3.017 Metres	19.943 Metres
8	255.936	6.000 Millimetres	3.022 Metres	22.965 Metres
9	255.956	6.000 Millimetres	2.995 Metres	25.960 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
2	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
3	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
4	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
5	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
6	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
7	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
8	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
9	Butt Weld	0	0.000 Millimetres	0.000 Millimetres

Keyera Edmonton Terminal
Sherwood Park, AB

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	255.680	0.669	0
2.00	62.428	1.000	0	255.737	0.591	0
3.00	62.428	1.000	0	255.765	0.512	0
4.00	62.428	1.000	0	255.799	0.433	0
5.00	62.428	1.000	0	255.900	0.354	0
6.00	62.428	1.000	0	255.919	0.315	0
7.00	62.428	1.000	0	255.911	0.236	0
8.00	62.428	1.000	0	255.936	0.236	0
9.00	62.428	1.000	0	255.956	0.236	0

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Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2*D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	255.680	0.000	0.000	0.000	255.680
2	255.737	0.000	0.000	0.000	255.737
3	255.765	0.000	0.000	0.000	255.765
4	255.799	0.000	0.000	0.000	255.799
5	255.900	0.000	0.000	0.000	255.900
6	255.919	0.000	0.000	0.000	255.919
7	255.911	0.000	0.000	0.000	255.911
8	255.936	0.000	0.000	0.000	255.936
9	255.956	0.000	0.000	0.000	255.956

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Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Centimetre
1	255.680	0.004	255.685	4.833
2	255.737	0.008	255.744	4.835
3	255.765	0.009	255.773	4.836
4	255.799	0.013	255.811	4.838
5	255.900	0.016	255.915	4.842
6	255.919	0.018	255.937	4.843
7	255.911	0.024	255.934	4.843
8	255.936	0.024	255.959	4.844
9	255.956	0.023	255.980	4.844

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Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} + \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Centimetre	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 68 °F 1.0001032
1	4.833	0.001	0.000	4.833	4.834
2	4.835	0.001	0.001	4.836	4.837
3	4.836	0.001	0.001	4.838	4.838
4	4.838	0.001	0.002	4.840	4.840
5	4.842	0.001	0.003	4.845	4.845
6	4.843	0.001	0.004	4.847	4.847
7	4.843	0.002	0.005	4.848	4.848
8	4.844	0.002	0.007	4.851	4.851
9	4.844	0.000	0.009	4.853	4.854

Reference Gauge Height - 16.954 Metres ; Located 81 cm to Benchmark				Height in Centimetres; Capacity in Cubic Metres							
.00*	296.025	.50	1,128.838	1.00	1,962.401	1.50	2,680.987	2.00	3,515.230	2.50	4,349.473
.01*	312.469	.51	1,145.488	1.01	1,979.087	1.51	2,697.672	2.01	3,531.915	2.51	4,366.157
.02*	329.006	.52	1,162.137	1.02	1,995.772	1.52	2,714.357	2.02	3,548.600	2.52	4,382.842
.03*	345.564	.53	1,178.786	1.03	2,012.457	1.53	2,731.042	2.03	3,565.285	2.53	4,399.527
.04*	362.120	.54	1,195.434	1.04	2,029.142	1.54	2,747.727	2.04	3,581.969	2.54	4,416.212
.05*	378.783	.55	1,212.082	1.05	2,045.827	1.55	2,764.412	2.05	3,598.654	2.55	4,432.897
.06*	395.465	.56	1,228.730	1.06	2,062.512	1.56	2,781.097	2.06	3,615.339	2.56	4,449.582
.07*	412.146	.57	1,245.378	1.07	2,079.197	1.57	2,797.781	2.07	3,632.024	2.57	4,466.267
.08*	428.828	.58	1,262.026	1.08	2,088.653	1.58	2,814.466	2.08	3,648.709	2.58	4,482.951
.09*	445.510	.59	1,278.674	1.09	2,098.109	1.59	2,831.151	2.09	3,665.394	2.59	4,499.636
.10*	462.191	.60	1,295.322	1.10	2,107.565	1.60	2,847.836	2.10	3,682.079	2.60	4,516.321
.11*	478.873	.61	1,311.991	1.11	2,117.021	1.61	2,864.521	2.11	3,698.763	2.61	4,533.006
.12*	495.554	.62	1,328.661	1.12	2,126.477	1.62	2,881.206	2.12	3,715.448	2.62	4,549.691
.13*	512.236	.63	1,345.331	1.13	2,135.933	1.63	2,897.891	2.13	3,732.133	2.63	4,566.376
.14*	528.917	.64	1,362.001	1.14	2,145.389	1.64	2,914.575	2.14	3,748.818	2.64	4,583.060
.15*	545.598	.65	1,378.671	1.15	2,154.845	1.65	2,931.260	2.15	3,765.503	2.65	4,599.745
.16*	562.280	.66	1,395.341	1.16	2,164.301	1.66	2,947.945	2.16	3,782.188	2.66	4,616.430
.17*	578.961	.67	1,412.011	1.17	2,173.757	1.67	2,964.630	2.17	3,798.872	2.67	4,633.115
.18*	595.642	.68	1,428.681	1.18	2,183.212	1.68	2,981.315	2.18	3,815.557	2.68	4,649.800
.19*	612.324	.69	1,445.351	1.19	2,192.668	1.69	2,998.000	2.19	3,832.242	2.69	4,666.485
.20*	629.004	.70	1,462.023	1.20	2,202.124	1.70	3,014.685	2.20	3,848.927	2.70	4,683.170
.21*	645.683	.71	1,478.695	1.21	2,211.580	1.71	3,031.369	2.21	3,865.612	2.71	4,699.854
.22	662.363	.72	1,495.367	1.22	2,221.036	1.72	3,048.054	2.22	3,882.297	2.72	4,716.539
.23	679.043	.73	1,512.039	1.23	2,230.492	1.73	3,064.739	2.23	3,898.982	2.73	4,733.224
.24	695.724	.74	1,528.711	1.24	2,247.177	1.74	3,081.424	2.24	3,915.666	2.74	4,749.909
.25	712.404	.75	1,545.383	1.25	2,263.862	1.75	3,098.109	2.25	3,932.351	2.75	4,766.594
.26	729.083	.76	1,562.055	1.26	2,280.547	1.76	3,114.794	2.26	3,949.036	2.76	4,783.279
.27	745.763	.77	1,578.726	1.27	2,297.232	1.77	3,131.478	2.27	3,965.721	2.77	4,799.964
.28	762.440	.78	1,595.398	1.28	2,313.917	1.78	3,148.163	2.28	3,982.406	2.78	4,816.648
.29	779.118	.79	1,612.070	1.29	2,330.602	1.79	3,164.848	2.29	3,999.091	2.79	4,833.333
.30	795.795	.80	1,628.742	1.30	2,347.287	1.80	3,181.533	2.30	4,015.776	2.80	4,850.018
.31	812.472	.81	1,645.414	1.31	2,363.972	1.81	3,198.218	2.31	4,032.460	2.81	4,866.703
.32	829.147	.82	1,662.086	1.32	2,380.657	1.82	3,214.903	2.32	4,049.145	2.82	4,883.388
.33	845.821	.83	1,678.758	1.33	2,397.342	1.83	3,231.588	2.33	4,065.830	2.83	4,900.073
.34	862.485	.84	1,695.433	1.34	2,414.027	1.84	3,248.272	2.34	4,082.515	2.84	4,916.757
.35	879.127	.85	1,712.118	1.35	2,430.712	1.85	3,264.957	2.35	4,099.200	2.85	4,933.442
.36	895.772	.86	1,728.804	1.36	2,447.397	1.86	3,281.642	2.36	4,115.885	2.86	4,950.127
.37	912.417	.87	1,745.489	1.37	2,464.082	1.87	3,298.327	2.37	4,132.570	2.87	4,966.812
.38	929.062	.88	1,762.176	1.38	2,480.767	1.88	3,315.012	2.38	4,149.254	2.88	4,983.497
.39	945.707	.89	1,778.862	1.39	2,497.452	1.89	3,331.697	2.39	4,165.939	2.89	5,000.182
.40	962.353	.90	1,795.548	1.40	2,514.137	1.90	3,348.382	2.40	4,182.624	2.90	5,016.867
.41	979.000	.91	1,812.234	1.41	2,530.822	1.91	3,365.066	2.41	4,199.309	2.91	5,033.551
.42	995.647	.92	1,828.921	1.42	2,547.507	1.92	3,381.751	2.42	4,215.994	2.92	5,050.236
.43	1,012.294	.93	1,845.606	1.43	2,564.192	1.93	3,398.436	2.43	4,232.679	2.93	5,066.921
.44	1,028.942	.94	1,862.291	1.44	2,580.877	1.94	3,415.121	2.44	4,249.363	2.94	5,083.606
.45	1,045.591	.95	1,878.976	1.45	2,597.562	1.95	3,431.806	2.45	4,266.048	2.95	5,100.291
.46	1,062.241	.96	1,895.661	1.46	2,614.247	1.96	3,448.491	2.46	4,282.733	2.96	5,116.976
.47	1,078.890	.97	1,912.346	1.47	2,630.932	1.97	3,465.175	2.47	4,299.418	2.97	5,133.661
.48	1,095.540	.98	1,929.031	1.48	2,647.617	1.98	3,481.860	2.48	4,316.103	2.98	5,150.345
.49	1,112.189	.99	1,945.716	1.49	2,664.302	1.99	3,498.545	2.49	4,332.788	2.99	5,167.030

Strike Point located 21 Centimetres above intersection of shell & bottom.

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* Bottom volume based on Physical Survey Calculation. Average Centimetres not applicable

Safe Fill Height @ 13.71 Metres (44' 11 3/4")

Volumes reflect a Shell Temperature of 15°C

Overfill Height @ 14.22 Metres (46' 8")

Displacement for Low Floating Roof has been deducted

A total of 115.6659 Cubic Metres were deducted between 102 & 128 Centimetres based on a weight of 108726 Kilograms and a density of 940 kg/m³. Gauged quantities above 128 Centimetres reflect this deduction but shall be adjusted for a differing specific gravity at 15°C according to the following formula (see page 2).

Reference Gauge Height - 16.954 Metres ; Located 81 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
3.00	5,183.715	3.50	6,018.151	4.00	6,852.599	4.50	7,687.046	5.00	8,521.493	5.50	9,355.940
3.01	5,200.400	3.51	6,034.840	4.01	6,869.287	4.51	7,703.735	5.01	8,538.182	5.51	9,372.629
3.02	5,217.085	3.52	6,051.529	4.02	6,885.976	4.52	7,720.424	5.02	8,554.871	5.52	9,389.318
3.03	5,233.771	3.53	6,068.218	4.03	6,902.665	4.53	7,737.113	5.03	8,571.560	5.53	9,406.007
3.04	5,250.460	3.54	6,084.907	4.04	6,919.354	4.54	7,753.802	5.04	8,588.249	5.54	9,422.696
3.05	5,267.149	3.55	6,101.596	4.05	6,936.043	4.55	7,770.491	5.05	8,604.938	5.55	9,439.385
3.06	5,283.838	3.56	6,118.285	4.06	6,952.732	4.56	7,787.179	5.06	8,621.627	5.56	9,456.074
3.07	5,300.527	3.57	6,134.974	4.07	6,969.421	4.57	7,803.868	5.07	8,638.316	5.57	9,472.763
3.08	5,317.216	3.58	6,151.663	4.08	6,986.110	4.58	7,820.557	5.08	8,655.005	5.58	9,489.452
3.09	5,333.905	3.59	6,168.352	4.09	7,002.799	4.59	7,837.246	5.09	8,671.694	5.59	9,506.141
3.10	5,350.593	3.60	6,185.041	4.10	7,019.488	4.60	7,853.935	5.10	8,688.382	5.60	9,522.830
3.11	5,367.282	3.61	6,201.730	4.11	7,036.177	4.61	7,870.624	5.11	8,705.071	5.61	9,539.519
3.12	5,383.971	3.62	6,218.419	4.12	7,052.866	4.62	7,887.313	5.12	8,721.760	5.62	9,556.208
3.13	5,400.660	3.63	6,235.108	4.13	7,069.555	4.63	7,904.002	5.13	8,738.449	5.63	9,572.897
3.14	5,417.349	3.64	6,251.796	4.14	7,086.244	4.64	7,920.691	5.14	8,755.138	5.64	9,589.586
3.15	5,434.038	3.65	6,268.485	4.15	7,102.933	4.65	7,937.380	5.15	8,771.827	5.65	9,606.274
3.16	5,450.727	3.66	6,285.174	4.16	7,119.622	4.66	7,954.069	5.16	8,788.516	5.66	9,622.963
3.17	5,467.416	3.67	6,301.863	4.17	7,136.311	4.67	7,970.758	5.17	8,805.205	5.67	9,639.652
3.18	5,484.105	3.68	6,318.552	4.18	7,153.000	4.68	7,987.447	5.18	8,821.894	5.68	9,656.341
3.19	5,500.794	3.69	6,335.241	4.19	7,169.688	4.69	8,004.136	5.19	8,838.583	5.69	9,673.030
3.20	5,517.483	3.70	6,351.930	4.20	7,186.377	4.70	8,020.825	5.20	8,855.272	5.70	9,689.719
3.21	5,534.172	3.71	6,368.619	4.21	7,203.066	4.71	8,037.514	5.21	8,871.961	5.71	9,706.408
3.22	5,550.861	3.72	6,385.308	4.22	7,219.755	4.72	8,054.203	5.22	8,888.650	5.72	9,723.097
3.23	5,567.550	3.73	6,401.997	4.23	7,236.444	4.73	8,070.892	5.23	8,905.339	5.73	9,739.786
3.24	5,584.239	3.74	6,418.686	4.24	7,253.133	4.74	8,087.580	5.24	8,922.028	5.74	9,756.475
3.25	5,600.928	3.75	6,435.375	4.25	7,269.822	4.75	8,104.269	5.25	8,938.717	5.75	9,773.164
3.26	5,617.617	3.76	6,452.064	4.26	7,286.511	4.76	8,120.958	5.26	8,955.406	5.76	9,789.853
3.27	5,634.306	3.77	6,468.753	4.27	7,303.200	4.77	8,137.647	5.27	8,972.095	5.77	9,806.542
3.28	5,650.994	3.78	6,485.442	4.28	7,319.889	4.78	8,154.336	5.28	8,988.784	5.78	9,823.231
3.29	5,667.683	3.79	6,502.131	4.29	7,336.578	4.79	8,171.025	5.29	9,005.472	5.79	9,839.920
3.30	5,684.372	3.80	6,518.820	4.30	7,353.267	4.80	8,187.714	5.30	9,022.161	5.80	9,856.609
3.31	5,701.061	3.81	6,535.509	4.31	7,369.956	4.81	8,204.403	5.31	9,038.850	5.81	9,873.298
3.32	5,717.750	3.82	6,552.198	4.32	7,386.645	4.82	8,221.092	5.32	9,055.539	5.82	9,889.987
3.33	5,734.439	3.83	6,568.886	4.33	7,403.334	4.83	8,237.781	5.33	9,072.228	5.83	9,906.675
3.34	5,751.128	3.84	6,585.575	4.34	7,420.023	4.84	8,254.470	5.34	9,088.917	5.84	9,923.364
3.35	5,767.817	3.85	6,602.264	4.35	7,436.712	4.85	8,271.159	5.35	9,105.606	5.85	9,940.053
3.36	5,784.506	3.86	6,618.953	4.36	7,453.401	4.86	8,287.848	5.36	9,122.295	5.86	9,956.742
3.37	5,801.195	3.87	6,635.642	4.37	7,470.089	4.87	8,304.537	5.37	9,138.984	5.87	9,973.431
3.38	5,817.884	3.88	6,652.331	4.38	7,486.778	4.88	8,321.226	5.38	9,155.673	5.88	9,990.120
3.39	5,834.573	3.89	6,669.020	4.39	7,503.467	4.89	8,337.915	5.39	9,172.362	5.89	10,006.809
3.40	5,851.262	3.90	6,685.709	4.40	7,520.156	4.90	8,354.604	5.40	9,189.051	5.90	10,023.498
3.41	5,867.951	3.91	6,702.398	4.41	7,536.845	4.91	8,371.293	5.41	9,205.740	5.91	10,040.187
3.42	5,884.640	3.92	6,719.087	4.42	7,553.534	4.92	8,387.981	5.42	9,222.429	5.92	10,056.876
3.43	5,901.329	3.93	6,735.776	4.43	7,570.223	4.93	8,404.670	5.43	9,239.118	5.93	10,073.565
3.44	5,918.018	3.94	6,752.465	4.44	7,586.912	4.94	8,421.359	5.44	9,255.807	5.94	10,090.254
3.45	5,934.707	3.95	6,769.154	4.45	7,603.601	4.95	8,438.048	5.45	9,272.496	5.95	10,106.943
3.46	5,951.395	3.96	6,785.843	4.46	7,620.290	4.96	8,454.737	5.46	9,289.185	5.96	10,123.632
3.47	5,968.084	3.97	6,802.532	4.47	7,636.979	4.97	8,471.426	5.47	9,305.873	5.97	10,140.321
3.48	5,984.773	3.98	6,819.221	4.48	7,653.668	4.98	8,488.115	5.48	9,322.562	5.98	10,157.010
3.49	6,001.462	3.99	6,835.910	4.49	7,670.357	4.99	8,504.804	5.49	9,339.251	5.99	10,173.699

Reference Gauge Height - 16.954 Metres ; Located 81 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
6.00	10,190.388	6.50	11,025.370	7.00	11,860.408	7.50	12,695.445	8.00	13,530.482	8.50	14,365.557
6.01	10,207.077	6.51	11,042.071	7.01	11,877.108	7.51	12,712.145	8.01	13,547.183	8.51	14,382.268
6.02	10,223.765	6.52	11,058.772	7.02	11,893.809	7.52	12,728.846	8.02	13,563.883	8.52	14,398.979
6.03	10,240.454	6.53	11,075.473	7.03	11,910.510	7.53	12,745.547	8.03	13,580.584	8.53	14,415.689
6.04	10,257.143	6.54	11,092.173	7.04	11,927.211	7.54	12,762.248	8.04	13,597.285	8.54	14,432.400
6.05	10,273.837	6.55	11,108.874	7.05	11,943.911	7.55	12,778.948	8.05	13,613.986	8.55	14,449.111
6.06	10,290.538	6.56	11,125.575	7.06	11,960.612	7.56	12,795.649	8.06	13,630.686	8.56	14,465.821
6.07	10,307.238	6.57	11,142.276	7.07	11,977.313	7.57	12,812.350	8.07	13,647.387	8.57	14,482.532
6.08	10,323.939	6.58	11,158.976	7.08	11,994.014	7.58	12,829.051	8.08	13,664.088	8.58	14,499.243
6.09	10,340.640	6.59	11,175.677	7.09	12,010.714	7.59	12,845.751	8.09	13,680.789	8.59	14,515.954
6.10	10,357.341	6.60	11,192.378	7.10	12,027.415	7.60	12,862.452	8.10	13,697.489	8.60	14,532.664
6.11	10,374.041	6.61	11,209.079	7.11	12,044.116	7.61	12,879.153	8.11	13,714.190	8.61	14,549.375
6.12	10,390.742	6.62	11,225.779	7.12	12,060.817	7.62	12,895.854	8.12	13,730.891	8.62	14,566.086
6.13	10,407.443	6.63	11,242.480	7.13	12,077.517	7.63	12,912.554	8.13	13,747.592	8.63	14,582.797
6.14	10,424.144	6.64	11,259.181	7.14	12,094.218	7.64	12,929.255	8.14	13,764.292	8.64	14,599.507
6.15	10,440.844	6.65	11,275.882	7.15	12,110.919	7.65	12,945.956	8.15	13,780.993	8.65	14,616.218
6.16	10,457.545	6.66	11,292.582	7.16	12,127.619	7.66	12,962.657	8.16	13,797.694	8.66	14,632.929
6.17	10,474.246	6.67	11,309.283	7.17	12,144.320	7.67	12,979.357	8.17	13,814.395	8.67	14,649.640
6.18	10,490.947	6.68	11,325.984	7.18	12,161.021	7.68	12,996.058	8.18	13,831.095	8.68	14,666.350
6.19	10,507.647	6.69	11,342.685	7.19	12,177.722	7.69	13,012.759	8.19	13,847.796	8.69	14,683.061
6.20	10,524.348	6.70	11,359.385	7.20	12,194.422	7.70	13,029.460	8.20	13,864.497	8.70	14,699.772
6.21	10,541.049	6.71	11,376.086	7.21	12,211.123	7.71	13,046.160	8.21	13,881.198	8.71	14,716.483
6.22	10,557.750	6.72	11,392.787	7.22	12,227.824	7.72	13,062.861	8.22	13,897.898	8.72	14,733.193
6.23	10,574.450	6.73	11,409.488	7.23	12,244.525	7.73	13,079.562	8.23	13,914.599	8.73	14,749.904
6.24	10,591.151	6.74	11,426.188	7.24	12,261.225	7.74	13,096.263	8.24	13,931.300	8.74	14,766.615
6.25	10,607.852	6.75	11,442.889	7.25	12,277.926	7.75	13,112.963	8.25	13,948.000	8.75	14,783.326
6.26	10,624.553	6.76	11,459.590	7.26	12,294.627	7.76	13,129.664	8.26	13,964.701	8.76	14,800.036
6.27	10,641.253	6.77	11,476.291	7.27	12,311.328	7.77	13,146.365	8.27	13,981.402	8.77	14,816.747
6.28	10,657.954	6.78	11,492.991	7.28	12,328.028	7.78	13,163.066	8.28	13,998.103	8.78	14,833.458
6.29	10,674.655	6.79	11,509.692	7.29	12,344.729	7.79	13,179.766	8.29	14,014.803	8.79	14,850.168
6.30	10,691.356	6.80	11,526.393	7.30	12,361.430	7.80	13,196.467	8.30	14,031.504	8.80	14,866.879
6.31	10,708.056	6.81	11,543.093	7.31	12,378.131	7.81	13,213.168	8.31	14,048.205	8.81	14,883.590
6.32	10,724.757	6.82	11,559.794	7.32	12,394.831	7.82	13,229.869	8.32	14,064.906	8.82	14,900.301
6.33	10,741.458	6.83	11,576.495	7.33	12,411.532	7.83	13,246.569	8.33	14,081.606	8.83	14,917.011
6.34	10,758.159	6.84	11,593.196	7.34	12,428.233	7.84	13,263.270	8.34	14,098.307	8.84	14,933.722
6.35	10,774.859	6.85	11,609.896	7.35	12,444.934	7.85	13,279.971	8.35	14,115.008	8.85	14,950.433
6.36	10,791.560	6.86	11,626.597	7.36	12,461.634	7.86	13,296.672	8.36	14,131.709	8.86	14,967.144
6.37	10,808.261	6.87	11,643.298	7.37	12,478.335	7.87	13,313.372	8.37	14,148.409	8.87	14,983.854
6.38	10,824.962	6.88	11,659.999	7.38	12,495.036	7.88	13,330.073	8.38	14,165.110	8.88	15,000.565
6.39	10,841.662	6.89	11,676.699	7.39	12,511.737	7.89	13,346.774	8.39	14,181.811	8.89	15,017.276
6.40	10,858.363	6.90	11,693.400	7.40	12,528.437	7.90	13,363.474	8.40	14,198.512	8.90	15,033.987
6.41	10,875.064	6.91	11,710.101	7.41	12,545.138	7.91	13,380.175	8.41	14,215.212	8.91	15,050.697
6.42	10,891.764	6.92	11,726.802	7.42	12,561.839	7.92	13,396.876	8.42	14,231.913	8.92	15,067.408
6.43	10,908.465	6.93	11,743.502	7.43	12,578.540	7.93	13,413.577	8.43	14,248.614	8.93	15,084.119
6.44	10,925.166	6.94	11,760.203	7.44	12,595.240	7.94	13,430.277	8.44	14,265.315	8.94	15,100.830
6.45	10,941.867	6.95	11,776.904	7.45	12,611.941	7.95	13,446.978	8.45	14,282.015	8.95	15,117.540
6.46	10,958.567	6.96	11,793.605	7.46	12,628.642	7.96	13,463.679	8.46	14,298.716	8.96	15,134.251
6.47	10,975.268	6.97	11,810.305	7.47	12,645.343	7.97	13,480.380	8.47	14,315.425	8.97	15,150.962
6.48	10,991.969	6.98	11,827.006	7.48	12,662.043	7.98	13,497.080	8.48	14,332.136	8.98	15,167.672
6.49	11,008.670	6.99	11,843.707	7.49	12,678.744	7.99	13,513.781	8.49	14,348.846	8.99	15,184.383

Reference Gauge Height - 16.954 Metres ; Located 81 cm to Benchmark						Height in Centimetres; Capacity in Cubic Metres					
9.00	15,201.094	9.50	16,036.631	10.00	16,872.168	10.50	17,707.705	11.00	18,543.272	11.50	19,378.924
9.01	15,217.805	9.51	16,053.342	10.01	16,888.879	10.51	17,724.415	11.01	18,559.985	11.51	19,395.637
9.02	15,234.515	9.52	16,070.052	10.02	16,905.589	10.52	17,741.126	11.02	18,576.698	11.52	19,412.350
9.03	15,251.226	9.53	16,086.763	10.03	16,922.300	10.53	17,757.837	11.03	18,593.411	11.53	19,429.063
9.04	15,267.937	9.54	16,103.474	10.04	16,939.011	10.54	17,774.548	11.04	18,610.124	11.54	19,445.776
9.05	15,284.648	9.55	16,120.185	10.05	16,955.721	10.55	17,791.258	11.05	18,626.837	11.55	19,462.489
9.06	15,301.358	9.56	16,136.895	10.06	16,972.432	10.56	17,807.969	11.06	18,643.550	11.56	19,479.202
9.07	15,318.069	9.57	16,153.606	10.07	16,989.143	10.57	17,824.680	11.07	18,660.263	11.57	19,495.915
9.08	15,334.780	9.58	16,170.317	10.08	17,005.854	10.58	17,841.391	11.08	18,676.976	11.58	19,512.628
9.09	15,351.491	9.59	16,187.028	10.09	17,022.564	10.59	17,858.101	11.09	18,693.689	11.59	19,529.342
9.10	15,368.201	9.60	16,203.738	10.10	17,039.275	10.60	17,874.812	11.10	18,710.402	11.60	19,546.055
9.11	15,384.912	9.61	16,220.449	10.11	17,055.986	10.61	17,891.523	11.11	18,727.116	11.61	19,562.768
9.12	15,401.623	9.62	16,237.160	10.12	17,072.697	10.62	17,908.234	11.12	18,743.829	11.62	19,579.481
9.13	15,418.334	9.63	16,253.870	10.13	17,089.407	10.63	17,924.944	11.13	18,760.542	11.63	19,596.194
9.14	15,435.044	9.64	16,270.581	10.14	17,106.118	10.64	17,941.655	11.14	18,777.255	11.64	19,612.907
9.15	15,451.755	9.65	16,287.292	10.15	17,122.829	10.65	17,958.366	11.15	18,793.968	11.65	19,629.620
9.16	15,468.466	9.66	16,304.003	10.16	17,139.540	10.66	17,975.077	11.16	18,810.681	11.66	19,646.333
9.17	15,485.177	9.67	16,320.713	10.17	17,156.250	10.67	17,991.787	11.17	18,827.394	11.67	19,663.046
9.18	15,501.887	9.68	16,337.424	10.18	17,172.961	10.68	18,008.498	11.18	18,844.107	11.68	19,679.759
9.19	15,518.598	9.69	16,354.135	10.19	17,189.672	10.69	18,025.209	11.19	18,860.820	11.69	19,696.472
9.20	15,535.309	9.70	16,370.846	10.20	17,206.383	10.70	18,041.919	11.20	18,877.533	11.70	19,713.185
9.21	15,552.019	9.71	16,387.556	10.21	17,223.093	10.71	18,058.630	11.21	18,894.246	11.71	19,729.898
9.22	15,568.730	9.72	16,404.267	10.22	17,239.804	10.72	18,075.341	11.22	18,910.959	11.72	19,746.611
9.23	15,585.441	9.73	16,420.978	10.23	17,256.515	10.73	18,092.052	11.23	18,927.672	11.73	19,763.324
9.24	15,602.152	9.74	16,437.689	10.24	17,273.226	10.74	18,108.762	11.24	18,944.385	11.74	19,780.037
9.25	15,618.862	9.75	16,454.399	10.25	17,289.936	10.75	18,125.473	11.25	18,961.098	11.75	19,796.750
9.26	15,635.573	9.76	16,471.110	10.26	17,306.647	10.76	18,142.184	11.26	18,977.811	11.76	19,813.463
9.27	15,652.284	9.77	16,487.821	10.27	17,323.358	10.77	18,158.895	11.27	18,994.524	11.77	19,830.176
9.28	15,668.995	9.78	16,504.532	10.28	17,340.068	10.78	18,175.605	11.28	19,011.237	11.78	19,846.889
9.29	15,685.705	9.79	16,521.242	10.29	17,356.779	10.79	18,192.316	11.29	19,027.950	11.79	19,863.602
9.30	15,702.416	9.80	16,537.953	10.30	17,373.490	10.80	18,209.027	11.30	19,044.663	11.80	19,880.315
9.31	15,719.127	9.81	16,554.664	10.31	17,390.201	10.81	18,225.738	11.31	19,061.376	11.81	19,897.028
9.32	15,735.838	9.82	16,571.375	10.32	17,406.911	10.82	18,242.448	11.32	19,078.089	11.82	19,913.742
9.33	15,752.548	9.83	16,588.085	10.33	17,423.622	10.83	18,259.159	11.33	19,094.802	11.83	19,930.455
9.34	15,769.259	9.84	16,604.796	10.34	17,440.333	10.84	18,275.870	11.34	19,111.515	11.84	19,947.168
9.35	15,785.970	9.85	16,621.507	10.35	17,457.044	10.85	18,292.581	11.35	19,128.229	11.85	19,963.881
9.36	15,802.681	9.86	16,638.217	10.36	17,473.754	10.86	18,309.291	11.36	19,144.942	11.86	19,980.594
9.37	15,819.391	9.87	16,654.928	10.37	17,490.465	10.87	18,326.002	11.37	19,161.655	11.87	19,997.307
9.38	15,836.102	9.88	16,671.639	10.38	17,507.176	10.88	18,342.716	11.38	19,178.368	11.88	20,014.020
9.39	15,852.813	9.89	16,688.350	10.39	17,523.887	10.89	18,359.429	11.39	19,195.081	11.89	20,030.733
9.40	15,869.523	9.90	16,705.060	10.40	17,540.597	10.90	18,376.142	11.40	19,211.794	11.90	20,047.446
9.41	15,886.234	9.91	16,721.771	10.41	17,557.308	10.91	18,392.855	11.41	19,228.507	11.91	20,064.159
9.42	15,902.945	9.92	16,738.482	10.42	17,574.019	10.92	18,409.568	11.42	19,245.220	11.92	20,080.872
9.43	15,919.656	9.93	16,755.193	10.43	17,590.730	10.93	18,426.281	11.43	19,261.933	11.93	20,097.585
9.44	15,936.366	9.94	16,771.903	10.44	17,607.440	10.94	18,442.994	11.44	19,278.646	11.94	20,114.298
9.45	15,953.077	9.95	16,788.614	10.45	17,624.151	10.95	18,459.707	11.45	19,295.359	11.95	20,131.011
9.46	15,969.788	9.96	16,805.325	10.46	17,640.862	10.96	18,476.420	11.46	19,312.072	11.96	20,147.724
9.47	15,986.499	9.97	16,822.036	10.47	17,657.573	10.97	18,493.133	11.47	19,328.785	11.97	20,164.437
9.48	16,003.209	9.98	16,838.746	10.48	17,674.283	10.98	18,509.846	11.48	19,345.498	11.98	20,181.150
9.49	16,019.920	9.99	16,855.457	10.49	17,690.994	10.99	18,526.559	11.49	19,362.211	11.99	20,197.863

Reference Gauge Height - 16.954 Metres ; Located 81 cm to Benchmark					Height in Centimetres; Capacity in Cubic Metres				
12.00	20,214.576	12.50	21,050.228	13.00	21,885.881	13.50	22,721.734	14.00	23,557.846
12.01	20,231.289	12.51	21,066.941	13.01	21,902.594	13.51	22,738.456	14.01	23,574.569
12.02	20,248.002	12.52	21,083.654	13.02	21,919.307	13.52	22,755.179	14.02	23,591.291
12.03	20,264.715	12.53	21,100.368	13.03	21,936.020	13.53	22,771.901	14.03	23,608.013
12.04	20,281.428	12.54	21,117.081	13.04	21,952.733	13.54	22,788.623	14.04	23,624.735
12.05	20,298.141	12.55	21,133.794	13.05	21,969.446	13.55	22,805.345	14.05	23,641.458
12.06	20,314.855	12.56	21,150.507	13.06	21,986.159	13.56	22,822.068	14.06	23,658.180
12.07	20,331.568	12.57	21,167.220	13.07	22,002.872	13.57	22,838.790	14.07	23,674.902
12.08	20,348.281	12.58	21,183.933	13.08	22,019.585	13.58	22,855.512	14.08	23,691.624
12.09	20,364.994	12.59	21,200.646	13.09	22,036.298	13.59	22,872.234	14.09	23,708.347
12.10	20,381.707	12.60	21,217.359	13.10	22,053.011	13.60	22,888.957	14.10	23,725.069
12.11	20,398.420	12.61	21,234.072	13.11	22,069.724	13.61	22,905.679	14.11	23,741.791
12.12	20,415.133	12.62	21,250.785	13.12	22,086.437	13.62	22,922.401	14.12	23,758.513
12.13	20,431.846	12.63	21,267.498	13.13	22,103.150	13.63	22,939.123	14.13	23,775.236
12.14	20,448.559	12.64	21,284.211	13.14	22,119.863	13.64	22,955.846	14.14	23,791.958
12.15	20,465.272	12.65	21,300.924	13.15	22,136.576	13.65	22,972.568	14.15	23,808.680
12.16	20,481.985	12.66	21,317.637	13.16	22,153.289	13.66	22,989.290	14.16	23,825.402
12.17	20,498.698	12.67	21,334.350	13.17	22,170.002	13.67	23,006.012	14.17	23,842.124
12.18	20,515.411	12.68	21,351.063	13.18	22,186.715	13.68	23,022.735	14.18	23,858.847
12.19	20,532.124	12.69	21,367.776	13.19	22,203.428	13.69	23,039.457	14.19	23,875.569
12.20	20,548.837	12.70	21,384.489	13.20	22,220.141	13.70	23,056.179	14.20	23,892.291
12.21	20,565.550	12.71	21,401.202	13.21	22,236.854	13.71	SF 23,074.028	14.21	23,909.013
12.22	20,582.263	12.72	21,417.915	13.22	22,253.567	13.72	23,089.624	14.22	OF 23,926.975
12.23	20,598.976	12.73	21,434.628	13.23	22,270.280	13.73	23,106.346	14.23	
12.24	20,615.689	12.74	21,451.341	13.24	22,286.994	13.74	23,123.068	14.24	
12.25	20,632.402	12.75	21,468.054	13.25	22,303.707	13.75	23,139.790	14.25	
12.26	20,649.115	12.76	21,484.767	13.26	22,320.420	13.76	23,156.512	14.26	
12.27	20,665.828	12.77	21,501.481	13.27	22,337.133	13.77	23,173.235	14.27	
12.28	20,682.541	12.78	21,518.194	13.28	22,353.846	13.78	23,189.957	14.28	
12.29	20,699.255	12.79	21,534.907	13.29	22,370.567	13.79	23,206.679	14.29	
12.30	20,715.968	12.80	21,551.620	13.30	22,387.289	13.80	23,223.401	14.30	
12.31	20,732.681	12.81	21,568.333	13.31	22,404.012	13.81	23,240.124	14.31	
12.32	20,749.394	12.82	21,585.046	13.32	22,420.734	13.82	23,256.846	14.32	
12.33	20,766.107	12.83	21,601.759	13.33	22,437.456	13.83	23,273.568	14.33	
12.34	20,782.820	12.84	21,618.472	13.34	22,454.178	13.84	23,290.290	14.34	
12.35	20,799.533	12.85	21,635.185	13.35	22,470.900	13.85	23,307.013	14.35	
12.36	20,816.246	12.86	21,651.898	13.36	22,487.623	13.86	23,323.735	14.36	
12.37	20,832.959	12.87	21,668.611	13.37	22,504.345	13.87	23,340.457	14.37	
12.38	20,849.672	12.88	21,685.324	13.38	22,521.067	13.88	23,357.179	14.38	
12.39	20,866.385	12.89	21,702.037	13.39	22,537.789	13.89	23,373.902	14.39	
12.40	20,883.098	12.90	21,718.750	13.40	22,554.512	13.90	23,390.624	14.40	
12.41	20,899.811	12.91	21,735.463	13.41	22,571.234	13.91	23,407.346	14.41	
12.42	20,916.524	12.92	21,752.176	13.42	22,587.956	13.92	23,424.068	14.42	
12.43	20,933.237	12.93	21,768.889	13.43	22,604.678	13.93	23,440.791	14.43	
12.44	20,949.950	12.94	21,785.602	13.44	22,621.401	13.94	23,457.513	14.44	
12.45	20,966.663	12.95	21,802.315	13.45	22,638.123	13.95	23,474.235	14.45	
12.46	20,983.376	12.96	21,819.028	13.46	22,654.845	13.96	23,490.957	14.46	
12.47	21,000.089	12.97	21,835.741	13.47	22,671.567	13.97	23,507.680	14.47	
12.48	21,016.802	12.98	21,852.454	13.48	22,688.290	13.98	23,524.402	14.48	
12.49	21,033.515	12.99	21,869.167	13.49	22,705.012	13.99	23,541.124	14.49	

Safe Fill Height @ 13.71 Metres (44' 11 3/4")
Overfill Height @ 14.22 Metres (46' 8")

Page 5 of 5

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TransCanada - Grand Rapids Pipeline
Fort Saskatchewan, AB

General Information

Tank Number	GRHLT-BO-TK-01
Date of Strapping Data	11/18/2016
Year Built	2016
Product in Service	Synbit/Diluent
Product Service Density	0.940 g/cc (SG)

Tank Dimensions

Nominal Diameter	151' 6" (75.75 Metres)
Nominal Height	51'-11" (15.83 Metres)
Measured Tank Height	15.821 Metres
Tank Tilt	0 Millimetres
Gauge Point Information	Benchmark In Hatch
Reference Gauge Height	16.954 Metres
Horizontal To Gauge	32 Inches

Roof & Bottom Survey

Roof Type	Internal Floating
Floating Roof Shape	Angled Pontoon
Floating Roof Weight	108726 Kilograms
Roof Landed Height	107 Centimetres
Roof Full Floating Height	123 Centimetres
Bottom Description	Physical Survey

Report Constraints

Main Increment	Centimetres
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	44'-11 ¾" (13.71 Metres)
Overflow Or Foamline	46' 8" (14.22 Metres)

TransCanada - Grand Rapids Pipeline
Fort Saskatchewan, AB

Strap Correction to 60°F

Shell Temperature (°F)	21.2	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension
Certified Tape Factor	1	
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) 'Tape\ Expansion'$	
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') 'Shell\ Expansion'$	

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 0.99994832

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	144.926	475.479	0.000	475.455
2	144.926	475.479	0.000	475.455
3	144.926	475.479	0.000	475.455
4	144.926	475.479	0.000	475.455
5	144.926	475.479	0.000	475.455
6	144.926	475.479	0.000	475.455

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	500.750	0.000	0.000	144.919	475.455
2	507.063	6.313	-39.663	144.879	475.325
3	507.969	7.219	-45.357	144.873	475.306
4	508.781	8.031	-50.462	144.868	475.289
5	513.500	12.750	-80.111	144.839	475.192
6	513.469	12.719	-79.914	144.839	475.193

TransCanada - Grand Rapids Pipeline
Fort Saskatchewan, AB

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	475.455	0.750 Inches	3.027 Metres	3.027 Metres
2	475.325	0.587 Inches	3.019 Metres	6.046 Metres
3	475.306	0.424 Inches	2.416 Metres	8.462 Metres
4	475.289	0.346 Inches	2.406 Metres	10.868 Metres
5	475.192	0.346 Inches	2.413 Metres	13.281 Metres
6	475.193	0.346 Inches	2.415 Metres	15.696 Metres

TransCanada - Grand Rapids Pipeline
Fort Saskatchewan, AB

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	475.455	0.750	0
2.00	62.428	1.000	0	475.325	0.587	0
3.00	62.428	1.000	0	475.306	0.424	0
4.00	62.428	1.000	0	475.289	0.346	0
5.00	62.428	1.000	0	475.192	0.346	0
6.00	62.428	1.000	0	475.193	0.346	0

TransCanada - Grand Rapids Pipeline
Fort Saskatchewan, AB

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2 * D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	475.455	0.000	0.000	0.393	475.062
2	475.325	0.000	0.000	0.307	475.017
3	475.306	0.000	0.000	0.222	475.084
4	475.289	0.000	0.000	0.181	475.108
5	475.192	0.000	0.000	0.181	475.011
6	475.193	0.000	0.000	0.181	475.011

TransCanada - Grand Rapids Pipeline
Fort Saskatchewan, AB

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Centimetre
1	475.062	0.020	475.082	16.686
2	475.017	0.048	475.065	16.685
3	475.084	0.053	475.137	16.690
4	475.108	0.065	475.173	16.693
5	475.011	0.065	475.076	16.686
6	475.011	0.065	475.077	16.686

TransCanada - Grand Rapids Pipeline
Fort Saskatchewan, AB

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} \times \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi \times W \times G \times D^3}{4 \times E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Centimetre	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	16.686	0.005	0.000	16.686	16.686
2	16.685	0.007	0.005	16.690	16.690
3	16.690	0.007	0.012	16.702	16.702
4	16.693	0.009	0.020	16.712	16.712
5	16.686	0.009	0.029	16.714	16.714
6	16.686	0.000	0.038	16.724	16.723



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-213

Regina, SK

1020 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 88 Feet X 48 Feet

INNAGE TABLE

Reference Gauge Height - 16.235 Metres / 53' 3 1/8"; Located 18 Inches to Benchmark										Height in Inches; Capacities in Cubic Metres					
0	0	**	4.299	4	0	684.076	8	0	1,370.858	12	0	2,059.069	16	0	2,747.652
	1	*	13.939		1	698.375		1	1,385.187		1	2,073.414		1	2,761.997
	2	*	26.295		2	712.675		2	1,399.516		2	2,087.760		2	2,776.343
	3		40.607		3	726.974		3	1,413.846		3	2,102.105		3	2,790.688
	4		54.918		4	741.273		4	1,428.175		4	2,116.451		4	2,805.034
	5		69.229		5	755.573		5	1,442.504		5	2,130.796		5	2,819.379
	6		83.541		6	769.872		6	1,456.833		6	2,145.142		6	2,833.725
	7		97.853		7	784.172		7	1,471.163		7	2,159.487		7	2,848.070
	8		112.165		8	798.471		8	1,485.492		8	2,173.833		8	2,862.416
	9		126.478		9	812.770		9	1,499.821		9	2,188.178		9	2,876.761
	10		140.790		10	827.070		10	1,514.150		10	2,202.524		10	2,891.107
	11		155.102		11	841.369		11	1,528.480		11	2,216.869		11	2,905.452
1	0		169.414	5	0	855.668	9	0	1,542.809	13	0	2,231.215	17	0	2,919.798
	1		183.726		1	869.967		1	1,557.138		1	2,245.560		1	2,934.143
	2		198.008		2	884.267		2	1,571.467		2	2,259.906		2	2,948.489
	3		212.291		3	898.566		3	1,585.796		3	2,274.251		3	2,962.834
	4		226.574		4	912.865		4	1,600.126		4	2,288.597		4	2,977.180
	5		240.857		5	927.164		5	1,614.455		5	2,302.942		5	2,991.525
	6		255.140		6	941.463		6	1,628.784		6	2,317.288		6	3,005.871
	7		269.423		7	955.762		7	1,643.113		7	2,331.633		7	3,020.216
	8		283.706		8	970.061		8	1,657.443		8	2,345.979		8	3,034.561
	9		297.988		9	984.360		9	1,671.772		9	2,360.324		9	3,048.907
	10		312.288		10	998.659		10	1,686.101		10	2,374.669		10	3,063.252
	11		326.588		11	1,012.959		11	1,700.432		11	2,389.015		11	3,077.598
2	0		340.888	6	0	1,027.258	10	0	1,714.777	14	0	2,403.360	18	0	3,091.943
	1		355.188		1	1,041.557		1	1,729.123		1	2,417.706		1	3,106.289
	2		369.487		2	1,055.856		2	1,743.468		2	2,432.051		2	3,120.634
	3		383.787		3	1,070.155		3	1,757.814		3	2,446.397		3	3,134.980
	4		398.086		4	1,084.454		4	1,772.159		4	2,460.742		4	3,149.325
	5		412.386		5	1,098.753		5	1,786.505		5	2,475.088		5	3,163.671
	6		426.685		6	1,113.052		6	1,800.850		6	2,489.433		6	3,178.016
	7		440.984		7	1,127.351		7	1,815.196		7	2,503.779		7	3,192.362
	8		455.284		8	1,141.651		8	1,829.541		8	2,518.124		8	3,206.707
	9		469.583		9	1,155.950		9	1,843.887		9	2,532.470		9	3,221.053
	10		483.883		10	1,170.249		10	1,858.232		10	2,546.815		10	3,235.398
	11		498.183		11	1,184.578		11	1,872.578		11	2,561.161		11	3,249.744
3	0		512.482	7	0	1,198.907	11	0	1,886.923	15	0	2,575.506	19	0	3,264.089
	1		526.782		1	1,213.236		1	1,901.269		1	2,589.852		1	3,278.435
	2		541.081		2	1,227.566		2	1,915.614		2	2,604.197		2	3,292.780
	3		555.380		3	1,241.895		3	1,929.960		3	2,618.543		3	3,307.126
	4		569.680		4	1,256.224		4	1,944.305		4	2,632.888		4	3,321.471
	5		583.979		5	1,270.553		5	1,958.651		5	2,647.234		5	3,335.817
	6		598.278		6	1,284.883		6	1,972.996		6	2,661.579		6	3,350.162
	7		612.578		7	1,299.212		7	1,987.342		7	2,675.925		7	3,364.507
	8		626.877		8	1,313.541		8	2,001.687		8	2,690.270		8	3,378.853
	9		641.177		9	1,327.870		9	2,016.033		9	2,704.615		9	3,393.198
	10		655.476		10	1,342.200		10	2,030.378		10	2,718.961		10	3,407.544
	11		669.776		11	1,356.529		11	2,044.723		11	2,733.306		11	3,421.895

