



United States of America
Department of Homeland Security
United States Coast Guard

Certification Date: 23 Dec 2020
Expiration Date: 23 Dec 2025

Certificate of Inspection

For ships on international voyages this certificate fulfills the requirements of SOLAS 74 as amended, regulation V/14, for a SAFE MANNING DOCUMENT.

Vessel Name	Official Number	IMO Number	Call Sign	Service		
CCL 419-L	1306897			Tank Barge		
Hailing Port	Hull Material	Horsepower	Propulsion			
NEW ORLEANS, LA	Steel					
UNITED STATES						
Place Built	Delivery Date	Keel Laid Date	Gross Tons	Net Tons	DWT	Length
ORANGE, TX	23Dec2020	20Jul2020	R-1619	R-1619		R-297.5
UNITED STATES			I-	I-		I-0
Owner	Operator					
CHEM CARRIERS LLC 1237 HIGHWAY 75 SUNSHINE, LA 70780 UNITED STATES	CHEM CARRIERS LLC 1237 HIGHWAY 75 SUNSHINE, LA 70780 UNITED STATES					

This vessel must be manned with the following licensed and unlicensed Personnel. Included in which there must be 0 Certified Lifeboatmen, 0 Certified Tankermen, 0 HSC Type Rating, and 0 GMDSS Operators.

0 Masters	0 Licensed Mates	0 Chief Engineers	0 Oilers
0 Chief Mates	0 First Class Pilots	0 First Assistant Engineers	
0 Second Mates	0 Radio Officers	0 Second Assistant Engineers	
0 Third Mates	0 Able Seamen	0 Third Assistant Engineers	
0 Master First Class Pilot	0 Ordinary Seamen	0 Licensed Engineers	
0 Mate First Class Pilots	0 Deckhands	0 Qualified Member Engineer	

In addition, this vessel may carry 0 Passengers, 0 Other Persons in crew, 0 Persons in addition to crew, and no Others. Total Persons allowed: 0

Route Permitted And Conditions Of Operation:

---Lakes, Bays, and Sounds plus Limited Coastwise---

Also, in fair weather only, coastwise, not more than (12) miles from shore between St. Marks and Carrabelle, Florida.

This vessel has been granted a fresh water service examination in accordance with 46 CFR 31.10-21(a)(2). If this vessel is operated in salt water more than six (6) months in any twelve (12) month period, the vessel must be inspected using salt water intervals and the cognizant OCMI must be notified in writing as soon as this change in status occurs.

SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION

With this Inspection for Certification having been completed at PORT ARTHUR, TX, UNITED STATES, the Officer in Charge, Marine Inspection, Marine Safety Unit Port Arthur certified the vessel, in all respects, is in conformity with the applicable vessel inspection laws and the rules and regulations prescribed thereunder.

Annual/Periodic/Re-Inspection				This Amended certificate issued by:	
Date	Zone	A/P/R	Signature	Joseph W. Morgans, CDR, USCG, By Direction	
02Mar2022	SEC HouGalvstn	A	FOSTER MATTHEW	Officer in Charge, Marine Inspection	
17Jan2023	MSU BatonRge	A	CAPESTANY ERIC	Sector Houston-Galveston	
27Nov2023	SEC HouGalvstn	P	ESPINOSA MIGUEL	Inspection Zone	
14MAR2025	SEC NOLA	A	Nathan Conti		



Certificate of Inspection

Vessel Name: CCL 419-L

---Hull Exams---

Exam Type	Next Exam	Last Exam	Prior Exam
DryDock	31Dec2030	23Dec2020	
Internal Structure	31Dec2025	23Dec2020	

--- Liquid/Gas/Solid Cargo Authority/Conditions ---

Authorization: FLAMMABLE/COMBUSTIBLE LIQUIDS AND SPECIFIED HAZARDOUS CARGOES

Total Capacity	Units	Highest Grade Type	Part151 Regulated	Part153 Regulated	Part154 Regulated
29855	Barrels	A	Yes	No	No

Hazardous Bulk Solids Authority

Not Authorized

Loading Constraints - Structural

Tank Number	Max Cargo Weight per Tank (short tons)	Maximum Density (lbs/gal)
1	820	12.91
2	817	12.91
3	684	12.91

Loading Constraints - Stability

Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route Description
II	3732	9ft 7in	12.91	R/LBS
III	4401	10ft 11in	12.91	R/LBS

Conditions Of Carriage

Only those specified hazardous cargoes named in the vessel's Cargo Authority Attachment (CAA), serial NO. C2-2003756, dated November 19, 2020, may be carried. The specified hazardous cargoes may be carried only in the tanks indicated.

Per 46 CFR 150.130, the person in charge of the vessel is responsible for ensuring the compatibility requirements of 46 CFR 150 are met. Cargoes must be checked for compatibility using figures, tables, and appendices of 46 CFR 150 in conjunction with the reactive group number from the "Compat Group No" column is listed in the vessel's CAA.

When the vessel is carrying cargoes containing 0.5% or greater benzene by volume, the person in charge is responsible for ensuring the provisions of 46 CFR 197, Subpart C, are applied.

Vapor Control Authorization

Per 46 CFR 39, excluding Part 39.4000, this vessel's vapor control system (VCS) has been inspected to the plans approved by Marine Safety Center letter serial # C2-2003756, dated November 19, 2020 and found acceptable for collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column.

Per 46 CFR 39.5000, this vessel's VCS has been evaluated and approved for multi-breasted tandem loading with other vessels specifically approved to tandem load with this vessel.

Stability and Trim

The maximum design density of cargo which may be filled to the tank top is 8.74 lbs/gal. Cargoes with higher densities, up to 12.91 lbs/gal, may be carried as slack loads, but shall not exceed the tank weight limits as listed below.



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Per 46 CFR 151.10-15(c)(2), the maximum tank weights listed below reflect uniform (within 5%) loading at the deepest draft allowed. When carrying Subchapter O cargoes at shallower drafts, the barge should always be loaded uniformly.

--- Inspection Status ---

Cargo Tanks

Tank Id	Internal Exam			External Exam		
	Previous	Last	Next	Previous	Last	Next
1	-	23Dec2020	31Dec2030	-	-	-
2	-	23Dec2020	31Dec2030	-	-	-
3	-	23Dec2020	31Dec2030	-	-	-

Hydro Test

Tank Id	Safety Valves	Previous	Last	Next
1	-	-	23Dec2020	-
2	-	-	23Dec2020	-
3	-	-	23Dec2020	-

---Conditional Portable Fire Extinguisher Requirements---

Required Only During Transfer of Cargo or Operation of Barge Machinery

--- Fire Fighting Equipment ---

Fire Extinguishers - Hand portable and semi-portable

Quantity	Class Type
2	B-II

END



Department of Homeland Security
United States Coast Guard

Serial #: C2-2003756

Dated: 19-Nov-20

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L

Official #: 1306897

Shipyard: Conrad Orange

Hull #: H526

46 CFR 151 Tank Group Characteristics

Tank Group Information		Cargo Identification			Hull Type	Cargo Seg Tank	Tanks			Cargo Transfer		Environmental Control		Fire Protection Provided	Special Requirements		Elec Haz	Temp Cont
Tnk Grp	Tanks in Group	Density	Press.	Temp.			Type	Vent	Gauge	Pipe Class	Cont	Tanks	Handling Space		General	Materials of Construction		
A	ALL	12.9	Atmos.	Amb.	II	1ii 2ii	Integral Gravity	PV	Closed	II	G-1	NR	NA	Portable	.50-5, .50-5(d), .50-60, .50-70(a), .50-70(b), .50-73, .50-81(a), .50-81(b),	55-1(b), (c), (e), (f), (h), (j), 56-1(a), (b), (c), (d), (e), (f), (g),	I-C	No

- Notes: 1. Under Environmental Control, Tanks, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo tanks.
2. Under Environmental Control, Handling Space, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo handling space. NA means that the vessel does not have a cargo control space, and this requirement is not applied.
3. Under Electrical Hazard Class, NA means that the tank group is suitable only for those cargoes which have no electrical hazard class requirement. NR means that the vessel has no electrical equipment located in a hazardous location.