** Volume Below Strike Point. Located 0.5" Above intersection of shell & bottom.

Page 1 of 3

* Bottom volume based on Physical Survey Calculation. Average Inches not applicable

Volumes reflect a Shell Temperature of 15°C

Safe Fill Height @ 46' 0"

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-213

Regina, SK

1020 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 88 Feet X 48 Feet

INNAGE TABLE

Reference Gauge Height - 16.235 Metres / 53' 3 1/8"; Located 18 Inches to Benchmark											
Height in Inches						Capacities in Cubic Metres					
20	0	3,436.245	24	0	4,125.053	28	0	4,813.861	32	0	5,503.061
	1	3,450.595		1	4,139.403		1	4,828.211		1	5,517.426
	2	3,464.945		2	4,153.753		2	4,842.562		2	5,531.791
	3	3,479.295		3	4,168.103		3	4,856.912		3	5,546.155
	4	3,493.645		4	4,182.454		4	4,871.262		4	5,560.520
	5	3,507.996		5	4,196.804		5	4,885.612		5	5,574.885
	6	3,522.346		6	4,211.154		6	4,899.962		6	5,589.249
	7	3,536.696		7	4,225.504		7	4,914.312		7	5,603.614
	8	3,551.046		8	4,239.854		8	4,928.663		8	5,617.979
	9	3,565.396		9	4,254.204		9	4,943.013		9	5,632.343
	10	3,579.746		10	4,268.555		10	4,957.363		10	5,646.708
	11	3,594.097		11	4,282.905		11	4,971.713		11	5,661.073
21	0	3,608.447	25	0	4,297.255	29	0	4,986.063	33	0	5,675.437
	1	3,622.797		1	4,311.605		1	5,000.413		1	5,689.802
	2	3,637.147		2	4,325.955		2	5,014.764		2	5,704.167
	3	3,651.497		3	4,340.305		3	5,029.114		3	5,718.531
	4	3,665.847		4	4,354.656		4	5,043.464		4	5,732.896
	5	3,680.198		5	4,369.006		5	5,057.814		5	5,747.261
	6	3,694.548		6	4,383.356		6	5,072.164		6	5,761.626
	7	3,708.898		7	4,397.706		7	5,086.514		7	5,775.990
	8	3,723.248		8	4,412.056		8	5,100.865		8	5,790.355
	9	3,737.598		9	4,426.407		9	5,115.215		9	5,804.720
	10	3,751.948		10	4,440.757		10	5,129.579		10	5,819.084
	11	3,766.299		11	4,455.107		11	5,143.944		11	5,833.449
22	0	3,780.649	26	0	4,469.457	30	0	5,158.309	34	0	5,847.814
	1	3,794.999		1	4,483.807		1	5,172.673		1	5,862.178
	2	3,809.349		2	4,498.157		2	5,187.038		2	5,876.543
	3	3,823.699		3	4,512.508		3	5,201.403		3	5,890.908
	4	3,838.049		4	4,526.858		4	5,215.767		4	5,905.272
	5	3,852.400		5	4,541.208		5	5,230.132		5	5,919.637
	6	3,866.750		6	4,555.558		6	5,244.497		6	5,934.002
	7	3,881.100		7	4,569.908		7	5,258.862		7	5,948.366
	8	3,895.450		8	4,584.258		8	5,273.226		8	5,962.731
	9	3,909.800		9	4,598.609		9	5,287.591		9	5,977.096
	10	3,924.151		10	4,612.959		10	5,301.956		10	5,991.461
	11	3,938.501		11	4,627.309		11	5,316.320		11	6,005.825
23	0	3,952.851	27	0	4,641.659	31	0	5,330.685	35	0	6,020.190
	1	3,967.201		1	4,656.009		1	5,345.050		1	6,034.555
	2	3,981.551		2	4,670.359		2	5,359.414		2	6,048.919
	3	3,995.901		3	4,684.710		3	5,373.779		3	6,063.284
	4	4,010.252		4	4,699.060		4	5,388.144		4	6,077.649
	5	4,024.602		5	4,713.410		5	5,402.508		5	6,092.013
	6	4,038.952		6	4,727.760		6	5,416.873		6	6,106.378
	7	4,053.302		7	4,742.110		7	5,431.238		7	6,120.743
	8	4,067.652		8	4,756.460		8	5,445.602		8	6,135.107
	9	4,082.002		9	4,770.811		9	5,459.967		9	6,149.472
	10	4,096.353		10	4,785.161		10	5,474.332		10	6,163.837
	11	4,110.703		11	4,799.511		11	5,488.697		11	6,178.201

SF - Safe Fill Height @ 46' 0"

Page 2 of 3

Fractions

1/16	0.896592	9/16	8.069332
1/8	1.793185	5/8	8.965924
3/16	2.689777	11/16	9.862516
1/4	3.586370	3/4	10.759109
5/16	4.482962	13/16	11.655701
3/8	5.379554	7/8	12.552294
7/16	6.276147	15/16	13.448886
1/2	7.172739	1	14.345478

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-213

Regina, SK

1020 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 88 Feet X 48 Feet

INNAGE TABLE

Reference Gauge Height - 16.235 Metres / 53' 3 1/8"; Located 18 Inches to Benchmark

Height in Inches; Capacities in Cubic Metres

40	0	6,882.254	44	0	7,572.328	48	0	52	0	56	0
	1	6,896.631		1	7,586.705		1		1		1
	2	6,911.007		2	7,601.081		2		2		2
	3	6,925.384		3	7,615.458		3		3		3
	4	6,939.760		4	7,629.835		4		4		4
	5	6,954.137		5	7,644.211		5		5		5
	6	6,968.513		6	7,658.588		6		6		6
	7	6,982.890		7	7,672.964		7		7		7
	8	6,997.267		8	7,687.341		8		8		8
	9	7,011.643		9	7,701.717		9		9		9
	10	7,026.020		10	7,716.094		10		10		10
	11	7,040.396		11	7,730.470		11		11		11
41	0	7,054.773	45	0	7,744.847	49	0	53	0	57	0
	1	7,069.149		1	7,759.224		1		1		1
	2	7,083.526		2	7,773.600		2		2		2
	3	7,097.902		3	7,787.977		3		3		3
	4	7,112.279		4	7,802.353		4		4		4
	5	7,126.655		5	7,816.730		5		5		5
	6	7,141.032		6	7,831.106		6		6		6
	7	7,155.409		7	7,845.483		7		7		7
	8	7,169.785		8	7,859.859		8		8		8
	9	7,184.162		9	7,874.236		9		9		9
	10	7,198.538		10	7,888.612		10		10		10
	11	7,212.915		11	7,902.989		11		11		11
42	0	7,227.291	46	0	SF 7,917.366	50	0	54	0	58	0
	1	7,241.668		1	7,931.742		1		1		1
	2	7,256.044		2	7,946.119		2		2		2
	3	7,270.421		3	7,960.495		3		3		3
	4	7,284.797		4	7,974.872		4		4		4
	5	7,299.174		5	7,989.248		5		5		5
	6	7,313.551		6	8,003.625		6		6		6
	7	7,327.927		7	8,018.001		7		7		7
	8	7,342.304		8	8,032.378		8		8		8
	9	7,356.680		9	8,046.754		9		9		9
	10	7,371.057		10	8,061.131		10		10		10
	11	7,385.433		11	8,075.508		11		11		11
43	0	7,399.810	47	0	8,089.884	51	0	55	0	59	0
	1	7,414.186		1	8,104.261		1		1		1
	2	7,428.563		2	8,118.637		2		2		2
	3	7,442.939		3	8,133.014		3		3		3
	4	7,457.316		4	8,147.390		4		4		4
	5	7,471.693		5	8,161.767		5		5		5
	6	7,486.069		6	8,176.143		6		6		6
	7	7,500.446		7	8,190.520		7		7		7
	8	7,514.822		8	8,204.896		8		8		8
	9	7,529.199		9	8,219.273		9		9		9
	10	7,543.575		10	8,233.650		10		10		10
	11	7,557.952		11	8,248.026		11		11		11

SF - Safe Fill Height @ 46' 0"

Page 3 of 3

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex **TANK # 54-10-213**
Regina, SK **1020 kg/m3 @ 15°C**

Cone Roof Tank - Nominal Dimensions : 88 Feet X 48 Feet

Volumes in: Cubic Metres

To Increment	Incs	Gross Volume per Increment	Deadwood Volume	Net Volume	Accumulated Volume
0	1	0.000000	4.299087	4.299087	4.299087
1	1	14.329538	-4.689791	9.639747	13.938834
2	1	14.329538	-1.972930	12.356607	26.295441
4	2	14.329538	-0.018320	14.311217	54.917876
5	1	14.329538	-0.018105	14.311433	69.229309
6	1	14.329538	-0.017982	14.311556	83.540865
7	1	14.329538	-0.017181	14.312357	97.853222
10	3	14.329538	-0.017397	14.312141	140.789645
13	3	14.329538	-0.017432	14.312106	183.725962
14	1	14.329538	-0.047170	14.282368	198.008330
15	1	14.329538	-0.046803	14.282734	212.291064
16	1	14.329538	-0.046504	14.283034	226.574098
17	1	14.329538	-0.046295	14.283243	240.857341
18	1	14.329538	-0.046604	14.282934	255.140275
19	1	14.329538	-0.046745	14.282793	269.423067
21	2	14.329538	-0.046931	14.282607	297.988281
22	1	14.329538	-0.029567	14.299971	312.288252
23	1	14.329538	-0.029781	14.299756	326.588008
24	1	14.329538	-0.029723	14.299815	340.887823
25	1	14.329538	-0.029843	14.299694	355.187517
26	1	14.329538	-0.029736	14.299802	369.487319
27	1	14.329538	-0.029886	14.299651	383.786970
36	4	14.329538	-0.029876	14.299662	512.482377
48	2	14.329538	-0.029567	14.299971	684.075962
49	2	14.329538	-0.030062	14.299476	698.375438
60	25	14.329538	-0.030186	14.299352	855.668310
82	22	14.329538	-0.030427	14.299111	1170.248749
118	36	14.329538	-0.000305	14.329232	1686.101109
119	1	14.331201	-0.000305	14.330895	1700.432004
237	118	14.345784	-0.000305	14.345478	3393.198451
238	1	14.346190	-0.000305	14.345885	3407.544336
357	119	14.350477	-0.000305	14.350172	5115.214770
358	1	14.364878	-0.000305	14.364572	5129.579342
464	106	14.364992	-0.000305	14.364687	6652.236115
465	1	14.370128	-0.000305	14.369823	6666.605938
574	109	14.376852	-0.000305	14.376547	8233.649564
575	1	11.546763	-0.000305	11.546458	8245.196022

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CO-OP Refinery Complex
Regina, SK

General Information

Tank Number	54-10-213
Date of Strapping Data	12/29/2016
Year Built	2016
Product in Service	
Product Service Density	1.02 g/cc (SG)

Tank Dimensions

Nominal Diameter	88 Feet
Nominal Height	48 Feet
Measured Tank Height	47.900 Feet
Tank Tilt	
Gauge Point Information	Benchmark In Hatch
Reference Gauge Height	16.235 Metres
Horizontal To Gauge	0.46 Metres

Roof & Bottom Survey

Roof Type	Cone
Floating Roof Shape	N/A
Floating Roof Weight	N/A
Roof Landed Height	N/A
Roof Full Floating Height	N/A
Bottom Description	Physical Survey

Report Constraints

Main Increment	Inches
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	46 Feet
Overflow Or Foamline	

CO-OP Refinery Complex
Regina, SK

Strap Correction to 60°F

Shell Temperature (°F)	23.0	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 1.00023865

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	84.175	276.165	0.000	276.231
2	84.175	276.165	0.000	276.231
3	84.175	276.165	0.000	276.231
4	84.175	276.165	0.000	276.231
5	84.175	276.165	0.000	276.231

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	498.600	0.000	0.000	84.195	276.231
2	503.800	5.200	32.673	84.228	276.338
3	503.400	4.800	30.159	84.225	276.330
4	507.150	8.550	53.721	84.249	276.408
5	509.500	10.900	68.487	84.264	276.456

CO-OP Refinery Complex
Regina, SK

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	276.231	0.590 Inches	3.020 Metres	3.020 Metres
2	276.338	0.480 Inches	3.023 Metres	6.043 Metres
3	276.330	0.375 Inches	3.025 Metres	9.068 Metres
4	276.408	0.313 Inches	2.732 Metres	11.800 Metres
5	276.456	0.313 Inches	2.801 Metres	14.601 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	11	0.000 Millimetres	0.000 Millimetres
2	Butt Weld	11	0.000 Millimetres	0.000 Millimetres
3	Butt Weld	11	0.000 Millimetres	0.000 Millimetres
4	Butt Weld	11	0.000 Millimetres	0.000 Millimetres
5	Butt Weld	11	0.000 Millimetres	0.000 Millimetres

CO-OP Refinery Complex
Regina, SK

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	276.231	0.590	0
2.00	62.428	1.000	0	276.338	0.480	0
3.00	62.428	1.000	0	276.330	0.375	0
4.00	62.428	1.000	0	276.408	0.313	0
5.00	62.428	1.000	0	276.456	0.313	0

CO-OP Refinery Complex
Regina, SK

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2*D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	276.231	0.000	0.000	0.000	276.231
2	276.338	0.000	0.000	0.000	276.338
3	276.330	0.000	0.000	0.000	276.330
4	276.408	0.000	0.000	0.000	276.408
5	276.456	0.000	0.000	0.000	276.456

CO-OP Refinery Complex
Regina, SK

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Inch
1	276.231	0.012	276.243	14.330
2	276.338	0.023	276.362	14.342
3	276.330	0.030	276.360	14.342
4	276.408	0.032	276.440	14.350
5	276.456	0.033	276.489	14.355

CO-OP Refinery Complex
Regina, SK

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} * \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Inch	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	14.330	0.004	0.000	14.330	14.330
2	14.342	0.005	0.004	14.346	14.346
3	14.342	0.006	0.009	14.351	14.350
4	14.350	0.007	0.015	14.365	14.365
5	14.355	0.000	0.022	14.377	14.377



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-210

Regina, SK

1020 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 88 Feet X 48 Feet

INNAGE TABLE

Reference Gauge Height - 15.370 Metres / 50' 5 1/8"; Located 67 Inches to Benchmark										Height in Inches; Capacities in Cubic Metres					
0	0	**	5.382	4	0	682.605	8	0	1,370.354	12	0	2,058.190	16	0	2,746.105
	1	*	15.553		1	696.934		1	1,384.682		1	2,072.521		1	2,760.436
	2	*	27.495		2	711.262		2	1,399.010		2	2,086.853		2	2,774.768
	3	*	40.859		3	725.590		3	1,413.338		3	2,101.184		3	2,789.099
	4	*	54.818		4	739.918		4	1,427.666		4	2,115.516		4	2,803.431
	5		69.123		5	754.246		5	1,441.994		5	2,129.847		5	2,817.763
	6		83.429		6	768.575		6	1,456.322		6	2,144.179		6	2,832.094
	7		97.737		7	782.903		7	1,470.650		7	2,158.511		7	2,846.426
	8		112.044		8	797.231		8	1,484.978		8	2,172.842		8	2,860.757
	9		126.352		9	811.559		9	1,499.306		9	2,187.174		9	2,875.089
	10		140.660		10	825.887		10	1,513.634		10	2,201.505		10	2,889.420
	11		154.869		11	840.216		11	1,527.962		11	2,215.837		11	2,903.752
1	0		169.079	5	0	854.544	9	0	1,542.290	13	0	2,230.168	17	0	2,918.083
	1		183.289		1	868.872		1	1,556.618		1	2,244.500		1	2,932.415
	2		197.499		2	883.200		2	1,570.946		2	2,258.831		2	2,946.747
	3		211.709		3	897.528		3	1,585.274		3	2,273.163		3	2,961.078
	4		225.914		4	911.856		4	1,599.602		4	2,287.495		4	2,975.410
	5		240.119		5	926.184		5	1,613.930		5	2,301.826		5	2,989.741
	6		254.328		6	940.512		6	1,628.258		6	2,316.158		6	3,004.073
	7		268.538		7	954.840		7	1,642.586		7	2,330.489		7	3,018.404
	8		282.748		8	969.168		8	1,656.915		8	2,344.821		8	3,032.736
	9		296.957		9	983.496		9	1,671.243		9	2,359.152		9	3,047.068
	10		311.167		10	997.824		10	1,685.571		10	2,373.484		10	3,061.399
	11		325.381		11	1,012.152		11	1,699.900		11	2,387.816		11	3,075.731
2	0		339.596	6	0	1,026.480	10	0	1,714.232	14	0	2,402.147	18	0	3,090.062
	1		353.810		1	1,040.808		1	1,728.564		1	2,416.479		1	3,104.394
	2		368.024		2	1,055.136		2	1,742.895		2	2,430.810		2	3,118.725
	3		382.239		3	1,069.464		3	1,757.227		3	2,445.142		3	3,133.057
	4		396.458		4	1,083.793		4	1,771.558		4	2,459.473		4	3,147.389
	5		410.678		5	1,098.121		5	1,785.890		5	2,473.805		5	3,161.720
	6		424.897		6	1,112.449		6	1,800.221		6	2,488.137		6	3,176.052
	7		439.104		7	1,126.777		7	1,814.553		7	2,502.468		7	3,190.383
	8		453.409		8	1,141.105		8	1,828.885		8	2,516.800		8	3,204.715
	9		467.725		9	1,155.433		9	1,843.216		9	2,531.131		9	3,219.046
	10		482.041		10	1,169.761		10	1,857.548		10	2,545.463		10	3,233.378
	11		496.362		11	1,184.089		11	1,871.879		11	2,559.794		11	3,247.709
3	0		510.683	7	0	1,198.417	11	0	1,886.211	15	0	2,574.126	19	0	3,262.041
	1		525.003		1	1,212.745		1	1,900.542		1	2,588.457		1	3,276.373
	2		539.327		2	1,227.073		2	1,914.874		2	2,602.789		2	3,290.704
	3		553.651		3	1,241.401		3	1,929.205		3	2,617.121		3	3,305.036
	4		567.979		4	1,255.729		4	1,943.537		4	2,631.452		4	3,319.369
	5		582.307		5	1,270.057		5	1,957.869		5	2,645.784		5	3,333.710
	6		596.636		6	1,284.385		6	1,972.200		6	2,660.115		6	3,348.051
	7		610.964		7	1,298.713		7	1,986.532		7	2,674.447		7	3,362.392
	8		625.292		8	1,313.041		8	2,000.863		8	2,688.778		8	3,376.733
	9		639.620		9	1,327.369		9	2,015.195		9	2,703.110		9	3,391.074
	10		653.948		10	1,341.697		10	2,029.526		10	2,717.442		10	3,405.416
	11		668.277		11	1,356.025		11	2,043.858		11	2,731.773		11	3,419.757

** Volume Below Strike Point. Located 1.5" Above intersection of shell & bottom.

Page 1 of 3

* Bottom volume based on Physical Survey Calculation. Average Inches not applicable

Volumes reflect a Shell Temperature of 15°C

Safe Fill Height @ 46' 0"

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

Regina, SK

TANK # 54-10-210

1020 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 88 Feet X 48 Feet

INNAGE TABLE

Reference Gauge Height - 15.370 Metres / 50' 5 1/8"; Located 67 Inches to Benchmark											
Height in Inches						Capacities in Cubic Metres					
20	0	3,434.098	24	0	4,122.475	28	0	4,810.852	32	0	5,499.433
	1	3,448.439		1	4,136.816		1	4,825.193		1	5,513.780
	2	3,462.780		2	4,151.157		2	4,839.534		2	5,528.126
	3	3,477.122		3	4,165.498		3	4,853.875		3	5,542.473
	4	3,491.463		4	4,179.840		4	4,868.217		4	5,556.819
	5	3,505.804		5	4,194.181		5	4,882.558		5	5,571.166
	6	3,520.145		6	4,208.522		6	4,896.899		6	5,585.512
	7	3,534.486		7	4,222.863		7	4,911.240		7	5,599.859
	8	3,548.827		8	4,237.204		8	4,925.581		8	5,614.205
	9	3,563.169		9	4,251.546		9	4,939.922		9	5,628.552
	10	3,577.510		10	4,265.887		10	4,954.268		10	5,642.898
	11	3,591.851		11	4,280.228		11	4,968.614		11	5,657.244
21	0	3,606.192	25	0	4,294.569	29	0	4,982.961	33	0	5,671.591
	1	3,620.533		1	4,308.910		1	4,997.307		1	5,685.937
	2	3,634.875		2	4,323.251		2	5,011.653		2	5,700.284
	3	3,649.216		3	4,337.593		3	5,026.000		3	5,714.630
	4	3,663.557		4	4,351.934		4	5,040.346		4	5,728.977
	5	3,677.898		5	4,366.275		5	5,054.693		5	5,743.323
	6	3,692.239		6	4,380.616		6	5,069.039		6	5,757.670
	7	3,706.581		7	4,394.957		7	5,083.386		7	5,772.016
	8	3,720.922		8	4,409.299		8	5,097.732		8	5,786.363
	9	3,735.263		9	4,423.640		9	5,112.079		9	5,800.709
	10	3,749.604		10	4,437.981		10	5,126.425		10	5,815.056
	11	3,763.945		11	4,452.322		11	5,140.772		11	5,829.402
22	0	3,778.286	26	0	4,466.663	30	0	5,155.118	34	0	5,843.749
	1	3,792.628		1	4,481.005		1	5,169.465		1	5,858.095
	2	3,806.969		2	4,495.346		2	5,183.811		2	5,872.441
	3	3,821.310		3	4,509.687		3	5,198.158		3	5,886.788
	4	3,835.651		4	4,524.028		4	5,212.504		4	5,901.134
	5	3,849.992		5	4,538.369		5	5,226.850		5	5,915.481
	6	3,864.334		6	4,552.710		6	5,241.197		6	5,929.827
	7	3,878.675		7	4,567.052		7	5,255.543		7	5,944.174
	8	3,893.016		8	4,581.393		8	5,269.890		8	5,958.520
	9	3,907.357		9	4,595.734		9	5,284.236		9	5,972.867
	10	3,921.698		10	4,610.075		10	5,298.583		10	5,987.213
	11	3,936.039		11	4,624.416		11	5,312.929		11	6,001.560
23	0	3,950.381	27	0	4,638.758	31	0	5,327.276	35	0	6,015.906
	1	3,964.722		1	4,653.099		1	5,341.622		1	6,030.253
	2	3,979.063		2	4,667.440		2	5,355.969		2	6,044.599
	3	3,993.404		3	4,681.781		3	5,370.315		3	6,058.946
	4	4,007.745		4	4,696.122		4	5,384.662		4	6,073.292
	5	4,022.087		5	4,710.463		5	5,399.008		5	6,087.639
	6	4,036.428		6	4,724.805		6	5,413.355		6	6,101.985
	7	4,050.769		7	4,739.146		7	5,427.701		7	6,116.331
	8	4,065.110		8	4,753.487		8	5,442.047		8	6,130.678
	9	4,079.451		9	4,767.828		9	5,456.394		9	6,145.024
	10	4,093.793		10	4,782.169		10	5,470.740		10	6,159.371
	11	4,108.134		11	4,796.511		11	5,485.087		11	6,173.717

SF - Safe Fill Height @ 46' 0"

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Fractions

1/16	0.896654	9/16	8.069888
1/8	1.793308	5/8	8.966542
3/16	2.689963	11/16	9.863196
1/4	3.586617	3/4	10.759850
5/16	4.483271	13/16	11.656505
3/8	5.379925	7/8	12.553159
7/16	6.276579	15/16	13.449813
1/2	7.173234	1	14.346467

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-210

Regina, SK

1020 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 88 Feet X 48 Feet

INNAGE TABLE

Reference Gauge Height - 15.370 Metres / 50' 5 1/8"; Located 67 Inches to Benchmark

Height in Inches; Capacities in Cubic Metres

40	0	6,876.792	44	0	7,565.643	48	0	52	0	56	0
	1	6,891.143		1	7,579.994		1		1		1
	2	6,905.494		2	7,594.345		2		2		2
	3	6,919.845		3	7,608.696		3		3		3
	4	6,934.196		4	7,623.047		4		4		4
	5	6,948.547		5	7,637.398		5		5		5
	6	6,962.899		6	7,651.749		6		6		6
	7	6,977.250		7	7,666.100		7		7		7
	8	6,991.601		8	7,680.451		8		8		8
	9	7,005.952		9	7,694.802		9		9		9
	10	7,020.303		10	7,709.153		10		10		10
	11	7,034.654		11	7,723.504		11		11		11
41	0	7,049.005	45	0	7,737.855	49	0	53	0	57	0
	1	7,063.356		1	7,752.206		1		1		1
	2	7,077.707		2	7,766.557		2		2		2
	3	7,092.058		3	7,780.908		3		3		3
	4	7,106.409		4	7,795.260		4		4		4
	5	7,120.760		5	7,809.611		5		5		5
	6	7,135.111		6	7,823.962		6		6		6
	7	7,149.462		7	7,838.313		7		7		7
	8	7,163.813		8	7,852.664		8		8		8
	9	7,178.164		9	7,867.015		9		9		9
	10	7,192.515		10	7,881.366		10		10		10
	11	7,206.866		11	7,895.717		11		11		11
42	0	7,221.217	46	0	SF 7,910.068	50	0	54	0	58	0
	1	7,235.569		1	7,924.419		1		1		1
	2	7,249.920		2	7,938.770		2		2		2
	3	7,264.271		3	7,953.121		3		3		3
	4	7,278.622		4	7,967.472		4		4		4
	5	7,292.973		5	7,981.823		5		5		5
	6	7,307.324		6	7,996.174		6		6		6
	7	7,321.675		7	8,010.525		7		7		7
	8	7,336.026		8	8,024.876		8		8		8
	9	7,350.377		9	8,039.227		9		9		9
	10	7,364.728		10	8,053.578		10		10		10
	11	7,379.079		11	8,067.930		11		11		11
43	0	7,393.430	47	0	8,082.281	51	0	55	0	59	0
	1	7,407.781		1	8,096.632		1		1		1
	2	7,422.132		2	8,110.983		2		2		2
	3	7,436.483		3	8,125.334		3		3		3
	4	7,450.834		4	8,139.685		4		4		4
	5	7,465.185		5	8,154.036		5		5		5
	6	7,479.536		6	8,168.387		6		6		6
	7	7,493.887		7	8,182.738		7		7		7
	8	7,508.238		8	8,197.089		8		8		8
	9	7,522.590		9	8,197.088		9		9		9
	10	7,536.941		10			10		10		10
	11	7,551.292		11			11		11		11

SF - Safe Fill Height @ 46' 0"

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-210

Regina, SK

1020 kg/m3 @ 15°C

Cone Roof Tank - Nominal Dimensions : 88 Feet X 48 Feet

Volumes in: Cubic Metres

To Increment	Incs	Gross Volume per Increment	Deadwood Volume	Net Volume	Accumulated Volume
0	1	0.000000	5.382010	5.382010	5.382010
1	1	14.329221	-4.158431	10.170790	15.552800
2	1	14.329221	-2.386758	11.942463	27.495263
3	1	14.329221	-0.965561	13.363661	40.858924
4	1	14.329221	-0.370313	13.958908	54.817832
6	2	14.329221	-0.023678	14.305543	83.428919
10	4	14.329221	-0.021535	14.307687	140.659666
11	1	14.329221	-0.120000	14.209222	154.868887
12	1	14.329221	-0.119498	14.209723	169.078610
13	1	14.329221	-0.118782	14.210439	183.289050
15	2	14.329221	-0.119212	14.210009	211.709067
17	2	14.329221	-0.124435	14.204786	240.118639
18	1	14.329221	-0.119423	14.209798	254.328437
19	1	14.329221	-0.119410	14.209811	268.538249
20	1	14.329221	-0.119789	14.209432	282.747681
22	2	14.329221	-0.119689	14.209532	311.166745
24	2	14.329221	-0.114672	14.214549	339.595844
26	2	14.329221	-0.114939	14.214282	368.024409
27	1	14.329221	-0.115100	14.214121	382.238530
28	1	14.329221	-0.109705	14.219517	396.458047
29	1	14.329221	-0.109722	14.219499	410.677546
30	1	14.329221	-0.109309	14.219912	424.897457
31	1	14.329221	-0.122740	14.206481	439.103939
32	1	14.329221	-0.023839	14.305382	453.409320
34	2	14.329221	-0.013393	14.315828	482.040976
37	3	14.329221	-0.008386	14.320836	525.003483
39	2	14.329221	-0.005401	14.323820	553.651123
46	1	14.329221	-0.001044	14.328177	653.948427
50	4	14.329221	-0.000861	14.328360	711.261867
60	16	14.329221	-0.001033	14.328188	854.543744
118	58	14.329221	-0.001171	14.328050	1685.570645
119	1	14.330979	-0.001171	14.329808	1699.900453
231	112	14.332736	-0.001171	14.331565	3305.035739
232	1	14.333939	-0.001171	14.332768	3319.368506
345	113	14.342357	-0.001171	14.341185	4939.922455
346	1	14.346318	-0.001171	14.345147	4954.267602
458	112	14.347638	-0.001171	14.346467	6561.071922
459	1	14.349358	-0.001171	14.348187	6575.420108
572	113	14.352223	-0.001171	14.351052	8197.089004
573	1		-0.001171	-0.001171	8197.087832

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CO-OP Refinery Complex
Regina, SK

General Information

Tank Number	54-10-210
Date of Strapping Data	11/24/2016
Year Built	
Product in Service	
Product Service Density	1.02 g/cc (SG)

Tank Dimensions

Nominal Diameter	88 Feet
Nominal Height	48 Feet
Measured Tank Height	48 Feet
Tank Tilt	
Gauge Point Information	Benchmark in Hatch
Reference Gauge Height	15.370 Metres
Horizontal To Gauge	67 Inches

Roof & Bottom Survey

Roof Type	Cone
Floating Roof Shape	
Floating Roof Weight	N/A
Roof Landed Height	N/A
Roof Full Floating Height	N/A
Bottom Description	Physical Survey

Report Constraints

Main Increment	Inches
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	46 Feet
Overflow Or Foamline	

CO-OP Refinery Complex
Regina, SK

Strap Correction to 60°F

Shell Temperature (°F)	26.6	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 1.00021543

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	84.175	276.165	0.000	276.225
2	84.175	276.165	0.000	276.225
3	84.175	276.165	0.000	276.225
4	84.175	276.165	0.000	276.225
5	84.175	276.165	0.000	276.225

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	484.600	0.000	0.000	84.193	276.225
2	485.200	0.600	-3.770	84.190	276.212
3	483.200	-1.400	8.796	84.202	276.254
4	483.600	-1.000	6.283	84.200	276.245
5	484.600	0.000	0.000	84.193	276.225

CO-OP Refinery Complex
Regina, SK

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	276.225	0.576 Inches	118.50 Inches	118.500 Inches
2	276.212	0.467 Inches	113.37 Inches	231.875 Inches
3	276.254	0.375 Inches	113.37 Inches	345.250 Inches
4	276.245	0.350 Inches	113.37 Inches	458.625 Inches
5	276.225	0.313 Inches	113.37 Inches	572.000 Inches

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	11	0.000 Millimetres	0.000 Millimetres
2	Butt Weld	11	0.000 Millimetres	0.000 Millimetres
3	Butt Weld	11	0.000 Millimetres	0.000 Millimetres
4	Butt Weld	11	0.000 Millimetres	0.000 Millimetres
5	Butt Weld	11	0.000 Millimetres	0.000 Millimetres

CO-OP Refinery Complex
Regina, SK

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	276.225	0.576	0
2.00	62.428	1.000	0	276.212	0.467	0
3.00	62.428	1.000	0	276.254	0.375	0
4.00	62.428	1.000	0	276.245	0.350	0
5.00	62.428	1.000	0	276.225	0.313	0

CO-OP Refinery Complex
Regina, SK

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2*D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	276.225	0.000	0.000	0.000	276.225
2	276.212	0.000	0.000	0.000	276.212
3	276.254	0.000	0.000	0.000	276.254
4	276.245	0.000	0.000	0.000	276.245
5	276.225	0.000	0.000	0.000	276.225

CO-OP Refinery Complex
Regina, SK

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Inch
1	276.225	0.016	276.240	14.329
2	276.212	0.023	276.235	14.329
3	276.254	0.029	276.282	14.334
4	276.245	0.031	276.276	14.333
5	276.225	0.034	276.259	14.331

CO-OP Refinery Complex
Regina, SK

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} * \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Inch	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	14.329	0.004	0.000	14.329	14.329
2	14.329	0.005	0.004	14.333	14.333
3	14.334	0.006	0.009	14.343	14.342
4	14.333	0.006	0.015	14.348	14.348
5	14.331	0.000	0.021	14.352	14.352



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 88-10-701

Regina, SK

856 kg/m³ @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 95 Feet X 49.5 Feet

INNAGE TABLE

Reference Gauge Height - 54' 9"; Located 24 Inches to Benchmark in hatch

Height in Inches; Capacities in Cubic Metres

0	0**	26.344	4	0	830.638	8	0	1,603.303	12	0	2,407.889	16	0	3,212.547
1	*	42.487	1		847.409	1		1,620.066	1		2,424.651	1		3,229.329
2		59.258	2		864.181	2		1,636.828	2		2,441.413	2		3,246.112
3		76.030	3		880.952	3		1,653.590	3		2,458.175	3		3,262.894
4		92.801	4		897.724	4		1,670.352	4		2,474.938	4		3,279.677
5		109.572	5		914.495	5		1,687.114	5		2,491.700	5		3,296.459
6		126.343	6		931.266	6		1,703.877	6		2,508.462	6		3,313.242
7		143.114	7		941.572	7		1,720.639	7		2,525.224	7		3,330.024
8		159.885	8		951.879	8		1,737.401	8		2,541.986	8		3,346.807
9		176.657	9		962.185	9		1,754.163	9		2,558.748	9		3,363.589
10		193.428	10		972.491	10		1,770.925	10		2,575.511	10		3,380.372
11		210.199	11		982.798	11		1,787.687	11		2,592.273	11		3,397.154
1	0	226.970	5	0	999.569	9	0	1,804.450	13	0	2,609.035	17	0	3,413.937
1		243.742	1		1,016.340	1		1,821.212	1		2,625.797	1		3,430.719
2		260.513	2		1,033.112	2		1,837.974	2		2,642.559	2		3,447.502
3		277.285	3		1,049.883	3		1,854.736	3		2,659.322	3		3,464.284
4		294.056	4		1,066.654	4		1,871.498	4		2,676.084	4		3,481.067
5		310.821	5		1,083.425	5		1,888.261	5		2,692.846	5		3,497.849
6		327.587	6		1,100.197	6		1,905.023	6		2,709.608	6		3,514.632
7		344.352	7		1,116.968	7		1,921.785	7		2,726.370	7		3,531.414
8		361.117	8		1,133.739	8		1,938.547	8		2,743.133	8		3,548.197
9		377.882	9		1,150.511	9		1,955.309	9		2,759.895	9		3,564.979
10		394.647	10		1,167.282	10		1,972.072	10		2,776.657	10		3,581.762
11		411.412	11		1,184.053	11		1,988.834	11		2,793.419	11		3,598.544
2	0	428.177	6	0	1,200.824	10	0	2,005.596	14	0	2,810.181	18	0	3,615.327
1		444.942	1		1,217.596	1		2,022.358	1		2,826.944	1		3,632.109
2		461.708	2		1,234.367	2		2,039.120	2		2,843.706	2		3,648.892
3		478.474	3		1,251.138	3		2,055.883	3		2,860.468	3		3,665.674
4		495.239	4		1,267.910	4		2,072.645	4		2,877.230	4		3,682.457
5		512.005	5		1,284.681	5		2,089.407	5		2,893.992	5		3,699.239
6		528.771	6		1,301.452	6		2,106.169	6		2,910.755	6		3,716.022
7		545.536	7		1,318.223	7		2,122.931	7		2,927.517	7		3,732.804
8		562.302	8		1,334.995	8		2,139.694	8		2,944.279	8		3,749.587
9		579.073	9		1,351.766	9		2,156.456	9		2,961.041	9		3,766.369
10		595.844	10		1,368.537	10		2,173.218	10		2,977.803	10		3,783.152
11		612.614	11		1,385.309	11		2,189.980	11		2,994.566	11		3,799.934
3	0	629.385	7	0	1,402.080	11	0	2,206.742	15	0	3,011.328	19	0	3,816.717
1		646.156	1		1,418.851	1		2,223.505	1		3,028.090	1		3,833.499
2		662.927	2		1,435.622	2		2,240.267	2		3,044.852	2		3,850.282
3		679.697	3		1,452.394	3		2,257.029	3		3,061.614	3		3,867.064
4		696.468	4		1,469.165	4		2,273.791	4		3,078.377	4		3,883.847
5		713.239	5		1,485.936	5		2,290.553	5		3,095.139	5		3,900.629
6		730.010	6		1,502.708	6		2,307.316	6		3,111.901	6		3,917.412
7		746.780	7		1,519.479	7		2,324.078	7		3,128.663	7		3,934.194
8		763.551	8		1,536.250	8		2,340.840	8		3,145.425	8		3,950.977
9		780.323	9		1,553.017	9		2,357.602	9		3,162.199	9		3,967.759
10		797.094	10		1,569.779	10		2,374.364	10		3,178.982	10		3,984.542
11		813.866	11		1,586.541	11		2,391.127	11		3,195.764	11		4,001.324

** Volume Below Strike Point. Located 1.5" Above intersection of shell & bottom.

Page 1 of 3

* Bottom volume based on Physical Survey Calculation. Average Inches not applicable

Volumes reflect a Shell Temperature of 15°C

Safe Fill Height @ 46' 0"

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A total of 32.3247 Cubic Metres were deducted between 52 & 61 Inches based on an ESTIMATED weight of 61000lbs (27670 Kgs) and a density of 856 kg/m³. Gauged quantities above 5' 1" reflect this deduction but shall be adjusted for a differing specific gravity at 15°C according to the following formula (see page 2).