List of Authorized Cargoes

Cargo Identification						Conditions of Carriage				
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery		Special Requirements in 46 CFR 151 General and Mat's of	Insp. Period
							App'd (Y or N)	VCS Category		

Authorized Subchapter O Cargoes

Nitrilotriacetic acid, trisodium salt solution	NCA	34	D/O 3			A	No	N/A		
Olefins (C13+, all isomers)	OFZ	30	D/O E		III	A	Yes	1		G
Orange juice (concentrated)	OJC	0	D/O 3			A	No	N/A		
Sodium acetate solution	SAN	34	D/O 3 #			A	No	N/A		
Vegetable protein solution (hydrolyzed) (if non-flammable and non-combustible)	VPS	43	D/O 3 NA			A	No	N/A		
Acetonitrile	ATN	37	O C		III	A	Yes	3	No	G
Acrylonitrile	ACN	15 ²	O C		II	A	Yes	4	50-70(a), 55-1(e)	G
Adiponitrile	ADN	37	O E		II	A	Yes	1	No	G
Alkyl (C7-C9) nitrates	AKN	34 ²	O NA		III	A	No	N/A	50-81, 50-86	G
Aminoethyl ethanolamine	AEE	8	O E		III	A	Yes	1	55-1(b)	G
Ammonium bisulfite solution (70% or less)	ABX	43 ²	O NA		III	A	No	N/A	50-73, 56-1(a), (b), (c)	G
Ammonium hydroxide (28% or less NH3)	AMH	6	O NA		III	A	No	N/A	56-1(a), (b), (c), (f), (g)	G
Anthracene oil (Coal tar fraction)	AHO	33	O NA		II	A	No	N/A	No	G
Benzene	BNZ	32	O C		III	A	Yes	1	50-60	G
Benzene or hydrocarbon mixtures (having 10% Benzene or more)	BHB	32 ²	O C		III	A	Yes	1	50-60	G
Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more)	BHA	32 ²	O C		III	A	Yes	1	50-60, 56-1(b), (d), (f), (g)	G
Benzene, Toluene, Xylene mixtures (10% Benzene or more)	BTX	32	O B/C		III	A	Yes	1	50-60	G
Butyl acrylate (all isomers)	BAR	14	O D		III	A	Yes	2	50-70(a), 50-81(a), (b)	G
Butyl methacrylate	BMH	14	O D		III	A	Yes	2	50-70(a), 50-81(a), (b)	G
Butyraldehyde (all isomers)	BAE	19	O C		III	A	Yes	1	55-1(h)	G
Camphor oil (light)	CPO	18	O D		II	A	No	N/A	No	G
Caustic potash solution	CPS	5 ²	O NA		III	A	No	N/A	50-73, 55-1(j)	G
Caustic soda solution	CSS	5 ²	O NA		III	A	No	N/A	50-73, 55-1(j)	G
Chlorobenzene	CRB	36	O D		III	A	Yes	1	No	G
Chloroform	CRF	36	O NA		III	A	Yes	3	No	G
Coal tar naphtha solvent	NCT	33	O D		III	A	Yes	1	50-73	G
Creosote	CCW	21 ²	O E		III	A	Yes	1	No	G
Cresols (all isomers)	CRS	21	O E		III	A	Yes	1	No	G
Cresylate spent caustic	CSC	5	O NA		III	A	No	N/A	50-73, 55-1(b)	G
Cresylic acid tar	CRX	21	O E		III	A	Yes	1	55-1(f)	G
Crotonaldehyde	CTA	19 ²	O C		II	A	Yes	4	55-1(h)	G

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Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L