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 88-10-701

Regina, SK

856 kg/m³ @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 95 Feet X 49.5 Feet

INNAGE TABLE

Reference Gauge Height - 54' 9"; Located 24 Inches to Benchmark in hatch

Height in Inches; Capacities in Cubic Metres

20	0	4,018.107	24	0	4,823.709	28	0	5,629.820	32	0	6,435.953	36	0	7,242.348
	1	4,034.889		1	4,840.503		1	5,646.614		1	6,452.753		1	7,259.148
	2	4,051.672		2	4,857.297		2	5,663.408		2	6,469.553		2	7,275.948
	3	4,068.454		3	4,874.091		3	5,680.202		3	6,486.352		3	7,292.748
	4	4,085.237		4	4,890.885		4	5,696.996		4	6,503.152		4	7,309.548
	5	4,102.019		5	4,907.679		5	5,713.790		5	6,519.952		5	7,326.348
	6	4,118.802		6	4,924.473		6	5,730.584		6	6,536.752		6	7,343.148
	7	4,135.584		7	4,941.267		7	5,747.378		7	6,553.552		7	7,359.948
	8	4,152.367		8	4,958.061		8	5,764.172		8	6,570.352		8	7,376.748
	9	4,169.149		9	4,974.855		9	5,780.966		9	6,587.152		9	7,393.548
	10	4,185.932		10	4,991.649		10	5,797.760		10	6,603.952		10	7,410.347
	11	4,202.714		11	5,008.443		11	5,814.554		11	6,620.752		11	7,427.147
21	0	4,219.497	25	0	5,025.237	29	0	5,831.348	33	0	6,637.552	37	0	7,443.947
	1	4,236.279		1	5,042.031		1	5,848.142		1	6,654.352		1	7,460.747
	2	4,253.062		2	5,058.825		2	5,864.936		2	6,671.151		2	7,477.547
	3	4,269.844		3	5,075.619		3	5,881.730		3	6,687.951		3	7,494.347
	4	4,286.627		4	5,092.413		4	5,898.524		4	6,704.751		4	7,511.147
	5	4,303.409		5	5,109.207		5	5,915.318		5	6,721.551		5	7,527.947
	6	4,320.192		6	5,126.001		6	5,932.112		6	6,738.351		6	7,544.747
	7	4,336.974		7	5,142.794		7	5,948.905		7	6,755.151		7	7,561.547
	8	4,353.757		8	5,159.588		8	5,965.699		8	6,771.951		8	7,578.347
	9	4,370.539		9	5,176.382		9	5,982.493		9	6,788.751		9	7,595.146
	10	4,387.322		10	5,193.176		10	5,999.287		10	6,805.551		10	7,611.946
	11	4,404.104		11	5,209.970		11	6,016.081		11	6,822.351		11	7,628.746
22	0	4,420.887	26	0	5,226.764	30	0	6,032.875	34	0	6,839.151	38	0	7,662.346
	1	4,437.669		1	5,243.558		1	6,049.669		1	6,855.950		1	7,679.146
	2	4,454.452		2	5,260.352		2	6,066.463		2	6,872.750		2	7,695.946
	3	4,471.234		3	5,277.146		3	6,083.257		3	6,889.550		3	7,712.746
	4	4,488.017		4	5,293.940		4	6,100.051		4	6,906.350		4	7,729.546
	5	4,504.799		5	5,310.734		5	6,116.845		5	6,923.150		5	7,746.346
	6	4,521.582		6	5,327.528		6	6,133.639		6	6,939.950		6	7,763.146
	7	4,538.364		7	5,344.322		7	6,150.433		7	6,956.750		7	7,779.945
	8	4,555.147		8	5,361.116		8	6,167.227		8	6,973.550		8	7,796.745
	9	4,571.929		9	5,377.910		9	6,184.021		9	6,990.350		9	7,813.545
	10	4,588.712		10	5,394.704		10	6,200.815		10	7,007.150		10	7,830.345
	11	4,605.494		11	5,411.498		11	6,217.609		11	7,023.950		11	7,847.145
23	0	4,622.277	27	0	5,428.292	31	0	6,234.403	35	0	7,040.749	39	0	7,880.745
	1	4,639.059		1	5,445.086		1	6,251.197		1	7,057.549		1	7,897.545
	2	4,655.842		2	5,461.880		2	6,267.991		2	7,074.349		2	7,914.345
	3	4,672.624		3	5,478.674		3	6,284.785		3	7,091.149		3	7,931.145
	4	4,689.407		4	5,495.468		4	6,301.579		4	7,107.949		4	7,947.945
	5	4,706.189		5	5,512.262		5	6,318.373		5	7,124.749		5	7,964.745
	6	4,722.972		6	5,529.056		6	6,335.167		6	7,141.549		6	7,981.544
	7	4,739.754		7	5,545.850		7	6,351.961		7	7,158.349		7	7,998.344
	8	4,756.537		8	5,562.644		8	6,368.755		8	7,175.149		8	8,015.144
	9	4,773.327		9	5,579.438		9	6,385.553		9	7,191.949		9	8,031.944
	10	4,790.121		10	5,596.232		10	6,402.353		10	7,208.749		10	8,048.744
	11	4,806.915		11	5,613.026		11	6,419.153		11	7,225.548		11	8,065.544

SF - Safe Fill Height @ 46' 0"

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Fractions

1/16	1.049994	9/16	9.449949
1/8	2.099989	5/8	10.499944
3/16	3.149983	11/16	11.549938
1/4	4.199977	3/4	12.599932
5/16	5.249972	13/16	13.649927
3/8	6.299966	7/8	14.699921
7/16	7.349960	15/16	15.749915
1/2	8.399955	1	16.799910

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Displacement = 27670 Kilograms - 32.3247 Cubic Metres
Correction Kilograms/Cubic Metre



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 88-10-701

Regina, SK

856 kg/m³ @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 95 Feet X 49.5 Feet

INNAGE TABLE

Reference Gauge Height - 54' 9"; Located 24 Inches to Benchmark in hatch											Height in Inches; Capacities in Cubic Metres										
40	0	8,048.744	44	0	8,855.178	48	0		52	0		56	0								
	1	8,065.544		1	8,871.979		1			1			1								
	2	8,082.344		2	8,888.780		2			2			2								
	3	8,099.144		3	8,905.580		3			3			3								
	4	8,115.944		4	8,922.381		4			4			4								
	5	8,132.744		5	8,939.182		5			5			5								
	6	8,149.544		6	8,955.983		6			6			6								
	7	8,166.345		7	8,972.784		7			7			7								
	8	8,183.146		8	8,989.584		8			8			8								
	9	8,199.947		9	9,006.385		9			9			9								
	10	8,216.747		10	9,023.186		10			10			10								
	11	8,233.548		11	9,039.987		11			11			11								
41	0	8,250.349	45	0	9,056.788	49	0		53	0		57	0								
	1	8,267.150		1	9,073.589		1			1			1								
	2	8,283.951		2	9,090.389		2			2			2								
	3	8,300.751		3	9,107.190		3			3			3								
	4	8,317.552		4	9,123.991		4			4			4								
	5	8,334.353		5	9,140.792		5			5			5								
	6	8,351.154		6	9,157.593		6			6			6								
	7	8,367.955		7	9,174.393		7			7			7								
	8	8,384.755		8	9,191.194		8			8			8								
	9	8,401.556		9	9,207.995		9			9			9								
	10	8,418.357		10	9,224.796		10			10			10								
	11	8,435.158		11	9,241.597		11			11			11								
42	0	8,451.959	46	0	SF 9,258.397	50	0		54	0		58	0								
	1	8,468.760		1	9,275.198		1			1			1								
	2	8,485.560		2	9,291.999		2			2			2								
	3	8,502.361		3	9,308.800		3			3			3								
	4	8,519.162		4	9,325.601		4			4			4								
	5	8,535.963		5	9,342.401		5			5			5								
	6	8,552.764		6	9,359.202		6			6			6								
	7	8,569.564		7	9,376.003		7			7			7								
	8	8,586.365		8	9,392.804		8			8			8								
	9	8,603.166		9	9,409.605		9			9			9								
	10	8,619.967		10	9,426.405		10			10			10								
	11	8,636.768		11	9,443.206		11			11			11								
43	0	8,653.568	47	0	9,460.007	51	0		55	0		59	0								
	1	8,670.369		1	9,476.808		1			1			1								
	2	8,687.170		2	9,493.609		2			2			2								
	3	8,703.971		3	9,510.409		3			3			3								
	4	8,720.772		4	9,527.210		4			4			4								
	5	8,737.572		5	9,544.011		5			5			5								
	6	8,754.373		6	9,560.812		6			6			6								
	7	8,771.174		7	9,577.613		7			7			7								
	8	8,787.975		8	9,594.413		8			8			8								
	9	8,804.776		9	9,611.214		9			9			9								
	10	8,821.576		10	Overflow		10			10			10								
	11	8,838.377		11			11			11			11								

SF - Safe Fill Height @ 46' 0"

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Tables produced by:
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TANK # 88-10-701

856 kg/m³ @ 15°C

Volumes in: Cubic Metres

Tables produced by:
Nextgen Industrial Services Inc.
(306) 596-8330
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CO-OP Refinery Complex
Regina, SK

General Information

Tank Number	88-10-701
Date of Strapping Data	04/24/2017
Year Built	1970
Product in Service	Seasonal Diesel
Product Service Density	0.86 g/cc (SG)

Tank Dimensions

Nominal Diameter	95 Feet
Nominal Height	49.5 Feet
Measured Tank Height	15.256 Metres
Tank Tilt	0 Millimetres
Gauge Point Information	Benchmark in Hatch
Reference Gauge Height	54.750 Feet
Horizontal To Gauge	24 Inches

Roof & Bottom Survey

Roof Type	Internal Floating
Floating Roof Shape	Flat Pan
Floating Roof Weight	61000 Pounds (estimated)
Roof Landed Height	54 Inches
Roof Full Floating Height	59 Inches
Bottom Description	Physical Survey

Report Constraints

Main Increment	Inches
Main Volume	Cubic Metres
Product at Strapping	Empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	46 Feet
Overflow Or Foamline	14.602 Metres

CO-OP Refinery Complex
Regina, SK

Strap Correction to 60°F

Shell Temperature (°F)	32.0	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 1.00018060

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	91.025	298.638	0.001	298.692
2	91.025	298.638	0.001	298.692
3	91.025	298.638	0.001	298.692
4	91.025	298.638	0.001	298.692
5	91.025	298.638	0.001	298.692
6	91.025	298.638	0.001	298.692

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	674.684	8.084	50.795	91.092	298.859
2	668.950	2.350	14.765	91.056	298.740
3	675.600	9.000	56.549	91.098	298.877
4	677.950	11.350	71.314	91.113	298.926
5	676.950	10.350	65.031	91.106	298.905
6	672.900	6.300	39.584	91.081	298.822

CO-OP Refinery Complex
Regina, SK

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	298.859	0.500 Inches	2.349 Metres	2.349 Metres
2	298.740	0.375 Inches	2.437 Metres	4.786 Metres
3	298.877	0.313 Inches	2.436 Metres	7.222 Metres
4	298.926	0.250 Inches	2.438 Metres	9.660 Metres
5	298.905	0.188 Inches	2.664 Metres	12.324 Metres
6	298.822	0.188 Inches	2.932 Metres	15.256 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	9	0.750 Inches	1.000 Millimetres
2	Butt Weld	9	0.750 Inches	1.000 Millimetres
3	Butt Weld	9	0.750 Inches	1.000 Millimetres
4	Butt Weld	9	0.750 Inches	1.000 Millimetres
5	Butt Weld	9	0.750 Inches	1.000 Millimetres
6	Butt Weld	9	0.750 Inches	1.000 Millimetres

CO-OP Refinery Complex
Regina, SK

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	298.859	0.500	0
2.00	62.428	1.000	0	298.740	0.375	0
3.00	62.428	1.000	0	298.877	0.313	0
4.00	62.428	1.000	0	298.926	0.250	0
5.00	62.428	1.000	0	298.905	0.188	0
6.00	62.428	1.000	0	298.822	0.188	0

CO-OP Refinery Complex
Regina, SK

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2 * D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	298.859	0.000	0.001	0.000	298.859
2	298.740	0.000	0.001	0.000	298.740
3	298.877	0.000	0.001	0.000	298.877
4	298.926	0.000	0.001	0.000	298.926
5	298.905	0.000	0.001	0.000	298.905
6	298.822	0.000	0.001	0.000	298.822

CO-OP Refinery Complex
Regina, SK

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Inch
1	298.859	0.012	298.870	16.773
2	298.740	0.020	298.760	16.761
3	298.877	0.024	298.901	16.777
4	298.926	0.030	298.956	16.783
5	298.905	0.044	298.949	16.782
6	298.822	0.048	298.870	16.773

CO-OP Refinery Complex
Regina, SK

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} * \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Inch	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	16.773	0.003	0.000	16.773	16.773
2	16.761	0.004	0.003	16.764	16.764
3	16.777	0.005	0.008	16.785	16.784
4	16.783	0.007	0.013	16.796	16.796
5	16.782	0.010	0.020	16.802	16.802
6	16.773	0.000	0.030	16.803	16.803

Action Number P2190102940 - Exhibit G

Shell Canada

TANK # 9230

Sherwood Park, AB

850 kg/m3 @ 15°C

Cone Roof Tank - Nominal Dimensions : 39.624 Metres X 14.630 Metres

INNAGE TABLE

Reference Gauge Height - 15.109 Metres; Located 4.369 Metres to Rim of Gauge Hatch										Height in Centimetres; Capacity in Cubic Metres	
.00*	22.402	.50	611.145	1.00	1,227.139	1.50	1,843.415	2.00	2,459.693	2.50	3,075.970
.01*	28.948	.51	623.452	1.01	1,239.464	1.51	1,855.741	2.01	2,472.018	2.51	3,088.296
.02*	36.109	.52	635.760	1.02	1,251.788	1.52	1,868.066	2.02	2,484.344	2.52	3,100.622
.03*	44.008	.53	648.068	1.03	1,264.114	1.53	1,880.392	2.03	2,496.669	2.53	3,112.947
.04*	52.940	.54	660.376	1.04	1,276.439	1.54	1,892.717	2.04	2,508.995	2.54	3,125.273
.05*	62.878	.55	672.684	1.05	1,288.765	1.55	1,905.043	2.05	2,521.320	2.55	3,137.598
.06*	73.233	.56	684.992	1.06	1,301.091	1.56	1,917.368	2.06	2,533.646	2.56	3,149.924
.07*	84.090	.57	697.299	1.07	1,313.416	1.57	1,929.694	2.07	2,545.972	2.57	3,162.249
.08*	95.262	.58	709.607	1.08	1,325.742	1.58	1,942.019	2.08	2,558.297	2.58	3,174.575
.09*	106.864	.59	721.915	1.09	1,338.067	1.59	1,954.345	2.09	2,570.623	2.59	3,186.900
.10*	118.766	.60	734.223	1.10	1,350.393	1.60	1,966.671	2.10	2,582.948	2.60	3,199.226
.11*	130.867	.61	746.531	1.11	1,362.718	1.61	1,978.996	2.11	2,595.274	2.61	3,211.552
.12	143.188	.62	758.839	1.12	1,375.044	1.62	1,991.322	2.12	2,607.599	2.62	3,223.877
.13	155.508	.63	771.146	1.13	1,387.369	1.63	2,003.647	2.13	2,619.925	2.63	3,236.203
.14	167.829	.64	783.454	1.14	1,399.695	1.64	2,015.973	2.14	2,632.250	2.64	3,248.528
.15	180.151	.65	795.777	1.15	1,412.021	1.65	2,028.298	2.15	2,644.576	2.65	3,260.854
.16	192.472	.66	808.100	1.16	1,424.346	1.66	2,040.624	2.16	2,656.902	2.66	3,273.179
.17	204.794	.67	820.423	1.17	1,436.672	1.67	2,052.949	2.17	2,669.227	2.67	3,285.505
.18	217.116	.68	832.747	1.18	1,448.997	1.68	2,065.275	2.18	2,681.553	2.68	3,297.830
.19	229.437	.69	845.072	1.19	1,461.323	1.69	2,077.600	2.19	2,693.878	2.69	3,310.156
.20	241.759	.70	857.397	1.20	1,473.648	1.70	2,089.926	2.20	2,706.204	2.70	3,322.482
.21	254.080	.71	869.722	1.21	1,485.974	1.71	2,102.252	2.21	2,718.529	2.71	3,334.807
.22	266.402	.72	882.046	1.22	1,498.299	1.72	2,114.577	2.22	2,730.855	2.72	3,347.133
.23	278.717	.73	894.371	1.23	1,510.625	1.73	2,126.903	2.23	2,743.180	2.73	3,359.458
.24	291.032	.74	906.696	1.24	1,522.951	1.74	2,139.228	2.24	2,755.506	2.74	3,371.784
.25	303.349	.75	919.021	1.25	1,535.276	1.75	2,151.554	2.25	2,767.832	2.75	3,384.109
.26	315.666	.76	931.345	1.26	1,547.602	1.76	2,163.879	2.26	2,780.157	2.76	3,396.435
.27	327.983	.77	943.670	1.27	1,559.927	1.77	2,176.205	2.27	2,792.483	2.77	3,408.760
.28	340.300	.78	955.995	1.28	1,572.253	1.78	2,188.530	2.28	2,804.808	2.78	3,421.086
.29	352.617	.79	968.320	1.29	1,584.578	1.79	2,200.856	2.29	2,817.134	2.79	3,433.412
.30	364.934	.80	980.644	1.30	1,596.904	1.80	2,213.182	2.30	2,829.459	2.80	3,445.737
.31	377.258	.81	992.969	1.31	1,609.229	1.81	2,225.507	2.31	2,841.785	2.81	3,458.063
.32	389.582	.82	1,005.294	1.32	1,621.555	1.82	2,237.833	2.32	2,854.110	2.82	3,470.388
.33	401.906	.83	1,017.619	1.33	1,633.881	1.83	2,250.158	2.33	2,866.436	2.83	3,482.714
.34	414.214	.84	1,029.943	1.34	1,646.206	1.84	2,262.484	2.34	2,878.762	2.84	3,495.039
.35	426.523	.85	1,042.268	1.35	1,658.532	1.85	2,274.809	2.35	2,891.087	2.85	3,507.365
.36	438.832	.86	1,054.593	1.36	1,670.857	1.86	2,287.135	2.36	2,903.413	2.86	3,519.690
.37	451.141	.87	1,066.918	1.37	1,683.183	1.87	2,299.460	2.37	2,915.738	2.87	3,532.016
.38	463.449	.88	1,079.242	1.38	1,695.508	1.88	2,311.786	2.38	2,928.064	2.88	3,544.342
.39	475.758	.89	1,091.567	1.39	1,707.834	1.89	2,324.112	2.39	2,940.389	2.89	3,556.667
.40	488.067	.90	1,103.892	1.40	1,720.159	1.90	2,336.437	2.40	2,952.715	2.90	3,568.993
.41	500.374	.91	1,116.217	1.41	1,732.485	1.91	2,348.763	2.41	2,965.040	2.91	3,581.318
.42	512.682	.92	1,128.541	1.42	1,744.811	1.92	2,361.088	2.42	2,977.366	2.92	3,593.644
.43	524.990	.93	1,140.866	1.43	1,757.136	1.93	2,373.414	2.43	2,989.692	2.93	3,605.969
.44	537.298	.94	1,153.191	1.44	1,769.462	1.94	2,385.739	2.44	3,002.017	2.94	3,618.295
.45	549.605	.95	1,165.515	1.45	1,781.787	1.95	2,398.065	2.45	3,014.343	2.95	3,630.620
.46	561.913	.96	1,177.840	1.46	1,794.113	1.96	2,410.390	2.46	3,026.668	2.96	3,642.946
.47	574.221	.97	1,190.165	1.47	1,806.438	1.97	2,422.716	2.47	3,038.994	2.97	3,655.272
.48	586.529	.98	1,202.490	1.48	1,818.764	1.98	2,435.042	2.48	3,051.319	2.98	3,667.597
.49	598.837	.99	1,214.814	1.49	1,831.089	1.99	2,447.367	2.49	3,063.645	2.99	3,679.923

** Volume Below Strike Point; Located 5.2 Centimetres above intersection of shell & bottom.

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* Bottom volume based on Physical Survey Calculation. Average Centimetres not applicable

HL - High Level @ 14.386 Metres

Volumes reflect a Shell Temperature of 15°C

Action Number P2190102940 - Exhibit G

Shell Canada

TANK # 9230

Sherwood Park, AB

850 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 39.624 Metres X 14.630 Metres

INNAGE TABLE

Reference Gauge Height - 15.109 Metres; Located 4.369 Metres to Rim of Gauge Hatch						Height in Centimetres; Capacity in Cubic Metres					
3.00	3,692.248	3.50	4,308.931	4.00	4,925.633	4.50	5,542.335	5.00	6,159.036	5.50	6,775.738
3.01	3,704.574	3.51	4,321.265	4.01	4,937.967	4.51	5,554.669	5.01	6,171.370	5.51	6,788.072
3.02	3,716.899	3.52	4,333.599	4.02	4,950.301	4.52	5,567.003	5.02	6,183.705	5.52	6,800.406
3.03	3,729.231	3.53	4,345.933	4.03	4,962.635	4.53	5,579.337	5.03	6,196.039	5.53	6,812.740
3.04	3,741.565	3.54	4,358.267	4.04	4,974.969	4.54	5,591.671	5.04	6,208.373	5.54	6,825.074
3.05	3,753.899	3.55	4,370.601	4.05	4,987.303	4.55	5,604.005	5.05	6,220.707	5.55	6,837.408
3.06	3,766.233	3.56	4,382.935	4.06	4,999.637	4.56	5,616.339	5.06	6,233.041	5.56	6,849.743
3.07	3,778.567	3.57	4,395.269	4.07	5,011.971	4.57	5,628.673	5.07	6,245.375	5.57	6,862.077
3.08	3,790.901	3.58	4,407.603	4.08	5,024.305	4.58	5,641.007	5.08	6,257.709	5.58	6,874.411
3.09	3,803.235	3.59	4,419.937	4.09	5,036.639	4.59	5,653.341	5.09	6,270.043	5.59	6,886.745
3.10	3,815.569	3.60	4,432.271	4.10	5,048.973	4.60	5,665.675	5.10	6,282.377	5.60	6,899.079
3.11	3,827.903	3.61	4,444.605	4.11	5,061.307	4.61	5,678.009	5.11	6,294.711	5.61	6,911.413
3.12	3,840.237	3.62	4,456.939	4.12	5,073.641	4.62	5,690.343	5.12	6,307.045	5.62	6,923.747
3.13	3,852.571	3.63	4,469.273	4.13	5,085.975	4.63	5,702.677	5.13	6,319.379	5.63	6,936.081
3.14	3,864.906	3.64	4,481.607	4.14	5,098.309	4.64	5,715.011	5.14	6,331.713	5.64	6,948.415
3.15	3,877.240	3.65	4,493.941	4.15	5,110.643	4.65	5,727.345	5.15	6,344.047	5.65	6,960.749
3.16	3,889.574	3.66	4,506.275	4.16	5,122.977	4.66	5,739.679	5.16	6,356.381	5.66	6,973.083
3.17	3,901.908	3.67	4,518.609	4.17	5,135.311	4.67	5,752.013	5.17	6,368.715	5.67	6,985.417
3.18	3,914.242	3.68	4,530.944	4.18	5,147.645	4.68	5,764.347	5.18	6,381.049	5.68	6,997.751
3.19	3,926.576	3.69	4,543.278	4.19	5,159.979	4.69	5,776.681	5.19	6,393.383	5.69	7,010.085
3.20	3,938.910	3.70	4,555.612	4.20	5,172.313	4.70	5,789.015	5.20	6,405.717	5.70	7,022.419
3.21	3,951.244	3.71	4,567.946	4.21	5,184.647	4.71	5,801.349	5.21	6,418.051	5.71	7,034.753
3.22	3,963.578	3.72	4,580.280	4.22	5,196.982	4.72	5,813.683	5.22	6,430.385	5.72	7,047.087
3.23	3,975.912	3.73	4,592.614	4.23	5,209.316	4.73	5,826.017	5.23	6,442.719	5.73	7,059.421
3.24	3,988.246	3.74	4,604.948	4.24	5,221.650	4.74	5,838.351	5.24	6,455.053	5.74	7,071.755
3.25	4,000.580	3.75	4,617.282	4.25	5,233.984	4.75	5,850.686	5.25	6,467.387	5.75	7,084.089
3.26	4,012.914	3.76	4,629.616	4.26	5,246.318	4.76	5,863.020	5.26	6,479.721	5.76	7,096.423
3.27	4,025.248	3.77	4,641.950	4.27	5,258.652	4.77	5,875.354	5.27	6,492.055	5.77	7,108.757
3.28	4,037.582	3.78	4,654.284	4.28	5,270.986	4.78	5,887.688	5.28	6,504.389	5.78	7,121.091
3.29	4,049.916	3.79	4,666.618	4.29	5,283.320	4.79	5,900.022	5.29	6,516.724	5.79	7,133.425
3.30	4,062.250	3.80	4,678.952	4.30	5,295.654	4.80	5,912.356	5.30	6,529.058	5.80	7,145.759
3.31	4,074.584	3.81	4,691.286	4.31	5,307.988	4.81	5,924.690	5.31	6,541.392	5.81	7,158.093
3.32	4,086.918	3.82	4,703.620	4.32	5,320.322	4.82	5,937.024	5.32	6,553.726	5.82	7,170.427
3.33	4,099.252	3.83	4,715.954	4.33	5,332.656	4.83	5,949.358	5.33	6,566.060	5.83	7,182.762
3.34	4,111.586	3.84	4,728.288	4.34	5,344.990	4.84	5,961.692	5.34	6,578.394	5.84	7,195.096
3.35	4,123.920	3.85	4,740.622	4.35	5,357.324	4.85	5,974.026	5.35	6,590.728	5.85	7,207.430
3.36	4,136.254	3.86	4,752.956	4.36	5,369.658	4.86	5,986.360	5.36	6,603.062	5.86	7,219.764
3.37	4,148.588	3.87	4,765.290	4.37	5,381.992	4.87	5,998.694	5.37	6,615.396	5.87	7,232.098
3.38	4,160.922	3.88	4,777.624	4.38	5,394.326	4.88	6,011.028	5.38	6,627.730	5.88	7,244.432
3.39	4,173.256	3.89	4,789.958	4.39	5,406.660	4.89	6,023.362	5.39	6,640.064	5.89	7,256.766
3.40	4,185.590	3.90	4,802.292	4.40	5,418.994	4.90	6,035.696	5.40	6,652.398	5.90	7,269.100
3.41	4,197.925	3.91	4,814.626	4.41	5,431.328	4.91	6,048.030	5.41	6,664.732	5.91	7,281.434
3.42	4,210.259	3.92	4,826.960	4.42	5,443.662	4.92	6,060.364	5.42	6,677.066	5.92	7,293.768
3.43	4,222.593	3.93	4,839.294	4.43	5,455.996	4.93	6,072.698	5.43	6,689.400	5.93	7,306.102
3.44	4,234.927	3.94	4,851.628	4.44	5,468.330	4.94	6,085.032	5.44	6,701.734	5.94	7,318.436
3.45	4,247.261	3.95	4,863.963	4.45	5,480.664	4.95	6,097.366	5.45	6,714.068	5.95	7,330.770
3.46	4,259.595	3.96	4,876.297	4.46	5,492.998	4.96	6,109.700	5.46	6,726.402	5.96	7,343.104
3.47	4,271.929	3.97	4,888.631	4.47	5,505.332	4.97	6,122.034	5.47	6,738.736	5.97	7,355.438
3.48	4,284.263	3.98	4,900.965	4.48	5,517.667	4.98	6,134.368	5.48	6,751.070	5.98	7,367.772
3.49	4,296.597	3.99	4,913.299	4.49	5,530.001	4.99	6,146.702	5.49	6,763.404	5.99	7,380.106

Millimetres

1	1.234	6	7.403
2	2.468	7	8.637
3	3.701	8	9.871
4	4.935	9	11.104
5	6.169		

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Action Number P2190102940 - Exhibit G

Shell Canada

TANK # 9230

Sherwood Park, AB

850 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 39.624 Metres X 14.630 Metres

INNAGE TABLE

Reference Gauge Height - 15.109 Metres; Located 4.369 Metres to Rim of Gauge Hatch						Height in Centimetres; Capacity in Cubic Metres					
6.00	7,392.440	6.50	8,009.333	7.00	8,626.245	7.50	9,243.156	8.00	9,860.068	8.50	10,476.980
6.01	7,404.774	6.51	8,021.671	7.01	8,638.583	7.51	9,255.495	8.01	9,872.406	8.51	10,489.318
6.02	7,417.108	6.52	8,034.009	7.02	8,650.921	7.52	9,267.833	8.02	9,884.745	8.52	10,501.657
6.03	7,429.442	6.53	8,046.348	7.03	8,663.259	7.53	9,280.171	8.03	9,897.083	8.53	10,513.995
6.04	7,441.776	6.54	8,058.686	7.04	8,675.598	7.54	9,292.509	8.04	9,909.421	8.54	10,526.333
6.05	7,454.112	6.55	8,071.024	7.05	8,687.936	7.55	9,304.848	8.05	9,921.759	8.55	10,538.671
6.06	7,466.451	6.56	8,083.362	7.06	8,700.274	7.56	9,317.186	8.06	9,934.098	8.56	10,551.009
6.07	7,478.789	6.57	8,095.701	7.07	8,712.612	7.57	9,329.524	8.07	9,946.436	8.57	10,563.348
6.08	7,491.127	6.58	8,108.039	7.08	8,724.951	7.58	9,341.862	8.08	9,958.774	8.58	10,575.686
6.09	7,503.465	6.59	8,120.377	7.09	8,737.289	7.59	9,354.201	8.09	9,971.112	8.59	10,588.024
6.10	7,515.804	6.60	8,132.715	7.10	8,749.627	7.60	9,366.539	8.10	9,983.451	8.60	10,600.362
6.11	7,528.142	6.61	8,145.054	7.11	8,761.965	7.61	9,378.877	8.11	9,995.789	8.61	10,612.701
6.12	7,540.480	6.62	8,157.392	7.12	8,774.304	7.62	9,391.215	8.12	10,008.127	8.62	10,625.039
6.13	7,552.818	6.63	8,169.730	7.13	8,786.642	7.63	9,403.554	8.13	10,020.465	8.63	10,637.377
6.14	7,565.156	6.64	8,182.068	7.14	8,798.980	7.64	9,415.892	8.14	10,032.804	8.64	10,649.715
6.15	7,577.495	6.65	8,194.406	7.15	8,811.318	7.65	9,428.230	8.15	10,045.142	8.65	10,662.054
6.16	7,589.833	6.66	8,206.745	7.16	8,823.656	7.66	9,440.568	8.16	10,057.480	8.66	10,674.392
6.17	7,602.171	6.67	8,219.083	7.17	8,835.995	7.67	9,452.906	8.17	10,069.818	8.67	10,686.730
6.18	7,614.509	6.68	8,231.421	7.18	8,848.333	7.68	9,465.245	8.18	10,082.157	8.68	10,699.068
6.19	7,626.848	6.69	8,243.759	7.19	8,860.671	7.69	9,477.583	8.19	10,094.495	8.69	10,711.407
6.20	7,639.186	6.70	8,256.098	7.20	8,873.009	7.70	9,489.921	8.20	10,106.833	8.70	10,723.745
6.21	7,651.524	6.71	8,268.436	7.21	8,885.348	7.71	9,502.259	8.21	10,119.171	8.71	10,736.083
6.22	7,663.862	6.72	8,280.774	7.22	8,897.686	7.72	9,514.598	8.22	10,131.509	8.72	10,748.421
6.23	7,676.201	6.73	8,293.112	7.23	8,910.024	7.73	9,526.936	8.23	10,143.848	8.73	10,760.759
6.24	7,688.539	6.74	8,305.451	7.24	8,922.362	7.74	9,539.274	8.24	10,156.186	8.74	10,773.098
6.25	7,700.877	6.75	8,317.789	7.25	8,934.701	7.75	9,551.612	8.25	10,168.524	8.75	10,785.436
6.26	7,713.215	6.76	8,330.127	7.26	8,947.039	7.76	9,563.951	8.26	10,180.862	8.76	10,797.774
6.27	7,725.554	6.77	8,342.465	7.27	8,959.377	7.77	9,576.289	8.27	10,193.201	8.77	10,810.112
6.28	7,737.892	6.78	8,354.804	7.28	8,971.715	7.78	9,588.627	8.28	10,205.539	8.78	10,822.451
6.29	7,750.230	6.79	8,367.142	7.29	8,984.054	7.79	9,600.965	8.29	10,217.877	8.79	10,834.789
6.30	7,762.568	6.80	8,379.480	7.30	8,996.392	7.80	9,613.304	8.30	10,230.215	8.80	10,847.127
6.31	7,774.906	6.81	8,391.818	7.31	9,008.730	7.81	9,625.642	8.31	10,242.554	8.81	10,859.465
6.32	7,787.245	6.82	8,404.156	7.32	9,021.068	7.82	9,637.980	8.32	10,254.892	8.82	10,871.804
6.33	7,799.583	6.83	8,416.495	7.33	9,033.406	7.83	9,650.318	8.33	10,267.230	8.83	10,884.142
6.34	7,811.921	6.84	8,428.833	7.34	9,045.745	7.84	9,662.656	8.34	10,279.568	8.84	10,896.480
6.35	7,824.259	6.85	8,441.171	7.35	9,058.083	7.85	9,674.995	8.35	10,291.907	8.85	10,908.818
6.36	7,836.598	6.86	8,453.509	7.36	9,070.421	7.86	9,687.333	8.36	10,304.245	8.86	10,921.157
6.37	7,848.936	6.87	8,465.848	7.37	9,082.759	7.87	9,699.671	8.37	10,316.583	8.87	10,933.495
6.38	7,861.274	6.88	8,478.186	7.38	9,095.098	7.88	9,712.009	8.38	10,328.921	8.88	10,945.833
6.39	7,873.612	6.89	8,490.524	7.39	9,107.436	7.89	9,724.348	8.39	10,341.259	8.89	10,958.171
6.40	7,885.951	6.90	8,502.862	7.40	9,119.774	7.90	9,736.686	8.40	10,353.598	8.90	10,970.509
6.41	7,898.289	6.91	8,515.201	7.41	9,132.112	7.91	9,749.024	8.41	10,365.936	8.91	10,982.848
6.42	7,910.627	6.92	8,527.539	7.42	9,144.451	7.92	9,761.362	8.42	10,378.274	8.92	10,995.186
6.43	7,922.965	6.93	8,539.877	7.43	9,156.789	7.93	9,773.701	8.43	10,390.612	8.93	11,007.524
6.44	7,935.304	6.94	8,552.215	7.44	9,169.127	7.94	9,786.039	8.44	10,402.951	8.94	11,019.862
6.45	7,947.642	6.95	8,564.554	7.45	9,181.465	7.95	9,798.377	8.45	10,415.289	8.95	11,032.201
6.46	7,959.980	6.96	8,576.892	7.46	9,193.804	7.96	9,810.715	8.46	10,427.627	8.96	11,044.539
6.47	7,972.318	6.97	8,589.230	7.47	9,206.142	7.97	9,823.054	8.47	10,439.965	8.97	11,056.877
6.48	7,984.656	6.98	8,601.568	7.48	9,218.480	7.98	9,835.392	8.48	10,452.304	8.98	11,069.215
6.49	7,996.995	6.99	8,613.906	7.49	9,230.818	7.99	9,847.730	8.49	10,464.642	8.99	11,081.554

Millimetres

1	1.234	6	7.403
2	2.468	7	8.637
3	3.701	8	9.871
4	4.935	9	11.104
5	6.169		

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Action Number P2190102940 - Exhibit G

Shell Canada

TANK # 9230

Sherwood Park, AB

850 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 39.624 Metres X 14.630 Metres

INNAGE TABLE

Reference Gauge Height - 15.109 Metres; Located 4.369 Metres to Rim of Gauge Hatch										Height in Centimetres; Capacity in Cubic Metres	
9.00	11,093.892	9.50	11,711.268	10.00	12,328.717	10.50	12,946.166	11.00	13,563.615	11.50	14,181.064
9.01	11,106.230	9.51	11,723.617	10.01	12,341.066	10.51	12,958.515	11.01	13,575.964	11.51	14,193.413
9.02	11,118.568	9.52	11,735.966	10.02	12,353.415	10.52	12,970.864	11.02	13,588.313	11.52	14,205.762
9.03	11,130.907	9.53	11,748.315	10.03	12,365.764	10.53	12,983.213	11.03	13,600.662	11.53	14,218.111
9.04	11,143.245	9.54	11,760.664	10.04	12,378.113	10.54	12,995.562	11.04	13,613.011	11.54	14,230.460
9.05	11,155.583	9.55	11,773.013	10.05	12,390.462	10.55	13,007.911	11.05	13,625.360	11.55	14,242.809
9.06	11,167.921	9.56	11,785.362	10.06	12,402.811	10.56	13,020.260	11.06	13,637.709	11.56	14,255.158
9.07	11,180.262	9.57	11,797.711	10.07	12,415.160	10.57	13,032.609	11.07	13,650.058	11.57	14,267.507
9.08	11,192.611	9.58	11,810.060	10.08	12,427.509	10.58	13,044.958	11.08	13,662.407	11.58	14,279.856
9.09	11,204.960	9.59	11,822.409	10.09	12,439.858	10.59	13,057.307	11.09	13,674.756	11.59	14,292.204
9.10	11,217.309	9.60	11,834.758	10.10	12,452.207	10.60	13,069.656	11.10	13,687.105	11.60	14,304.553
9.11	11,229.658	9.61	11,847.107	10.11	12,464.556	10.61	13,082.005	11.11	13,699.454	11.61	14,316.902
9.12	11,242.007	9.62	11,859.456	10.12	12,476.905	10.62	13,094.354	11.12	13,711.802	11.62	14,329.251
9.13	11,254.356	9.63	11,871.805	10.13	12,489.254	10.63	13,106.703	11.13	13,724.151	11.63	14,341.600
9.14	11,266.705	9.64	11,884.154	10.14	12,501.603	10.64	13,119.051	11.14	13,736.500	11.64	14,353.949
9.15	11,279.054	9.65	11,896.503	10.15	12,513.952	10.65	13,131.400	11.15	13,748.849	11.65	14,366.298
9.16	11,291.403	9.66	11,908.852	10.16	12,526.301	10.66	13,143.749	11.16	13,761.198	11.66	14,378.647
9.17	11,303.752	9.67	11,921.201	10.17	12,538.649	10.67	13,156.098	11.17	13,773.547	11.67	14,390.996
9.18	11,316.101	9.68	11,933.550	10.18	12,550.998	10.68	13,168.447	11.18	13,785.896	11.68	14,403.345
9.19	11,328.450	9.69	11,945.899	10.19	12,563.347	10.69	13,180.796	11.19	13,798.245	11.69	14,415.694
9.20	11,340.799	9.70	11,958.247	10.20	12,575.696	10.70	13,193.145	11.20	13,810.594	11.70	14,428.043
9.21	11,353.148	9.71	11,970.596	10.21	12,588.045	10.71	13,205.494	11.21	13,822.943	11.71	14,440.392
9.22	11,365.497	9.72	11,982.945	10.22	12,600.394	10.72	13,217.843	11.22	13,835.292	11.72	14,452.741
9.23	11,377.845	9.73	11,995.294	10.23	12,612.743	10.73	13,230.192	11.23	13,847.641	11.73	14,465.090
9.24	11,390.194	9.74	12,007.643	10.24	12,625.092	10.74	13,242.541	11.24	13,859.990	11.74	14,477.439
9.25	11,402.543	9.75	12,019.992	10.25	12,637.441	10.75	13,254.890	11.25	13,872.339	11.75	14,489.788
9.26	11,414.892	9.76	12,032.341	10.26	12,649.790	10.76	13,267.239	11.26	13,884.688	11.76	14,502.137
9.27	11,427.241	9.77	12,044.690	10.27	12,662.139	10.77	13,279.588	11.27	13,897.037	11.77	14,514.486
9.28	11,439.590	9.78	12,057.039	10.28	12,674.488	10.78	13,291.937	11.28	13,909.386	11.78	14,526.835
9.29	11,451.939	9.79	12,069.388	10.29	12,686.837	10.79	13,304.286	11.29	13,921.735	11.79	14,539.184
9.30	11,464.288	9.80	12,081.737	10.30	12,699.186	10.80	13,316.635	11.30	13,934.084	11.80	14,551.533
9.31	11,476.637	9.81	12,094.086	10.31	12,711.535	10.81	13,328.984	11.31	13,946.433	11.81	14,563.882
9.32	11,488.986	9.82	12,106.435	10.32	12,723.884	10.82	13,341.333	11.32	13,958.782	11.82	14,576.231
9.33	11,501.335	9.83	12,118.784	10.33	12,736.233	10.83	13,353.682	11.33	13,971.131	11.83	14,588.580
9.34	11,513.684	9.84	12,131.133	10.34	12,748.582	10.84	13,366.031	11.34	13,983.480	11.84	14,600.929
9.35	11,526.033	9.85	12,143.482	10.35	12,760.931	10.85	13,378.380	11.35	13,995.829	11.85	14,613.278
9.36	11,538.382	9.86	12,155.831	10.36	12,773.280	10.86	13,390.729	11.36	14,008.178	11.86	14,625.627
9.37	11,550.731	9.87	12,168.180	10.37	12,785.629	10.87	13,403.078	11.37	14,020.527	11.87	14,637.976
9.38	11,563.080	9.88	12,180.529	10.38	12,797.978	10.88	13,415.427	11.38	14,032.876	11.88	14,650.325
9.39	11,575.429	9.89	12,192.878	10.39	12,810.327	10.89	13,427.776	11.39	14,045.225	11.89	14,662.674
9.40	11,587.778	9.90	12,205.227	10.40	12,822.676	10.90	13,440.125	11.40	14,057.574	11.90	14,675.023
9.41	11,600.127	9.91	12,217.576	10.41	12,835.025	10.91	13,452.474	11.41	14,069.923	11.91	14,687.372
9.42	11,612.476	9.92	12,229.925	10.42	12,847.374	10.92	13,464.823	11.42	14,082.272	11.92	14,699.721
9.43	11,624.825	9.93	12,242.274	10.43	12,859.723	10.93	13,477.172	11.43	14,094.621	11.93	14,712.070
9.44	11,637.174	9.94	12,254.623	10.44	12,872.072	10.94	13,489.521	11.44	14,106.970	11.94	14,724.419
9.45	11,649.523	9.95	12,266.972	10.45	12,884.421	10.95	13,501.870	11.45	14,119.319	11.95	14,736.768
9.46	11,661.872	9.96	12,279.321	10.46	12,896.770	10.96	13,514.219	11.46	14,131.668	11.96	14,749.117
9.47	11,674.221	9.97	12,291.670	10.47	12,909.119	10.97	13,526.568	11.47	14,144.017	11.97	14,761.466
9.48	11,686.570	9.98	12,304.019	10.48	12,921.468	10.98	13,538.917	11.48	14,156.366	11.98	14,773.815
9.49	11,698.919	9.99	12,316.368	10.49	12,933.817	10.99	13,551.266	11.49	14,168.715	11.99	14,786.164

Millimetres

1	1.234	6	7.403
2	2.468	7	8.637
3	3.701	8	9.871
4	4.935	9	11.104
5	6.169		

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Action Number P2190102940 - Exhibit G

Shell Canada

TANK # 9230

Sherwood Park, AB

850 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 39.624 Metres X 14.630 Metres

INNAGE TABLE

Reference Gauge Height - 15.109 Metres; Located 4.369 Metres to Rim of Gauge Hatch						Height in Centimetres; Capacity in Cubic Metres					
12.00	14,798.513	12.50	15,415.965	13.00	16,033.419	13.50	16,650.873	14.00	17,268.326	14.50	17,885.780
12.01	14,810.862	12.51	15,428.314	13.01	16,045.768	13.51	16,663.222	14.01	17,280.675	14.51	17,889.978
12.02	14,823.211	12.52	15,440.664	13.02	16,058.117	13.52	16,675.571	14.02	17,293.024	14.52	
12.03	14,835.560	12.53	15,453.013	13.03	16,070.466	13.53	16,687.920	14.03	17,305.373	14.53	
12.04	14,847.909	12.54	15,465.362	13.04	16,082.815	13.54	16,700.269	14.04	17,317.722	14.54	
12.05	14,860.258	12.55	15,477.711	13.05	16,095.164	13.55	16,712.618	14.05	17,330.072	14.55	
12.06	14,872.606	12.56	15,490.060	13.06	16,107.513	13.56	16,724.967	14.06	17,342.421	14.56	
12.07	14,884.955	12.57	15,502.409	13.07	16,119.862	13.57	16,737.316	14.07	17,354.770	14.57	
12.08	14,897.304	12.58	15,514.758	13.08	16,132.212	13.58	16,749.665	14.08	17,367.119	14.58	
12.09	14,909.653	12.59	15,527.107	13.09	16,144.561	13.59	16,762.014	14.09	17,379.468	14.59	
12.10	14,922.002	12.60	15,539.456	13.10	16,156.910	13.60	16,774.363	14.10	17,391.817	14.60	
12.11	14,934.352	12.61	15,551.805	13.11	16,169.259	13.61	16,786.712	14.11	17,404.166	14.61	
12.12	14,946.701	12.62	15,564.154	13.12	16,181.608	13.62	16,799.061	14.12	17,416.515	14.62	
12.13	14,959.050	12.63	15,576.503	13.13	16,193.957	13.63	16,811.411	14.13	17,428.864	14.63	
12.14	14,971.399	12.64	15,588.852	13.14	16,206.306	13.64	16,823.760	14.14	17,441.213	14.64	
12.15	14,983.748	12.65	15,601.201	13.15	16,218.655	13.65	16,836.109	14.15	17,453.562	14.65	
12.16	14,996.097	12.66	15,613.551	13.16	16,231.004	13.66	16,848.458	14.16	17,465.911	14.66	
12.17	15,008.446	12.67	15,625.900	13.17	16,243.353	13.67	16,860.807	14.17	17,478.260	14.67	
12.18	15,020.795	12.68	15,638.249	13.18	16,255.702	13.68	16,873.156	14.18	17,490.610	14.68	
12.19	15,033.144	12.69	15,650.598	13.19	16,268.051	13.69	16,885.505	14.19	17,502.959	14.69	
12.20	15,045.493	12.70	15,662.947	13.20	16,280.400	13.70	16,897.854	14.20	17,515.308	14.70	
12.21	15,057.842	12.71	15,675.296	13.21	16,292.750	13.71	16,910.203	14.21	17,527.657	14.71	
12.22	15,070.191	12.72	15,687.645	13.22	16,305.099	13.72	16,922.552	14.22	17,540.006	14.72	
12.23	15,082.540	12.73	15,699.994	13.23	16,317.448	13.73	16,934.901	14.23	17,552.355	14.73	
12.24	15,094.890	12.74	15,712.343	13.24	16,329.797	13.74	16,947.250	14.24	17,564.704	14.74	
12.25	15,107.239	12.75	15,724.692	13.25	16,342.146	13.75	16,959.599	14.25	17,577.053	14.75	
12.26	15,119.588	12.76	15,737.041	13.26	16,354.495	13.76	16,971.948	14.26	17,589.402	14.76	
12.27	15,131.937	12.77	15,749.390	13.27	16,366.844	13.77	16,984.298	14.27	17,601.751	14.77	
12.28	15,144.286	12.78	15,761.739	13.28	16,379.193	13.78	16,996.647	14.28	17,614.100	14.78	
12.29	15,156.635	12.79	15,774.088	13.29	16,391.542	13.79	17,008.996	14.29	17,626.449	14.79	
12.30	15,168.984	12.80	15,786.438	13.30	16,403.891	13.80	17,021.345	14.30	17,638.798	14.80	
12.31	15,181.333	12.81	15,798.787	13.31	16,416.240	13.81	17,033.694	14.31	17,651.147	14.81	
12.32	15,193.682	12.82	15,811.136	13.32	16,428.589	13.82	17,046.043	14.32	17,663.497	14.82	
12.33	15,206.031	12.83	15,823.485	13.33	16,440.938	13.83	17,058.392	14.33	17,675.846	14.83	
12.34	15,218.380	12.84	15,835.834	13.34	16,453.287	13.84	17,070.741	14.34	17,688.195	14.84	
12.35	15,230.729	12.85	15,848.183	13.35	16,465.637	13.85	17,083.090	14.35	17,700.544	14.85	
12.36	15,243.078	12.86	15,860.532	13.36	16,477.986	13.86	17,095.439	14.36	17,712.893	14.86	
12.37	15,255.427	12.87	15,872.881	13.37	16,490.335	13.87	17,107.788	14.37	17,725.242	14.87	
12.38	15,267.777	12.88	15,885.230	13.38	16,502.684	13.88	17,120.137	14.38 HL	17,737.591	14.88	
12.39	15,280.126	12.89	15,897.579	13.39	16,515.033	13.89	17,132.486	14.39	17,749.940	14.89	
12.40	15,292.475	12.90	15,909.928	13.40	16,527.382	13.90	17,144.835	14.40	17,762.289	14.90	
12.41	15,304.824	12.91	15,922.277	13.41	16,539.731	13.91	17,157.185	14.41	17,774.638	14.91	
12.42	15,317.173	12.92	15,934.626	13.42	16,552.080	13.92	17,169.534	14.42	17,786.987	14.92	
12.43	15,329.522	12.93	15,946.975	13.43	16,564.429	13.93	17,181.883	14.43	17,799.336	14.93	
12.44	15,341.871	12.94	15,959.325	13.44	16,576.778	13.94	17,194.232	14.44	17,811.685	14.94	
12.45	15,354.220	12.95	15,971.674	13.45	16,589.127	13.95	17,206.581	14.45	17,824.034	14.95	
12.46	15,366.569	12.96	15,984.023	13.46	16,601.476	13.96	17,218.930	14.46	17,836.384	14.96	
12.47	15,378.918	12.97	15,996.372	13.47	16,613.825	13.97	17,231.279	14.47	17,848.733	14.97	
12.48	15,391.267	12.98	16,008.721	13.48	16,626.174	13.98	17,243.628	14.48	17,861.082	14.98	
12.49	15,403.616	12.99	16,021.070	13.49	16,638.524	13.99	17,255.977	14.49	17,873.431	14.99	

Millimetres

1	1.234	6	7.403
2	2.468	7	8.637
3	3.701	8	9.871
4	4.935	9	11.104
5	6.169		

HL - High Level @ 14.386 Metres

Page 5 of 5

Tables produced by:
Nextgen Industrial Services Inc.
(306) 596-8330
www.nextgenis.net