Official #: 1306897

Shipyard: Conrad Orange

Hull #: H526

Page 2 of 9

Cargo Identification						Conditions of Carriage				
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery App'd (Y or N)	VCS Category	Special Requirements in 46 CFR 151 General and Mat'l's of Construction	Insp. Period
Crude hydrocarbon feedstock (containing Butyraldehydes and Ethylpropyl acrolein)	CHG	19 ²	O	C	III	A	Yes	1	No	G
Cyclohexanone	CCH	18	O	D	III	A	Yes	1	.56-1(a), (b)	G
Cyclohexanone, Cyclohexanol mixture	CYX	18 ²	O	E	III	A	Yes	1	.56-1 (b)	G
Cyclohexylamine	CHA	7	O	D	III	A	Yes	1	.56-1(a), (b), (c), (g)	G
Cyclopentadiene, Styrene, Benzene mixture	CSB	30	O	D	III	A	Yes	1	50-60, .56-1(b)	G
iso-Decyl acrylate	IAI	14	O	E	III	A	Yes	2	50-70(a), .50-81(a), (b), .55-1(c)	G
Dichlorobenzene (all isomers)	DBX	36	O	E	III	A	Yes	3	.56-1(a), (b)	G
1,1-Dichloroethane	DCH	36	O	C	III	A	Yes	1	No	G
2,2'-Dichloroethyl ether	DEE	41	O	D	II	A	Yes	1	.55-1(f)	G
Dichloromethane	DCM	36	O	NA	III	A	Yes	5	No	G
2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution	DDE	43	O	E	III	A	No	N/A	.56-1(a), (b), (c), (g)	G
2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution	DAD	0 ^{1,2}	O	A	III	A	No	N/A	.56-1(a), (b), (c), (g)	G
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	DTI	43 ²	O	E	III	A	No	N/A	.56-1(a), (b), (c), (g)	G
1,1-Dichloropropane	DPB	36	O	C	III	A	Yes	3	No	G
1,2-Dichloropropane	DPP	36	O	C	III	A	Yes	3	No	G
1,3-Dichloropropane	DPC	36	O	C	III	A	Yes	3	No	G
1,3-Dichloropropene	DPU	15	O	D	II	A	Yes	4	No	G
Dichloropropene, Dichloropropane mixtures	DMX	15	O	C	II	A	Yes	1	No	G
Diethanolamine	DEA	8	O	E	III	A	Yes	1	.55-1(c)	G
Diethylamine	DEN	7	O	C	III	A	Yes	3	.55-1(c)	G
Diethylenetriamine	DET	7 ²	O	E	III	A	Yes	1	.55-1(c)	G
Diisobutylamine	DBU	7	O	D	III	A	Yes	3	.55-1(c)	G
Diisopropanolamine	DIP	8	O	E	III	A	Yes	1	.55-1(c)	G
Diisopropylamine	DIA	7	O	C	II	A	Yes	3	.55-1(c)	G
N,N-Dimethylacetamide	DAC	10	O	E	III	A	Yes	3	.56-1(b)	G
Dimethylethanolamine	DMB	8	O	D	III	A	Yes	1	.56-1(b), (c)	G
Dimethylformamide	DMF	10	O	D	II	A	Yes	1	.55-1(e)	G
Di-n-propylamine	DNA	7	O	C	II	A	Yes	3	.55-1(c)	G
Dodecyl dimethylamine, Tetradecyl dimethylamine mixture	DOT	7	O	E	III	A	No	N/A	.56-1(b)	G
Dodecyl diphenyl ether disulfonate solution	DOS	43	O	#	II	A	No	N/A	No	G
EE Glycol Ether Mixture	EEG	40	O	D	III	A	No	N/A	No	G
Ethanolamine	MEA	8	O	E	III	A	Yes	1	.55-1(c)	G
Ethyl acrylate	EAC	14	O	C	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Ethylamine solutions (72% or less)	EAN	7	O	A	II	A	No	N/A	.55-1(b)	G
N-Ethylbutylamine	EBA	7	O	D	III	A	Yes	3	.55-1(b)	G
N-Ethylcyclohexylamine	ECC	7	O	D	III	A	Yes	1	.55-1(b)	G
Ethylene cyanohydrin	ETC	20	O	E	III	A	Yes	1	No	G
Ethylenediamine	EDA	7 ²	O	D	III	A	Yes	1	.55-1(c)	G
Ethylene dichloride	EDC	36 ²	O	C	III	A	Yes	1	No	G
Ethylene glycol hexyl ether	EGH	40	O	E	III	A	No	N/A	No	G
Ethylene glycol monoalkyl ethers	EGC	40	O	D/E	III	A	Yes	1	No	G
Ethylene glycol propyl ether	EGP	40	O	E	III	A	Yes	1	No	G
2-Ethylhexyl acrylate	EAI	14	O	E	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Ethyl methacrylate	ETM	14	O	D/E	III	A	Yes	2	.50-70(a)	G
2-Ethyl-3-propylacrolein	EPA	19 ²	O	E	III	A	Yes	1	No	G
Furfural	FFA	19	O	D	III	A	Yes	1	.55-1(h)	G
Glutaraldehyde solutions (50% or less)	GTA	19	O	NA	III	A	No	N/A	No	G