Shell Canada
Sherwood Park, AB

General Information

Tank Number	9230
Date of Strapping Data	05/08/2017
Year Built	
Product in Service	Diesel
Product Service Density	0.85 g/cc (SG)

Tank Dimensions

Nominal Diameter	39.624 Metres
Nominal Height	14.630 Metres
Measured Tank Height	14.630 Metres
Tank Tilt	N/A
Gauge Point Information	Rim of Gauge Hatch
Reference Gauge Height	15.109 Metres
Horizontal To Gauge	4.369 Metres

Roof & Bottom Survey

Roof Type	Cone
Floating Roof Shape	N/A
Floating Roof Weight	N/A
Roof Landed Height	N/A
Roof Full Floating Height	N/A
Bottom Description	Physical Survey

Report Constraints

Main Increment	Centimetres
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	N/A
High Level	14.386 Metres
Overflow Or Foamline	N/A

Shell Canada
Sherwood Park, AB

Strap Correction to 60°F

Shell Temperature (°F)	64.4	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 0.99994840

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	124.574	408.707	0.001	408.686
2	124.574	408.707	0.001	408.686
3	124.574	408.707	0.001	408.686
4	124.574	408.707	0.001	408.686
5	124.574	408.707	0.001	408.686

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	447.500	0.000	0.000	124.567	408.686
2	446.821	-0.679	4.264	124.572	408.700
3	450.250	2.750	-17.279	124.550	408.629
4	449.500	2.000	-12.566	124.555	408.644
5	454.179	6.679	-41.963	124.525	408.548

Shell Canada
Sherwood Park, AB

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	408.686	0.725 Inches	119.00 Inches	119.000 Inches
2	408.700	0.585 Inches	119.00 Inches	238.000 Inches
3	408.629	0.446 Inches	119.00 Inches	357.000 Inches
4	408.644	0.313 Inches	119.00 Inches	476.000 Inches
5	408.548	0.313 Inches	95.000 Inches	571.000 Inches

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	13	0.750 Inches	1.000 Millimetres
2	Butt Weld	13	0.750 Inches	1.000 Millimetres
3	Butt Weld	13	0.750 Inches	1.000 Millimetres
4	Butt Weld	13	0.750 Inches	1.000 Millimetres
5	Butt Weld	13	0.750 Inches	1.000 Millimetres

Shell Canada
Sherwood Park, AB

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	408.686	0.725	0
2.00	62.428	1.000	0	408.700	0.585	0
3.00	62.428	1.000	0	408.629	0.446	0
4.00	62.428	1.000	0	408.644	0.313	0
5.00	62.428	1.000	0	408.548	0.313	0

Shell Canada
Sherwood Park, AB

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2*D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	408.686	0.000	0.001	0.380	408.306
2	408.700	0.000	0.001	0.306	408.393
3	408.629	0.000	0.001	0.234	408.395
4	408.644	0.000	0.001	0.164	408.481
5	408.548	0.000	0.001	0.164	408.384

Shell Canada
Sherwood Park, AB

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Centimetre
1	408.306	0.023	408.329	12.327
2	408.393	0.029	408.422	12.332
3	408.395	0.038	408.434	12.333
4	408.481	0.055	408.535	12.339
5	408.384	0.044	408.428	12.332

Shell Canada
Sherwood Park, AB

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} * \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Centimetre	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	12.327	0.003	0.000	12.327	12.326
2	12.332	0.004	0.003	12.335	12.335
3	12.333	0.005	0.006	12.339	12.339
4	12.339	0.007	0.011	12.350	12.350
5	12.332	0.000	0.018	12.350	12.350

Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-01

Mackay Terminal

860 kg/m³ @ 15°C

External Floating Roof Tank - Nominal Dimensions : 46.180 Metres X 15.690 Metres

INNAGE TABLE

Reference Gauge Height - 17.530 Metres; Located 0.737 Metres to Rim of Gauge Hatch					Height in Centimetres; Capacity in Cubic Metres									
.00	**	293.109	.50	1,128.795	1.00	Low Critical Zone - No Critical measurement to be taken in Critical Zones	1,926.068	1.50	2,668.511	2.00	High Critical Zone	3,504.646	2.50	4,341.036
.01		309.739	.51	1,145.498	1.01		1,938.536	1.51	2,685.231	2.01		3,521.374	2.51	4,357.763
.02		326.388	.52	1,162.207	1.02		1,951.004	1.52	2,701.951	2.02		3,538.101	2.52	4,374.491
.03		343.113	.53	1,178.916	1.03		1,963.472	1.53	2,718.670	2.03		3,554.829	2.53	4,391.219
.04		359.838	.54	1,195.624	1.04		1,975.940	1.54	2,735.390	2.04		3,571.557	2.54	4,407.947
.05		376.562	.55	1,212.334	1.05		1,988.408	1.55	2,752.109	2.05		3,588.285	2.55	4,424.675
.06		393.287	.56	1,229.044	1.06		2,000.876	1.56	2,768.829	2.06		3,605.013	2.56	4,441.402
.07		410.011	.57	1,245.753	1.07		2,013.344	1.57	2,785.548	2.07		3,621.740	2.57	4,458.130
.08		426.736	.58	1,262.463	1.08		2,025.812	1.58	2,802.268	2.08		3,638.468	2.58	4,474.858
.09		443.461	.59	1,279.173	1.09		2,038.280	1.59	2,818.987	2.09		3,655.196	2.59	4,491.586
.10		460.185	.60	1,295.883	1.10		2,050.748	1.60	2,835.707	2.10		3,671.924	2.60	4,508.314
.11		476.910	.61	1,312.590	1.11		2,063.216	1.61	2,852.427	2.11		3,688.652	2.61	4,525.041
.12		493.634	.62	1,329.298	1.12		2,075.684	1.62	2,869.146	2.12		3,705.379	2.62	4,541.769
.13		510.358	.63	1,346.006	1.13		2,088.151	1.63	2,885.866	2.13		3,722.107	2.63	4,558.497
.14		527.082	.64	1,362.714	1.14		2,100.619	1.64	2,902.585	2.14		3,738.835	2.64	4,575.225
.15		543.806	.65	1,379.421	1.15		2,113.087	1.65	2,919.305	2.15		3,755.563	2.65	4,591.953
.16		560.530	.66	1,396.129	1.16		2,125.555	1.66	2,936.024	2.16		3,772.291	2.66	4,608.680
.17		577.254	.67	1,412.834	1.17		2,138.023	1.67	2,952.744	2.17		3,789.018	2.67	4,625.408
.18		593.978	.68	1,429.539	1.18		2,150.491	1.68	2,969.463	2.18		3,805.746	2.68	4,642.136
.19		610.699	.69	1,446.247	1.19		2,162.958	1.69	2,986.183	2.19		3,822.474	2.69	4,658.864
.20		627.419	.70	1,462.955	1.20		2,175.426	1.70	3,002.903	2.20		3,839.202	2.70	4,675.592
.21		644.140	.71	1,479.662	1.21		2,187.894	1.71	3,019.622	2.21		3,855.930	2.71	4,692.319
.22		660.861	.72	1,496.370	1.22		2,200.362	1.72	3,036.342	2.22		3,872.657	2.72	4,709.047
.23		677.582	.73	1,513.077	1.23		2,217.082	1.73	3,053.061	2.23		3,889.385	2.73	4,725.775
.24		694.302	.74	1,529.787	1.24		2,233.802	1.74	3,069.781	2.24		3,906.113	2.74	4,742.503
.25		711.023	.75	1,546.498	1.25		2,250.521	1.75	3,086.500	2.25		3,922.841	2.75	4,759.231
.26		727.747	.76	1,563.208	1.26		2,267.241	1.76	3,103.220	2.26		3,939.569	2.76	4,775.958
.27		744.472	.77	1,579.918	1.27		2,283.961	1.77	3,119.939	2.27		3,956.296	2.77	4,792.686
.28		761.193	.78	1,596.628	1.28		2,300.680	1.78	3,136.659	2.28		3,973.024	2.78	4,809.414
.29		777.917	.79	1,613.338	1.29		2,317.400	1.79	3,153.379	2.29		3,989.752	2.79	4,826.142
.30		794.640	.80	1,630.049	1.30		2,334.120	1.80	3,170.098	2.30		4,006.480	2.80	4,842.870
.31		811.354	.81	1,646.759	1.31		2,350.839	1.81	3,186.818	2.31		4,023.208	2.81	4,859.597
.32		828.068	.82	1,663.469	1.32		2,367.559	1.82	3,203.546	2.32		4,039.935	2.82	4,876.325
.33		844.783	.83	1,680.179	1.33		2,384.278	1.83	3,220.273	2.33		4,056.663	2.83	4,893.053
.34		861.497	.84	1,696.890	1.34		2,400.998	1.84	3,237.001	2.34		4,073.391	2.84	4,909.781
.35		878.211	.85	1,713.600	1.35		2,417.718	1.85	3,253.729	2.35		4,090.119	2.85	4,926.509
.36		894.924	.86	1,730.310	1.36		2,434.437	1.86	3,270.457	2.36		4,106.847	2.86	4,943.236
.37		911.637	.87	1,747.020	1.37		2,451.157	1.87	3,287.185	2.37		4,123.574	2.87	4,959.964
.38		928.351	.88	1,763.731	1.38		2,467.877	1.88	3,303.912	2.38		4,140.302	2.88	4,976.692
.39		945.054	.89	1,780.441	1.39		2,484.596	1.89	3,320.640	2.39		4,157.030	2.89	4,993.420
.40		961.757	.90	1,797.152	1.40		2,501.316	1.90	3,337.368	2.40		4,173.758	2.90	5,010.148
.41		978.461	.91	1,813.862	1.41		2,518.035	1.91	3,354.096	2.41		4,190.486	2.91	5,026.875
.42		995.164	.92	1,826.321	1.42		2,534.755	1.92	3,370.823	2.42		4,207.213	2.92	5,043.603
.43		1,011.868	.93	1,838.790	1.43		2,551.474	1.93	3,387.551	2.43		4,223.941	2.93	5,060.331
.44		1,028.572	.94	1,851.258	1.44		2,568.194	1.94	3,404.279	2.44		4,240.669	2.94	5,077.059
.45		1,045.276	.95	1,863.727	1.45		2,584.914	1.95	3,421.007	2.45		4,257.397	2.95	5,093.787
.46		1,061.980	.96	1,876.195	1.46		2,601.633	1.96	3,437.735	2.46		4,274.125	2.96	5,110.514
.47		1,078.683	.97	1,888.664	1.47		2,618.353	1.97	3,454.462	2.47		4,290.852	2.97	5,127.242
.48		1,095.387	.98	1,901.132	1.48		2,635.072	1.98	3,471.190	2.48		4,307.580	2.98	5,143.970
.49		1,112.091	.99	1,913.600	1.49		2,651.792	1.99	3,487.918	2.49		4,324.308	2.99	5,160.698

** Volume Below Strike Point; Located 20 Centimetres above intersection of shell & bottom.

Page 1 of 5

* Bottom volume based on Physical Survey Calculation. Average Centimetres not applicable

Volumes reflect a Shell Temperature of 15°C

Safe Fill Height / Overflow @ 14.33 Metres

A total of 131.806 Cubic Metres were deducted between 86 & 127 Centimetres based on a weight of 113352.733 Kilograms and a density of 860 kg/m³. Gauged quantities above 127 Centimetres reflect this deduction but shall be adjusted for a differing specific gravity at 15°C according to the following formula (see page 2).

Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-01

Mackay Terminal

860 kg/m³ @ 15°C

External Floating Roof Tank - Nominal Dimensions : 46.180 Metres X 15.690 Metres

INNAGE TABLE

Reference Gauge Height - 17.530 Metres; Located 0.737 Metres to Rim of Gauge Hatch						Height in Centimetres; Capacity in Cubic Metres					
3.00	5,177.426	3.50	6,013.914	4.00	6,850.410	4.50	7,686.906	5.00	8,523.402	5.50	9,359.899
3.01	5,194.153	3.51	6,030.644	4.01	6,867.140	4.51	7,703.636	5.01	8,540.132	5.51	9,376.629
3.02	5,210.881	3.52	6,047.374	4.02	6,883.870	4.52	7,720.366	5.02	8,556.862	5.52	9,393.358
3.03	5,227.609	3.53	6,064.104	4.03	6,900.600	4.53	7,737.096	5.03	8,573.592	5.53	9,410.088
3.04	5,244.337	3.54	6,080.834	4.04	6,917.330	4.54	7,753.826	5.04	8,590.322	5.54	9,426.818
3.05	5,261.067	3.55	6,097.563	4.05	6,934.060	4.55	7,770.556	5.05	8,607.052	5.55	9,443.548
3.06	5,277.797	3.56	6,114.293	4.06	6,950.790	4.56	7,787.286	5.06	8,623.782	5.56	9,460.278
3.07	5,294.527	3.57	6,131.023	4.07	6,967.519	4.57	7,804.016	5.07	8,640.512	5.57	9,477.008
3.08	5,311.257	3.58	6,147.753	4.08	6,984.249	4.58	7,820.746	5.08	8,657.242	5.58	9,493.738
3.09	5,327.987	3.59	6,164.483	4.09	7,000.979	4.59	7,837.476	5.09	8,673.972	5.59	9,510.468
3.10	5,344.717	3.60	6,181.213	4.10	7,017.709	4.60	7,854.205	5.10	8,690.702	5.60	9,527.198
3.11	5,361.447	3.61	6,197.943	4.11	7,034.439	4.61	7,870.935	5.11	8,707.432	5.61	9,543.928
3.12	5,378.177	3.62	6,214.673	4.12	7,051.169	4.62	7,887.665	5.12	8,724.161	5.62	9,560.658
3.13	5,394.907	3.63	6,231.403	4.13	7,067.899	4.63	7,904.395	5.13	8,740.891	5.63	9,577.388
3.14	5,411.637	3.64	6,248.133	4.14	7,084.629	4.64	7,921.125	5.14	8,757.621	5.64	9,594.118
3.15	5,428.367	3.65	6,264.863	4.15	7,101.359	4.65	7,937.855	5.15	8,774.351	5.65	9,610.847
3.16	5,445.096	3.66	6,281.593	4.16	7,118.089	4.66	7,954.585	5.16	8,791.081	5.66	9,627.577
3.17	5,461.826	3.67	6,298.323	4.17	7,134.819	4.67	7,971.315	5.17	8,807.811	5.67	9,644.307
3.18	5,478.556	3.68	6,315.052	4.18	7,151.549	4.68	7,988.045	5.18	8,824.541	5.68	9,661.037
3.19	5,495.286	3.69	6,331.782	4.19	7,168.279	4.69	8,004.775	5.19	8,841.271	5.69	9,677.767
3.20	5,512.016	3.70	6,348.512	4.20	7,185.008	4.70	8,021.505	5.20	8,858.001	5.70	9,694.497
3.21	5,528.746	3.71	6,365.242	4.21	7,201.738	4.71	8,038.235	5.21	8,874.731	5.71	9,711.227
3.22	5,545.476	3.72	6,381.972	4.22	7,218.468	4.72	8,054.965	5.22	8,891.461	5.72	9,727.957
3.23	5,562.206	3.73	6,398.702	4.23	7,235.198	4.73	8,071.694	5.23	8,908.191	5.73	9,744.687
3.24	5,578.936	3.74	6,415.432	4.24	7,251.928	4.74	8,088.424	5.24	8,924.921	5.74	9,761.417
3.25	5,595.666	3.75	6,432.162	4.25	7,268.658	4.75	8,105.154	5.25	8,941.650	5.75	9,778.147
3.26	5,612.396	3.76	6,448.892	4.26	7,285.388	4.76	8,121.884	5.26	8,958.380	5.76	9,794.877
3.27	5,629.126	3.77	6,465.622	4.27	7,302.118	4.77	8,138.614	5.27	8,975.110	5.77	9,811.607
3.28	5,645.856	3.78	6,482.352	4.28	7,318.848	4.78	8,155.344	5.28	8,991.840	5.78	9,828.336
3.29	5,662.585	3.79	6,499.082	4.29	7,335.578	4.79	8,172.074	5.29	9,008.570	5.79	9,845.066
3.30	5,679.315	3.80	6,515.812	4.30	7,352.308	4.80	8,188.804	5.30	9,025.300	5.80	9,861.796
3.31	5,696.045	3.81	6,532.541	4.31	7,369.038	4.81	8,205.534	5.31	9,042.030	5.81	9,878.526
3.32	5,712.775	3.82	6,549.271	4.32	7,385.768	4.82	8,222.264	5.32	9,058.760	5.82	9,895.256
3.33	5,729.505	3.83	6,566.001	4.33	7,402.498	4.83	8,238.994	5.33	9,075.490	5.83	9,911.986
3.34	5,746.235	3.84	6,582.731	4.34	7,419.227	4.84	8,255.724	5.34	9,092.220	5.84	9,928.716
3.35	5,762.965	3.85	6,599.461	4.35	7,435.957	4.85	8,272.454	5.35	9,108.950	5.85	9,945.446
3.36	5,779.695	3.86	6,616.191	4.36	7,452.687	4.86	8,289.183	5.36	9,125.680	5.86	9,962.176
3.37	5,796.425	3.87	6,632.921	4.37	7,469.417	4.87	8,305.913	5.37	9,142.410	5.87	9,978.906
3.38	5,813.155	3.88	6,649.651	4.38	7,486.147	4.88	8,322.643	5.38	9,159.139	5.88	9,995.636
3.39	5,829.885	3.89	6,666.381	4.39	7,502.877	4.89	8,339.373	5.39	9,175.869	5.89	10,012.366
3.40	5,846.615	3.90	6,683.111	4.40	7,519.607	4.90	8,356.103	5.40	9,192.599	5.90	10,029.096
3.41	5,863.345	3.91	6,699.841	4.41	7,536.337	4.91	8,372.833	5.41	9,209.329	5.91	10,045.825
3.42	5,880.074	3.92	6,716.571	4.42	7,553.067	4.92	8,389.563	5.42	9,226.059	5.92	10,062.555
3.43	5,896.804	3.93	6,733.301	4.43	7,569.797	4.93	8,406.293	5.43	9,242.789	5.93	10,079.285
3.44	5,913.534	3.94	6,750.030	4.44	7,586.527	4.94	8,423.023	5.44	9,259.519	5.94	10,096.015
3.45	5,930.264	3.95	6,766.760	4.45	7,603.257	4.95	8,439.753	5.45	9,276.249	5.95	10,112.745
3.46	5,946.994	3.96	6,783.490	4.46	7,619.987	4.96	8,456.483	5.46	9,292.979	5.96	10,129.475
3.47	5,963.724	3.97	6,800.220	4.47	7,636.716	4.97	8,473.213	5.47	9,309.709	5.97	10,146.205
3.48	5,980.454	3.98	6,816.950	4.48	7,653.446	4.98	8,489.943	5.48	9,326.439	5.98	10,162.935
3.49	5,997.184	3.99	6,833.680	4.49	7,670.176	4.99	8,506.672	5.49	9,343.169	5.99	10,179.665

Displacement = 113352.733 Kilogram - 131.806 Cubic Metres
Correction Kilograms/Cubic Metre

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Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-01

Mackay Terminal

860 kg/m3 @ 15°C

External Floating Roof Tank - Nominal Dimensions : 46.180 Metres X 15.690 Metres

INNAGE TABLE

Reference Gauge Height - 17.530 Metres; Located 0.737 Metres to Rim of Gauge Hatch											
						Height in Centimetres; Capacity in Cubic Metres					
6.00	10,196.395	6.50	11,033.330	7.00	11,870.325	7.50	12,707.320	8.00	13,544.314	8.50	14,381.309
6.01	10,213.125	6.51	11,050.070	7.01	11,887.065	7.51	12,724.059	8.01	13,561.054	8.51	14,398.048
6.02	10,229.855	6.52	11,066.810	7.02	11,903.805	7.52	12,740.799	8.02	13,577.794	8.52	14,414.788
6.03	10,246.585	6.53	11,083.550	7.03	11,920.545	7.53	12,757.539	8.03	13,594.534	8.53	14,431.528
6.04	10,263.314	6.54	11,100.290	7.04	11,937.285	7.54	12,774.279	8.04	13,611.274	8.54	14,448.268
6.05	10,280.044	6.55	11,117.030	7.05	11,954.024	7.55	12,791.019	8.05	13,628.014	8.55	14,465.008
6.06	10,296.775	6.56	11,133.770	7.06	11,970.764	7.56	12,807.759	8.06	13,644.753	8.56	14,481.748
6.07	10,313.515	6.57	11,150.510	7.07	11,987.504	7.57	12,824.499	8.07	13,661.493	8.57	14,498.488
6.08	10,330.255	6.58	11,167.250	7.08	12,004.244	7.58	12,841.239	8.08	13,678.233	8.58	14,515.228
6.09	10,346.995	6.59	11,183.990	7.09	12,020.984	7.59	12,857.979	8.09	13,694.973	8.59	14,531.968
6.10	10,363.735	6.60	11,200.729	7.10	12,037.724	7.60	12,874.718	8.10	13,711.713	8.60	14,548.708
6.11	10,380.475	6.61	11,217.469	7.11	12,054.464	7.61	12,891.458	8.11	13,728.453	8.61	14,565.447
6.12	10,397.215	6.62	11,234.209	7.12	12,071.204	7.62	12,908.198	8.12	13,745.193	8.62	14,582.187
6.13	10,413.955	6.63	11,250.949	7.13	12,087.944	7.63	12,924.938	8.13	13,761.933	8.63	14,598.927
6.14	10,430.694	6.64	11,267.689	7.14	12,104.683	7.64	12,941.678	8.14	13,778.673	8.64	14,615.667
6.15	10,447.434	6.65	11,284.429	7.15	12,121.423	7.65	12,958.418	8.15	13,795.412	8.65	14,632.407
6.16	10,464.174	6.66	11,301.169	7.16	12,138.163	7.66	12,975.158	8.16	13,812.152	8.66	14,649.147
6.17	10,480.914	6.67	11,317.909	7.17	12,154.903	7.67	12,991.898	8.17	13,828.892	8.67	14,665.887
6.18	10,497.654	6.68	11,334.649	7.18	12,171.643	7.68	13,008.638	8.18	13,845.632	8.68	14,682.627
6.19	10,514.394	6.69	11,351.388	7.19	12,188.383	7.69	13,025.377	8.19	13,862.372	8.69	14,699.367
6.20	10,531.134	6.70	11,368.128	7.20	12,205.123	7.70	13,042.117	8.20	13,879.112	8.70	14,716.106
6.21	10,547.874	6.71	11,384.868	7.21	12,221.863	7.71	13,058.857	8.21	13,895.852	8.71	14,732.846
6.22	10,564.614	6.72	11,401.608	7.22	12,238.603	7.72	13,075.597	8.22	13,912.592	8.72	14,749.586
6.23	10,581.353	6.73	11,418.348	7.23	12,255.343	7.73	13,092.337	8.23	13,929.332	8.73	14,766.326
6.24	10,598.093	6.74	11,435.088	7.24	12,272.082	7.74	13,109.077	8.24	13,946.071	8.74	14,783.066
6.25	10,614.833	6.75	11,451.828	7.25	12,288.822	7.75	13,125.817	8.25	13,962.811	8.75	14,799.806
6.26	10,631.573	6.76	11,468.568	7.26	12,305.562	7.76	13,142.557	8.26	13,979.551	8.76	14,816.546
6.27	10,648.313	6.77	11,485.308	7.27	12,322.302	7.77	13,159.297	8.27	13,996.291	8.77	14,833.286
6.28	10,665.053	6.78	11,502.047	7.28	12,339.042	7.78	13,176.036	8.28	14,013.031	8.78	14,850.026
6.29	10,681.793	6.79	11,518.787	7.29	12,355.782	7.79	13,192.776	8.29	14,029.771	8.79	14,866.765
6.30	10,698.533	6.80	11,535.527	7.30	12,372.522	7.80	13,209.516	8.30	14,046.511	8.80	14,883.505
6.31	10,715.273	6.81	11,552.267	7.31	12,389.262	7.81	13,226.256	8.31	14,063.251	8.81	14,900.245
6.32	10,732.012	6.82	11,569.007	7.32	12,406.002	7.82	13,242.996	8.32	14,079.991	8.82	14,916.985
6.33	10,748.752	6.83	11,585.747	7.33	12,422.741	7.83	13,259.736	8.33	14,096.730	8.83	14,933.725
6.34	10,765.492	6.84	11,602.487	7.34	12,439.481	7.84	13,276.476	8.34	14,113.470	8.84	14,950.465
6.35	10,782.232	6.85	11,619.227	7.35	12,456.221	7.85	13,293.216	8.35	14,130.210	8.85	14,967.205
6.36	10,798.972	6.86	11,635.967	7.36	12,472.961	7.86	13,309.956	8.36	14,146.950	8.86	14,983.945
6.37	10,815.712	6.87	11,652.706	7.37	12,489.701	7.87	13,326.695	8.37	14,163.690	8.87	15,000.685
6.38	10,832.452	6.88	11,669.446	7.38	12,506.441	7.88	13,343.435	8.38	14,180.430	8.88	15,017.424
6.39	10,849.192	6.89	11,686.186	7.39	12,523.181	7.89	13,360.175	8.39	14,197.170	8.89	15,034.164
6.40	10,865.932	6.90	11,702.926	7.40	12,539.921	7.90	13,376.915	8.40	14,213.910	8.90	15,050.904
6.41	10,882.671	6.91	11,719.666	7.41	12,556.661	7.91	13,393.655	8.41	14,230.650	8.91	15,067.644
6.42	10,899.411	6.92	11,736.406	7.42	12,573.400	7.92	13,410.395	8.42	14,247.389	8.92	15,084.384
6.43	10,916.151	6.93	11,753.146	7.43	12,590.140	7.93	13,427.135	8.43	14,264.129	8.93	15,101.124
6.44	10,932.891	6.94	11,769.886	7.44	12,606.880	7.94	13,443.875	8.44	14,280.869	8.94	15,117.864
6.45	10,949.631	6.95	11,786.626	7.45	12,623.620	7.95	13,460.615	8.45	14,297.609	8.95	15,134.604
6.46	10,966.371	6.96	11,803.365	7.46	12,640.360	7.96	13,477.355	8.46	14,314.349	8.96	15,151.344
6.47	10,983.111	6.97	11,820.105	7.47	12,657.100	7.97	13,494.094	8.47	14,331.089	8.97	15,168.083
6.48	10,999.851	6.98	11,836.845	7.48	12,673.840	7.98	13,510.834	8.48	14,347.829	8.98	15,184.823
6.49	11,016.591	6.99	11,853.585	7.49	12,690.580	7.99	13,527.574	8.49	14,364.569	8.99	15,201.563

Millimetres

1	1.674	6	10.044
2	3.348	7	11.718
3	5.022	8	13.392
4	6.696	9	15.066
5	8.370		

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Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-01

Mackay Terminal

860 kg/m³ @ 15°C

External Floating Roof Tank - Nominal Dimensions : 46.180 Metres X 15.690 Metres

INNAGE TABLE

Reference Gauge Height - 17.530 Metres; Located 0.737 Metres to Rim of Gauge Hatch										Height in Centimetres; Capacity in Cubic Metres	
9.00	15,218.303	9.50	16,055.552	10.00	16,892.849	10.50	17,730.147	11.00	18,567.445	11.50	19,404.742
9.01	15,235.043	9.51	16,072.298	10.01	16,909.595	10.51	17,746.893	11.01	18,584.190	11.51	19,421.488
9.02	15,251.783	9.52	16,089.044	10.02	16,926.341	10.52	17,763.639	11.02	18,600.936	11.52	19,438.234
9.03	15,268.523	9.53	16,105.790	10.03	16,943.087	10.53	17,780.385	11.03	18,617.682	11.53	19,454.980
9.04	15,285.263	9.54	16,122.535	10.04	16,959.833	10.54	17,797.131	11.04	18,634.428	11.54	19,471.726
9.05	15,302.003	9.55	16,139.281	10.05	16,976.579	10.55	17,813.877	11.05	18,651.174	11.55	19,488.472
9.06	15,318.742	9.56	16,156.027	10.06	16,993.325	10.56	17,830.623	11.06	18,667.920	11.56	19,505.218
9.07	15,335.482	9.57	16,172.773	10.07	17,010.071	10.57	17,847.369	11.07	18,684.666	11.57	19,521.963
9.08	15,352.222	9.58	16,189.519	10.08	17,026.817	10.58	17,864.115	11.08	18,701.412	11.58	19,538.709
9.09	15,368.968	9.59	16,206.265	10.09	17,043.563	10.59	17,880.860	11.09	18,718.158	11.59	19,555.455
9.10	15,385.714	9.60	16,223.011	10.10	17,060.309	10.60	17,897.606	11.10	18,734.904	11.60	19,572.201
9.11	15,402.460	9.61	16,239.757	10.11	17,077.055	10.61	17,914.352	11.11	18,751.650	11.61	19,588.947
9.12	15,419.205	9.62	16,256.503	10.12	17,093.801	10.62	17,931.098	11.12	18,768.396	11.62	19,605.693
9.13	15,435.951	9.63	16,273.249	10.13	17,110.547	10.63	17,947.844	11.13	18,785.142	11.63	19,622.439
9.14	15,452.697	9.64	16,289.995	10.14	17,127.293	10.64	17,964.590	11.14	18,801.888	11.64	19,639.185
9.15	15,469.443	9.65	16,306.741	10.15	17,144.039	10.65	17,981.336	11.15	18,818.634	11.65	19,655.931
9.16	15,486.189	9.66	16,323.487	10.16	17,160.785	10.66	17,998.082	11.16	18,835.380	11.66	19,672.677
9.17	15,502.935	9.67	16,340.233	10.17	17,177.530	10.67	18,014.828	11.17	18,852.126	11.67	19,689.423
9.18	15,519.681	9.68	16,356.979	10.18	17,194.276	10.68	18,031.574	11.18	18,868.872	11.68	19,706.169
9.19	15,536.427	9.69	16,373.725	10.19	17,211.022	10.69	18,048.320	11.19	18,885.618	11.69	19,722.914
9.20	15,553.173	9.70	16,390.471	10.20	17,227.768	10.70	18,065.066	11.20	18,902.364	11.70	19,739.660
9.21	15,569.919	9.71	16,407.217	10.21	17,244.514	10.71	18,081.812	11.21	18,919.110	11.71	19,756.406
9.22	15,586.665	9.72	16,423.963	10.22	17,261.260	10.72	18,098.558	11.22	18,935.855	11.72	19,773.152
9.23	15,603.411	9.73	16,440.709	10.23	17,278.006	10.73	18,115.304	11.23	18,952.601	11.73	19,789.898
9.24	15,620.157	9.74	16,457.455	10.24	17,294.752	10.74	18,132.050	11.24	18,969.347	11.74	19,806.644
9.25	15,636.903	9.75	16,474.200	10.25	17,311.498	10.75	18,148.796	11.25	18,986.093	11.75	19,823.390
9.26	15,653.649	9.76	16,490.946	10.26	17,328.244	10.76	18,165.542	11.26	19,002.839	11.76	19,840.136
9.27	15,670.395	9.77	16,507.692	10.27	17,344.990	10.77	18,182.288	11.27	19,019.585	11.77	19,856.882
9.28	15,687.141	9.78	16,524.438	10.28	17,361.736	10.78	18,199.034	11.28	19,036.331	11.78	19,873.628
9.29	15,703.887	9.79	16,541.184	10.29	17,378.482	10.79	18,215.780	11.29	19,053.077	11.79	19,890.374
9.30	15,720.633	9.80	16,557.930	10.30	17,395.228	10.80	18,232.525	11.30	19,069.823	11.80	19,907.120
9.31	15,737.379	9.81	16,574.676	10.31	17,411.974	10.81	18,249.271	11.31	19,086.569	11.81	19,923.865
9.32	15,754.125	9.82	16,591.422	10.32	17,428.720	10.82	18,266.017	11.32	19,103.315	11.82	19,940.611
9.33	15,770.870	9.83	16,608.168	10.33	17,445.466	10.83	18,282.763	11.33	19,120.061	11.83	19,957.357
9.34	15,787.616	9.84	16,624.914	10.34	17,462.212	10.84	18,299.509	11.34	19,136.807	11.84	19,974.103
9.35	15,804.362	9.85	16,641.660	10.35	17,478.958	10.85	18,316.255	11.35	19,153.553	11.85	19,990.849
9.36	15,821.108	9.86	16,658.406	10.36	17,495.704	10.86	18,333.001	11.36	19,170.299	11.86	20,007.595
9.37	15,837.854	9.87	16,675.152	10.37	17,512.450	10.87	18,349.747	11.37	19,187.045	11.87	20,024.341
9.38	15,854.600	9.88	16,691.898	10.38	17,529.195	10.88	18,366.493	11.38	19,203.791	11.88	20,041.087
9.39	15,871.346	9.89	16,708.644	10.39	17,545.941	10.89	18,383.239	11.39	19,220.537	11.89	20,057.833
9.40	15,888.092	9.90	16,725.390	10.40	17,562.687	10.90	18,399.985	11.40	19,237.283	11.90	20,074.579
9.41	15,904.838	9.91	16,742.136	10.41	17,579.433	10.91	18,416.731	11.41	19,254.029	11.91	20,091.325
9.42	15,921.584	9.92	16,758.882	10.42	17,596.179	10.92	18,433.477	11.42	19,270.775	11.92	20,108.070
9.43	15,938.330	9.93	16,775.628	10.43	17,612.925	10.93	18,450.223	11.43	19,287.520	11.93	20,124.816
9.44	15,955.076	9.94	16,792.374	10.44	17,629.671	10.94	18,466.969	11.44	19,304.266	11.94	20,141.562
9.45	15,971.822	9.95	16,809.120	10.45	17,646.417	10.95	18,483.715	11.45	19,321.012	11.95	20,158.308
9.46	15,988.568	9.96	16,825.865	10.46	17,663.163	10.96	18,500.461	11.46	19,337.758	11.96	20,175.054
9.47	16,005.314	9.97	16,842.611	10.47	17,679.909	10.97	18,517.207	11.47	19,354.504	11.97	20,191.800
9.48	16,022.060	9.98	16,859.357	10.48	17,696.655	10.98	18,533.953	11.48	19,371.250	11.98	20,208.546
9.49	16,038.806	9.99	16,876.103	10.49	17,713.401	10.99	18,550.699	11.49	19,387.996	11.99	20,225.292

Millimetres

1	1.674	6	10.044
2	3.348	7	11.718
3	5.022	8	13.392
4	6.696	9	15.066
5	8.370		

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Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-01

Mackay Terminal

860 kg/m3 @ 15°C

External Floating Roof Tank - Nominal Dimensions : 46.180 Metres X 15.690 Metres

INNAGE TABLE

Reference Gauge Height - 17.530 Metres; Located 0.737 Metres to Rim of Gauge Hatch										Height in Centimetres; Capacity in Cubic Metres	
12.00	20,242.038	12.50	21,079.333	13.00	21,916.629	13.50	22,753.925	14.00	23,591.297	14.50	
12.01	20,258.784	12.51	21,096.079	13.01	21,933.375	13.51	22,770.671	14.01	23,608.052	14.51	
12.02	20,275.530	12.52	21,112.825	13.02	21,950.121	13.52	22,787.417	14.02	23,624.807	14.52	
12.03	20,292.276	12.53	21,129.571	13.03	21,966.867	13.53	22,804.163	14.03	23,641.562	14.53	
12.04	20,309.021	12.54	21,146.317	13.04	21,983.613	13.54	22,820.908	14.04	23,658.317	14.54	
12.05	20,325.767	12.55	21,163.063	13.05	22,000.359	13.55	22,837.654	14.05	23,675.072	14.55	
12.06	20,342.513	12.56	21,179.809	13.06	22,017.105	13.56	22,854.400	14.06	23,691.827	14.56	
12.07	20,359.259	12.57	21,196.555	13.07	22,033.851	13.57	22,871.146	14.07	23,708.582	14.57	
12.08	20,376.005	12.58	21,213.301	13.08	22,050.596	13.58	22,887.892	14.08	23,725.337	14.58	
12.09	20,392.751	12.59	21,230.047	13.09	22,067.342	13.59	22,904.638	14.09	23,742.092	14.59	
12.10	20,409.497	12.60	21,246.793	13.10	22,084.088	13.60	22,921.384	14.10	23,758.847	14.60	
12.11	20,426.243	12.61	21,263.538	13.11	22,100.834	13.61	22,938.130	14.11	23,775.602	14.61	
12.12	20,442.989	12.62	21,280.284	13.12	22,117.580	13.62	22,954.876	14.12	23,792.357	14.62	
12.13	20,459.735	12.63	21,297.030	13.13	22,134.326	13.63	22,971.622	14.13	23,809.112	14.63	
12.14	20,476.481	12.64	21,313.776	13.14	22,151.072	13.64	22,988.368	14.14	23,825.867	14.64	
12.15	20,493.226	12.65	21,330.522	13.15	22,167.818	13.65	23,005.113	14.15	23,842.622	14.65	
12.16	20,509.972	12.66	21,347.268	13.16	22,184.564	13.66	23,021.859	14.16	23,859.377	14.66	
12.17	20,526.718	12.67	21,364.014	13.17	22,201.310	13.67	23,038.605	14.17	23,876.132	14.67	
12.18	20,543.464	12.68	21,380.760	13.18	22,218.056	13.68	23,055.351	14.18	23,892.887	14.68	
12.19	20,560.210	12.69	21,397.506	13.19	22,234.801	13.69	23,072.097	14.19	23,909.642	14.69	
12.20	20,576.956	12.70	21,414.252	13.20	22,251.547	13.70	23,088.843	14.20	23,926.397	14.70	
12.21	20,593.702	12.71	21,430.998	13.21	22,268.293	13.71	23,105.589	14.21	23,943.151	14.71	
12.22	20,610.448	12.72	21,447.744	13.22	22,285.039	13.72	23,122.335	14.22	23,959.906	14.72	
12.23	20,627.194	12.73	21,464.489	13.23	22,301.785	13.73	23,139.081	14.23	23,976.661	14.73	
12.24	20,643.940	12.74	21,481.235	13.24	22,318.531	13.74	23,155.827	14.24	23,993.416	14.74	
12.25	20,660.686	12.75	21,497.981	13.25	22,335.277	13.75	23,172.573	14.25	24,010.171	14.75	
12.26	20,677.432	12.76	21,514.727	13.26	22,352.023	13.76	23,189.319	14.26	24,026.926	14.76	
12.27	20,694.177	12.77	21,531.473	13.27	22,368.769	13.77	23,206.064	14.27	24,043.681	14.77	
12.28	20,710.923	12.78	21,548.219	13.28	22,385.515	13.78	23,222.810	14.28	24,060.436	14.78	
12.29	20,727.669	12.79	21,564.965	13.29	22,402.261	13.79	23,239.556	14.29	24,077.191	14.79	
12.30	20,744.415	12.80	21,581.711	13.30	22,419.007	13.80	23,256.302	14.30	24,093.946	14.80	
12.31	20,761.161	12.81	21,598.457	13.31	22,435.752	13.81	23,273.048	14.31	24,110.701	14.81	
12.32	20,777.907	12.82	21,615.203	13.32	22,452.498	13.82	23,289.794	14.32	24,127.456	14.82	
12.33	20,794.653	12.83	21,631.949	13.33	22,469.244	13.83	23,306.540	14.33	24,144.211	14.83	
12.34	20,811.399	12.84	21,648.694	13.34	22,485.990	13.84	23,323.286	14.34		14.84	
12.35	20,828.145	12.85	21,665.440	13.35	22,502.736	13.85	23,340.032	14.35		14.85	
12.36	20,844.891	12.86	21,682.186	13.36	22,519.482	13.86	23,356.778	14.36		14.86	
12.37	20,861.637	12.87	21,698.932	13.37	22,536.228	13.87	23,373.524	14.37		14.87	
12.38	20,878.382	12.88	21,715.678	13.38	22,552.974	13.88	23,390.269	14.38		14.88	
12.39	20,895.128	12.89	21,732.424	13.39	22,569.720	13.89	23,407.015	14.39		14.89	
12.40	20,911.874	12.90	21,749.170	13.40	22,586.466	13.90	23,423.761	14.40		14.90	
12.41	20,928.620	12.91	21,765.916	13.41	22,603.212	13.91	23,440.507	14.41		14.91	
12.42	20,945.366	12.92	21,782.662	13.42	22,619.957	13.92	23,457.253	14.42		14.92	
12.43	20,962.112	12.93	21,799.408	13.43	22,636.703	13.93	23,474.013	14.43		14.93	
12.44	20,978.858	12.94	21,816.154	13.44	22,653.449	13.94	23,490.768	14.44		14.94	
12.45	20,995.604	12.95	21,832.900	13.45	22,670.195	13.95	23,507.523	14.45		14.95	
12.46	21,012.350	12.96	21,849.645	13.46	22,686.941	13.96	23,524.278	14.46		14.96	
12.47	21,029.096	12.97	21,866.391	13.47	22,703.687	13.97	23,541.032	14.47		14.97	
12.48	21,045.842	12.98	21,883.137	13.48	22,720.433	13.98	23,557.787	14.48		14.98	
12.49	21,062.588	12.99	21,899.883	13.49	22,737.179	13.99	23,574.542	14.49		14.99	

Millimetres

Per Client design, Safe Fill Height / Overflow @ 14.33 Metres

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1	1.674	6	10.044
2	3.348	7	11.718
3	5.022	8	13.392
4	6.696	9	15.066
5	8.370		

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Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-01

Mackay Terminal

860 kg/m3 @ 15°C

External Floating Roof Tank - Nominal Dimensions : 46.18 Metres X 15.69 Metres

Volumes in: Cubic Metres

To Increment	Incs	Gross Volume per Increment	Deadwood Volume	Net Volume	Accumulated Volume
0	1	0.000000	293.108507	293.108507	293.108507
1	1	16.728016	-0.097423	16.630593	309.739099
2	1	16.728016	-0.078791	16.649225	326.388324
10	8	16.728016	-0.003384	16.724632	460.185383
27	5	16.728016	-0.003755	16.724261	744.471639
18	5	16.728016	-0.004011	16.724005	593.978190
20	2	16.728016	-0.007495	16.720521	627.419232
25	5	16.728016	-0.007239	16.720777	711.023117
28	1	16.728016	-0.006270	16.721746	761.193385
30	2	16.728016	-0.004781	16.723235	794.639855
35	5	16.728016	-0.013764	16.714252	878.211116
37	2	16.728016	-0.014923	16.713093	911.637303
38	1	16.728016	-0.014787	16.713229	928.350532
41	3	16.728016	-0.024678	16.703338	978.460545
44	3	16.728016	-0.024110	16.703906	1028.572265
45	1	16.728016	-0.024374	16.703642	1045.275906
46	1	16.728016	-0.024259	16.703757	1061.979663
48	2	16.728016	-0.024301	16.703715	1095.387094
51	3	16.728016	-0.024234	16.703782	1145.498441
54	3	16.728016	-0.019407	16.708609	1195.624267
60	6	16.728016	-0.018291	16.709725	1295.882615
61	1	16.728016	-0.020157	16.707859	1312.590474
64	3	16.728016	-0.020304	16.707712	1362.713610
66	2	16.728016	-0.020325	16.707691	1396.128991
67	1	16.728016	-0.022990	16.705026	1412.834018
68	1	16.728016	-0.022618	16.705398	1429.539416
69	1	16.728016	-0.020287	16.707729	1446.247145
73	4	16.728016	-0.020484	16.707532	1513.077271
82	9	16.728016	-0.017820	16.710196	1663.469034
87	5	16.728016	-0.017749	16.710267	1747.020368
88	1	16.728016	-0.017507	16.710509	1763.730877
91	3	16.728016	-0.017486	16.710530	1813.862468
92	1	16.728016	-4.269276	12.458740	1826.321208
96	4	16.728016	-4.259445	12.468571	1876.195493
97	1	16.728016	-4.259411	12.468605	1888.664098
99	2	16.728016	-4.260031	12.467985	1913.600068
105	6	16.728016	-4.259945	12.468071	1988.408494
107	2	16.728016	-4.260065	12.467951	2013.344397
119	12	16.728016	-4.260180	12.467836	2162.958433
122	3	16.728016	-4.260066	12.467950	2200.362283
124	2	16.728016	-0.008276	16.719740	2233.801764
140	16	16.728016	-0.008389	16.719627	2501.315792
181	41	16.728016	-0.008457	16.719559	3186.817725
303	122	16.728016	-0.000219	16.727797	5227.608913
304	1	16.728654	-0.000219	16.728435	5244.337348
605	301	16.730143	-0.000219	16.729924	10280.044383
606	1	16.731140	-0.000219	16.730920	10296.775303
908	302	16.740110	-0.000219	16.739891	15352.222256
909	1	16.745566	-0.000219	16.745346	15368.967603
1149	240	16.746172	-0.000219	16.745952	19387.996180
1150	1	16.746137	-0.000219	16.745917	19404.742097
1391	241	16.746133	-0.000219	16.745913	23440.507235
1392	1	16.750656	-0.000219	16.750437	23457.257671
1433	41	16.755179	-0.000219	16.754960	24144.211015