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Hull #: H526

Page 3 of 9

Cargo Identification						Conditions of Carriage				
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery App'd (Y or N)	VCS Category	Special Requirements in 46 CFR 151 General and Mat'l's of Construction	Insp. Period
Hexamethylenediamine solution	HMC	7	O	E	III	A	Yes	1	.55-1(c)	G
Hexamethylenimine	HMI	7	O	C	II	A	Yes	1	.56-1(b), (c)	G
Isoprene	IPR	30	O	A	III	A	No	N/A	.50-70(a), .50-81(a), (b)	G
Isoprene, Pentadiene mixture	IPN	30	O	B	III	A	No	N/A	.50-70(a), .55-1(c)	G
Kraft pulping liquors (free alkali content 3% or more)(including: Black, Green, or White liquor)	KPL	5	O	NA	III	A	No	N/A	.50-73, .56-1(a), (c), (g)	G
Mesityl oxide	MSO	18 ²	O	D	III	A	Yes	1	No	G
Methyl acrylate	MAM	14	O	C	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Methyl diethanolamine	MDE	8	O	E	III	A	Yes	1	.56-1(b), (c)	G
2-Methyl-5-ethyl pyridine	MEP	9	O	E	III	A	Yes	1	.55-1(e)	G
Methyl methacrylate	MMM	14	O	C	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
2-Methylpyridine	MPR	9	O	D	III	A	Yes	3	.55-1(c)	G
alpha-Methylstyrene	MSR	30	O	D	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Morpholine	MPL	7 ²	O	D	III	A	Yes	1	.55-1(c)	G
Nitroethane	NTE	42	O	D	II	A	No	N/A	.50-81, .56-1(b)	G
1- or 2-Nitropropane	NPM	42	O	D	III	A	Yes	1	.50-81	G
1,3-Pentadiene	PDE	30	O	A	III	A	No	N/A	.50-70(a), .50-81	G
Polyethylene polyamines	PEB	7 ²	O	E	III	A	Yes	1	.55-1(e)	G
Potassium chloride solution (brine)	PCSB	0	O	NA	III	A	No	N/A		G
iso-Propanolamine	MPA	8	O	E	III	A	Yes	1	.55-1(c)	G
Propanolamine (iso-, n-)	PAX	8	O	E	III	A	Yes	1	.56-1(b), (c)	G
Isopropylamine	IPP	7	O	A	II	A	Yes	5	.55-1(c)	G
Pyridine	PRD	9	O	C	III	A	Yes	1	.55-1(e)	G
Pyrolysis Gasoline (containing benzene)	PYG	32	O	C	II	A	No	N/A	.50-60	G
Sodium acetate, Glycol, Water mixture (3% or more Sodium Hydroxide)	SAP	5	O		III	A	No	N/A	.50-73, .55-1(j)	G
Sodium aluminate solution (45% or less)	SAU	5	O	NA	III	A	No	N/A	.50-73, .56-1(a), (b), (c)	G
Sodium chlorate solution (50% or less)	SDD	0 ^{1,2}	O	NA	III	A	No	N/A	.50-73	G
Sodium hypochlorite solution (20% or less)	SHQ	5	O	NA	III	A	No	N/A	.50-73, .56-1(a), (b)	G
Sodium sulfide, hydrosulfide solution (H2S 15 ppm or less)	SSH	0 ^{1,2}	O	NA	III	A	Yes	1	.50-73, .55-1(b)	G
Sodium sulfide, hydrosulfide solution (H2S greater than 15 ppm but less than 200 ppm)	SSI	0 ^{1,2}	O	NA	III	A	No	N/A	.50-73, .55-1(b)	G
Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm)	SSJ	0 ^{1,2}	O	NA	II	A	No	N/A	.50-73, .55-1(b)	G
Styrene monomer	STY	30	O	D	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Tetraethylene pentamine	TTP	7	O	E	III	A	Yes	1	.55-1(c)	G
Tetrahydrofuran	THF	41	O	C	III	A	Yes	1	.50-70(b)	G
o-Toluidine	TLI	9	O	E	II	A	Yes	3	.50-5, .50-73	G
1,2,4-Trichlorobenzene	TCB	36	O	E	III	A	Yes	1	No	G
1,1,1-Trichloroethane	TCE	36 ²	O ³	NA	II	A	No	N/A	.50-73, .56-1(a)	G
1,1,2-Trichloroethane	TCM	36	O	NA	III	A	Yes	1	.50-73, .56-1(a)	G
Trichloroethylene	TCL	36 ²	O	NA	III	A	Yes	1	No	G
1,2,3-Trichloropropane	TCN	36	O	E	II	A	Yes	3	.50-73, .56-1(a)	G
Triethanolamine	TEA	8 ²	O	E	III	A	Yes	1	.55-1(b)	G
Triethylamine	TEN	7	O	C	II	A	Yes	3	.55-1(e)	G
Triethylenetetramine	TET	7 ²	O	E	III	A	Yes	1	.55-1(b)	G
Triphenylborane (10% or less), caustic soda solution	TPB	5	O	NA	III	A	No	N/A	.56-1(a), (b), (c)	G
Trisodium phosphate solution	TSP	5	O	NA	III	A	No	N/A	.50-73, .56-1(a), (c)	G
Urea, Ammonium nitrate solution (containing more than 2% NH3)	UAS	6	O	NA	III	A	No	N/A	.56-1(b)	G