TransCanada Pipelines Limited
Mackay Terminal

General Information

Tank Number	A1-TK-01
Date of Strapping Data	06/24/2017
Year Built	2017
Product in Service	Bitumen / Synthetic Crude
Product Service Density	0.860 g/cc (SG)

Tank Dimensions

Nominal Diameter	46.181 Metres
Nominal Height	15.690 Metres
Measured Tank Height	15.695 Metres
Tank Tilt	0 Millimetres
Gauge Point Information	Rim of Hatch
Reference Gauge Height	17.530 Metres
Horizontal To Gauge	0.734 Metres

Roof & Bottom Survey

Roof Type	External Floating
Floating Roof Shape	Angled Pontoon
Floating Roof Weight	113353 Kilograms
Roof Landed Height	86 Centimetres
Roof Full Floating Height	127 Centimetres
Bottom Description	Physical Survey

Report Constraints

Main Increment	Centimetres
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	14.330 Metres
Overflow Or Foamline	14.330 Metres

TransCanada Pipelines Limited
Mackay Terminal

Strap Correction to 60°F

Shell Temperature (°F)	55.4	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) \times 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') \times 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor

Correction Factor = 0.99994840

Course	Strap Circumference Inches	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	5713.265	476.105	0.000	476.081
2	5713.265	476.105	0.000	476.081
3	5713.265	476.105	0.000	476.081
4	5713.265	476.105	0.000	476.081
5	5713.265	476.105	0.000	476.081
6	5713.265	476.105	0.000	476.081

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	499.500	0.875	-5.498	145.104	476.063
2	506.531	7.906	-49.676	145.060	475.918
3	508.406	9.781	-61.457	145.048	475.879
4	512.813	14.188	-89.143	145.020	475.788
5	518.719	20.094	-126.253	144.983	475.667
6	517.594	18.969	-119.184	144.990	475.690

TransCanada Pipelines Limited
Mackay Terminal

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	476.063	0.755 Inches	3.037 Metres	3.037 Metres
2	475.918	0.593 Inches	3.022 Metres	6.059 Metres
3	475.879	0.430 Inches	3.022 Metres	9.081 Metres
4	475.788	0.313 Inches	2.410 Metres	11.491 Metres
5	475.667	0.313 Inches	2.424 Metres	13.915 Metres
6	475.690	0.313 Inches	1.780 Metres	15.695 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	13	0.000 Millimetres	0.000 Millimetres
2	Butt Weld	13	0.000 Millimetres	0.000 Millimetres
3	Butt Weld	13	0.000 Millimetres	0.000 Millimetres
4	Butt Weld	13	0.000 Millimetres	0.000 Millimetres
5	Butt Weld	13	0.000 Millimetres	0.000 Millimetres
6	Butt Weld	13	0.000 Millimetres	0.000 Millimetres

TransCanada Pipelines Limited
Mackay Terminal

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	476.063	0.755	0
2.00	62.428	1.000	0	475.918	0.593	0
3.00	62.428	1.000	0	475.879	0.430	0
4.00	62.428	1.000	0	475.788	0.313	0
5.00	62.428	1.000	0	475.667	0.313	0
6.00	62.428	1.000	0	475.690	0.313	0

TransCanada Pipelines Limited
Mackay Terminal

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2 * D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	476.063	0.000	0.000	0.395	475.667
2	475.918	0.000	0.000	0.310	475.607
3	475.879	0.000	0.000	0.225	475.654
4	475.788	0.000	0.000	0.164	475.625
5	475.667	0.000	0.000	0.164	475.503
6	475.690	0.000	0.000	0.164	475.526

TransCanada Pipelines Limited
Mackay Terminal

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Centimetre
1	475.667	0.013	475.680	16.728
2	475.607	0.040	475.647	16.726
3	475.654	0.055	475.709	16.730
4	475.625	0.060	475.685	16.729
5	475.503	0.061	475.564	16.720
6	475.526	0.045	475.571	16.721

TransCanada Pipelines Limited
Mackay Terminal

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} * \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Centimetre	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	16.728	0.004	0.000	16.728	16.728
2	16.726	0.006	0.004	16.730	16.730
3	16.730	0.008	0.010	16.740	16.740
4	16.729	0.009	0.018	16.746	16.746
5	16.720	0.009	0.026	16.746	16.746
6	16.721	0.000	0.035	16.755	16.755

Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-02

Mackay Terminal

940 kg/m³ @ 15°C

External Floating Roof Tank - Nominal Dimensions : 65.500 Metres X 18.010 Metres

INNAGE TABLE

Reference Gauge Height - 19.856 Metres; Located 0.813 Metres to Rim of Gauge Hatch					Height in Centimetres; Capacity in Cubic Metres								
.00 **	322.453	.50	1,984.953	1.00	Low Critical Zone - No Critical measurement to be taken in Critical Zones	3,594.146	1.50	5,112.604	2.00	High Critical Zone	6,793.846	2.50	8,475.342
.01	352.762	.51	2,018.567	1.01		3,621.260	1.51	5,146.229	2.01		6,827.475	2.51	8,508.972
.02	383.187	.52	2,052.182	1.02		3,648.375	1.52	5,179.853	2.02		6,861.105	2.52	8,542.602
.03	413.978	.53	2,085.796	1.03		3,675.489	1.53	5,213.477	2.03		6,894.735	2.53	8,576.231
.04	445.225	.54	2,119.411	1.04		3,702.603	1.54	5,247.102	2.04		6,928.365	2.54	8,609.861
.05	476.959	.55	2,153.026	1.05		3,729.717	1.55	5,280.726	2.05		6,961.995	2.55	8,643.491
.06	508.915	.56	2,186.641	1.06		3,756.831	1.56	5,314.350	2.06		6,995.625	2.56	8,677.121
.07	541.242	.57	2,220.256	1.07		3,783.945	1.57	5,347.975	2.07		7,029.255	2.57	8,710.751
.08	573.779	.58	2,253.871	1.08		3,811.059	1.58	5,381.599	2.08		7,062.885	2.58	8,744.38
.09	606.671	.59	2,287.486	1.09		3,838.172	1.59	5,415.224	2.09		7,096.515	2.59	8,778.011
.10	640.132	.60	2,321.102	1.10	3,865.286	1.60	5,448.848	2.10	7,130.145	2.60	8,811.641		
.11	673.760	.61	2,354.715	1.11	3,892.400	1.61	5,482.472	2.11	7,163.775	2.61	8,845.271		
.12	707.389	.62	2,388.328	1.12	3,919.514	1.62	5,516.097	2.12	7,197.405	2.62	8,878.901		
.13	741.017	.63	2,421.941	1.13	3,946.628	1.63	5,549.721	2.13	7,231.035	2.63	8,912.531		
.14	774.645	.64	2,455.555	1.14	3,973.741	1.64	5,583.346	2.14	7,264.664	2.64	8,946.161		
.15	808.273	.65	2,489.168	1.15	4,000.855	1.65	5,616.970	2.15	7,298.294	2.65	8,979.791		
.16	841.901	.66	2,522.781	1.16	4,027.969	1.66	5,650.594	2.16	7,331.924	2.66	9,013.420		
.17	875.529	.67	2,556.392	1.17	4,055.083	1.67	5,684.219	2.17	7,365.554	2.67	9,047.050		
.18	909.156	.68	2,590.003	1.18	4,082.196	1.68	5,717.843	2.18	7,399.184	2.68	9,080.680		
.19	942.782	.69	2,623.616	1.19	4,109.310	1.69	5,751.467	2.19	7,432.814	2.69	9,114.310		
.20	976.408	.70	2,657.229	1.20	4,136.424	1.70	5,785.092	2.20	7,466.444	2.70	9,147.940		
.21	1,010.035	.71	2,690.842	1.21	4,163.538	1.71	5,818.716	2.21	7,500.074	2.71	9,181.570		
.22	1,043.661	.72	2,724.455	1.22	4,190.652	1.72	5,852.341	2.22	7,533.704	2.72	9,215.200		
.23	1,077.287	.73	2,758.068	1.23	4,217.766	1.73	5,885.965	2.23	7,567.334	2.73	9,248.830		
.24	1,110.914	.74	2,791.683	1.24	4,244.880	1.74	5,919.589	2.24	7,600.964	2.74	9,282.460		
.25	1,144.540	.75	2,825.299	1.25	4,271.994	1.75	5,953.214	2.25	7,634.594	2.75	9,316.090		
.26	1,178.168	.76	2,858.914	1.26	4,305.618	1.76	5,986.838	2.26	7,668.224	2.76	9,349.720		
.27	1,211.797	.77	2,892.530	1.27	4,339.242	1.77	6,020.463	2.27	7,701.853	2.77	9,383.350		
.28	1,245.423	.78	2,926.145	1.28	4,372.867	1.78	6,054.087	2.28	7,735.483	2.78	9,416.980		
.29	1,279.049	.79	2,959.761	1.29	4,406.491	1.79	6,087.711	2.29	7,769.113	2.79	9,450.610		
.30	1,312.675	.80	2,993.376	1.30	4,440.116	1.80	6,121.336	2.30	7,802.743	2.80	9,484.239		
.31	1,346.293	.81	3,026.991	1.31	4,473.740	1.81	6,154.960	2.31	7,836.373	2.81	9,517.869		
.32	1,379.911	.82	3,060.607	1.32	4,507.365	1.82	6,188.584	2.32	7,870.003	2.82	9,551.499		
.33	1,413.528	.83	3,094.222	1.33	4,540.989	1.83	6,222.209	2.33	7,903.633	2.83	9,585.129		
.34	1,447.146	.84	3,127.838	1.34	4,574.614	1.84	6,255.833	2.34	7,937.263	2.84	9,618.759		
.35	1,480.764	.85	3,161.453	1.35	4,608.238	1.85	6,289.458	2.35	7,970.893	2.85	9,652.389		
.36	1,514.376	.86	3,195.069	1.36	4,641.862	1.86	6,323.082	2.36	8,004.523	2.86	9,686.019		
.37	1,547.987	.87	3,228.684	1.37	4,675.487	1.87	6,356.706	2.37	8,038.153	2.87	9,719.649		
.38	1,581.599	.88	3,262.300	1.38	4,709.111	1.88	6,390.331	2.38	8,071.783	2.88	9,753.279		
.39	1,615.211	.89	3,295.916	1.39	4,742.736	1.89	6,423.955	2.39	8,105.413	2.89	9,786.909		
.40	1,648.823	.90	3,323.021	1.40	4,776.360	1.90	6,457.580	2.40	8,139.042	2.90	9,820.539		
.41	1,682.435	.91	3,350.126	1.41	4,809.985	1.91	6,491.204	2.41	8,172.672	2.91	9,854.169		
.42	1,716.047	.92	3,377.231	1.42	4,843.609	1.92	6,524.828	2.42	8,206.302	2.92	9,887.799		
.43	1,749.659	.93	3,404.346	1.43	4,877.233	1.93	6,558.453	2.43	8,239.932	2.93	9,921.428		
.44	1,783.271	.94	3,431.460	1.44	4,910.858	1.94	6,592.077	2.44	8,273.562	2.94	9,955.058		
.45	1,816.883	.95	3,458.575	1.45	4,944.482	1.95	6,625.701	2.45	8,307.192	2.95	9,988.688		
.46	1,850.495	.96	3,485.690	1.46	4,978.107	1.96	6,659.326	2.46	8,340.822	2.96	10,022.318		
.47	1,884.109	.97	3,512.804	1.47	5,011.731	1.97	6,692.956	2.47	8,374.452	2.97	10,055.948		
.48	1,917.723	.98	3,539.918	1.48	5,045.355	1.98	6,726.586	2.48	8,408.082	2.98	10,089.578		
.49	1,951.338	.99	3,567.032	1.49	5,078.980	1.99	6,760.216	2.49	8,441.712	2.99	10,123.208		

** Volume Below Strike Point; Located 20 Centimetres above intersection of shell & bottom.

Page 1 of 6

* Bottom volume based on Physical Survey Calculation. Average Centimetres not applicable

Volumes reflect a Shell Temperature of 15°C

Safe Fill Height / Overflow @ 16.620 Metres

A total of 234.384 Cubic Metres were deducted between 84 & 130 Centimetres based on a weight of 220321 Kilograms and a density of 940 kg/m³. Gauged quantities above 130 Centimetres reflect this deduction but shall be adjusted for a differing specific gravity at 15°C according to the following formula (see page 2).

Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-02

Mackay Terminal

940 kg/m³ @ 15°C

External Floating Roof Tank - Nominal Dimensions : 65.500 Metres X 18.010 Metres

INNAGE TABLE

Reference Gauge Height - 19.856 Metres; Located 0.813 Metres to Rim of Gauge Hatch						Height in Centimetres; Capacity in Cubic Metres					
3.00	10,156.838	3.50	11,839.049	4.00	13,521.279	4.50	15,203.509	5.00	16,885.739	5.50	18,567.969
3.01	10,190.468	3.51	11,872.694	4.01	13,554.924	4.51	15,237.154	5.01	16,919.384	5.51	18,601.614
3.02	10,224.108	3.52	11,906.338	4.02	13,588.568	4.52	15,270.798	5.02	16,953.029	5.52	18,635.259
3.03	10,257.753	3.53	11,939.983	4.03	13,622.213	4.53	15,304.443	5.03	16,986.673	5.53	18,668.903
3.04	10,291.397	3.54	11,973.627	4.04	13,655.858	4.54	15,338.088	5.04	17,020.318	5.54	18,702.548
3.05	10,325.042	3.55	12,007.272	4.05	13,689.502	4.55	15,371.732	5.05	17,053.962	5.55	18,736.193
3.06	10,358.686	3.56	12,040.917	4.06	13,723.147	4.56	15,405.377	5.06	17,087.607	5.56	18,769.837
3.07	10,392.331	3.57	12,074.561	4.07	13,756.791	4.57	15,439.021	5.07	17,121.252	5.57	18,803.482
3.08	10,425.976	3.58	12,108.206	4.08	13,790.436	4.58	15,472.666	5.08	17,154.896	5.58	18,837.126
3.09	10,459.620	3.59	12,141.850	4.09	13,824.081	4.59	15,506.311	5.09	17,188.541	5.59	18,870.771
3.10	10,493.265	3.60	12,175.495	4.10	13,857.725	4.60	15,539.955	5.10	17,222.185	5.60	18,904.416
3.11	10,526.909	3.61	12,209.140	4.11	13,891.370	4.61	15,573.600	5.11	17,255.830	5.61	18,938.060
3.12	10,560.554	3.62	12,242.784	4.12	13,925.014	4.62	15,607.244	5.12	17,289.475	5.62	18,971.705
3.13	10,594.199	3.63	12,276.429	4.13	13,958.659	4.63	15,640.889	5.13	17,323.119	5.63	19,005.349
3.14	10,627.843	3.64	12,310.073	4.14	13,992.304	4.64	15,674.534	5.14	17,356.764	5.64	19,038.994
3.15	10,661.488	3.65	12,343.718	4.15	14,025.948	4.65	15,708.178	5.15	17,390.408	5.65	19,072.639
3.16	10,695.132	3.66	12,377.363	4.16	14,059.593	4.66	15,741.823	5.16	17,424.053	5.66	19,106.283
3.17	10,728.777	3.67	12,411.007	4.17	14,093.237	4.67	15,775.467	5.17	17,457.698	5.67	19,139.928
3.18	10,762.422	3.68	12,444.652	4.18	14,126.882	4.68	15,809.112	5.18	17,491.342	5.68	19,173.572
3.19	10,796.066	3.69	12,478.296	4.19	14,160.527	4.69	15,842.757	5.19	17,524.987	5.69	19,207.217
3.20	10,829.711	3.70	12,511.941	4.20	14,194.171	4.70	15,876.401	5.20	17,558.631	5.70	19,240.862
3.21	10,863.355	3.71	12,545.586	4.21	14,227.816	4.71	15,910.046	5.21	17,592.276	5.71	19,274.506
3.22	10,897.000	3.72	12,579.230	4.22	14,261.460	4.72	15,943.690	5.22	17,625.921	5.72	19,308.151
3.23	10,930.645	3.73	12,612.875	4.23	14,295.105	4.73	15,977.335	5.23	17,659.565	5.73	19,341.795
3.24	10,964.289	3.74	12,646.519	4.24	14,328.750	4.74	16,010.980	5.24	17,693.210	5.74	19,375.440
3.25	10,997.934	3.75	12,680.164	4.25	14,362.394	4.75	16,044.624	5.25	17,726.854	5.75	19,409.085
3.26	11,031.579	3.76	12,713.809	4.26	14,396.039	4.76	16,078.269	5.26	17,760.499	5.76	19,442.729
3.27	11,065.223	3.77	12,747.453	4.27	14,429.683	4.77	16,111.913	5.27	17,794.144	5.77	19,476.374
3.28	11,098.868	3.78	12,781.098	4.28	14,463.328	4.78	16,145.558	5.28	17,827.788	5.78	19,510.018
3.29	11,132.512	3.79	12,814.742	4.29	14,496.973	4.79	16,179.203	5.29	17,861.433	5.79	19,543.663
3.30	11,166.157	3.80	12,848.387	4.30	14,530.617	4.80	16,212.847	5.30	17,895.077	5.80	19,577.308
3.31	11,199.802	3.81	12,882.032	4.31	14,564.262	4.81	16,246.492	5.31	17,928.722	5.81	19,610.952
3.32	11,233.446	3.82	12,915.676	4.32	14,597.906	4.82	16,280.137	5.32	17,962.367	5.82	19,644.597
3.33	11,267.091	3.83	12,949.321	4.33	14,631.551	4.83	16,313.781	5.33	17,996.011	5.83	19,678.241
3.34	11,300.735	3.84	12,982.965	4.34	14,665.196	4.84	16,347.426	5.34	18,029.656	5.84	19,711.886
3.35	11,334.380	3.85	13,016.610	4.35	14,698.840	4.85	16,381.070	5.35	18,063.300	5.85	19,745.531
3.36	11,368.025	3.86	13,050.255	4.36	14,732.485	4.86	16,414.715	5.36	18,096.945	5.86	19,779.175
3.37	11,401.669	3.87	13,083.899	4.37	14,766.129	4.87	16,448.360	5.37	18,130.590	5.87	19,812.820
3.38	11,435.314	3.88	13,117.544	4.38	14,799.774	4.88	16,482.004	5.38	18,164.234	5.88	19,846.464
3.39	11,468.958	3.89	13,151.188	4.39	14,833.419	4.89	16,515.649	5.39	18,197.879	5.89	19,880.109
3.40	11,502.603	3.90	13,184.833	4.40	14,867.063	4.90	16,549.293	5.40	18,231.523	5.90	19,913.754
3.41	11,536.248	3.91	13,218.478	4.41	14,900.708	4.91	16,582.938	5.41	18,265.168	5.91	19,947.398
3.42	11,569.892	3.92	13,252.122	4.42	14,934.352	4.92	16,616.583	5.42	18,298.813	5.92	19,981.043
3.43	11,603.537	3.93	13,285.767	4.43	14,967.997	4.93	16,650.227	5.43	18,332.457	5.93	20,014.687
3.44	11,637.181	3.94	13,319.411	4.44	15,001.642	4.94	16,683.872	5.44	18,366.102	5.94	20,048.332
3.45	11,670.826	3.95	13,353.056	4.45	15,035.286	4.95	16,717.516	5.45	18,399.746	5.95	20,081.977
3.46	11,704.471	3.96	13,386.701	4.46	15,068.931	4.96	16,751.161	5.46	18,433.391	5.96	20,115.621
3.47	11,738.115	3.97	13,420.345	4.47	15,102.575	4.97	16,784.806	5.47	18,467.036	5.97	20,149.266
3.48	11,771.760	3.98	13,453.990	4.48	15,136.220	4.98	16,818.450	5.48	18,500.680	5.98	20,182.910
3.49	11,805.404	3.99	13,487.634	4.49	15,169.865	4.99	16,852.095	5.49	18,534.325	5.99	20,216.555

Displacement
Correction

= 220321 Kilograms - 234.384 Cubic Metres
Kilograms/Cubic Metre

Page 2 of 6

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Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-02

Mackay Terminal

940 kg/m³ @ 15°C

External Floating Roof Tank - Nominal Dimensions : 65.500 Metres X 18.010 Metres

INNAGE TABLE

Reference Gauge Height - 19.856 Metres; Located 0.813 Metres to Rim of Gauge Hatch						Height in Centimetres; Capacity in Cubic Metres					
6.00	20,250.200	6.50	21,933.154	7.00	23,616.165	7.50	25,299.177	8.00	26,982.189	8.50	28,665.201
6.01	20,283.844	6.51	21,966.814	7.01	23,649.826	7.51	25,332.837	8.01	27,015.849	8.51	28,698.861
6.02	20,317.489	6.52	22,000.474	7.02	23,683.486	7.52	25,366.498	8.02	27,049.509	8.52	28,732.521
6.03	20,351.133	6.53	22,034.134	7.03	23,717.146	7.53	25,400.158	8.03	27,083.170	8.53	28,766.182
6.04	20,384.783	6.54	22,067.795	7.04	23,750.806	7.54	25,433.818	8.04	27,116.830	8.54	28,799.842
6.05	20,418.443	6.55	22,101.455	7.05	23,784.467	7.55	25,467.478	8.05	27,150.490	8.55	28,833.502
6.06	20,452.103	6.56	22,135.115	7.06	23,818.127	7.56	25,501.139	8.06	27,184.150	8.56	28,867.162
6.07	20,485.763	6.57	22,168.775	7.07	23,851.787	7.57	25,534.799	8.07	27,217.811	8.57	28,900.822
6.08	20,519.424	6.58	22,202.435	7.08	23,885.447	7.58	25,568.459	8.08	27,251.471	8.58	28,934.483
6.09	20,553.084	6.59	22,236.096	7.09	23,919.108	7.59	25,602.119	8.09	27,285.131	8.59	28,968.143
6.10	20,586.744	6.60	22,269.756	7.10	23,952.768	7.60	25,635.780	8.10	27,318.791	8.60	29,001.803
6.11	20,620.404	6.61	22,303.416	7.11	23,986.428	7.61	25,669.440	8.11	27,352.452	8.61	29,035.463
6.12	20,654.065	6.62	22,337.076	7.12	24,020.088	7.62	25,703.100	8.12	27,386.112	8.62	29,069.124
6.13	20,687.725	6.63	22,370.737	7.13	24,053.748	7.63	25,736.760	8.13	27,419.772	8.63	29,102.784
6.14	20,721.385	6.64	22,404.397	7.14	24,087.409	7.64	25,770.421	8.14	27,453.432	8.64	29,136.444
6.15	20,755.045	6.65	22,438.057	7.15	24,121.069	7.65	25,804.081	8.15	27,487.093	8.65	29,170.104
6.16	20,788.706	6.66	22,471.717	7.16	24,154.729	7.66	25,837.741	8.16	27,520.753	8.66	29,203.765
6.17	20,822.366	6.67	22,505.378	7.17	24,188.389	7.67	25,871.401	8.17	27,554.413	8.67	29,237.425
6.18	20,856.026	6.68	22,539.038	7.18	24,222.050	7.68	25,905.061	8.18	27,588.073	8.68	29,271.085
6.19	20,889.686	6.69	22,572.698	7.19	24,255.710	7.69	25,938.722	8.19	27,621.733	8.69	29,304.745
6.20	20,923.347	6.70	22,606.358	7.20	24,289.370	7.70	25,972.382	8.20	27,655.394	8.70	29,338.406
6.21	20,957.007	6.71	22,640.019	7.21	24,323.030	7.71	26,006.042	8.21	27,689.054	8.71	29,372.066
6.22	20,990.667	6.72	22,673.679	7.22	24,356.691	7.72	26,039.702	8.22	27,722.714	8.72	29,405.726
6.23	21,024.327	6.73	22,707.339	7.23	24,390.351	7.73	26,073.363	8.23	27,756.374	8.73	29,439.386
6.24	21,057.987	6.74	22,740.999	7.24	24,424.011	7.74	26,107.023	8.24	27,790.035	8.74	29,473.046
6.25	21,091.648	6.75	22,774.659	7.25	24,457.671	7.75	26,140.683	8.25	27,823.695	8.75	29,506.707
6.26	21,125.308	6.76	22,808.320	7.26	24,491.332	7.76	26,174.343	8.26	27,857.355	8.76	29,540.367
6.27	21,158.968	6.77	22,841.980	7.27	24,524.992	7.77	26,208.004	8.27	27,891.015	8.77	29,574.027
6.28	21,192.628	6.78	22,875.640	7.28	24,558.652	7.78	26,241.664	8.28	27,924.676	8.78	29,607.687
6.29	21,226.289	6.79	22,909.300	7.29	24,592.312	7.79	26,275.324	8.29	27,958.336	8.79	29,641.348
6.30	21,259.949	6.80	22,942.961	7.30	24,625.972	7.80	26,308.984	8.30	27,991.996	8.80	29,675.008
6.31	21,293.609	6.81	22,976.621	7.31	24,659.633	7.81	26,342.645	8.31	28,025.656	8.81	29,708.668
6.32	21,327.269	6.82	23,010.281	7.32	24,693.293	7.82	26,376.305	8.32	28,059.317	8.82	29,742.328
6.33	21,360.930	6.83	23,043.941	7.33	24,726.953	7.83	26,409.965	8.33	28,092.977	8.83	29,775.989
6.34	21,394.590	6.84	23,077.602	7.34	24,760.613	7.84	26,443.625	8.34	28,126.637	8.84	29,809.649
6.35	21,428.250	6.85	23,111.262	7.35	24,794.274	7.85	26,477.285	8.35	28,160.297	8.85	29,843.309
6.36	21,461.910	6.86	23,144.922	7.36	24,827.934	7.86	26,510.946	8.36	28,193.958	8.86	29,876.969
6.37	21,495.571	6.87	23,178.582	7.37	24,861.594	7.87	26,544.606	8.37	28,227.618	8.87	29,910.630
6.38	21,529.231	6.88	23,212.243	7.38	24,895.254	7.88	26,578.266	8.38	28,261.278	8.88	29,944.290
6.39	21,562.891	6.89	23,245.903	7.39	24,928.915	7.89	26,611.926	8.39	28,294.938	8.89	29,977.950
6.40	21,596.551	6.90	23,279.563	7.40	24,962.575	7.90	26,645.587	8.40	28,328.598	8.90	30,011.610
6.41	21,630.211	6.91	23,313.223	7.41	24,996.235	7.91	26,679.247	8.41	28,362.259	8.91	30,045.270
6.42	21,663.872	6.92	23,346.884	7.42	25,029.895	7.92	26,712.907	8.42	28,395.919	8.92	30,078.931
6.43	21,697.532	6.93	23,380.544	7.43	25,063.556	7.93	26,746.567	8.43	28,429.579	8.93	30,112.591
6.44	21,731.192	6.94	23,414.204	7.44	25,097.216	7.94	26,780.228	8.44	28,463.239	8.94	30,146.251
6.45	21,764.852	6.95	23,447.864	7.45	25,130.876	7.95	26,813.888	8.45	28,496.900	8.95	30,179.911
6.46	21,798.513	6.96	23,481.524	7.46	25,164.536	7.96	26,847.548	8.46	28,530.560	8.96	30,213.572
6.47	21,832.173	6.97	23,515.185	7.47	25,198.196	7.97	26,881.208	8.47	28,564.220	8.97	30,247.232
6.48	21,865.833	6.98	23,548.845	7.48	25,231.857	7.98	26,914.869	8.48	28,597.880	8.98	30,280.892
6.49	21,899.493	6.99	23,582.505	7.49	25,265.517	7.99	26,948.529	8.49	28,631.541	8.99	30,314.552

Millimetres

1	3.366	6	20.196
2	6.732	7	23.562
3	10.098	8	26.928
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Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-02

Mackay Terminal

940 kg/m³ @ 15°C

External Floating Roof Tank - Nominal Dimensions : 65.500 Metres X 18.010 Metres

INNAGE TABLE

Reference Gauge Height - 19.856 Metres; Located 0.813 Metres to Rim of Gauge Hatch											
						Height in Centimetres; Capacity in Cubic Metres					
9.00	30,348.213	9.50	32,032.300	10.00	33,716.554	10.50	35,400.808	11.00	37,085.062	11.50	38,769.316
9.01	30,381.873	9.51	32,065.985	10.01	33,750.239	10.51	35,434.493	11.01	37,118.747	11.51	38,803.001
9.02	30,415.533	9.52	32,099.670	10.02	33,783.924	10.52	35,468.178	11.02	37,152.432	11.52	38,836.687
9.03	30,449.193	9.53	32,133.355	10.03	33,817.609	10.53	35,501.864	11.03	37,186.118	11.53	38,870.372
9.04	30,482.854	9.54	32,167.041	10.04	33,851.295	10.54	35,535.549	11.04	37,219.803	11.54	38,904.057
9.05	30,516.514	9.55	32,200.726	10.05	33,884.980	10.55	35,569.234	11.05	37,253.488	11.55	38,937.742
9.06	30,550.174	9.56	32,234.411	10.06	33,918.665	10.56	35,602.919	11.06	37,287.173	11.56	38,971.427
9.07	30,583.842	9.57	32,268.096	10.07	33,952.350	10.57	35,636.604	11.07	37,320.858	11.57	39,005.112
9.08	30,617.527	9.58	32,301.781	10.08	33,986.035	10.58	35,670.289	11.08	37,354.543	11.58	39,038.797
9.09	30,651.212	9.59	32,335.466	10.09	34,019.720	10.59	35,703.974	11.09	37,388.228	11.59	39,072.482
9.10	30,684.897	9.60	32,369.151	10.10	34,053.405	10.60	35,737.659	11.10	37,421.913	11.60	39,106.167
9.11	30,718.582	9.61	32,402.836	10.11	34,087.090	10.61	35,771.344	11.11	37,455.598	11.61	39,139.852
9.12	30,752.267	9.62	32,436.521	10.12	34,120.775	10.62	35,805.029	11.12	37,489.283	11.62	39,173.537
9.13	30,785.952	9.63	32,470.206	10.13	34,154.460	10.63	35,838.714	11.13	37,522.968	11.63	39,207.222
9.14	30,819.637	9.64	32,503.891	10.14	34,188.145	10.64	35,872.399	11.14	37,556.653	11.64	39,240.907
9.15	30,853.322	9.65	32,537.576	10.15	34,221.830	10.65	35,906.084	11.15	37,590.339	11.65	39,274.593
9.16	30,887.007	9.66	32,571.261	10.16	34,255.516	10.66	35,939.770	11.16	37,624.024	11.66	39,308.278
9.17	30,920.693	9.67	32,604.947	10.17	34,289.201	10.67	35,973.455	11.17	37,657.709	11.67	39,341.963
9.18	30,954.378	9.68	32,638.632	10.18	34,322.886	10.68	36,007.140	11.18	37,691.394	11.68	39,375.648
9.19	30,988.063	9.69	32,672.317	10.19	34,356.571	10.69	36,040.825	11.19	37,725.079	11.69	39,409.333
9.20	31,021.748	9.70	32,706.002	10.20	34,390.256	10.70	36,074.510	11.20	37,758.764	11.70	39,443.018
9.21	31,055.433	9.71	32,739.687	10.21	34,423.941	10.71	36,108.195	11.21	37,792.449	11.71	39,476.703
9.22	31,089.118	9.72	32,773.372	10.22	34,457.626	10.72	36,141.880	11.22	37,826.134	11.72	39,510.388
9.23	31,122.803	9.73	32,807.057	10.23	34,491.311	10.73	36,175.565	11.23	37,859.819	11.73	39,544.073
9.24	31,156.488	9.74	32,840.742	10.24	34,524.996	10.74	36,209.250	11.24	37,893.504	11.74	39,577.758
9.25	31,190.173	9.75	32,874.427	10.25	34,558.681	10.75	36,242.935	11.25	37,927.189	11.75	39,611.443
9.26	31,223.858	9.76	32,908.112	10.26	34,592.366	10.76	36,276.620	11.26	37,960.874	11.76	39,645.128
9.27	31,257.543	9.77	32,941.797	10.27	34,626.051	10.77	36,310.305	11.27	37,994.559	11.77	39,678.814
9.28	31,291.228	9.78	32,975.482	10.28	34,659.736	10.78	36,343.991	11.28	38,028.245	11.78	39,712.499
9.29	31,324.914	9.79	33,009.168	10.29	34,693.422	10.79	36,377.676	11.29	38,061.930	11.79	39,746.184
9.30	31,358.599	9.80	33,042.853	10.30	34,727.107	10.80	36,411.361	11.30	38,095.615	11.80	39,779.869
9.31	31,392.284	9.81	33,076.538	10.31	34,760.792	10.81	36,445.046	11.31	38,129.300	11.81	39,813.554
9.32	31,425.969	9.82	33,110.223	10.32	34,794.477	10.82	36,478.731	11.32	38,162.985	11.82	39,847.239
9.33	31,459.654	9.83	33,143.908	10.33	34,828.162	10.83	36,512.416	11.33	38,196.670	11.83	39,880.924
9.34	31,493.339	9.84	33,177.593	10.34	34,861.847	10.84	36,546.101	11.34	38,230.355	11.84	39,914.609
9.35	31,527.024	9.85	33,211.278	10.35	34,895.532	10.85	36,579.786	11.35	38,264.040	11.85	39,948.294
9.36	31,560.709	9.86	33,244.963	10.36	34,929.217	10.86	36,613.471	11.36	38,297.725	11.86	39,981.979
9.37	31,594.394	9.87	33,278.648	10.37	34,962.902	10.87	36,647.156	11.37	38,331.410	11.87	40,015.664
9.38	31,628.079	9.88	33,312.333	10.38	34,996.587	10.88	36,680.841	11.38	38,365.095	11.88	40,049.349
9.39	31,661.764	9.89	33,346.018	10.39	35,030.272	10.89	36,714.526	11.39	38,398.780	11.89	40,083.034
9.40	31,695.449	9.90	33,379.703	10.40	35,063.957	10.90	36,748.212	11.40	38,432.466	11.90	40,116.720
9.41	31,729.134	9.91	33,413.389	10.41	35,097.643	10.91	36,781.897	11.41	38,466.151	11.91	40,150.405
9.42	31,762.820	9.92	33,447.074	10.42	35,131.328	10.92	36,815.582	11.42	38,499.836	11.92	40,184.090
9.43	31,796.505	9.93	33,480.759	10.43	35,165.013	10.93	36,849.267	11.43	38,533.521	11.93	40,217.775
9.44	31,830.190	9.94	33,514.444	10.44	35,198.698	10.94	36,882.952	11.44	38,567.206	11.94	40,251.460
9.45	31,863.875	9.95	33,548.129	10.45	35,232.383	10.95	36,916.637	11.45	38,600.891	11.95	40,285.145
9.46	31,897.560	9.96	33,581.814	10.46	35,266.068	10.96	36,950.322	11.46	38,634.576	11.96	40,318.830
9.47	31,931.245	9.97	33,615.499	10.47	35,299.753	10.97	36,984.007	11.47	38,668.261	11.97	40,352.515
9.48	31,964.930	9.98	33,649.184	10.48	35,333.438	10.98	37,017.692	11.48	38,701.946	11.98	40,386.200
9.49	31,998.615	9.99	33,682.869	10.49	35,367.123	10.99	37,051.377	11.49	38,735.631	11.99	40,419.885

Millimetres

1	3.366	6	20.196
2	6.732	7	23.562
3	10.098	8	26.928
4	13.464	9	30.294
5	16.830		

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Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-02

Mackay Terminal

940 kg/m³ @ 15°C

External Floating Roof Tank - Nominal Dimensions : 65.500 Metres X 18.010 Metres

INNAGE TABLE

Reference Gauge Height - 19.856 Metres; Located 0.813 Metres to Rim of Gauge Hatch						Height in Centimetres; Capacity in Cubic Metres					
12.00	40,453.570	12.50	42,138.733	13.00	43,824.098	13.50	45,509.464	14.00	47,194.829	14.50	48,880.194
12.01	40,487.255	12.51	42,172.441	13.01	43,857.806	13.51	45,543.171	14.01	47,228.536	14.51	48,913.901
12.02	40,520.941	12.52	42,206.148	13.02	43,891.513	13.52	45,576.878	14.02	47,262.243	14.52	48,947.609
12.03	40,554.626	12.53	42,239.855	13.03	43,925.220	13.53	45,610.586	14.03	47,295.951	14.53	48,981.316
12.04	40,588.311	12.54	42,273.563	13.04	43,958.928	13.54	45,644.293	14.04	47,329.658	14.54	49,015.023
12.05	40,621.996	12.55	42,307.270	13.05	43,992.635	13.55	45,678.000	14.05	47,363.365	14.55	49,048.731
12.06	40,655.681	12.56	42,340.977	13.06	44,026.342	13.56	45,711.707	14.06	47,397.073	14.56	49,082.438
12.07	40,689.366	12.57	42,374.684	13.07	44,060.050	13.57	45,745.415	14.07	47,430.780	14.57	49,116.145
12.08	40,723.051	12.58	42,408.392	13.08	44,093.757	13.58	45,779.122	14.08	47,464.487	14.58	49,149.852
12.09	40,756.736	12.59	42,442.099	13.09	44,127.464	13.59	45,812.829	14.09	47,498.195	14.59	49,183.560
12.10	40,790.441	12.60	42,475.806	13.10	44,161.172	13.60	45,846.537	14.10	47,531.902	14.60	49,217.267
12.11	40,824.148	12.61	42,509.514	13.11	44,194.879	13.61	45,880.244	14.11	47,565.609	14.61	49,250.974
12.12	40,857.856	12.62	42,543.221	13.12	44,228.586	13.62	45,913.951	14.12	47,599.316	14.62	49,284.682
12.13	40,891.563	12.63	42,576.928	13.13	44,262.293	13.63	45,947.659	14.13	47,633.024	14.63	49,318.389
12.14	40,925.270	12.64	42,610.636	13.14	44,296.001	13.64	45,981.366	14.14	47,666.731	14.64	49,352.096
12.15	40,958.978	12.65	42,644.343	13.15	44,329.708	13.65	46,015.073	14.15	47,700.438	14.65	49,385.804
12.16	40,992.685	12.66	42,678.050	13.16	44,363.415	13.66	46,048.781	14.16	47,734.146	14.66	49,419.511
12.17	41,026.392	12.67	42,711.757	13.17	44,397.123	13.67	46,082.488	14.17	47,767.853	14.67	49,453.218
12.18	41,060.100	12.68	42,745.465	13.18	44,430.830	13.68	46,116.195	14.18	47,801.560	14.68	49,486.925
12.19	41,093.807	12.69	42,779.172	13.19	44,464.537	13.69	46,149.902	14.19	47,835.268	14.69	49,520.633
12.20	41,127.514	12.70	42,812.879	13.20	44,498.245	13.70	46,183.610	14.20	47,868.975	14.70	49,554.340
12.21	41,161.222	12.71	42,846.587	13.21	44,531.952	13.71	46,217.317	14.21	47,902.682	14.71	49,588.047
12.22	41,194.929	12.72	42,880.294	13.22	44,565.659	13.72	46,251.024	14.22	47,936.390	14.72	49,621.755
12.23	41,228.636	12.73	42,914.001	13.23	44,599.366	13.73	46,284.732	14.23	47,970.097	14.73	49,655.462
12.24	41,262.343	12.74	42,947.709	13.24	44,633.074	13.74	46,318.439	14.24	48,003.804	14.74	49,689.169
12.25	41,296.051	12.75	42,981.416	13.25	44,666.781	13.75	46,352.146	14.25	48,037.511	14.75	49,722.877
12.26	41,329.758	12.76	43,015.123	13.26	44,700.488	13.76	46,385.854	14.26	48,071.219	14.76	49,756.584
12.27	41,363.465	12.77	43,048.831	13.27	44,734.196	13.77	46,419.561	14.27	48,104.926	14.77	49,790.291
12.28	41,397.173	12.78	43,082.538	13.28	44,767.903	13.78	46,453.268	14.28	48,138.633	14.78	49,823.999
12.29	41,430.880	12.79	43,116.245	13.29	44,801.610	13.79	46,486.975	14.29	48,172.341	14.79	49,857.706
12.30	41,464.587	12.80	43,149.952	13.30	44,835.318	13.80	46,520.683	14.30	48,206.048	14.80	49,891.413
12.31	41,498.295	12.81	43,183.660	13.31	44,869.025	13.81	46,554.390	14.31	48,239.755	14.81	49,925.120
12.32	41,532.002	12.82	43,217.367	13.32	44,902.732	13.82	46,588.097	14.32	48,273.463	14.82	49,958.828
12.33	41,565.709	12.83	43,251.074	13.33	44,936.440	13.83	46,621.805	14.33	48,307.170	14.83	49,992.535
12.34	41,599.416	12.84	43,284.782	13.34	44,970.147	13.84	46,655.512	14.34	48,340.877	14.84	50,026.242
12.35	41,633.124	12.85	43,318.489	13.35	45,003.854	13.85	46,689.219	14.35	48,374.584	14.85	50,059.950
12.36	41,666.831	12.86	43,352.196	13.36	45,037.561	13.86	46,722.927	14.36	48,408.292	14.86	50,093.657
12.37	41,700.538	12.87	43,385.904	13.37	45,071.269	13.87	46,756.634	14.37	48,441.999	14.87	50,127.364
12.38	41,734.246	12.88	43,419.611	13.38	45,104.976	13.88	46,790.341	14.38	48,475.706	14.88	50,161.072
12.39	41,767.953	12.89	43,453.318	13.39	45,138.683	13.89	46,824.049	14.39	48,509.414	14.89	50,194.779
12.40	41,801.660	12.90	43,487.025	13.40	45,172.391	13.90	46,857.756	14.40	48,543.121	14.90	50,228.486
12.41	41,835.368	12.91	43,520.733	13.41	45,206.098	13.91	46,891.463	14.41	48,576.828	14.91	50,262.193
12.42	41,869.075	12.92	43,554.440	13.42	45,239.805	13.92	46,925.170	14.42	48,610.536	14.92	50,295.901
12.43	41,902.782	12.93	43,588.147	13.43	45,273.513	13.93	46,958.878	14.43	48,644.243	14.93	50,329.608
12.44	41,936.490	12.94	43,621.855	13.44	45,307.220	13.94	46,992.585	14.44	48,677.950	14.94	50,363.315
12.45	41,970.197	12.95	43,655.562	13.45	45,340.927	13.95	47,026.292	14.45	48,711.657	14.95	50,397.023
12.46	42,003.904	12.96	43,689.269	13.46	45,374.634	13.96	47,060.000	14.46	48,745.365	14.96	50,430.730
12.47	42,037.611	12.97	43,722.977	13.47	45,408.342	13.97	47,093.707	14.47	48,779.072	14.97	50,464.437
12.48	42,071.319	12.98	43,756.684	13.48	45,442.049	13.98	47,127.414	14.48	48,812.779	14.98	50,498.145
12.49	42,105.026	12.99	43,790.391	13.49	45,475.756	13.99	47,161.122	14.49	48,846.487	14.99	50,531.852

Millimetres

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Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-02

Mackay Terminal

940 kg/m³ @ 15°C

External Floating Roof Tank - Nominal Dimensions : 65.500 Metres X 18.010 Metres

INNAGE TABLE

Reference Gauge Height - 19.856 Metres; Located 0.813 Metres to Rim of Gauge Hatch										Height in Centimetres; Capacity in Cubic Metres	
15.00	50,565.559	15.50	52,251.813	16.00	53,938.324	16.50	55,624.835	17.00		17.50	
15.01	50,599.266	15.51	52,285.544	16.01	53,972.054	16.51	55,658.565	17.01		17.51	
15.02	50,632.974	15.52	52,319.274	16.02	54,005.785	16.52	55,692.296	17.02		17.52	
15.03	50,666.681	15.53	52,353.004	16.03	54,039.515	16.53	55,726.026	17.03		17.53	
15.04	50,700.388	15.54	52,386.734	16.04	54,073.245	16.54	55,759.756	17.04		17.54	
15.05	50,734.096	15.55	52,420.464	16.05	54,106.975	16.55	55,793.486	17.05		17.55	
15.06	50,767.803	15.56	52,454.195	16.06	54,140.706	16.56	55,827.216	17.06		17.56	
15.07	50,801.510	15.57	52,487.925	16.07	54,174.436	16.57	55,860.947	17.07		17.57	
15.08	50,835.218	15.58	52,521.655	16.08	54,208.166	16.58	55,894.677	17.08		17.58	
15.09	50,868.925	15.59	52,555.385	16.09	54,241.896	16.59	55,928.407	17.09		17.59	
15.10	50,902.632	15.60	52,589.116	16.10	54,275.626	16.60	55,962.137	17.10		17.60	
15.11	50,936.340	15.61	52,622.846	16.11	54,309.357	16.61	55,995.867	17.11		17.61	
15.12	50,970.065	15.62	52,656.576	16.12	54,343.087	16.62	56,029.598	17.12		17.62	
15.13	51,003.795	15.63	52,690.306	16.13	54,376.817	16.63		17.13		17.63	
15.14	51,037.526	15.64	52,724.036	16.14	54,410.547	16.64		17.14		17.64	
15.15	51,071.256	15.65	52,757.767	16.15	54,444.278	16.65		17.15		17.65	
15.16	51,104.986	15.66	52,791.497	16.16	54,478.008	16.66		17.16		17.66	
15.17	51,138.716	15.67	52,825.227	16.17	54,511.738	16.67		17.17		17.67	
15.18	51,172.446	15.68	52,858.957	16.18	54,545.468	16.68		17.18		17.68	
15.19	51,206.177	15.69	52,892.688	16.19	54,579.198	16.69		17.19		17.69	
15.20	51,239.907	15.70	52,926.418	16.20	54,612.929	16.70		17.20		17.70	
15.21	51,273.637	15.71	52,960.148	16.21	54,646.659	16.71		17.21		17.71	
15.22	51,307.367	15.72	52,993.878	16.22	54,680.389	16.72		17.22		17.72	
15.23	51,341.098	15.73	53,027.608	16.23	54,714.119	16.73		17.23		17.73	
15.24	51,374.828	15.74	53,061.339	16.24	54,747.849	16.74		17.24		17.74	
15.25	51,408.558	15.75	53,095.069	16.25	54,781.580	16.75		17.25		17.75	
15.26	51,442.288	15.76	53,128.799	16.26	54,815.310	16.76		17.26		17.76	
15.27	51,476.018	15.77	53,162.529	16.27	54,849.040	16.77		17.27		17.77	
15.28	51,509.749	15.78	53,196.259	16.28	54,882.770	16.78		17.28		17.78	
15.29	51,543.479	15.79	53,229.990	16.29	54,916.501	16.79		17.29		17.79	
15.30	51,577.209	15.80	53,263.720	16.30	54,950.231	16.80		17.30		17.80	
15.31	51,610.939	15.81	53,297.450	16.31	54,983.961	16.81		17.31		17.81	
15.32	51,644.669	15.82	53,331.180	16.32	55,017.691	16.82		17.32		17.82	
15.33	51,678.400	15.83	53,364.911	16.33	55,051.421	16.83		17.33		17.83	
15.34	51,712.130	15.84	53,398.641	16.34	55,085.152	16.84		17.34		17.84	
15.35	51,745.860	15.85	53,432.371	16.35	55,118.882	16.85		17.35		17.85	
15.36	51,779.590	15.86	53,466.101	16.36	55,152.612	16.86		17.36		17.86	
15.37	51,813.321	15.87	53,499.831	16.37	55,186.342	16.87		17.37		17.87	
15.38	51,847.051	15.88	53,533.562	16.38	55,220.072	16.88		17.38		17.88	
15.39	51,880.781	15.89	53,567.292	16.39	55,253.803	16.89		17.39		17.89	
15.40	51,914.511	15.90	53,601.022	16.40	55,287.533	16.90		17.40		17.90	
15.41	51,948.241	15.91	53,634.752	16.41	55,321.263	16.91		17.41		17.91	
15.42	51,981.972	15.92	53,668.483	16.42	55,354.993	16.92		17.42		17.92	
15.43	52,015.702	15.93	53,702.213	16.43	55,388.724	16.93		17.43		17.93	
15.44	52,049.432	15.94	53,735.943	16.44	55,422.454	16.94		17.44		17.94	
15.45	52,083.162	15.95	53,769.673	16.45	55,456.184	16.95		17.45		17.95	
15.46	52,116.893	15.96	53,803.403	16.46	55,489.914	16.96		17.46		17.96	
15.47	52,150.623	15.97	53,837.134	16.47	55,523.644	16.97		17.47		17.97	
15.48	52,184.353	15.98	53,870.864	16.48	55,557.375	16.98		17.48		17.98	
15.49	52,218.083	15.99	53,904.594	16.49	55,591.105	16.99		17.49		17.99	

Per Client design, Safe Fill Height / Overflow @ 16.620 Metres

Page 6 of 6

1	3.366	6	20.196
2	6.732	7	23.562
3	10.098	8	26.928
4	13.464	9	30.294
5	16.830		

Tables produced by:
Nextgen Industrial Services Inc.
(306) 596-8330
www.nextgenis.net



Action Number P2190102940 - Exhibit G

TransCanada Pipelines Limited

TANK # A1-TK-02

Mackay Terminal

940 kg/m3 @ 15°C

External Floating Roof Tank - Nominal Dimensions : 46.18 Metres X 15.69 Metres

Volumes in: Cubic Metres

To Increment	Incs	Gross Volume per Increment	Deadwood Volume	Net Volume	Accumulated Volume
0	1	0.000000	322.452896	322.452896	322.452896
1	1	33.630143	-3.320746	30.309398	352.762293
2	1	33.630143	-3.205441	30.424702	383.186995
3	1	33.630143	-2.839114	30.791029	413.978024
4	1	33.630143	-2.383652	31.246491	445.224515
5	1	33.630143	-1.895751	31.734393	476.958908
6	1	33.630143	-1.673679	31.956464	508.915372
7	1	33.630143	-1.303678	32.326465	541.241838
8	1	33.630143	-1.093382	32.536761	573.778599
9	1	33.630143	-0.737438	32.892705	606.671304
10	1	33.630143	-0.169571	33.460573	640.131877
27	5	33.630143	-0.001783	33.628361	1211.796783
18	5	33.630143	-0.002251	33.627892	909.156419
20	2	33.630143	-0.004244	33.625900	976.408218
25	5	33.630143	-0.003775	33.626369	1144.540061
30	3	33.630143	-0.004061	33.626082	1312.675029
35	5	33.630143	-0.012384	33.617759	1480.763825
37	2	33.630143	-0.018433	33.611710	1547.987245
44	7	33.630143	-0.018185	33.611958	1783.270953
45	1	33.630143	-0.018450	33.611694	1816.882647
46	1	33.630143	-0.018248	33.611895	1850.494542
48	2	33.630143	-0.015684	33.614459	1917.723461
54	6	33.630143	-0.015617	33.614527	2119.410621
60	6	33.630143	-0.014979	33.615165	2321.101609
61	1	33.630143	-0.016829	33.613314	2354.714924
64	3	33.630143	-0.016886	33.613257	2455.554694
66	2	33.630143	-0.016908	33.613236	2522.781166
67	1	33.630143	-0.019458	33.610686	2556.391851
68	1	33.630143	-0.019118	33.611025	2590.002877
69	1	33.630143	-0.016985	33.613158	2623.616035
73	4	33.630143	-0.017156	33.612988	2758.067986
87	14	33.630143	-0.014718	33.615425	3228.683940
88	1	33.630143	-0.014296	33.615847	3262.299787
89	1	33.630143	-0.014275	33.615868	3295.915655
92	3	33.630143	-6.524943	27.105201	3377.231257
96	4	33.630143	-6.515558	27.114585	3485.689598
97	1	33.630143	-6.515524	27.114619	3512.804217
99	2	33.630143	-6.516124	27.114019	3567.032254
105	6	33.630143	-6.516038	27.114105	3729.716884
107	2	33.630143	-6.516158	27.113985	3783.944854
125	13	33.630143	-6.516360	27.113784	4271.993530
124	5	33.630143	-6.516246	27.113897	4244.879747
140	15	33.630143	-0.005692	33.624452	4776.360305
196	56	33.630143	-0.005759	33.624384	6659.325822
301	105	33.630143	-0.000219	33.629924	10190.467838
302	1	33.640418	-0.000219	33.640199	10224.108037
603	301	33.644822	-0.000219	33.644603	20351.133432
604	1	33.649512	-0.000219	33.649293	20384.782724
906	302	33.660455	-0.000219	33.660236	30550.174036
907	1	33.667909	-0.000219	33.667690	30583.841726
1209	302	33.685300	-0.000219	33.685081	40756.736109
1210	1	33.705300	-0.000219	33.705081	40790.441191
1511	301	33.707523	-0.000219	33.707303	50936.339520
1512	1	33.725854	-0.000219	33.725634	50970.065155
1662	150	33.730436	-0.000219	33.730217	56029.597703

TransCanada Pipelines Limited
Mackay Terminal

General Information

Tank Number	A1-TK-02
Date of Strapping Data	06/24/2017
Year Built	2017
Product in Service	Bitumen / Synthetic Crude
Product Service Density	0.940 g/cc (SG)

Tank Dimensions

Nominal Diameter	65.500 Metres
Nominal Height	18.010 Metres
Measured Tank Height	17.992 Metres
Tank Tilt	0 Millimetres
Gauge Point Information	Rim of Hatch
Reference Gauge Height	19.856 Metres
Horizontal To Gauge	0.81 Metres

Roof & Bottom Survey

Roof Type	External Floating
Floating Roof Shape	Angled Pontoon
Floating Roof Weight	220321 Kilograms
Roof Landed Height	84 Centimetres
Roof Full Floating Height	130 Centimetres
Bottom Description	Physical Survey

Report Constraints

Main Increment	Centimetres
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	Feet
Safe Fill Height	16.620 Metres
Overflow Or Foamline	16.620 Metres

TransCanada Pipelines Limited
Mackay Terminal

Strap Correction to 60°F

Shell Temperature (°F)	66.2	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor

Correction Factor = 0.99994840

Course	Strap Circumference Inches	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	8101.350	675.112	0.000	675.078
2	8101.350	675.112	0.000	675.078
3	8101.350	675.112	0.000	675.078
4	8101.350	675.112	0.000	675.078
5	8101.350	675.112	0.000	675.078
6	8101.350	675.112	0.000	675.078

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	492.896	0.813	-5.105	205.759	675.061
2	497.896	5.813	-36.521	205.727	674.958
3	502.500	10.417	-65.450	205.698	674.863
4	505.104	13.021	-81.812	205.682	674.809
5	510.604	18.521	-116.370	205.647	674.696
6	513.833	21.750	-136.659	205.627	674.629

TransCanada Pipelines Limited
Mackay Terminal

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	675.061	1.236 Inches	3.013 Metres	3.013 Metres
2	674.958	0.956 Inches	3.024 Metres	6.037 Metres
3	674.863	0.737 Inches	3.030 Metres	9.067 Metres
4	674.809	0.517 Inches	3.024 Metres	12.091 Metres
5	674.696	0.375 Inches	3.021 Metres	15.112 Metres
6	674.629	0.375 Inches	2.880 Metres	17.992 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
2	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
3	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
4	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
5	Butt Weld	0	0.000 Millimetres	0.000 Millimetres
6	Butt Weld	0	0.000 Millimetres	0.000 Millimetres

TransCanada Pipelines Limited
Mackay Terminal

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	675.061	1.236	0
2.00	62.428	1.000	0	674.958	0.956	0
3.00	62.428	1.000	0	674.863	0.737	0
4.00	62.428	1.000	0	674.809	0.517	0
5.00	62.428	1.000	0	674.696	0.375	0
6.00	62.428	1.000	0	674.629	0.375	0

TransCanada Pipelines Limited
Mackay Terminal

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2*D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	675.061	0.000	0.000	0.647	674.414
2	674.958	0.000	0.000	0.501	674.457
3	674.863	0.000	0.000	0.386	674.477
4	674.809	0.000	0.000	0.271	674.539
5	674.696	0.000	0.000	0.196	674.500
6	674.629	0.000	0.000	0.196	674.433

TransCanada Pipelines Limited
Mackay Terminal

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Centimetre
1	674.414	0.048	674.461	33.631
2	674.457	0.060	674.517	33.636
3	674.477	0.077	674.554	33.640
4	674.539	0.110	674.649	33.649
5	674.500	0.152	674.651	33.650
6	674.433	0.145	674.578	33.642

TransCanada Pipelines Limited
Mackay Terminal

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} * \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Centimetre	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	33.631	0.009	0.000	33.631	33.630
2	33.636	0.012	0.009	33.645	33.645
3	33.640	0.015	0.021	33.661	33.660
4	33.649	0.022	0.036	33.686	33.685
5	33.650	0.030	0.058	33.708	33.708
6	33.642	0.000	0.089	33.731	33.730



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-906

Regina, SK

876 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 136 Feet X 48 Feet

INNAGE TABLE

Reference Gauge Height - 53' 5/8": Located 40 Inches to Benchmark in hatch										Height in Inches; Capacities in Cubic Metres					
0	0	**	14.452	4	0	1,623.404	8	0	3,265.789	12	0	4,909.300	16	0	6,553.188
	1	*	36.539		1	1,657.621		1	3,300.012		1	4,943.547		1	6,587.436
	2	*	61.480		2	1,691.837		2	3,334.235		2	4,977.795		2	6,621.683
	3	*	89.068		3	1,726.053		3	3,368.458		3	5,012.043		3	6,655.931
	4	*	119.949		4	1,760.270		4	3,402.681		4	5,046.290		4	6,690.179
	5	*	152.723		5	1,794.486		5	3,436.904		5	5,080.538		5	6,724.426
	6	*	186.341		6	1,828.702		6	3,471.127		6	5,114.786		6	6,758.674
	7		220.540		7	1,862.918		7	3,505.349		7	5,149.033		7	6,792.922
	8		254.739		8	1,897.134		8	3,539.572		8	5,183.281		8	6,827.169
	9		288.955		9	1,931.351		9	3,573.795		9	5,217.529		9	6,861.417
	10		323.171		10	1,965.567		10	3,608.018		10	5,251.776		10	6,895.665
	11		357.388		11	1,999.783		11	3,642.241		11	5,286.024		11	6,929.912
1	0		391.604	5	0	2,033.999	9	0	3,676.464	13	0	5,320.272	17	0	6,964.160
	1		425.821		1	2,068.215		1	3,710.687		1	5,354.519		1	6,998.408
	2		460.038		2	2,102.432		2	3,744.910		2	5,388.767		2	7,032.655
	3		494.254		3	2,136.648		3	3,779.133		3	5,423.015		3	7,066.903
	4		528.471		4	2,170.864		4	3,813.374		4	5,457.262		4	7,101.151
	5		562.687		5	2,205.080		5	3,847.622		5	5,491.510		5	7,135.398
	6		596.904		6	2,239.297		6	3,881.869		6	5,525.758		6	7,169.646
	7		631.120		7	2,273.513		7	3,916.117		7	5,560.005		7	7,203.894
	8		665.337		8	2,307.729		8	3,950.365		8	5,594.253		8	7,238.142
	9		699.554		9	2,341.945		9	3,984.612		9	5,628.501		9	7,272.389
	10		733.770		10	2,376.161		10	4,018.860		10	5,662.748		10	7,306.637
	11		767.987		11	2,410.378		11	4,053.108		11	5,696.996		11	7,340.885
2	0		802.204	6	0	2,444.594	10	0	4,087.355	14	0	5,731.244	18	0	7,375.132
	1		836.421		1	2,478.810		1	4,121.603		1	5,765.491		1	7,409.380
	2		870.638		2	2,513.026		2	4,155.851		2	5,799.739		2	7,443.628
	3		904.855		3	2,547.242		3	4,190.098		3	5,833.987		3	7,477.875
	4		939.071		4	2,581.459		4	4,224.346		4	5,868.234		4	7,512.123
	5		973.288		5	2,615.675		5	4,258.594		5	5,902.482		5	7,546.371
	6		1,007.505		6	2,649.891		6	4,292.841		6	5,936.730		6	7,580.618
	7		1,041.721		7	2,684.107		7	4,327.089		7	5,970.978		7	7,614.866
	8		1,075.938		8	2,718.323		8	4,361.337		8	6,005.225		8	7,649.114
	9		1,110.155		9	2,752.540		9	4,395.584		9	6,039.473		9	7,683.369
	10		1,144.372		10	2,786.756		10	4,429.832		10	6,073.721		10	7,717.629
	11		1,178.589		11	2,820.972		11	4,464.080		11	6,107.968		11	7,751.889
3	0		1,212.805	7	0	2,855.188	11	0	4,498.327	15	0	6,142.216	19	0	7,786.149
	1		1,247.022		1	2,889.404		1	4,532.575		1	6,176.464		1	7,820.408
	2		1,281.239		2	2,923.621		2	4,566.823		2	6,210.711		2	7,854.668
	3		1,315.456		3	2,957.837		3	4,601.070		3	6,244.959		3	7,888.928
	4		1,349.672		4	2,992.053		4	4,635.318		4	6,279.207		4	7,923.187
	5		1,383.889		5	3,026.269		5	4,669.566		5	6,313.454		5	7,957.447
	6		1,418.106		6	3,060.485		6	4,703.813		6	6,347.702		6	7,991.707
	7		1,452.322		7	3,094.702		7	4,738.061		7	6,381.950		7	8,025.967
	8		1,486.539		8	3,128.918		8	4,772.309		8	6,416.197		8	8,060.226
	9		1,520.755		9	3,163.134		9	4,806.557		9	6,450.445		9	8,094.486
	10		1,554.971		10	3,197.350		10	4,840.804		10	6,484.693		10	8,128.746
	11		1,589.188		11	3,231.566		11	4,875.052		11	6,518.940		11	8,163.006

** Volume Below Strike Point. Located 1" Above intersection of shell & bottom.

* Bottom volume based on Physical Survey Calculation. Average Inches not applicable

Volumes reflect a Shell Temperature of 15°C

Safe Fill Height @ 46' 0"

Page 1 of 3

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-906

Regina, SK

876 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 136 Feet X 48 Feet

INNAGE TABLE

Reference Gauge Height - 53' 5/8"; Located 40 Inches to Benchmark in hatch											Height in Inches; Capacities in Cubic Metres										
20	0	8,197.265	24	0	9,841.732	28	0	11,486.199	32	0	13,131.219	36	0	14,776.257							
	1	8,231.525		1	9,875.992		1	11,520.459		1	13,165.491		1	14,810.529							
	2	8,265.785		2	9,910.252		2	11,554.724		2	13,199.763		2	14,844.801							
	3	8,300.044		3	9,944.511		3	11,588.996		3	13,234.034		3	14,879.072							
	4	8,334.304		4	9,978.771		4	11,623.268		4	13,268.306		4	14,913.344							
	5	8,368.564		5	10,013.031		5	11,657.539		5	13,302.577		5	14,947.616							
	6	8,402.824		6	10,047.291		6	11,691.811		6	13,336.849		6	14,981.887							
	7	8,437.083		7	10,081.550		7	11,726.082		7	13,371.121		7	15,016.159							
	8	8,471.343		8	10,115.810		8	11,760.354		8	13,405.392		8	15,050.430							
	9	8,505.603		9	10,150.070		9	11,794.626		9	13,439.664		9	15,084.702							
	10	8,539.863		10	10,184.330		10	11,828.897		10	13,473.936		10	15,118.974							
	11	8,574.122		11	10,218.589		11	11,863.169		11	13,508.207		11	15,153.245							
21	0	8,608.382	25	0	10,252.849	29	0	11,897.441	33	0	13,542.479	37	0	15,187.517							
	1	8,642.642		1	10,287.109		1	11,931.712		1	13,576.750		1	15,221.789							
	2	8,676.901		2	10,321.368		2	11,965.984		2	13,611.022		2	15,256.060							
	3	8,711.161		3	10,355.628		3	12,000.256		3	13,645.294		3	15,290.332							
	4	8,745.421		4	10,389.888		4	12,034.527		4	13,679.565		4	15,324.604							
	5	8,779.681		5	10,424.148		5	12,068.799		5	13,713.837		5	15,358.875							
	6	8,813.940		6	10,458.407		6	12,103.070		6	13,748.109		6	15,393.147							
	7	8,848.200		7	10,492.667		7	12,137.342		7	13,782.380		7	15,427.418							
	8	8,882.460		8	10,526.927		8	12,171.614		8	13,816.652		8	15,461.690							
	9	8,916.720		9	10,561.187		9	12,205.885		9	13,850.923		9	15,495.962							
	10	8,950.979		10	10,595.446		10	12,240.157		10	13,885.195		10	15,530.233							
	11	8,985.239		11	10,629.706		11	12,274.429		11	13,919.467		11	15,564.513							
22	0	9,019.499	26	0	10,663.966	30	0	12,308.700	34	0	13,953.738	38	0	15,633.100							
	1	9,053.758		1	10,698.225		1	12,342.972		1	13,988.010		1	15,667.394							
	2	9,088.018		2	10,732.485		2	12,377.243		2	14,022.282		2	15,701.688							
	3	9,122.278		3	10,766.745		3	12,411.515		3	14,056.553		3	15,735.982							
	4	9,156.538		4	10,801.005		4	12,445.787		4	14,090.825		4	15,770.276							
	5	9,190.797		5	10,835.264		5	12,480.058		5	14,125.097		5	15,804.569							
	6	9,225.057		6	10,869.524		6	12,514.330		6	14,159.368		6	15,838.863							
	7	9,259.317		7	10,903.784		7	12,548.602		7	14,193.640		7	15,873.157							
	8	9,293.577		8	10,938.044		8	12,582.873		8	14,227.911		8	15,907.451							
	9	9,327.836		9	10,972.303		9	12,617.145		9	14,262.183		9	15,941.745							
	10	9,362.096		10	11,006.563		10	12,651.416		10	14,296.455		10	15,976.038							
	11	9,396.356		11	11,040.823		11	12,685.688		11	14,330.726		11	16,010.332							
23	0	9,430.615	27	0	11,075.082	31	0	12,719.960	35	0	14,364.998	39	0	16,078.920							
	1	9,464.875		1	11,109.342		1	12,754.231		1	14,399.270		1	16,113.213							
	2	9,499.135		2	11,143.602		2	12,788.503		2	14,433.541		2	16,147.507							
	3	9,533.395		3	11,177.862		3	12,822.775		3	14,467.813		3	16,181.801							
	4	9,567.654		4	11,212.121		4	12,857.046		4	14,502.084		4	16,216.095							
	5	9,601.914		5	11,246.381		5	12,891.318		5	14,536.356		5	16,250.389							
	6	9,636.174		6	11,280.641		6	12,925.589		6	14,570.628		6	16,284.682							
	7	9,670.434		7	11,314.901		7	12,959.861		7	14,604.899		7	16,318.976							
	8	9,704.693		8	11,349.160		8	12,994.133		8	14,639.171		8	16,353.270							
	9	9,738.953		9	11,383.420		9	13,028.404		9	14,673.443		9	16,387.564							
	10	9,773.213		10	11,417.680		10	13,062.676		10	14,707.714		10	16,421.858							
	11	9,807.472		11	11,451.939		11	13,096.948		11	14,741.986		11	16,456.151							

SF - Safe Fill Height @ 46' 0"

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Fractions

1/16	2.141233	9/16	19.271097
1/8	4.282466	5/8	21.412330
3/16	6.423699	11/16	23.553563
1/4	8.564932	3/4	25.694796
5/16	10.706165	13/16	27.836029
3/8	12.847398	7/8	29.977262
7/16	14.988631	15/16	32.118495
1/2	17.129864	1	34.259728

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-906

Regina, SK

876 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 136 Feet X 48 Feet

INNAGE TABLE

Reference Gauge Height - 53' 5/8": Located 40 Inches to Benchmark in hatch											Height in Inches; Capacities in Cubic Metres										
40	0	16,421.858	44	0	18,067.960	48	0		52	0		56	0								
	1	16,456.151		1	18,102.254		1			1			1								
	2	16,490.445		2	18,136.547		2			2			2								
	3	16,524.739		3	18,170.841		3			3			3								
	4	16,559.033		4	18,205.135		4			4			4								
	5	16,593.327		5	18,239.429		5			5			5								
	6	16,627.620		6	18,273.722		6			6			6								
	7	16,661.914		7	18,308.016		7			7			7								
	8	16,696.208		8	18,342.310		8			8			8								
	9	16,730.502		9	18,376.604		9			9			9								
	10	16,764.796		10	18,410.898		10			10			10								
	11	16,799.089		11	18,445.191		11			11			11								
41	0	16,833.383	45	0	18,479.485	49	0		53	0		57	0								
	1	16,867.677		1	18,513.779		1			1			1								
	2	16,901.971		2	18,548.073		2			2			2								
	3	16,936.265		3	18,582.367		3			3			3								
	4	16,970.558		4	18,616.660		4			4			4								
	5	17,004.852		5	18,650.954		5			5			5								
	6	17,039.146		6	18,685.248		6			6			6								
	7	17,073.440		7	18,719.542		7			7			7								
	8	17,107.734		8	18,753.836		8			8			8								
	9	17,142.027		9	18,788.129		9			9			9								
	10	17,176.321		10	18,822.423		10			10			10								
	11	17,210.615		11	18,856.717		11			11			11								
42	0	17,244.909	46	SF	18,891.011	50	0		54	0		58	0								
	1	17,279.202		1			1			1			1								
	2	17,313.496		2			2			2			2								
	3	17,347.790		3			3			3			3								
	4	17,382.084		4			4			4			4								
	5	17,416.378		5			5			5			5								
	6	17,450.671		6			6			6			6								
	7	17,484.965		7			7			7			7								
	8	17,519.259		8			8			8			8								
	9	17,553.553		9			9			9			9								
	10	17,587.847		10			10			10			10								
	11	17,622.140		11			11			11			11								
43	0	17,656.434	47			51	0		55	0		59	0								
	1	17,690.728		1			1			1			1								
	2	17,725.022		2			2			2			2								
	3	17,759.316		3			3			3			3								
	4	17,793.609		4			4			4			4								
	5	17,827.903		5			5			5			5								
	6	17,862.197		6			6			6			6								
	7	17,896.491		7			7			7			7								
	8	17,930.785		8			8			8			8								
	9	17,965.078		9			9			9			9								
	10	17,999.372		10			10			10			10								
	11	18,033.666		11			11			11			11								

SF - Safe Fill Height @ 46' 0"

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Cone Roof Tank - Nominal Dimensions : 136 Feet X 48 Feet

Volumes in: Cubic Metres

To Increment	Incs	Gross Volume per Increment	Deadwood Volume	Net Volume	Accumulated Volume
0	1	0.000000	14.451938	14.451938	14.451938
1	1	34.218023	-12.131431	22.086592	36.538530
2	1	34.218023	-9.276121	24.941901	61.480432
3	1	34.218023	-6.630633	27.587389	89.067821
4	1	34.218023	-3.336599	30.881424	119.949245
5	1	34.218023	-1.444316	32.773707	152.722952
6	1	34.218023	-0.600338	33.617685	186.340637
8	2	34.218023	-0.019084	34.198939	254.738514
10	2	34.218023	-0.001570	34.216453	323.171420
17	7	34.218023	-0.001501	34.216521	562.687070
21	4	34.218023	-0.001381	34.216641	699.553636
23	2	34.218023	-0.001191	34.216832	767.987300
26	3	34.218023	-0.001115	34.216907	870.638021
41	11	34.218023	-0.001247	34.216776	1383.889198
42	5	34.218023	-0.001363	34.216660	1418.105858
51	9	34.218023	-0.001627	34.216396	1726.053423
95	44	34.218023	-0.001817	34.216206	3231.566468
96	1	34.224458	-0.001817	34.222641	3265.789109
111	15	34.224722	-0.001817	34.222905	3779.132680
112	1	34.243057	-0.001817	34.241239	3813.373919
224	112	34.249493	-0.001817	34.247676	7649.113636
225	1	34.257559	-0.001817	34.255742	7683.369378
337	112	34.261545	-0.001817	34.259728	11520.458885
338	1	34.267261	-0.001817	34.265444	11554.724329
454	116	34.273446	-0.001817	34.271629	15530.233295
455	1	34.281300	-0.001817	34.279483	15564.512778
574	119	34.295611	-0.001817	34.293794	19645.474257
575	1	11.341856		11.341856	19656.816113

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CO-OP Refinery Complex
Regina, SK

General Information

Tank Number	54-10-906
Date of Strapping Data	10/25/2017
Year Built	
Product in Service	Distillate
Product Service Density	0.876 g/cc (SG)

Tank Dimensions

Nominal Diameter	136 Feet
Nominal Height	48 Feet
Measured Tank Height	14.588 Metres
Tank Tilt	0 Millimetres
Gauge Point Information	Benchmark In Hatch
Reference Gauge Height	53.022 Feet
Horizontal To Gauge	40 Inches

Roof & Bottom Survey

Roof Type	Cone
Floating Roof Shape	
Floating Roof Weight	
Roof Landed Height	
Roof Full Floating Height	
Bottom Description	Physical Survey

Report Constraints

Main Increment	Inches
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	46 Feet
Overflow Or Foamline	

CO-OP Refinery Complex
Regina, SK

Strap Correction to 60°F

Shell Temperature (°F)	55.4	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor
Correction Factor = 0.99994840

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	130.210	427.198	0.001	427.175
2	130.210	427.198	0.001	427.175
3	130.210	427.198	0.001	427.175
4	130.210	427.198	0.001	427.175
5	130.210	427.198	0.001	427.175
6	130.210	427.198	0.001	427.175

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	444.893	0.536	-3.366	130.200	427.164
2	445.179	0.821	-5.161	130.198	427.158
3	443.179	-1.179	7.405	130.210	427.200
4	445.643	1.286	-8.078	130.195	427.149
5	447.000	2.643	-16.606	130.186	427.121
6	445.393	1.036	-6.508	130.197	427.154

CO-OP Refinery Complex
Regina, SK

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	427.164	0.625 Inches	2.414 Metres	2.414 Metres
2	427.158	0.563 Inches	0.412 Metres	2.826 Metres
3	427.200	0.438 Inches	2.872 Metres	5.698 Metres
4	427.149	0.375 Inches	2.875 Metres	8.573 Metres
5	427.121	0.375 Inches	2.975 Metres	11.548 Metres
6	427.154	0.375 Inches	3.040 Metres	14.588 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	15	0.750 Inches	1.000 Millimetres
2	Butt Weld	15	0.750 Inches	1.000 Millimetres
3	Butt Weld	15	0.750 Inches	1.000 Millimetres
4	Butt Weld	15	0.750 Inches	1.000 Millimetres
5	Butt Weld	15	0.750 Inches	1.000 Millimetres
6	Butt Weld	15	0.750 Inches	1.000 Millimetres

CO-OP Refinery Complex
Regina, SK

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	427.164	0.625	0
2.00	62.428	1.000	0	427.158	0.563	0
3.00	62.428	1.000	0	427.200	0.438	0
4.00	62.428	1.000	0	427.149	0.375	0
5.00	62.428	1.000	0	427.121	0.375	0
6.00	62.428	1.000	0	427.154	0.375	0

CO-OP Refinery Complex
Regina, SK

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2*D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	427.164	0.000	0.001	0.327	426.837
2	427.158	0.000	0.001	0.295	426.864
3	427.200	0.000	0.001	0.229	426.971
4	427.149	0.000	0.001	0.196	426.953
5	427.121	0.000	0.001	0.196	426.925
6	427.154	0.000	0.001	0.196	426.958

CO-OP Refinery Complex
Regina, SK

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Inch
1	426.837	0.040	426.878	34.218
2	426.864	0.005	426.869	34.217
3	426.971	0.043	427.014	34.240
4	426.953	0.050	427.003	34.239
5	426.925	0.052	426.977	34.234
6	426.958	0.053	427.011	34.240

CO-OP Refinery Complex
Regina, SK

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} * \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Inch	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	34.218	0.008	0.000	34.218	34.218
2	34.217	0.002	0.008	34.225	34.225
3	34.240	0.014	0.010	34.250	34.249
4	34.239	0.016	0.023	34.262	34.262
5	34.234	0.017	0.040	34.274	34.273
6	34.240	0.000	0.056	34.296	34.296



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-907

Regina, SK

858.7 kg/m³ @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 136' 3" X 48'

INNAGE TABLE

Ref Gauge Height - 15.865 Metres (52' 5/8"); Located 32 Inches to Benchmark in hatch												Height in Inches; Capacities in Cubic Metres			
0	0	35.359	4	0	1,678.414	8	0	3,312.056	12	0	4,962.102	16	0	6,612.063	
	1	64.208		1	1,712.793		1	3,346.435		1	4,996.476		1	6,646.437	
	2	97.011		2	1,747.173		2	3,380.814		2	5,030.851		2	6,680.811	
	3	131.387		3	1,781.552		3	3,415.194		3	5,065.225		3	6,715.185	
	4	165.763		4	1,815.932		4	3,449.573		4	5,099.599		4	6,749.559	
	5	200.140		5	1,850.311		5	3,483.952		5	5,133.973		5	6,783.933	
	6	234.517		6	1,884.690		6	3,518.331		6	5,168.347		6	6,818.308	
	7	268.897		7	1,919.069		7	3,552.710		7	5,202.721		7	6,852.682	
	8	303.276		8	1,945.167		8	3,587.090		8	5,237.096		8	6,887.056	
	9	337.655		9	1,971.266		9	3,621.469		9	5,271.470		9	6,921.430	
	10	372.034		10	2,005.645		10	3,655.848		10	5,305.844		10	6,955.804	
	11	406.413		11	2,040.024		11	3,690.227		11	5,340.218		11	6,990.179	
Low Critical Zone															
1	0	440.791	5	0	2,074.403	9	0	3,724.607	13	0	5,374.592	17	0	7,024.553	
	1	475.169		1	2,108.783		1	3,758.986		1	5,408.967		1	7,058.927	
	2	509.548		2	2,143.162		2	3,793.365		2	5,443.341		2	7,093.301	
	3	543.926		3	2,177.541		3	3,827.744		3	5,477.715		3	7,127.675	
	4	578.304		4	2,211.920		4	3,862.124		4	5,512.089		4	7,162.049	
	5	612.682		5	2,246.299		5	3,896.503		5	5,546.463		5	7,196.424	
	6	647.060		6	2,280.679		6	3,930.877		6	5,580.837		6	7,230.798	
	7	681.438		7	2,315.058		7	3,965.251		7	5,615.212		7	7,265.172	
	8	715.816		8	2,349.437		8	3,999.625		8	5,649.586		8	7,299.546	
	9	750.194		9	2,383.816		9	4,034.000		9	5,683.960		9	7,333.920	
	10	784.573		10	2,418.196		10	4,068.374		10	5,718.334		10	7,368.294	
	11	818.951		11	2,452.575		11	4,102.748		11	5,752.708		11	7,402.669	
2	0	853.330	6	0	2,486.954	10	0	4,137.122	14	0	5,787.082	18	0	7,437.043	
	1	887.709		1	2,521.333		1	4,171.496		1	5,821.457		1	7,471.417	
	2	922.088		2	2,555.713		2	4,205.870		2	5,855.831		2	7,505.791	
	3	956.467		3	2,590.092		3	4,240.245		3	5,890.205		3	7,540.165	
	4	990.847		4	2,624.471		4	4,274.619		4	5,924.579		4	7,574.539	
	5	1,025.227		5	2,658.850		5	4,308.993		5	5,958.953		5	7,608.914	
	6	1,059.606		6	2,693.230		6	4,343.367		6	5,993.327		6	7,643.288	
	7	1,093.978		7	2,727.609		7	4,377.741		7	6,027.702		7	7,677.662	
	8	1,128.349		8	2,761.988		8	4,412.115		8	6,062.076		8	7,712.036	
	9	1,162.720		9	2,796.367		9	4,446.490		9	6,096.450		9	7,746.410	
	10	1,197.100		10	2,830.747		10	4,480.864		10	6,130.824		10	7,780.785	
	11	1,231.480		11	2,865.126		11	4,515.238		11	6,165.198		11	7,815.159	
3	0	1,265.860	7	0	2,899.505	11	0	4,549.612	15	0	6,199.573	19	0	7,849.553	
	1	1,300.239		1	2,933.884		1	4,583.986		1	6,233.947		1	7,883.947	
	2	1,334.619		2	2,968.263		2	4,618.361		2	6,268.321		2	7,918.341	
	3	1,368.998		3	3,002.643		3	4,652.735		3	6,302.695		3	7,952.735	
	4	1,403.378		4	3,037.022		4	4,687.109		4	6,337.069		4	7,987.129	
	5	1,437.757		5	3,071.401		5	4,721.483		5	6,371.443		5	8,021.523	
	6	1,472.137		6	3,105.780		6	4,755.857		6	6,405.818		6	8,055.917	
	7	1,506.516		7	3,140.160		7	4,790.231		7	6,440.192		7	8,090.311	
	8	1,540.896		8	3,174.539		8	4,824.606		8	6,474.566		8	8,124.704	
	9	1,575.275		9	3,208.918		9	4,858.980		9	6,508.940		9	8,159.098	
	10	1,609.655		10	3,243.297		10	4,893.354		10	6,543.314		10	8,193.492	
	11	1,644.034		11	3,277.677		11	4,927.728		11	6,577.688		11	8,227.886	
High Critical Zone															

** Volume Below Strike Point. Located 1" 7/16 Above intersection of shell & bottom.

Page 1 of 3

* Bottom volume based on Physical Survey Calculation. Average Inches not applicable

Volumes reflect a Shell Temperature of 15°C

Safe Fill Height @ 44' 0"

A total of 16,562 Cubic Metres were deducted between 53 & 59 Inches based on a weight of 14227 Kilograms and a density of 859 kg/m³. Gauged quantities above 59 Inches reflect this deduction but shall be adjusted for a differing specific gravity at 15°C according to the following formula (see page 2).

No Measurements are to be taken in Critical Zones

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

Regina, SK

TANK # 54-10-907

858.7 kg/m³ @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 136' 3" X 48'

INNAGE TABLE

Ref Gauge Height - 15.865 Metres (52' 5/8"); Located 32 Inches to Benchmark in hatch												Height in Inches; Capacities in Cubic Metres											
20	0	8,262.280	24	0	9,913.191	28	0	11,564.102	32	0	13,216.126	36	0	14,868.279									
	1	8,296.674		1	9,947.585		1	11,598.496		1	13,250.546		1	14,902.699									
	2	8,331.068		2	9,981.979		2	11,632.890		2	13,284.966		2	14,937.119									
	3	8,365.462		3	10,016.373		3	11,667.284		3	13,319.385		3	14,971.539									
	4	8,399.856		4	10,050.767		4	11,701.678		4	13,353.805		4	15,005.958									
	5	8,434.250		5	10,085.161		5	11,736.072		5	13,388.225		5	15,040.378									
	6	8,468.644		6	10,119.555		6	11,770.492		6	13,422.645		6	15,074.798									
	7	8,503.038		7	10,153.949		7	11,804.912		7	13,457.065		7	15,109.218									
	8	8,537.432		8	10,188.343		8	11,839.332		8	13,491.485		8	15,143.638									
	9	8,571.826		9	10,222.737		9	11,873.751		9	13,525.905		9	15,178.058									
	10	8,606.220		10	10,257.131		10	11,908.171		10	13,560.324		10	15,212.478									
	11	8,640.614		11	10,291.525		11	11,942.591		11	13,594.744		11	15,246.897									
21	0	8,675.008	25	0	10,325.919	29	0	11,977.011	33	0	13,629.164	37	0	15,281.317									
	1	8,709.402		1	10,360.313		1	12,011.431		1	13,663.584		1	15,315.737									
	2	8,743.796		2	10,394.707		2	12,045.851		2	13,698.004		2	15,350.157									
	3	8,778.190		3	10,429.101		3	12,080.271		3	13,732.424		3	15,384.577									
	4	8,812.584		4	10,463.495		4	12,114.690		4	13,766.844		4	15,418.997									
	5	8,846.978		5	10,497.889		5	12,149.110		5	13,801.263		5	15,453.417									
	6	8,881.372		6	10,532.283		6	12,183.530		6	13,835.683		6	15,487.836									
	7	8,915.766		7	10,566.677		7	12,217.950		7	13,870.103		7	15,522.256									
	8	8,950.160		8	10,601.071		8	12,252.370		8	13,904.523		8	15,556.676									
	9	8,984.554		9	10,635.465		9	12,286.790		9	13,938.943		9	15,591.096									
	10	9,018.948		10	10,669.859		10	12,321.210		10	13,973.363		10	15,625.516									
	11	9,053.342		11	10,704.253		11	12,355.629		11	14,007.783		11	15,659.936									
22	0	9,087.736	26	0	10,738.647	30	0	12,390.049	34	0	14,042.202	38	0	15,728.775									
	1	9,122.130		1	10,773.041		1	12,424.469		1	14,076.622		1	15,763.196									
	2	9,156.524		2	10,807.435		2	12,458.889		2	14,111.042		2	15,797.617									
	3	9,190.918		3	10,841.829		3	12,493.309		3	14,145.462		3	15,832.038									
	4	9,225.312		4	10,876.223		4	12,527.729		4	14,179.882		4	15,866.459									
	5	9,259.706		5	10,910.617		5	12,562.149		5	14,214.302		5	15,900.880									
	6	9,294.100		6	10,945.011		6	12,596.568		6	14,248.722		6	15,935.301									
	7	9,328.494		7	10,979.405		7	12,630.988		7	14,283.141		7	15,969.722									
	8	9,362.888		8	11,013.799		8	12,665.408		8	14,317.561		8	16,004.143									
	9	9,397.282		9	11,048.192		9	12,699.828		9	14,351.981		9	16,038.564									
	10	9,431.676		10	11,082.586		10	12,734.248		10	14,386.401		10	16,072.985									
	11	9,466.070		11	11,116.980		11	12,768.668		11	14,420.821		11	16,107.406									
23	0	9,500.464	27	0	11,151.374	31	0	12,803.088	35	0	14,455.241	39	0	16,176.248									
	1	9,534.858		1	11,185.768		1	12,837.507		1	14,489.661		1	16,210.669									
	2	9,569.251		2	11,220.162		2	12,871.927		2	14,524.080		2	16,245.090									
	3	9,603.645		3	11,254.556		3	12,906.347		3	14,558.500		3	16,279.511									
	4	9,638.039		4	11,288.950		4	12,940.767		4	14,592.920		4	16,313.933									
	5	9,672.433		5	11,323.344		5	12,975.187		5	14,627.340		5	16,348.354									
	6	9,706.827		6	11,357.738		6	13,009.607		6	14,661.760		6	16,382.775									
	7	9,741.221		7	11,392.132		7	13,044.027		7	14,696.180		7	16,417.196									
	8	9,775.615		8	11,426.526		8	13,078.446		8	14,730.600		8	16,451.617									
	9	9,810.009		9	11,460.920		9	13,112.866		9	14,765.019		9	16,486.038									
	10	9,844.403		10	11,495.314		10	13,147.286		10	14,799.439		10	16,520.459									
	11	9,878.797		11	11,529.708		11	13,181.706		11	14,833.859		11	16,554.880									

SF - Safe Fill Height @ 44' 0"

Page 2 of 3

Fractions

1/16	2.148386	9/16	19.335473
1/8	4.296772	5/8	21.483859
3/16	6.445158	11/16	23.632245
1/4	8.593543	3/4	25.780630
5/16	10.741929	13/16	27.929016
3/8	12.890315	7/8	30.077402
7/16	15.038701	15/16	32.225788
1/2	17.187087	1	34.374174

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Displacement Correction = 14227 Kilograms - 16.562 Cubic Metres
Kilograms/Cubic Metre



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-907

Regina, SK

858.7 kg/m³ @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 136' 3" X 48'

INNAGE TABLE

Ref Gauge Height - 15.865 Metres (52' 5/8"); Located 32 Inches to Benchmark in hatch											Height in Inches; Capacities in Cubic Metres										
40	0	16,520.459	44	0	SF	18,172.667	48	0			52	0				56	0				
	1	16,554.880		1				1				1					1				
	2	16,589.301		2				2				2					2				
	3	16,623.722		3				3				3					3				
	4	16,658.143		4				4				4					4				
	5	16,692.564		5				5				5					5				
	6	16,726.985		6				6				6					6				
	7	16,761.406		7				7				7					7				
	8	16,795.827		8				8				8					8				
	9	16,830.248		9				9				9					9				
	10	16,864.669		10				10				10					10				
	11	16,899.090		11				11				11					11				
41	0	16,933.511	45	0			49	0			53	0				57	0				
	1	16,967.932		1				1				1					1				
	2	17,002.353		2				2				2					2				
	3	17,036.774		3				3				3					3				
	4	17,071.195		4				4				4					4				
	5	17,105.616		5				5				5					5				
	6	17,140.037		6				6				6					6				
	7	17,174.458		7				7				7					7				
	8	17,208.879		8				8				8					8				
	9	17,243.300		9				9				9					9				
	10	17,277.721		10				10				10					10				
	11	17,312.142		11				11				11					11				
42	0	17,346.563	46	0			50	0			54	0				58	0				
	1	17,380.984		1				1				1					1				
	2	17,415.405		2				2				2					2				
	3	17,449.826		3				3				3					3				
	4	17,484.247		4				4				4					4				
	5	17,518.668		5				5				5					5				
	6	17,553.089		6				6				6					6				
	7	17,587.510		7				7				7					7				
	8	17,621.931		8				8				8					8				
	9	17,656.352		9				9				9					9				
	10	17,690.773		10				10				10					10				
	11	17,725.194		11				11				11					11				
43	0	17,759.615	47	0			51	0			55	0				59	0				
	1	17,794.036		1				1				1					1				
	2	17,828.457		2				2				2					2				
	3	17,862.878		3				3				3					3				
	4	17,897.299		4				4				4					4				
	5	17,931.720		5				5				5					5				
	6	17,966.141		6				6				6					6				
	7	18,000.562		7				7				7					7				
	8	18,034.983		8				8				8					8				
	9	18,069.404		9				9				9					9				
	10	18,103.825		10				10				10					10				
	11	18,138.246		11				11				11					11				

SF - Safe Fill Height @ 44' 0"