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Page 4 of 9

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Vanillin black liquor (free alkali content, 3% or more).	VBL	5	O	NA	III	A	No	N/A	.50-73, .56-1(a), (c), (g)	G
Vinyl acetate	VAM	13	O	C	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Vinyl neodecanoate	VND	13	O	E	III	A	No	N/A	.50-70(a), .50-81(a), (b)	G
Vinyltoluene	VNT	13	O	D	III	A	Yes	2	.50-70(a), .50-81, .56-1(a), (b), (c), (	G

Subchapter D Cargoes Authorized for Vapor Control

Acetone	ACT	18 ²	D	C		A	Yes	1		
Acetophenone	ACP	18	D	E		A	Yes	1		
Alcohol (C12-C16) poly(20+) ethoxylates	APW	20	D	E		A	Yes	1		
Alcohol (C6-C17) (secondary) poly(3-6) ethoxylates	AEA	20	D	E		A	Yes	1		
Alcohol (C6-C17) (secondary) poly(7-12) ethoxylates	AEB	20	D	E		A	Yes	1		
Amyl acetate (all isomers)	AEC	34	D	D		A	Yes	1		
Amyl alcohol (iso-, n-, sec-, primary)	AAI	20	D	D		A	Yes	1		
Benzyl acetate	BZE	34	D	E		A	Yes	1		
Benzyl alcohol	BAL	21	D	E		A	Yes	1		
Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters)	BFY	20	D	E		A	Yes	1		
Butyl acetate (all isomers)	BAX	34	D	D		A	Yes	1		
Isobutyl alcohol	IAL	20 ²	D	D		A	Yes	1		
Butyl alcohol (n-)	BAN	20 ²	D	D		A	Yes	1		
Butyl alcohol (sec-)	BAS	20 ²	D	C		A	Yes	1		
Butyl alcohol (tert-)	BAT	20 ²	D	C		A	Yes	1		
Butyl benzyl phthalate	BPH	34	D	E		A	Yes	1		
Butyl toluene	BUE	32	D	D		A	Yes	1		
Caprolactam solutions	CLS	22	D	E		A	Yes	1		
Cycloheptane	CYE	31	D	C		A	Yes	1		
Cyclohexane	CHX	31	D	C		A	Yes	1		
Cyclohexanol	CHN	20	D	E		A	Yes	1		
Cyclohexyl acetate	CYC	34	D	D		A	Yes	1		
1,3-Cyclopentadiene dimer (molten)	CPD	30	D	D/E		A	Yes	2		
Cyclopentane	CYP	31	D	B		A	Yes	1		
p-Cymene	CMP	32	D	D		A	Yes	1		
iso-Decaldehyde	IDA	19	D	E		A	Yes	1		
n-Decaldehyde	DAL	19	D	E		A	Yes	1		
Decanoic acid	DCO	4	D	#		A	Yes	1		
Decene	DCE	30	D	D		A	Yes	1		
Decyl alcohol (all isomers)	DAX	20 ²	D	E		A	Yes	1		
n-Decylbenzene, see Alkyl(C9+)benzenes	DBZ	32	D	E		A	Yes	1		
Diacetone alcohol	DAA	20 ²	D	D		A	Yes	1		
Dibutyl phthalate	DPA	34	D	E		A	Yes	1		
Diethylbenzene	DEB	32	D	D		A	Yes	1		

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Department of Homeland Security
United States Coast Guard