Page 3 of 3

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-907

Regina, SK

858.7 kg/m³ @ 15°C

Cone Roof Tank - Nominal Dimensions : 136 Feet X 48 Feet

Volumes in: Cubic Metres

To Increment	Incs	Gross Volume per Increment	Deadwood Volume	Net Volume	Accumulated Volume
0	1	0.000000	35.359220	35.359220	35.359220
1	1	34.380877	-5.531929	28.848948	64.208168
2	1	34.380877	-1.578293	32.802584	97.010752
4	2	34.380877	-0.004531	34.376346	165.763443
5	1	34.380877	-0.004083	34.376793	200.140237
6	1	34.380877	-0.003901	34.376976	234.517213
7	1	34.380877	-0.001468	34.379408	268.896621
8	1	34.380877	-0.001788	34.379088	303.275709
12	4	34.380877	-0.001932	34.378945	440.791489
13	1	34.380877	-0.002998	34.377879	475.169368
14	1	34.380877	-0.002723	34.378153	509.547522
18	4	34.380877	-0.002807	34.378070	647.059802
21	3	34.380877	-0.002715	34.378162	750.194287
22	1	34.380877	-0.002536	34.378341	784.572628
23	1	34.380877	-0.002768	34.378108	818.950736
24	1	34.380877	-0.001607	34.379270	853.330006
27	3	34.380877	-0.001775	34.379101	956.467310
30	3	34.380877	-0.001177	34.379700	1059.606410
33	3	34.380877	-0.009696	34.371180	1162.719951
35	2	34.380877	-0.000928	34.379948	1231.479847
37	2	34.380877	-0.001094	34.379783	1300.239414
42	5	34.380877	-0.001368	34.379509	1472.136956
45	3	34.380877	-0.001460	34.379417	1575.275207
51	6	34.380877	-0.001341	34.379535	1781.552420
57	2	34.380877	-8.282780	26.098097	1971.265564
113	60	34.380877	-0.001639	34.379238	3896.502872
227	114	34.375813	-0.001639	34.374174	7815.158696
341	114	34.395615	-0.001639	34.393976	11736.072005
457	116	34.421496	-0.001639	34.419857	15728.775395
575	118	34.422645	-0.001639	34.421006	19790.454136

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CO-OP Refinery Complex
Regina, SK

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

Synthetic Crude 0.8587 SG

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Inch
1	427.872	0.020	427.892	34.381
2	427.766	0.037	427.803	34.367
3	427.804	0.049	427.853	34.375
4	427.866	0.050	427.916	34.385
5	427.763	0.061	427.824	34.370

CO-OP Refinery Complex
Regina, SK

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} * \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

Synthetic Crude 0.8587 SG

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Inch	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	34.381	0.009	0.000	34.381	34.381
2	34.367	0.012	0.009	34.376	34.376
3	34.375	0.016	0.021	34.396	34.396
4	34.385	0.016	0.037	34.422	34.421
5	34.370	0.000	0.053	34.423	34.423



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-907

Regina, SK

880.9 kg/m³ @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 136' 3" X 48'

INNAGE TABLE

Ref Gauge Height - 15.865 Metres (52' 5/8"); Located 32 Inches to Benchmark in hatch												Height in Inches; Capacities in Cubic Metres			
0	0	35.359	4	0	1,678.424	8	0	3,312.487	12	0	4,962.561	16	0	6,612.559	
	1	64.209		1	1,712.803		1	3,346.867		1	4,996.936		1	6,646.934	
	2	97.011		2	1,747.183		2	3,381.246		2	5,031.311		2	6,681.309	
	3	131.388		3	1,781.563		3	3,415.625		3	5,065.686		3	6,715.684	
	4	165.765		4	1,815.942		4	3,450.005		4	5,100.061		4	6,750.059	
	5	200.142		5	1,850.321		5	3,484.384		5	5,134.436		5	6,784.434	
	6	234.519		6	1,884.701		6	3,518.764		6	5,168.811		6	6,818.809	
	7	268.898		7	1,919.080		7	3,553.143		7	5,203.186		7	6,853.184	
	8	303.278		8	1,945.385		8	3,587.523		8	5,237.561		8	6,887.559	
	9	337.657		9	1,971.690		9	3,621.902		9	5,271.936		9	6,921.934	
	10	372.036		10	2,006.070		10	3,656.281		10	5,306.311		10	6,956.309	
	11	406.415		11	2,040.449		11	3,690.661		11	5,340.686		11	6,990.684	
Low Critical Zone															
1	0	440.794	5	0	2,074.829	9	0	3,725.040	13	0	5,375.061	17	0	7,025.059	
	1	475.172		1	2,109.208		1	3,759.420		1	5,409.436		1	7,059.434	
	2	509.551		2	2,143.587		2	3,793.799		2	5,443.811		2	7,093.809	
	3	543.929		3	2,177.967		3	3,828.178		3	5,478.186		3	7,128.184	
	4	578.307		4	2,212.346		4	3,862.558		4	5,512.560		4	7,162.559	
	5	612.685		5	2,246.726		5	3,896.937		5	5,546.935		5	7,196.934	
	6	647.064		6	2,281.105		6	3,931.312		6	5,581.310		6	7,231.309	
	7	681.442		7	2,315.484		7	3,965.687		7	5,615.685		7	7,265.684	
	8	715.820		8	2,349.864		8	4,000.062		8	5,650.060		8	7,300.059	
	9	750.199		9	2,384.243		9	4,034.437		9	5,684.435		9	7,334.434	
	10	784.577		10	2,418.623		10	4,068.812		10	5,718.810		10	7,368.809	
	11	818.955		11	2,453.002		11	4,103.187		11	5,753.185		11	7,403.183	
High Critical Zone															
2	0	853.335	6	0	2,487.381	10	0	4,137.562	14	0	5,787.560	18	0	7,437.558	
	1	887.714		1	2,521.761		1	4,171.937		1	5,821.935		1	7,471.933	
	2	922.094		2	2,556.140		2	4,206.312		2	5,856.310		2	7,506.308	
	3	956.473		3	2,590.520		3	4,240.687		3	5,890.685		3	7,540.683	
	4	990.853		4	2,624.899		4	4,275.062		4	5,925.060		4	7,575.058	
	5	1,025.233		5	2,659.279		5	4,309.437		5	5,959.435		5	7,609.433	
	6	1,059.612		6	2,693.658		6	4,343.812		6	5,993.810		6	7,643.808	
	7	1,093.984		7	2,728.037		7	4,378.187		7	6,028.185		7	7,678.183	
	8	1,128.356		8	2,762.417		8	4,412.562		8	6,062.560		8	7,712.558	
	9	1,162.727		9	2,796.796		9	4,446.937		9	6,096.935		9	7,746.933	
	10	1,197.107		10	2,831.176		10	4,481.312		10	6,131.310		10	7,781.308	
	11	1,231.487		11	2,865.555		11	4,515.687		11	6,165.685		11	7,815.683	
High Critical Zone															
3	0	1,265.867	7	0	2,899.934	11	0	4,550.061	15	0	6,200.060	19	0	7,850.079	
	1	1,300.247		1	2,934.314		1	4,584.436		1	6,234.435		1	7,884.474	
	2	1,334.627		2	2,968.693		2	4,618.811		2	6,268.810		2	7,918.869	
	3	1,369.007		3	3,003.073		3	4,653.186		3	6,303.185		3	7,953.265	
	4	1,403.386		4	3,037.452		4	4,687.561		4	6,337.560		4	7,987.660	
	5	1,437.766		5	3,071.831		5	4,721.936		5	6,371.935		5	8,022.056	
	6	1,472.146		6	3,106.211		6	4,756.311		6	6,406.310		6	8,056.451	
	7	1,506.525		7	3,140.590		7	4,790.686		7	6,440.684		7	8,090.847	
	8	1,540.905		8	3,174.970		8	4,825.061		8	6,475.059		8	8,125.242	
	9	1,575.284		9	3,209.349		9	4,859.436		9	6,509.434		9	8,159.638	
	10	1,609.664		10	3,243.728		10	4,893.811		10	6,543.809		10	8,194.033	
	11	1,644.044		11	3,278.108		11	4,928.186		11	6,578.184		11	8,228.429	

** Volume Below Strike Point. Located 1" 7/16 Above intersection of shell & bottom.

Page 1 of 3

* Bottom volume based on Physical Survey Calculation. Average Inches not applicable

Volumes reflect a Shell Temperature of 15°C

Safe Fill Height @ 44' 0"

A total of 16,148 Cubic Metres were deducted between 53 & 59 Inches based on a weight of 14227 Kilograms and a density of 881 kg/m³. Gauged quantities above 59 Inches reflect this deduction but shall be adjusted for a differing specific gravity at 15°C according to the following formula (see page 2).

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No Measurements are to be taken in Critical Zones



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-907

Regina, SK

880.9 kg/m³ @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 136' 3" X 48'

INNAGE TABLE

Ref Gauge Height - 15.865 Metres (52' 5/8"); Located 32 Inches to Benchmark in hatch											
Height in Inches						Capacities in Cubic Metres					
20	0	8,262.824	24	0	9,913.807	28	0	11,564.790	32	0	13,216.921
	1	8,297.220		1	9,948.203		1	11,599.186		1	13,251.344
	2	8,331.615		2	9,982.598		2	11,633.581		2	13,285.766
	3	8,366.011		3	10,016.994		3	11,667.977		3	13,320.188
	4	8,400.406		4	10,051.389		4	11,702.372		4	13,354.610
	5	8,434.802		5	10,085.785		5	11,736.768		5	13,389.032
	6	8,469.197		6	10,120.180		6	11,771.190		6	13,423.455
	7	8,503.593		7	10,154.576		7	11,805.612		7	13,457.877
	8	8,537.988		8	10,188.971		8	11,840.034		8	13,492.299
	9	8,572.384		9	10,223.367		9	11,874.456		9	13,526.721
	10	8,606.779		10	10,257.762		10	11,908.879		10	13,561.143
	11	8,641.175		11	10,292.158		11	11,943.301		11	13,595.565
21	0	8,675.570	25	0	10,326.553	29	0	11,977.723	33	0	13,629.988
	1	8,709.965		1	10,360.948		1	12,012.145		1	13,664.410
	2	8,744.361		2	10,395.344		2	12,046.567		2	13,698.832
	3	8,778.756		3	10,429.739		3	12,080.989		3	13,733.254
	4	8,813.152		4	10,464.135		4	12,115.412		4	13,767.676
	5	8,847.547		5	10,498.530		5	12,149.834		5	13,802.099
	6	8,881.943		6	10,532.926		6	12,184.256		6	13,836.521
	7	8,916.338		7	10,567.321		7	12,218.678		7	13,870.943
	8	8,950.734		8	10,601.717		8	12,253.100		8	13,905.365
	9	8,985.129		9	10,636.112		9	12,287.523		9	13,939.787
	10	9,019.525		10	10,670.508		10	12,321.945		10	13,974.209
	11	9,053.920		11	10,704.903		11	12,356.367		11	14,008.632
22	0	9,088.316	26	0	10,739.299	30	0	12,390.789	34	0	14,043.054
	1	9,122.711		1	10,773.694		1	12,425.211		1	14,077.476
	2	9,157.107		2	10,808.090		2	12,459.633		2	14,111.898
	3	9,191.502		3	10,842.485		3	12,494.056		3	14,146.320
	4	9,225.898		4	10,876.881		4	12,528.478		4	14,180.743
	5	9,260.293		5	10,911.276		5	12,562.900		5	14,215.165
	6	9,294.689		6	10,945.672		6	12,597.322		6	14,249.587
	7	9,329.084		7	10,980.067		7	12,631.744		7	14,284.009
	8	9,363.480		8	11,014.463		8	12,666.167		8	14,318.431
	9	9,397.875		9	11,048.858		9	12,700.589		9	14,352.853
	10	9,432.271		10	11,083.254		10	12,735.011		10	14,387.276
	11	9,466.666		11	11,117.649		11	12,769.433		11	14,421.698
23	0	9,501.062	27	0	11,152.045	31	0	12,803.855	35	0	14,456.120
	1	9,535.457		1	11,186.440		1	12,838.277		1	14,490.542
	2	9,569.852		2	11,220.835		2	12,872.700		2	14,524.964
	3	9,604.248		3	11,255.231		3	12,907.122		3	14,559.387
	4	9,638.643		4	11,289.626		4	12,941.544		4	14,593.809
	5	9,673.039		5	11,324.022		5	12,975.966		5	14,628.231
	6	9,707.434		6	11,358.417		6	13,010.388		6	14,662.653
	7	9,741.830		7	11,392.813		7	13,044.811		7	14,697.075
	8	9,776.225		8	11,427.208		8	13,079.233		8	14,731.497
	9	9,810.621		9	11,461.604		9	13,113.655		9	14,765.920
	10	9,845.016		10	11,495.999		10	13,148.077		10	14,800.342
	11	9,879.412		11	11,530.395		11	13,182.499		11	14,834.764

SF - Safe Fill Height @ 44' 0"

Page 2 of 3

Fractions

1/16	2.148386	9/16	19.335473
1/8	4.296772	5/8	21.483859
3/16	6.445158	11/16	23.632245
1/4	8.593543	3/4	25.780630
5/16	10.741929	13/16	27.929016
3/8	12.890315	7/8	30.077402
7/16	15.038701	15/16	32.225788
1/2	17.187087	1	34.374174

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Displacement Correction = 14227 Kilograms - 16.148 Cubic Metres
Kilograms/Cubic Metre



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-907

Regina, SK

880.9 kg/m³ @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 136' 3" X 48'

INNAGE TABLE

Ref Gauge Height - 15.865 Metres (52' 5/8"); Located 32 Inches to Benchmark in hatch

Height in Inches; Capacities in Cubic Metres

40	0	16,521.498	44	0	SF	18,173.863	48	0	52	0	56	0
1	16,555.923	1	1	1	1	1	1	1	1	1	1	1
2	16,590.347	2	2	2	2	2	2	2	2	2	2	2
3	16,624.771	3	3	3	3	3	3	3	3	3	3	3
4	16,659.195	4	4	4	4	4	4	4	4	4	4	4
5	16,693.620	5	5	5	5	5	5	5	5	5	5	5
6	16,728.044	6	6	6	6	6	6	6	6	6	6	6
7	16,762.468	7	7	7	7	7	7	7	7	7	7	7
8	16,796.892	8	8	8	8	8	8	8	8	8	8	8
9	16,831.317	9	9	9	9	9	9	9	9	9	9	9
10	16,865.741	10	10	10	10	10	10	10	10	10	10	10
11	16,900.165	11	11	11	11	11	11	11	11	11	11	11

41	0	16,934.589	45	0	49	0	53	0	57	0
1	16,969.014	1	1	1	1	1	1	1	1	1
2	17,003.438	2	2	2	2	2	2	2	2	2
3	17,037.862	3	3	3	3	3	3	3	3	3
4	17,072.286	4	4	4	4	4	4	4	4	4
5	17,106.711	5	5	5	5	5	5	5	5	5
6	17,141.135	6	6	6	6	6	6	6	6	6
7	17,175.559	7	7	7	7	7	7	7	7	7
8	17,209.983	8	8	8	8	8	8	8	8	8
9	17,244.408	9	9	9	9	9	9	9	9	9
10	17,278.832	10	10	10	10	10	10	10	10	10
11	17,313.256	11	11	11	11	11	11	11	11	11

42	0	17,347.681	46	0	50	0	54	0	58	0
1	17,382.105	1	1	1	1	1	1	1	1	1
2	17,416.529	2	2	2	2	2	2	2	2	2
3	17,450.953	3	3	3	3	3	3	3	3	3
4	17,485.378	4	4	4	4	4	4	4	4	4
5	17,519.802	5	5	5	5	5	5	5	5	5
6	17,554.226	6	6	6	6	6	6	6	6	6
7	17,588.650	7	7	7	7	7	7	7	7	7
8	17,623.075	8	8	8	8	8	8	8	8	8
9	17,657.499	9	9	9	9	9	9	9	9	9
10	17,691.923	10	10	10	10	10	10	10	10	10
11	17,726.347	11	11	11	11	11	11	11	11	11

43	0	17,760.772	47	0	51	0	55	0	59	0
1	17,795.196	1	1	1	1	1	1	1	1	1
2	17,829.620	2	2	2	2	2	2	2	2	2
3	17,864.044	3	3	3	3	3	3	3	3	3
4	17,898.469	4	4	4	4	4	4	4	4	4
5	17,932.893	5	5	5	5	5	5	5	5	5
6	17,967.317	6	6	6	6	6	6	6	6	6
7	18,001.741	7	7	7	7	7	7	7	7	7
8	18,036.166	8	8	8	8	8	8	8	8	8
9	18,070.590	9	9	9	9	9	9	9	9	9
10	18,105.014	10	10	10	10	10	10	10	10	10
11	18,139.438	11	11	11	11	11	11	11	11	11

SF - Safe Fill Height @ 44' 0"

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-907

Regina, SK

880.9kg/m3 @ 15°C

Cone Roof Tank - Nominal Dimensions : 136 Feet X 48 Feet

Volumes in: Cubic Metres

To Increment	Incs	Gross Volume per Increment	Deadwood Volume	Net Volume	Accumulated Volume
0	1	0.000000	35.359394	35.359394	35.359394
1	1	34.381046	-5.531877	28.849169	64.208564
2	1	34.381046	-1.578224	32.802823	97.011386
4	2	34.381046	-0.004455	34.376591	165.764568
5	1	34.381046	-0.004008	34.377039	200.141607
6	1	34.381046	-0.003825	34.377221	234.518828
7	1	34.381046	-0.001453	34.379593	268.898421
8	1	34.381046	-0.001773	34.379273	303.277694
12	4	34.381046	-0.001917	34.379130	440.794212
13	1	34.381046	-0.002983	34.378063	475.172275
14	1	34.381046	-0.002708	34.378338	509.550613
18	4	34.381046	-0.002792	34.378255	647.063631
21	3	34.381046	-0.002700	34.378346	750.198670
22	1	34.381046	-0.002521	34.378526	784.577195
23	1	34.381046	-0.002753	34.378293	818.955488
24	1	34.381046	-0.001592	34.379454	853.334942
27	3	34.381046	-0.001760	34.379286	956.472800
30	3	34.381046	-0.001177	34.379869	1059.612408
33	3	34.381046	-0.009482	34.371565	1162.727103
35	2	34.381046	-0.000928	34.380118	1231.487338
37	2	34.381046	-0.001094	34.379953	1300.247244
42	5	34.381046	-0.001368	34.379678	1472.145634
45	3	34.381046	-0.001460	34.379587	1575.284394
51	6	34.381046	-0.001341	34.379705	1781.562623
57	2	34.381046	-8.075986	26.305060	1971.690372
113	60	34.381046	-0.001639	34.379407	3896.937175
227	114	34.376603	-0.001639	34.374964	7815.683034
341	114	34.397118	-0.001639	34.395479	11736.767648
457	116	34.423821	-0.001639	34.422182	15729.740703
575	118	34.425890	-0.001639	34.424251	19791.802330

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CO-OP Refinery Complex
Regina, SK

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

Diesel 0.8809 SG

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Inch
1	427.872	0.021	427.893	34.381
2	427.766	0.039	427.804	34.367
3	427.804	0.051	427.855	34.375
4	427.866	0.052	427.918	34.386
5	427.763	0.064	427.827	34.371

CO-OP Refinery Complex
Regina, SK

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} * \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

Diesel 0.8809 SG

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

Course	Cubic Metres Per Inch	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	34.381	0.010	0.000	34.381	34.381
2	34.367	0.012	0.010	34.377	34.377
3	34.375	0.017	0.022	34.398	34.397
4	34.386	0.017	0.039	34.424	34.424
5	34.371	0.000	0.056	34.426	34.426

CO-OP Refinery Complex
Regina, SK

General Information

Tank Number	54-10-907
Date of Strapping Data	02/14/2018
Year Built	1988
Product in Service	Diesel & Synthetic Crude
Product Service Density	0.8587 (diesel) 0.8809 (Crude) g/cc (SG)

Tank Dimensions

Nominal Diameter	136.25 Feet
Nominal Height	48 Feet
Measured Tank Height	585.000 Inches
Tank Tilt	
Gauge Point Information	Benchmark In Hatch
Reference Gauge Height	15.865 Metres
Horizontal To Gauge	32 Inches

Roof & Bottom Survey

Roof Type	Internal Floating
Floating Roof Shape	Kilograms
Floating Roof Weight	14227 Kilograms \ 31365 Pounds
Roof Landed Height	55 Inches
Roof Full Floating Height	57 Inches
Bottom Description	Physical Survey

Report Constraints

Main Increment	Inches
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	44 Feet
Overflow Or Foamline	

CO-OP Refinery Complex
Regina, SK

Strap Correction to 60°F

Shell Temperature (°F)	19.4	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor

Correction Factor = 0.99994832

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	130.522	428.222	0.001	428.199
2	130.522	428.222	0.001	428.199
3	130.522	428.222	0.001	428.199
4	130.522	428.222	0.001	428.199
5	130.522	428.222	0.001	428.199

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	451.938	0.000	0.000	130.515	428.199
2	460.250	8.313	-52.229	130.463	428.028
3	461.594	9.656	-60.672	130.454	428.000
4	458.563	6.625	-41.626	130.473	428.063
5	465.156	13.219	-83.056	130.432	427.927

CO-OP Refinery Complex
Regina, SK

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	428.199	0.625 Inches	113.00 Inches	113.000 Inches
2	428.028	0.500 Inches	114.00 Inches	227.000 Inches
3	428.000	0.375 Inches	114.00 Inches	341.000 Inches
4	428.063	0.375 Inches	116.00 Inches	457.000 Inches
5	427.927	0.313 Inches	118.00 Inches	575.000 Inches

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	12	0.250 Inches	1.000 Millimetres
2	Butt Weld	12	0.250 Inches	1.000 Millimetres
3	Butt Weld	12	0.250 Inches	1.000 Millimetres
4	Butt Weld	12	0.250 Inches	1.000 Millimetres
5	Butt Weld	12	0.250 Inches	1.000 Millimetres

CO-OP Refinery Complex
Regina, SK

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	428.199	0.625	0
2.00	62.428	1.000	0	428.028	0.500	0
3.00	62.428	1.000	0	428.000	0.375	0
4.00	62.428	1.000	0	428.063	0.375	0
5.00	62.428	1.000	0	427.927	0.313	0

CO-OP Refinery Complex
Regina, SK

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2*D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	428.199	0.000	0.001	0.327	427.872
2	428.028	0.000	0.001	0.262	427.766
3	428.000	0.000	0.001	0.196	427.804
4	428.063	0.000	0.001	0.196	427.866
5	427.927	0.000	0.001	0.164	427.763



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-802

Regina, SK

851.0 kg/m³ @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 117 Feet X 42 Feet

INNAGE TABLE

Ref Gauge Height - 12.563 Metres (41' 2 5/8"); Located 44 Inches to Benchmark in hatch														Height in Inches; Capacities in Cubic Metres																												
0	0	3.715	4	0	1,170.008	8	0	2,374.839	12	0	3,592.850	16	0	4,810.864																												
1	*	12.929	1		1,195.375	1		2,400.215	1		3,618.225	1		4,836.241																												
2	*	25.331	2		1,220.742	2		2,425.590	2		3,643.600	2		4,861.619																												
3	*	40.611	3		1,246.108	3		2,450.965	3		3,668.975	3		4,886.996																												
4	*	58.985	4		1,271.475	4		2,476.340	4		3,694.350	4		4,912.373																												
5	*	80.722	5		1,296.842	5		2,501.715	5		3,719.726	5		4,937.750																												
6	*	105.921	6		1,322.208	6		2,527.091	6		3,745.101	6		4,963.128																												
7		131.274	7		1,347.575	7		2,552.466	7		3,770.476	7		4,988.505																												
8		156.618	8		1,372.942	8		2,577.841	8		3,795.851	8		5,013.882																												
9		181.953	9		1,398.308	9		2,603.216	9		3,821.226	9		5,039.260																												
10		207.287	10		1,423.675	10		2,628.591	10		3,846.602	10		5,064.637																												
11		232.623	11		1,444.783	11		2,653.967	11		3,871.977	11		5,090.014																												
Low Critical Zone														High Critical Zone																												
																												1	0	257.968	5	0	1,465.891	9	0	2,679.342	13	0	3,897.352	17	0	5,115.391
																												1		283.300	1		1,486.999	1		2,704.717	1		3,922.727	1		5,140.769
																												2		308.633	2		1,512.366	2		2,730.092	2		3,948.103	2		5,166.146
																												3		333.966	3		1,537.732	3		2,755.468	3		3,973.478	3		5,191.523
																												4		359.299	4		1,563.099	4		2,780.843	4		3,998.853	4		5,216.901
																												5		384.648	5		1,588.465	5		2,806.218	5		4,024.228	5		5,242.278
																												6		409.977	6		1,613.832	6		2,831.593	6		4,049.603	6		5,267.655
																												7		435.307	7		1,639.199	7		2,856.968	7		4,074.979	7		5,293.032
																												8		460.637	8		1,664.565	8		2,882.344	8		4,100.354	8		5,318.410
																												9		485.958	9		1,689.932	9		2,907.719	9		4,125.729	9		5,343.787
																												10		511.258	10		1,715.299	10		2,933.094	10		4,151.104	10		5,369.164
11		536.569	11		1,740.665	11		2,958.469	11		4,176.479	11		5,394.542																												
2	0	561.888	6	0	1,766.032	10	0	2,983.844	14	0	4,201.855	18	0	5,419.919																												
1		587.206	1		1,791.398	1		3,009.220	1		4,227.230	1		5,445.296																												
2		612.515	2		1,816.765	2		3,034.595	2		4,252.605	2		5,470.673																												
3		637.846	3		1,842.132	3		3,059.970	3		4,277.980	3		5,496.051																												
4		663.177	4		1,867.498	4		3,085.345	4		4,303.356	4		5,521.428																												
5		688.508	5		1,892.865	5		3,110.720	5		4,328.731	5		5,546.805																												
6		713.820	6		1,918.231	6		3,136.096	6		4,354.106	6		5,572.183																												
7		739.166	7		1,943.598	7		3,161.471	7		4,379.481	7		5,597.560																												
8		764.495	8		1,968.965	8		3,186.846	8		4,404.856	8		5,622.937																												
9		789.824	9		1,994.331	9		3,212.221	9		4,430.232	9		5,648.315																												
10		815.143	10		2,019.698	10		3,237.597	10		4,455.607	10		5,673.692																												
11		840.464	11		2,045.064	11		3,262.972	11		4,480.982	11		5,699.069																												
3	0	865.793	7	0	2,070.431	11	0	3,288.347	15	0	4,506.357	19	0	5,724.446																												
1		891.133	1		2,095.798	1		3,313.722	1		4,531.732	1		5,749.824																												
2		916.472	2		2,121.164	2		3,339.097	2		4,557.108	2		5,775.201																												
3		941.820	3		2,146.531	3		3,364.473	3		4,582.483	3		5,800.578																												
4		967.168	4		2,171.897	4		3,389.848	4		4,607.858	4		5,825.956																												
5		992.516	5		2,197.264	5		3,415.223	5		4,633.233	5		5,851.333																												
6		1,017.864	6		2,222.631	6		3,440.598	6		4,658.609	6		5,876.710																												
7		1,043.212	7		2,247.997	7		3,465.973	7		4,683.984	7		5,902.087																												
8		1,068.560	8		2,273.364	8		3,491.349	8		4,709.359	8		5,927.465																												
9		1,093.908	9		2,298.731	9		3,516.724	9		4,734.734	9		5,952.842																												
10		1,119.275	10		2,324.097	10		3,542.099	10		4,760.109	10		5,978.219																												
11		1,144.642	11		2,349.464	11		3,567.474	11		4,785.487	11		6,003.597																												

** Volume Below Strike Point. Located 1" 1/2 Above intersection of shell & bottom.

Page 1 of 2

* Bottom volume based on Physical Survey Calculation. Average Inches not applicable

Volumes reflect a Shell Temperature of 15°C

Safe Fill Height @ 35' 8"

A total of 12,776 Cubic Metres were deducted between 56 & 63 Inches based on a weight of 10872 Kilograms and a density of 851 kg/m³. Gauged quantities above 63 Inches reflect this deduction but shall be adjusted for a differing specific gravity at 15°C according to the following formula (see page 2).

No Measurements are to be taken in Critical Zones

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Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

Regina, SK

TANK # 54-10-802

851.0 kg/m³ @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 117 Feet X 42 Feet

INNAGE TABLE

Ref Gauge Height - 12.563 Metres (41' 2 5/8"); Located 44 Inches to Benchmark in hatch											
Height in Inches						Capacities in Cubic Metres					
20	0	6,028.974	24	0	7,246.831	28	0	8,464.125	32	0	9,681.769
	1	6,054.351		1	7,272.192		1	8,489.486		1	9,707.141
	2	6,079.728		2	7,297.552		2	8,514.846		2	9,732.514
	3	6,105.106		3	7,322.912		3	8,540.206		3	9,757.887
	4	6,130.483		4	7,348.272		4	8,565.567		4	9,783.260
	5	6,155.860		5	7,373.633		5	8,590.927		5	9,808.633
	6	6,181.238		6	7,398.993		6	8,616.287		6	9,834.005
	7	6,206.615		7	7,424.353		7	8,641.647		7	9,859.378
	8	6,231.992		8	7,449.714		8	8,667.008		8	9,884.751
	9	6,257.369		9	7,475.074		9	8,692.368		9	9,910.124
	10	6,282.747		10	7,500.434		10	8,717.728		10	9,935.496
	11	6,308.124		11	7,525.794		11	8,743.089		11	9,960.869
21	0	6,333.501	25	0	7,551.155	29	0	8,768.449	33	0	9,986.242
	1	6,358.879		1	7,576.515		1	8,793.809		1	10,011.615
	2	6,384.256		2	7,601.875		2	8,819.170		2	10,036.987
	3	6,409.633		3	7,627.236		3	8,844.530		3	10,062.360
	4	6,435.010		4	7,652.596		4	8,869.890		4	10,087.733
	5	6,460.388		5	7,677.956		5	8,895.250		5	10,113.106
	6	6,485.765		6	7,703.317		6	8,920.611		6	10,138.478
	7	6,511.142		7	7,728.677		7	8,945.971		7	10,163.851
	8	6,536.520		8	7,754.037		8	8,971.331		8	10,189.224
	9	6,561.897		9	7,779.397		9	8,996.704		9	10,214.597
	10	6,587.274		10	7,804.758		10	9,022.077		10	10,239.969
	11	6,612.651		11	7,830.118		11	9,047.450		11	10,265.342
22	0	6,638.029	26	0	7,855.478	30	0	9,072.822	34	0	10,290.715
	1	6,663.406		1	7,880.839		1	9,098.195		1	10,316.088
	2	6,688.783		2	7,906.199		2	9,123.568		2	10,341.460
	3	6,714.161		3	7,931.559		3	9,148.941		3	10,366.833
	4	6,739.538		4	7,956.919		4	9,174.314		4	10,392.206
	5	6,764.915		5	7,982.280		5	9,199.686		5	10,417.579
	6	6,790.292		6	8,007.640		6	9,225.059		6	10,442.951
	7	6,815.670		7	8,033.000		7	9,250.432		7	10,468.324
	8	6,841.047		8	8,058.361		8	9,275.805		8	10,493.697
	9	6,866.424		9	8,083.721		9	9,301.177		9	10,519.070
	10	6,891.787		10	8,109.081		10	9,326.550		10	10,544.443
	11	6,917.147		11	8,134.442		11	9,351.923		11	10,569.815
23	0	6,942.508	27	0	8,159.802	31	0	9,377.296	35	0	10,595.188
	1	6,967.868		1	8,185.162		1	9,402.668		1	10,620.561
	2	6,993.228		2	8,210.522		2	9,428.041		2	10,645.934
	3	7,018.589		3	8,235.883		3	9,453.414		3	10,671.306
	4	7,043.949		4	8,261.243		4	9,478.787		4	10,696.679
	5	7,069.309		5	8,286.603		5	9,504.159		5	10,722.052
	6	7,094.669		6	8,311.964		6	9,529.532		6	10,747.425
	7	7,120.030		7	8,337.324		7	9,554.905		7	10,772.789
	8	7,145.390		8	8,362.684		8	9,580.278	8 SF	8	10,798.139
	9	7,170.750		9	8,388.044		9	9,605.650		9	10,823.490
	10	7,196.111		10	8,413.405		10	9,631.023		10	10,848.840
	11	7,221.471		11	8,438.765		11	9,656.396		11	10,874.191

SF - Safe Fill Height @ 35' 8"

Page 2 of 2

Fractions

1/16	1.586080	9/16	14.274724
1/8	3.172161	5/8	15.860804
3/16	4.758241	11/16	17.446885
1/4	6.344322	3/4	19.032965
5/16	7.930402	13/16	20.619046
3/8	9.516483	7/8	22.205126
7/16	11.102563	15/16	23.791206
1/2	12.688643	1	25.377287

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Displacement Correction = 10872 Kilograms - 12.776 Cubic Metres
Kilograms/Cubic Metre



Action Number P2190102940 - Exhibit G

CO-OP Refinery Complex

TANK # 54-10-802

Regina, SK

851 kg/m3 @ 15°C

Internal Floating Roof Tank - Nominal Dimensions : 117 Feet X 42 Feet

Volumes in: Cubic Metres

To Increment	Incs	Gross Volume per Increment	Deadwood Volume	Net Volume	Accumulated Volume
0	1	0.000000	3.715471	3.715471	3.715471
1	1	25.368465	-16.154685	9.213780	12.929252
2	1	25.368465	-12.966883	12.401582	25.330834
3	1	25.368465	-10.088313	15.280152	40.610986
4	1	25.368465	-6.994538	18.373927	58.984913
5	1	25.368465	-3.631132	21.737334	80.722247
6	1	25.368465	-0.169259	25.199207	105.921454
7	1	25.368465	-0.015942	25.352523	131.273976
8	1	25.368465	-0.023997	25.344468	156.618445
10	2	25.368465	-0.034322	25.334143	207.286731
11	1	25.368465	-0.032379	25.336086	232.622817
12	1	25.368465	-0.023724	25.344741	257.967558
14	2	25.368465	-0.035574	25.332891	308.633341
16	2	25.368465	-0.035417	25.333048	359.299438
17	1	25.368465	-0.019913	25.348553	384.647991
18	1	25.368465	-0.039076	25.329390	409.977380
19	1	25.368465	-0.038726	25.329739	435.307120
20	1	25.368465	-0.038890	25.329575	460.636695
21	1	25.368465	-0.046683	25.321782	485.958477
22	1	25.368465	-0.069197	25.299268	511.257745
23	1	25.368465	-0.057365	25.311100	536.568845
24	1	25.368465	-0.049572	25.318893	561.887738
25	1	25.368465	-0.050081	25.318385	587.206123
26	1	25.368465	-0.059853	25.308612	612.514735
27	1	25.368465	-0.037339	25.331126	637.845861
29	2	25.368465	-0.037406	25.331060	688.507980
30	1	25.368465	-0.056323	25.312142	713.820122
31	1	25.368465	-0.022746	25.345719	739.165842
33	2	25.368465	-0.039230	25.329236	789.824313
34	1	25.368465	-0.049620	25.318845	815.143158
35	1	25.368465	-0.047347	25.321118	840.464276
36	1	25.368465	-0.039480	25.328985	865.793262
38	2	25.368465	-0.029090	25.339375	916.472012
45	7	25.368465	-0.020473	25.347992	1093.907955
46	1	25.368465	-0.001400	25.367065	1119.275020
47	1	25.368465	-0.001719	25.366746	1144.641766
52	5	25.368465	-0.001801	25.366664	1271.475086
61	3	25.368465	-4.260375	21.108090	1486.999016
94	39	25.368465	-0.001855	25.366610	2324.097140
95	1	25.368804	-0.001855	25.366949	2349.464089
189	94	25.377069	-0.001855	25.375214	4734.734173
190	1	25.377151	-0.001855	25.375295	4760.109468
273	83	25.379142	-0.001855	25.377287	6866.424274
274	1	25.364692	-0.001855	25.362837	6891.787111
355	81	25.362150	-0.001855	25.360295	8945.970974
356	1	25.362346	-0.001855	25.360491	8971.331464
426	70	25.374614	-0.001855	25.372759	10747.424580
427	1	25.366017	-0.001855	25.364162	10772.788741
494	67	25.352332	-0.001855	25.350476	12471.270661
495	1	15.371099	-0.001855	15.369243	12486.639905

CO-OP Refinery Complex
Regina, SK

General Information

Tank Number	54-10-802
Date of Strapping Data	05/05/2018
Year Built	
Product in Service	Crude Oil
Product Service Density	0.851 g/cc (SG)

Tank Dimensions

Nominal Diameter	117 Feet
Nominal Height	42 Feet
Measured Tank Height	12.563 Metres
Tank Tilt	0 Millimetres
Gauge Point Information	Benchmark on Rim
Reference Gauge Height	13.774 Metres
Horizontal To Gauge	44 Inches

Roof & Bottom Survey

Roof Type	Internal Floating
Floating Roof Shape	
Floating Roof Weight	10872 Kilograms
Roof Landed Height	58 Inches
Roof Full Floating Height	61 Inches
Bottom Description	Physical Survey

Report Constraints

Main Increment	Inches
Main Volume	Cubic Metres
Product at Strapping	empty
Product Strap Density	1 g/cc (SG)
Liquid Height at Strap	
Safe Fill Height	35' 8"
Overflow Or Foamline	

CO-OP Refinery Complex
Regina, SK

Strap Correction to 60°F

Shell Temperature (°F)	19.4	Master Tape Serial
Shell Material	Carbon Steel	Master Tape Span
Shell Expansion (per Foot)	0.000006450	Master Tape Tension

Certified Tape Factor	1
Tape Correction Factor	$1 + ('Shell\ Temperature' - 68) \times 'Tape\ Expansion'$
Shell Correction Factor	$1 + (60 - 'Shell\ Temperature') \times 'Shell\ Expansion'$

Correction Summary

Certified Tape Factor * Tape Correction Factor * Shell Correction Factor

Correction Factor = 0.99994832

Course	Strap Circumference Metres	Converted Circumference (Feet)	Tape Rise (Feet)	Corrected Strap Circumference (Feet)
1	112.153	367.956	0.001	367.936
2	112.153	367.956	0.001	367.936
3	112.153	367.956	0.001	367.936
4	112.153	367.956	0.001	367.936
5	112.153	367.956	0.001	367.936
6	112.153	367.956	0.001	367.936

Optical Circumference Corrections

Course	Average Optical Offset Millimetres	Difference Millimetres	Correction Millimetres	Corrected Circumference Metres	Corrected Circumference (Feet)
1	436.857	0.000	0.000	112.147	367.936
2	440.393	3.536	-22.216	112.125	367.864
3	446.643	9.786	-61.485	112.086	367.735
4	456.964	20.107	-126.337	112.021	367.522
5	457.250	20.393	-128.132	112.019	367.516
6	468.214	31.357	-197.023	111.950	367.290

CO-OP Refinery Complex
Regina, SK

Tank Measurements

Course	Strap (Feet)	Plate Thickness	Course Height	Accumulated Total
1	367.936	0.750 Inches	2.412 Metres	2.412 Metres
2	367.864	0.563 Inches	2.413 Metres	4.825 Metres
3	367.735	0.375 Inches	2.113 Metres	6.938 Metres
4	367.522	0.312 Inches	2.104 Metres	9.042 Metres
5	367.516	0.250 Inches	1.794 Metres	10.836 Metres
6	367.290	0.250 Inches	1.727 Metres	12.563 Metres

Tank Construction

Course	Course Fit/Join	Plates per Course	Width of Tape Rise	Depth of Tape Rise
1	Butt Weld	12	0.250 Inches	1.000 Millimetres
2	Butt Weld	12	0.250 Inches	1.000 Millimetres
3	Butt Weld	12	0.250 Inches	1.000 Millimetres
4	Butt Weld	12	0.250 Inches	1.000 Millimetres
5	Butt Weld	12	0.250 Inches	1.000 Millimetres
6	Butt Weld	12	0.250 Inches	1.000 Millimetres

CO-OP Refinery Complex
Regina, SK

Circumference Corrected to Empty Tank Basis

$$\frac{-W * H * C^2}{2 * \pi * E * T} \quad (\text{Correction in Feet}) \quad \text{Or} \quad \frac{-K (G * H * C^2)}{T} \quad (\text{Correction in Inches})$$

Where :

$$K = \frac{W}{24 * \pi * E} = 0.000000028550919$$

G = Observed Density of Liquid in tank.

H = height of liquid above strap, in feet.

C = measured circumference, in feet.

T = thickness of shell material, in inches.

W = weight of liquid, in pounds per cubic foot.

E = modulus of elasticity of shell material.

Correction Summary

Course	Product Weight (Lb/Ft3)	Density	Liquid Height (Feet)	Corrected Circumference (Feet)	Plate Thickness (Inches)	Empty Tank Corrected (Feet)
1.00	62.428	1.000	0	367.936	0.750	0
2.00	62.428	1.000	0	367.864	0.563	0
3.00	62.428	1.000	0	367.735	0.375	0
4.00	62.428	1.000	0	367.522	0.312	0
5.00	62.428	1.000	0	367.516	0.250	0
6.00	62.428	1.000	0	367.290	0.250	0

CO-OP Refinery Complex
Regina, SK

Circumference Deduction for Tape Rises

Butt Strap Correction (In Feet)

$$= \frac{(2 * N * T * W)}{(12 * D)} + \frac{(8 * N * T)}{(12 * 3)} * \sqrt{T/D}$$

Lap Joint Correction (In Feet)

$$= \frac{(4 * N * T)}{(12 * 3)} * \sqrt{T/(2*D)}$$

Where :

N = number of butt straps or projections per course

T = thickness of straps or projections (in inches)

W = width of straps or projections (in inches)

D = nominal diameter of tank (in inches)

Circumference Deduction for Shell Thickness

$$= \frac{(\pi * T)}{6} \quad (\text{Correction In Feet})$$

Where :

T = thickness of shell material (In Inches)

Summary of Circumference Deductions

Course	Temperature Compensated Circumference	Empty Tank (Feet)	Tape Rise (Feet)	Plate Thickness (Feet)	Inside Circumference (Feet)
1	367.936	0.000	0.001	0.393	367.544
2	367.864	0.000	0.001	0.295	367.569
3	367.735	0.000	0.001	0.196	367.538
4	367.522	0.000	0.001	0.163	367.359
5	367.516	0.000	0.001	0.131	367.385
6	367.290	0.000	0.001	0.131	367.159

CO-OP Refinery Complex
Regina, SK

Incremental Volume Per Course

Liquid Head Stress Correction (In Feet)

$$= \frac{K (G * H * C^2)}{T}$$

Incremental Volume (in Cubic Feet)

$$= (C / \pi / 2)^2 * (\pi / 12)$$

Where :

G = tank Service Density.

H = height of liquid (between strap & top of course), in feet.

C = circumference, in feet.

T = thickness of shell material, in inches.

Incremental Volume Per Course

Course	Inside Circumference (Feet)	Liquid Head Stress (Feet)	Stressed Circumference (Feet)	Cubic Metres Per Inch
1	367.544	0.012	367.556	25.369
2	367.569	0.020	367.588	25.373
3	367.538	0.026	367.564	25.370
4	367.359	0.031	367.389	25.346
5	367.385	0.033	367.418	25.350
6	367.159	0.032	367.191	25.318

CO-OP Refinery Complex
Regina, SK

Liquid Head Corrections

Volumetric Increase per Course

$$= \frac{H}{T} * \frac{K}{F}$$

Where :

H = Course Height (in inches)

T = Plate Thickness (in inches)

$$K = \frac{\pi * W * G * D^3}{4 * E}$$

W = weight of liquid, in pounds per cubic foot.

G = Specific Gravity of product to be stored.

D = Inside Diameter of the Course.

E = modulus of elasticity of shell material.

F = desired volume conversion (cubic inch per unit volume)

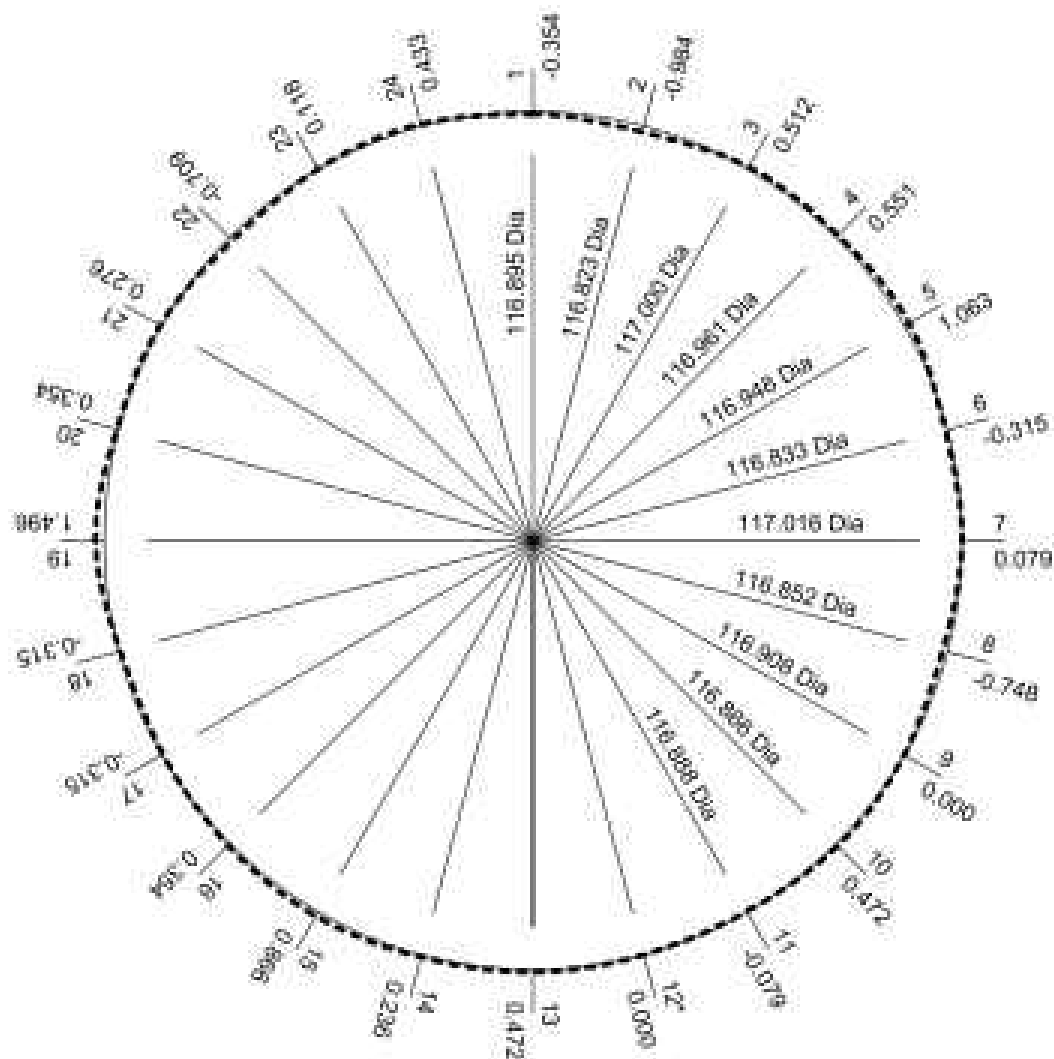
eg. 231 to US Gallons, 61.023744 to Litres

Gross Volume per Chart Increment

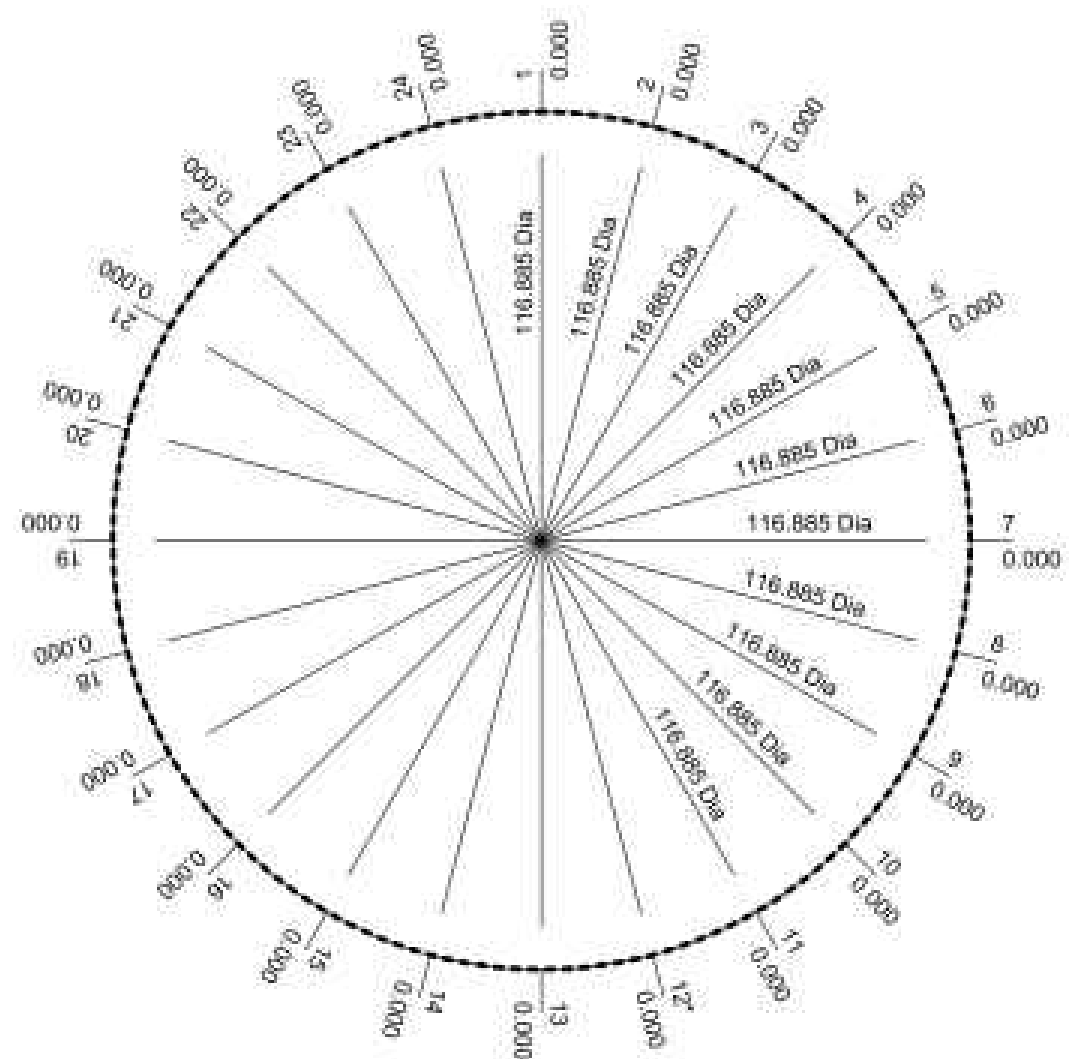
Course	Cubic Metres Per Inch	Volume Correction Cubic Metres	Incremental Correction Cubic Metres	Gross Volume @ 60°F	Gross Volume @ 59 °F 0.9999871
1	25.369	0.004	0.000	25.369	25.368
2	25.373	0.005	0.004	25.377	25.377
3	25.370	0.007	0.009	25.379	25.379
4	25.346	0.009	0.017	25.362	25.362
5	25.350	0.009	0.025	25.375	25.375
6	25.318	0.000	0.034	25.353	25.352

Feb 2, 2018

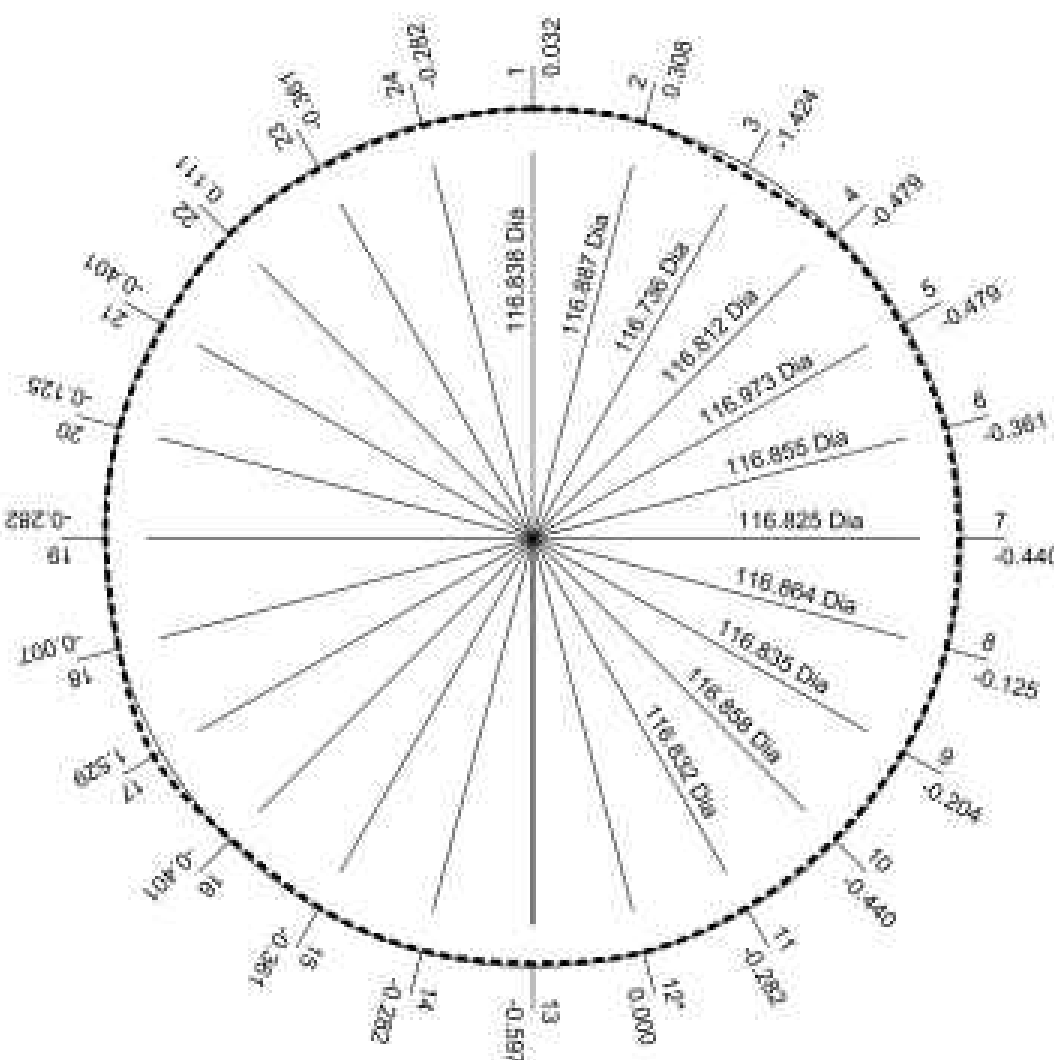
**CO-OP REFINERY COMPLEX
REGINA, SK
TANK #54-10-802
RING OFFSETS**



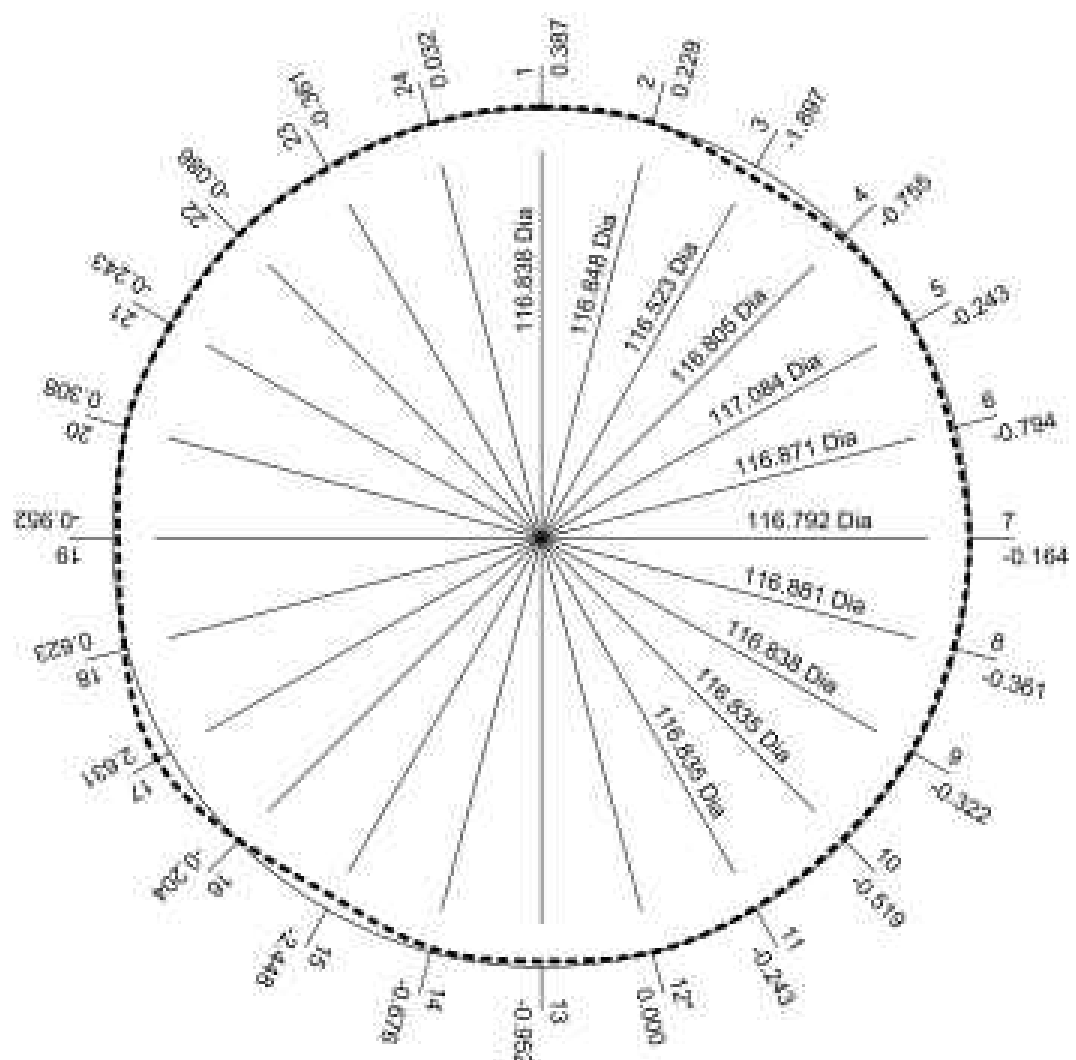
RING #1 20%



RING #1 80%



RING #2 20%

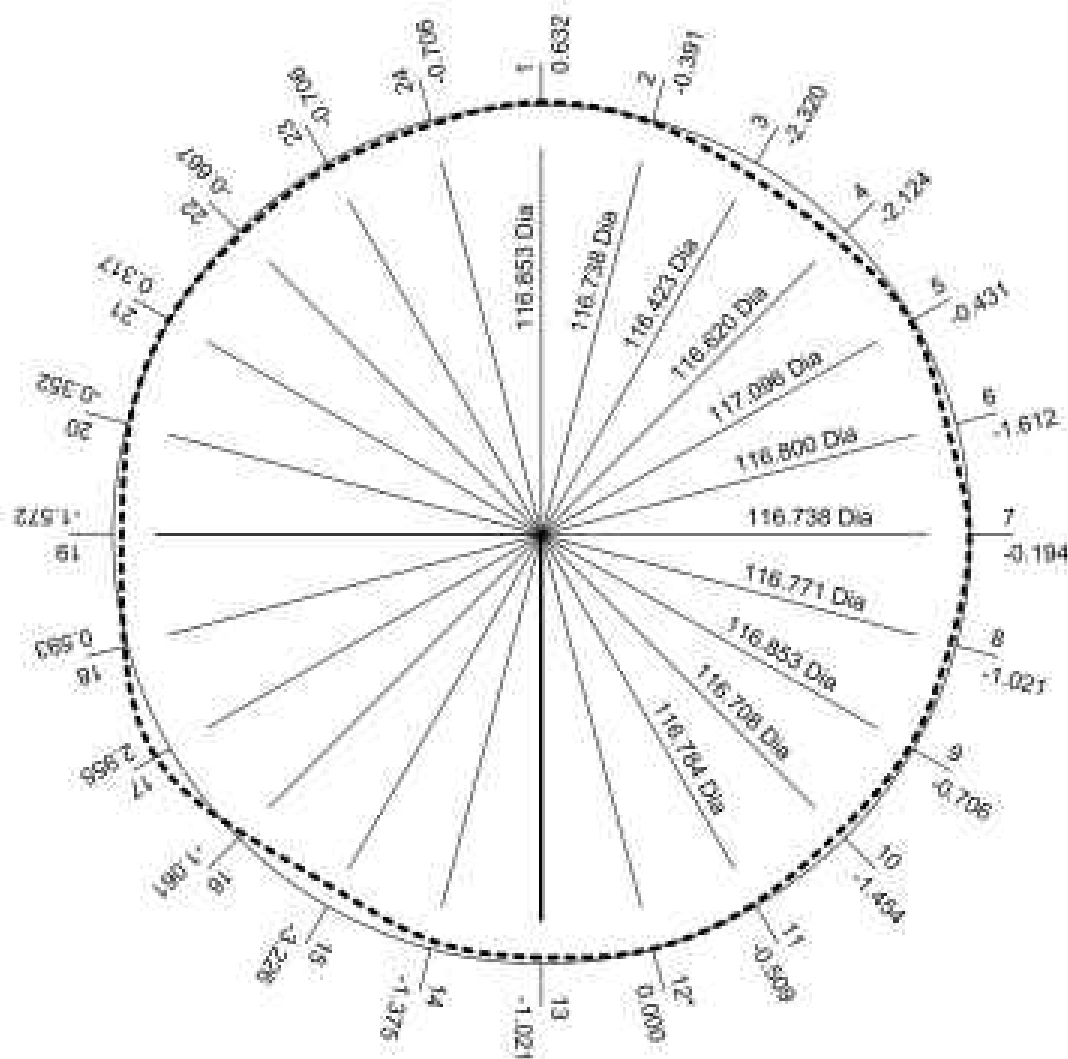


RING #2 80%

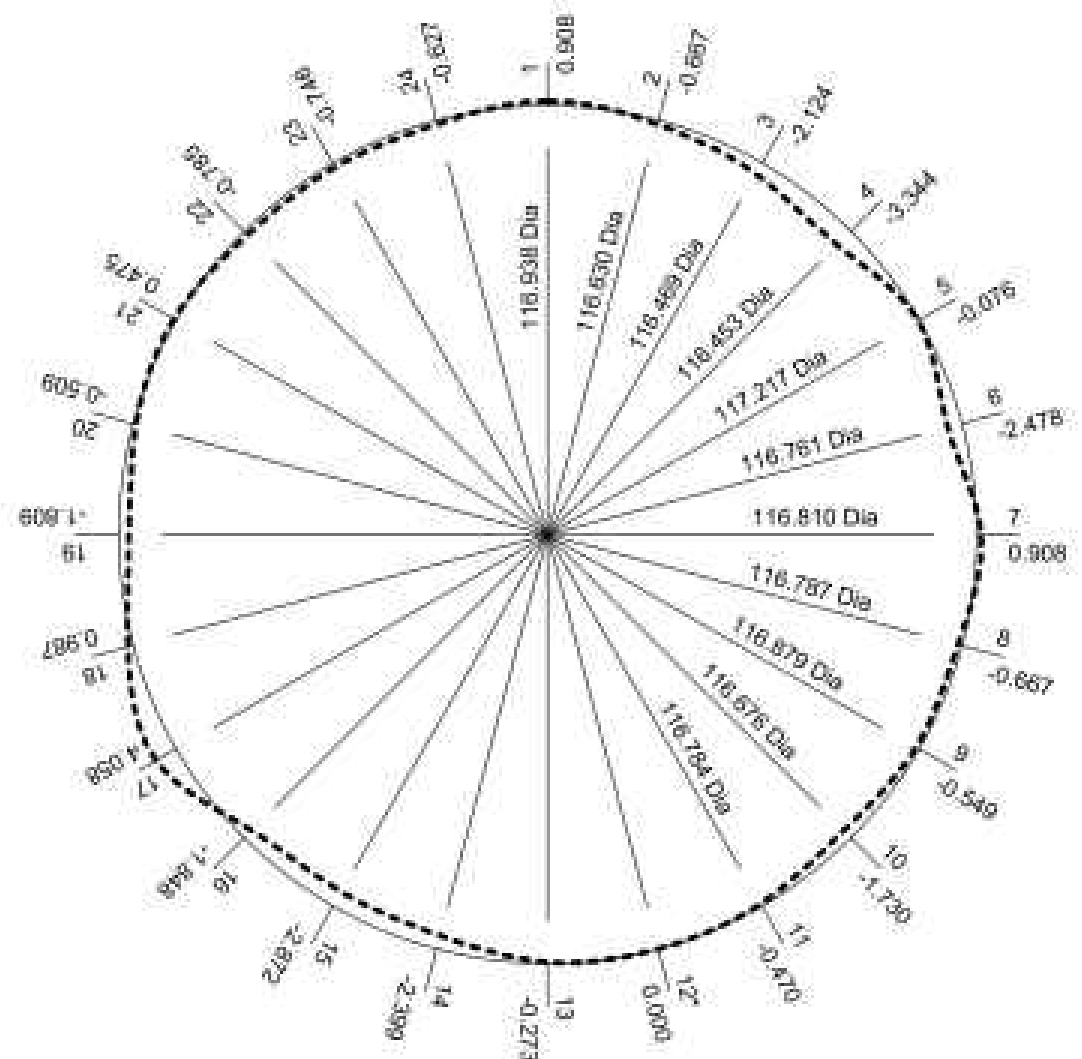
*Graph representation not applicable for
Station 12 - Door Sheet

Feb 2, 2018

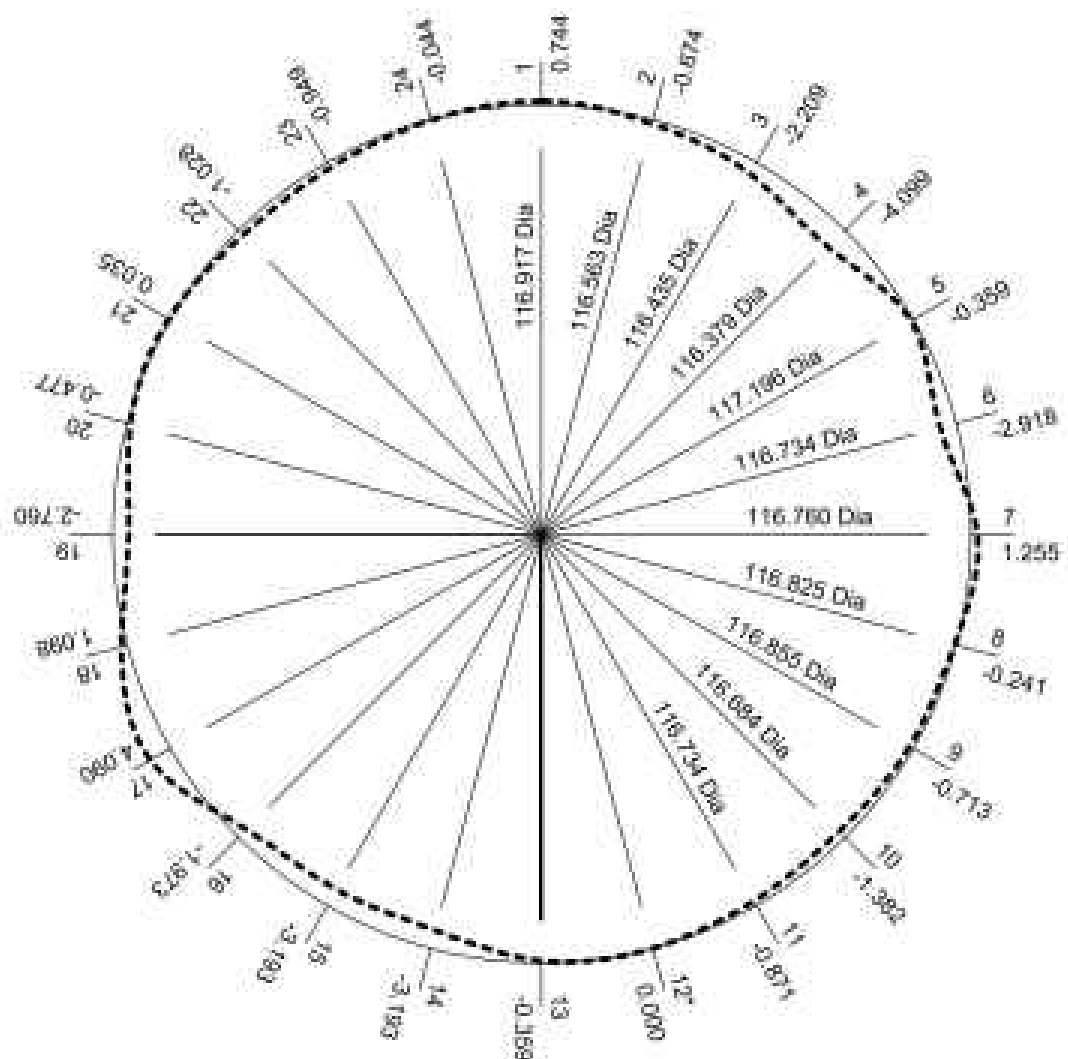
**CO-OP REFINERY COMPLEX
REGINA, SK
TANK #54-10-802
RING OFFSETS**



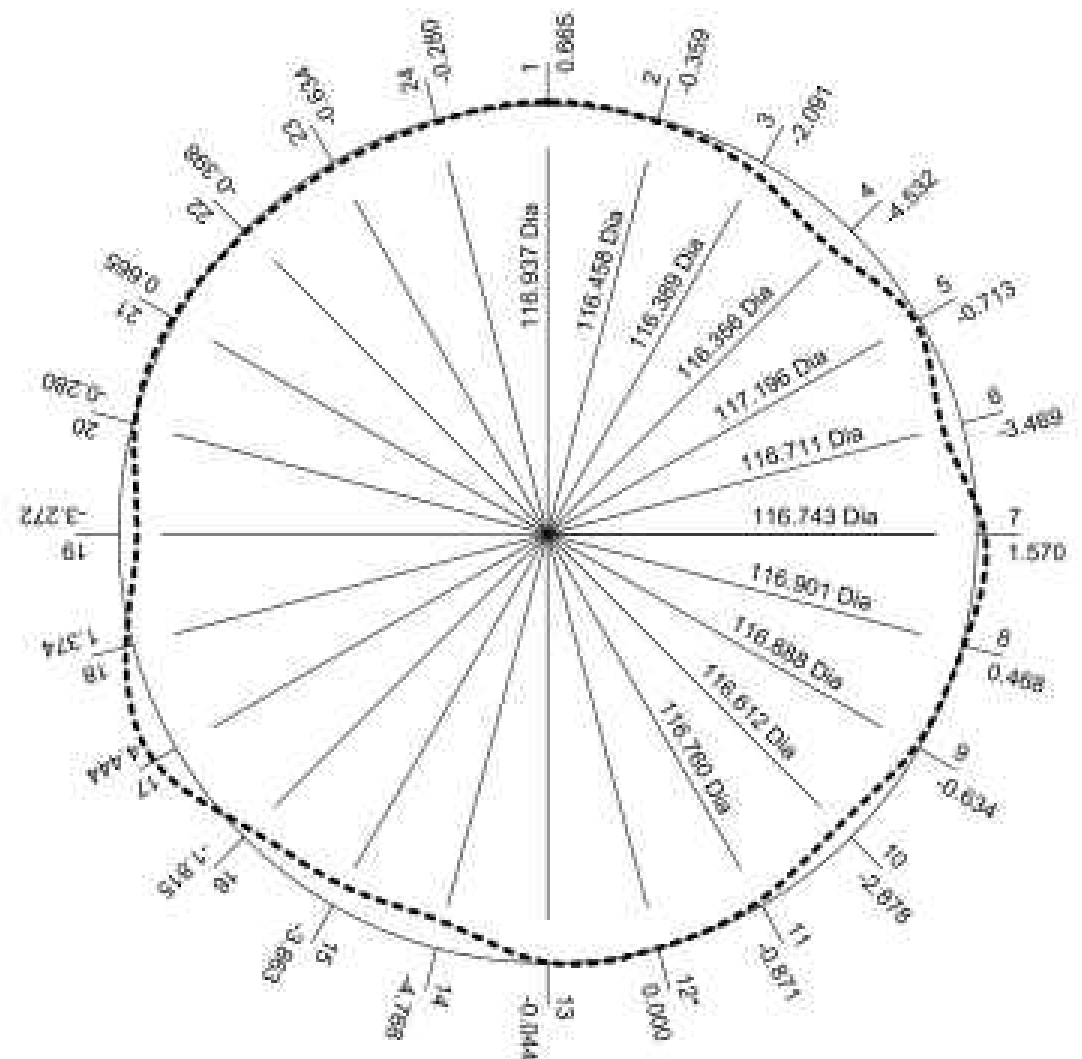
RING #3 20%



RING #3 80%



RING #4 20%

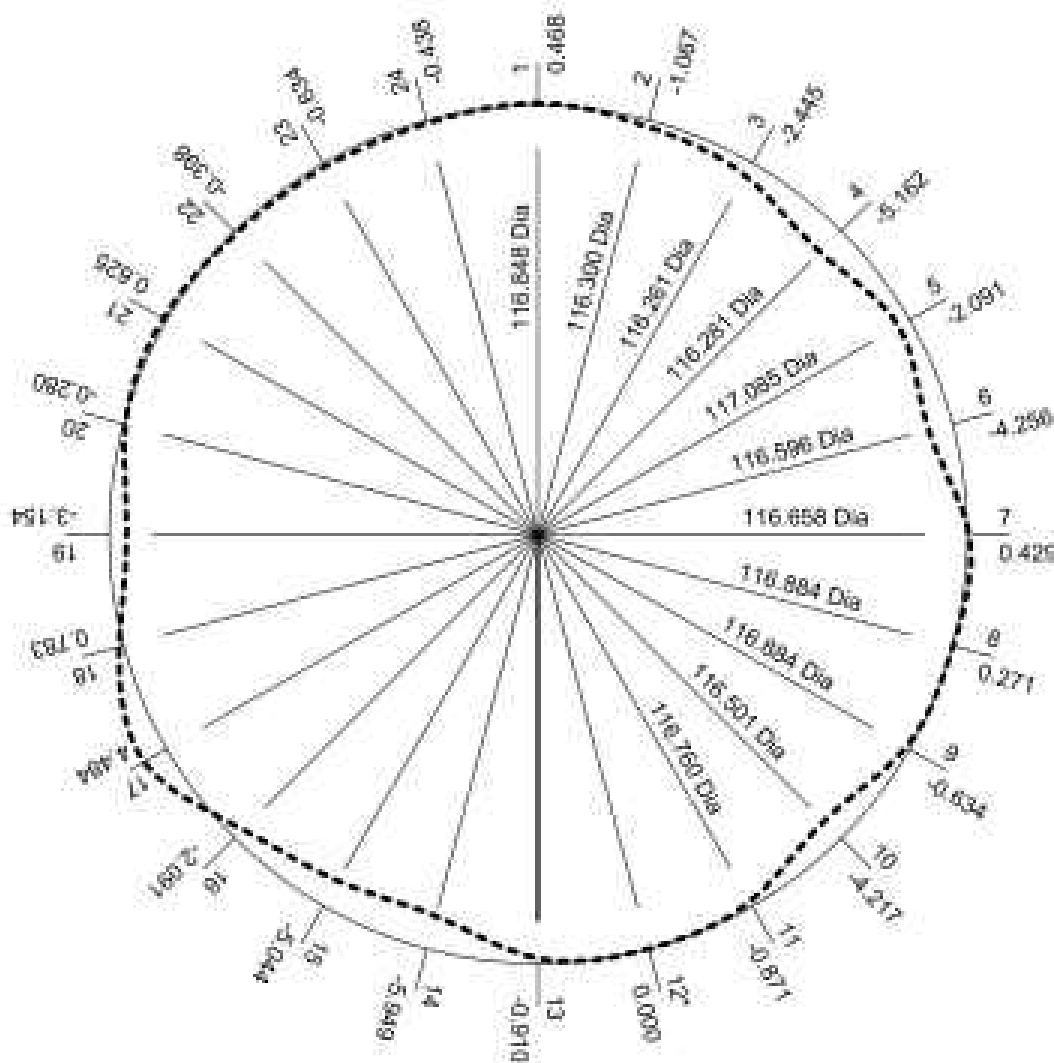


RING #4 80%

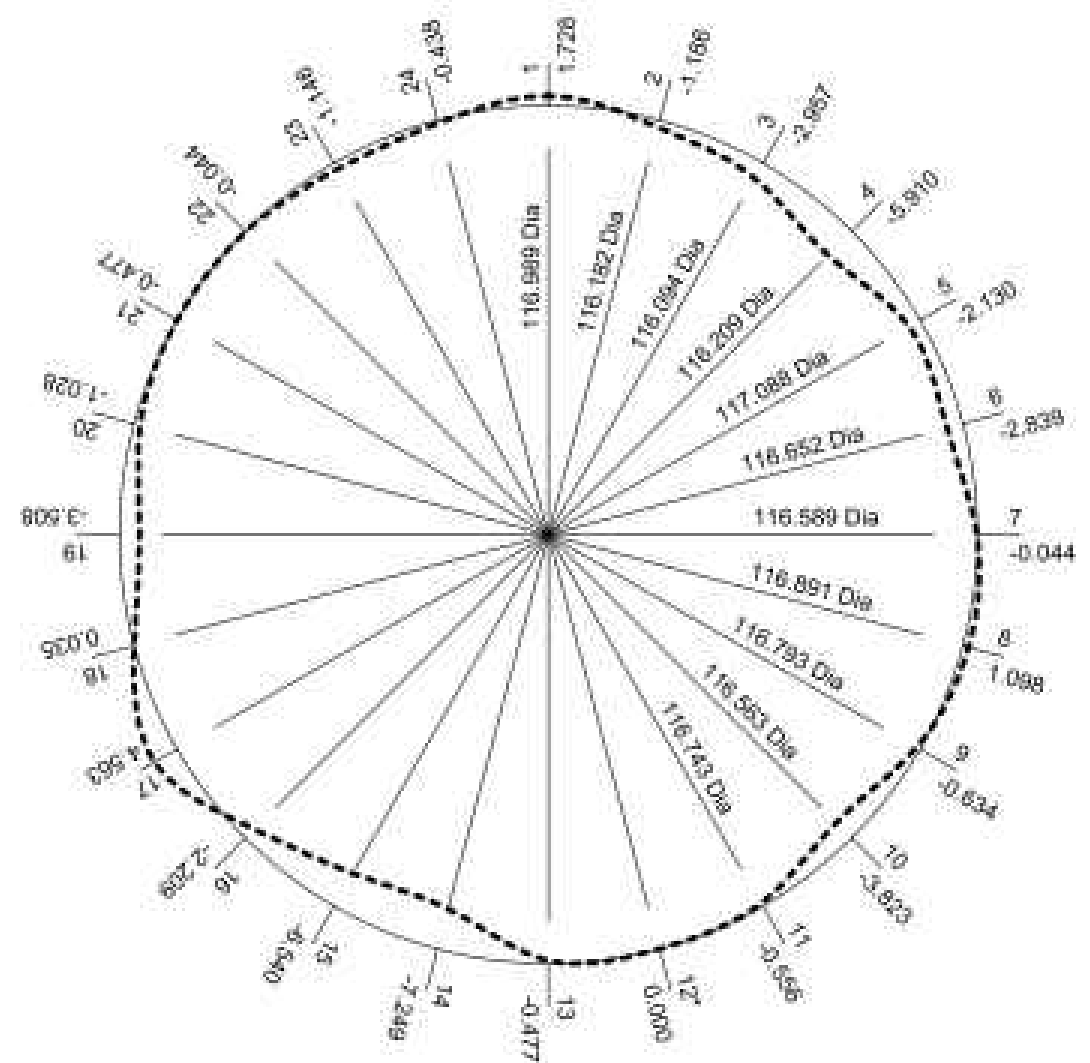
*Graph representation not applicable for
Station 12 - Door Sheet

Feb 2, 2018

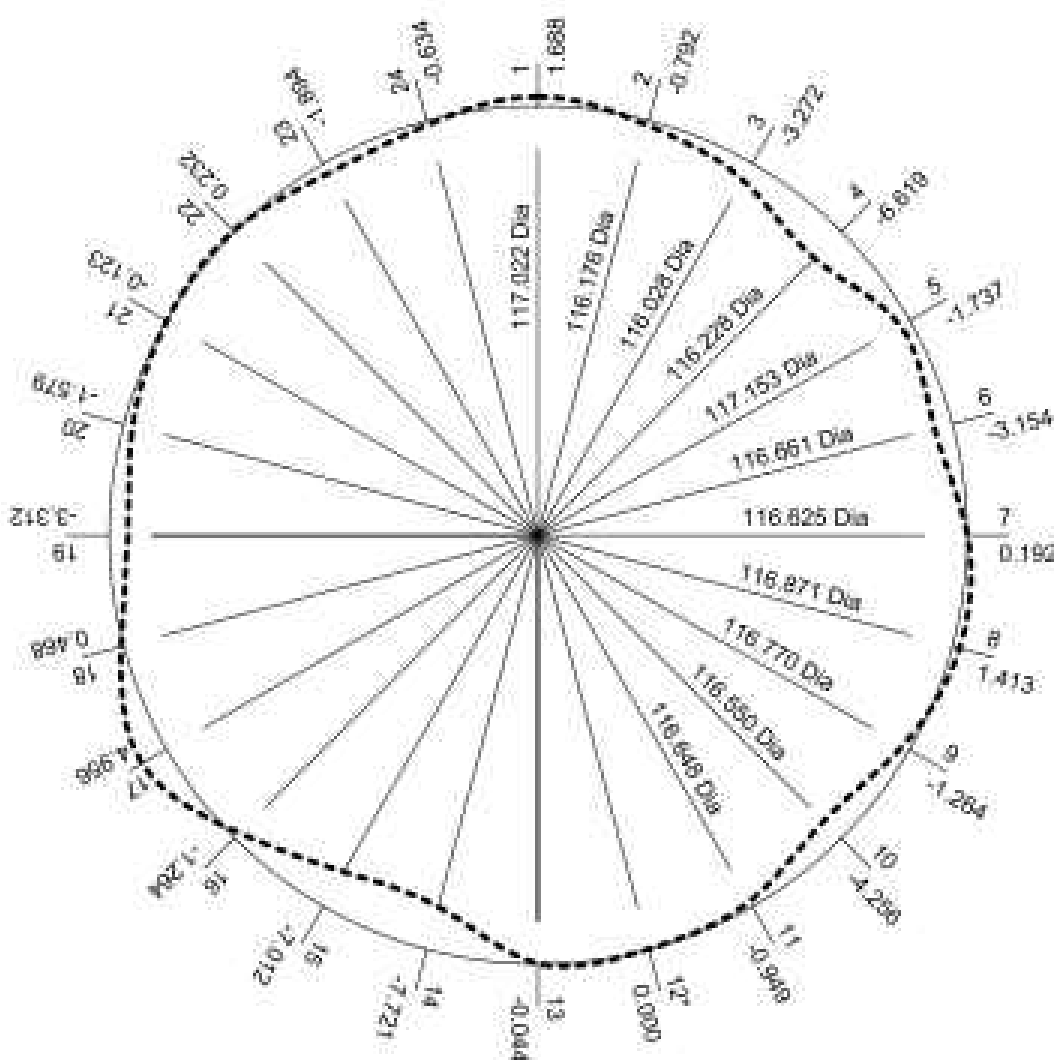
**CO-OP REFINERY COMPLEX
REGINA, SK
TANK #54-10-802
RING OFFSETS**



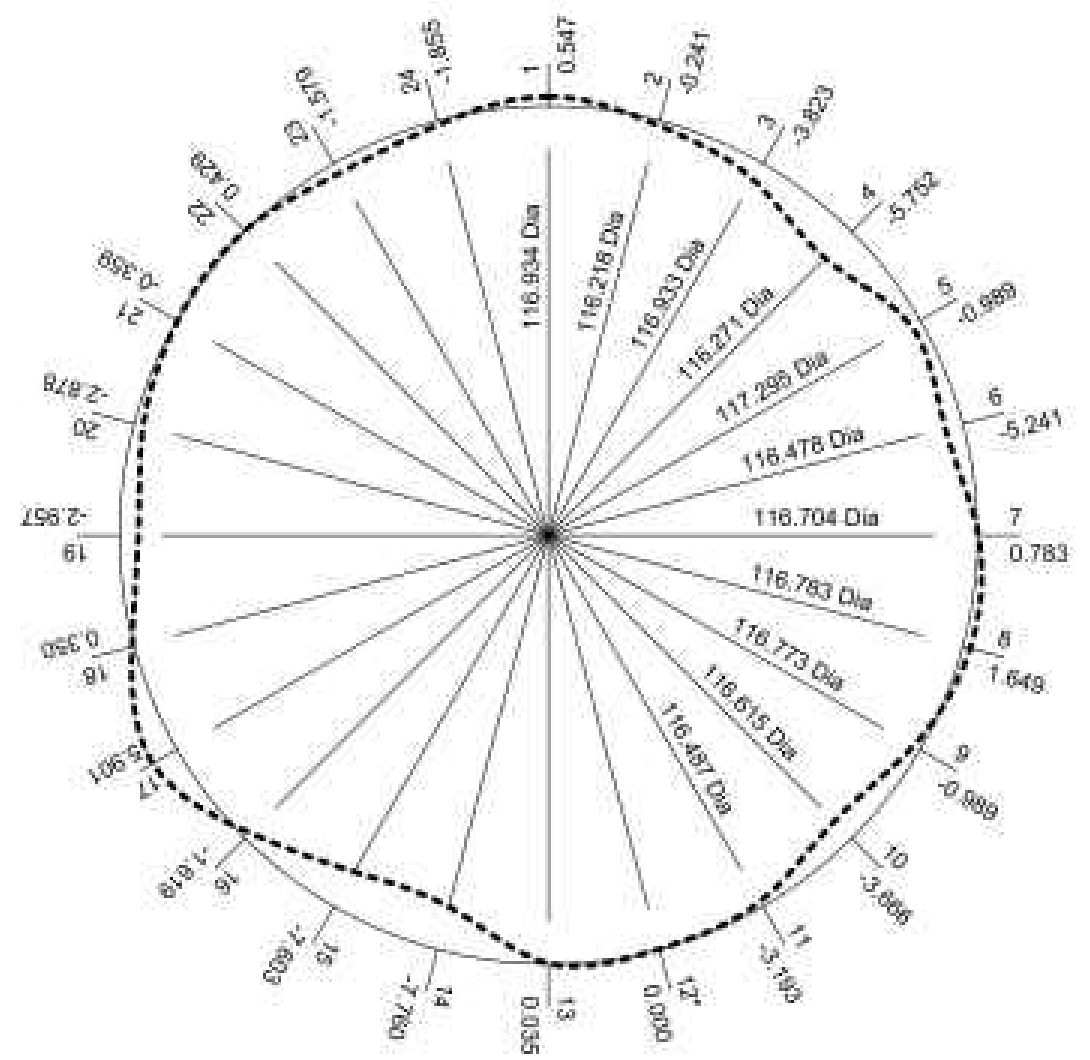
RING #5 20%



RING #5 80%



RING #6 20%



RING #6 80%

*Graph representation not applicable for
Station 12 - Door Sheet

CO-OP Refinery Complex

24 Stations at 15.3 Feet apart

Regina, SK

Station 1 @ Nameplate Manway, increasing counter-clockwise

Tank #54-10-802 Feb 2, 2018

External Optical Readings – Millimetres

Course	1	1	1	2	2	3	3	4	4	5	5	6	6
% up	0	20%	80%	20%	80%	20%	80%	20%	80%	20%	80%	20%	80%
Height (in)	0	19.1	76.3	114.3	171.3	206.8	256.5	289.7	339.5	370.3	412.9	441.3	475.0
Station	Ref												
1	203	212	203	199	190	179	172	173	175	180	148	149	178
2	821	846	821	810	812	823	830	827	819	837	840	830	816
3	376	363	376	409	421	427	422	421	418	427	440	448	462
4	139	125	139	148	155	185	216	232	243	259	278	296	274
5	488	461	488	497	491	491	482	486	495	530	531	521	502
6	629	637	629	635	646	662	684	692	706	726	690	698	751
7	671	669	671	679	672	668	640	628	620	649	661	655	640
8	452	471	452	452	458	470	461	447	429	434	413	405	399
9	737	737	737	739	742	747	743	744	742	742	742	758	751
10	908	896	908	916	918	937	944	932	970	1004	994	1005	990
11	176	178	176	180	179	181	180	187	187	187	179	189	246
Door Sheet													
13	623	611	623	635	644	641	622	621	613	635	624	613	611
14	448	442	448	452	462	475	501	518	558	588	621	633	634
15	262	240	262	268	321	336	327	332	349	379	417	429	444
16	458	449	458	465	460	477	497	497	493	500	503	479	488
17	369	377	369	327	299	286	258	254	245	244	242	232	208
18	203	211	203	200	184	180	170	164	157	172	191	180	183
19	499	461	499	503	520	531	537	558	571	568	577	572	563
20	1008	999	1008	1008	997	1009	1013	1009	1004	1004	1023	1037	1070
21	189	182	189	196	192	173	169	169	161	162	190	181	187
22	1003	1021	1003	997	1002	1012	1015	1018	1002	1002	993	986	981
23	274	271	274	280	280	284	285	287	279	279	292	311	303
24	806	795	806	810	802	816	814	796	802	806	806	811	842
Total Feet	38.5236	76.7585		77.5984		78.6483		78.8386		81.0663		81.8274	
Average	1.60515	1.59914		1.61663		1.61663		1.63851		1.64247		1.68888	