Serial #: C2-2003756

Dated: 19-Nov-20

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L

Official #: 1306897

Shipyard: Conrad Orange

Hull #: H526

Page 5 of 9

Cargo Identification						Conditions of Carriage				
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery App'd (Y or N)	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Period
Diethylene glycol	DEG	40 ²	D	E		A	Yes	1		
Diisobutylene	DBL	30	D	C		A	Yes	1		
Diisobutyl ketone	DIK	18	D	D		A	Yes	1		
Diisopropylbenzene (all isomers)	DIX	32	D	E		A	Yes	1		
Dimethyl phthalate	DTL	34	D	E		A	Yes	1		
Dioctyl phthalate	DOP	34	D	E		A	Yes	1		
Dipentene	DPN	30	D	D		A	Yes	1		
Diphenyl	DIL	32	D	D/E		A	Yes	1		
Diphenyl, Diphenyl ether mixtures	DDO	33	D	E		A	Yes	1		
Diphenyl ether	DPE	41	D	{E}		A	Yes	1		
Dipropylene glycol	DPG	40	D	E		A	Yes	1		
Distillates: Flashed feed stocks	DFF	33	D	E		A	Yes	1		
Distillates: Straight run	DSR	33	D	E		A	Yes	1		
Dodecene (all isomers)	DOZ	30	D	D		A	Yes	1		
Dodecylbenzene, see Alkyl(C9+)benzenes	DDB	32	D	E		A	Yes	1		
2-Ethoxyethyl acetate	EEA	34	D	D		A	Yes	1		
Ethoxy triglycol (crude)	ETG	40	D	E		A	Yes	1		
Ethyl acetate	ETA	34	D	C		A	Yes	1		
Ethyl acetoacetate	EAA	34	D	E		A	Yes	1		
Ethyl alcohol	EAL	20 ²	D	C		A	Yes	1		
Ethylbenzene	ETB	32	D	C		A	Yes	1		
Ethyl butanol	EBT	20	D	D		A	Yes	1		
Ethyl tert-butyl ether	EBE	41	D	C		A	Yes	1		
Ethyl butyrate	EBR	34	D	D		A	Yes	1		
Ethyl cyclohexane	ECY	31	D	D		A	Yes	1		
Ethylene glycol	EGL	20 ²	D	E		A	Yes	1		
Ethylene glycol butyl ether acetate	EMA	34	D	E		A	Yes	1		
Ethylene glycol diacetate	EGY	34	D	E		A	Yes	1		
Ethylene glycol phenyl ether	EPE	40	D	E		A	Yes	1		
Ethyl-3-ethoxypropionate	EEP	34	D	D		A	Yes	1		
2-Ethylhexanol	EHX	20	D	E		A	Yes	1		
Ethyl propionate	EPR	34	D	C		A	Yes	1		
Ethyl toluene	ETE	32	D	D		A	Yes	1		
Formamide	FAM	10	D	E		A	Yes	1		
Furfuryl alcohol	FAL	20 ²	D	E		A	Yes	1		
Gasoline blending stocks: Alkylates	GAK	33	D	A/C		A	Yes	1		
Gasoline blending stocks: Reformates	GRF	33	D	A/C		A	Yes	1		
Gasolines: Automotive (containing not over 4.23 grams lead per gallon)	GAT	33	D	C		A	Yes	1		
Gasolines: Aviation (containing not over 4.86 grams of lead per gallon)	GAV	33	D	C		A	Yes	1		
Gasolines: Casinghead (natural)	GCS	33	D	A/C		A	Yes	1		

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Page 6 of 9

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Gasolines: Polymer	GPL	33	D	A/C		A	Yes	1		
Gasolines: Straight run	GSR	33	D	A/C		A	Yes	1		
Glycerine	GCR	20 ²	D	E		A	Yes	1		
Heptane (all isomers), see Alkanes (C6-C9) (all isomers)	HMX	31	D	C		A	Yes	1		
n-Heptanoic acid	HEN	4	D	E		A	Yes	1		
Heptanol (all isomers)	HTX	20	D	D/E		A	Yes	1		
Heptene (all isomers)	HPX	30	D	C		A	Yes	2		
Heptyl acetate	HPE	34	D	E		A	Yes	1		
Hexane (all isomers), see Alkanes (C6-C9)	HXS	31 ²	D	B/C		A	Yes	1		
Hexanoic acid	HXO	4	D	E		A	Yes	1		
Hexanol	HXN	20	D	D		A	Yes	1		
Hexene (all isomers)	HEX	30	D	C		A	Yes	2		
Hexylene glycol	HXG	20	D	E		A	Yes	1		
Isophorone	IPH	18 ²	D	E		A	Yes	1		
Jet fuel: JP-4	JPF	33	D	E		A	Yes	1		
Jet fuel: JP-5 (kerosene, heavy)	JPV	33	D	D		A	Yes	1		
Kerosene	KRS	33	D	D		A	Yes	1		
Lauric acid	LRA	34	D	#		A	Yes	1		
Methyl acetate	MTT	34	D	D		A	Yes	1		
Methyl alcohol	MAL	20 ²	D	C		A	Yes	1		
Methylamyl acetate	MAC	34	D	D		A	Yes	1		
Methylamyl alcohol	MAA	20	D	D		A	Yes	1		
Methyl amyl ketone	MAK	18	D	D		A	Yes	1		
Methyl tert-butyl ether	MBE	41 ²	D	C		A	Yes	1		
Methyl butyl ketone	MBK	18	D	C		A	Yes	1		
Methyl butyrate	MBU	34	D	C		A	Yes	1		
Methylcyclohexane	MCY	31	D	C		A	Yes	1		
Methyl ethyl ketone	MEK	18 ²	D	C		A	Yes	1		
Methyl heptyl ketone	MHK	18	D	D		A	Yes	1		
2-Methyl-2-hydroxy-3-butyne	MHB	20	D	C		A	Yes	1		
Methyl isobutyl ketone	MIK	18 ²	D	C		A	Yes	1		
Mineral spirits	MNS	33	D	D		A	Yes	1		
Myrcene	MRE	30	D	D		A	Yes	1		
Naphtha: Heavy	NAG	33	D	#		A	Yes	1		
Naphtha: Petroleum	PTN	33	D	#		A	Yes	1		
Naphtha: Solvent	NSV	33	D	D		A	Yes	1		
Naphtha: Stoddard solvent	NSS	33	D	D		A	Yes	1		
Naphtha: Varnish makers and painters (75%)	NVM	33	D	C		A	Yes	1		
Neodecanoic acid	NEA	4	D	E		A	Yes	1		
Nonane (all isomers), see Alkanes (C6-C9)	NAX	31	D	D		A	Yes	1		

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Page 7 of 9

Cargo Identification						Conditions of Carriage				
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery App'd (Y or N)	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Period
Nonene (all isomers)	NON	30	D	D		A	Yes	2		
Nonyl alcohol (all isomers)	NNS	20 ²	D	E		A	Yes	1		
Nonyl phenol	NNP	21	D	E		A	Yes	1		
Nonyl phenol poly(4+)ethoxylates	NPE	40	D	E		A	Yes	1		
Octane (all isomers), see Alkanes (C6-C9)	OAX	31	D	C		A	Yes	1		
Octanoic acid (all isomers)	OAY	4	D	E		A	Yes	1		
Octanol (all isomers)	OCX	20 ²	D	E		A	Yes	1		
Octene (all isomers)	OTX	30	D	C		A	Yes	2		
Oil, fuel: No. 2	OTW	33	D	D/E		A	Yes	1		
Oil, fuel: No. 2-D	OTD	33	D	D		A	Yes	1		
Oil, fuel: No. 4	OFR	33	D	D/E		A	Yes	1		
Oil, fuel: No. 6	OSX	33	D	E		A	Yes	1		
Oil, misc: Crude	OIL	33	D	A/D		A	Yes	1		
Oil, misc: Diesel	ODS	33	D	D/E		A	Yes	1		
Oil, misc: Gas, high pour	OGP	33	D	E		A	Yes	1		
Oil, misc: Lubricating	OLB	33	D	E		A	Yes	1		
Oil, misc: Residual	ORL	33	D	E		A	Yes	1		
Oil, misc: Turbine	OTB	33	D	E		A	Yes	1		
alpha-Olefins (C6-C18) mixtures	OAM	30	D	E		A	Yes	1		
Pentane (all isomers)	PTY	31	D	A		A	Yes	5		
Pentene (all isomers)	PTX	30	D	A		A	Yes	5		
n-Pentyl propionate	PPE	34	D	D		A	Yes	1		
alpha-Pinene	PIO	30	D	D		A	Yes	1		
beta-Pinene	PIP	30	D	D		A	Yes	1		
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether	PAG	40	D	E		A	Yes	1		
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate	PAF	34	D	E		A	Yes	1		
Polybutene	PLB	30	D	E		A	Yes	1		
Polypropylene glycol	PGC	40	D	E		A	Yes	1		
Propionaldehyde	PAD	19	D	C		A	Yes	2		
Isopropyl acetate	IAC	34	D	C		A	Yes	1		
n-Propyl acetate	PAT	34	D	C		A	Yes	1		
Isopropyl alcohol	IPA	20 ^{2,3}	D	C		A	Yes	1		
n-Propyl alcohol	PAL	20 ²	D	C		A	Yes	1		
Propylbenzene (all isomers)	PBY	32	D	D		A	Yes	1		
Isopropylcyclohexane	IPX	31	D	D		A	Yes	1		
Propylene glycol	PPG	20 ²	D	E		A	Yes	1		
Propylene glycol methyl ether acetate	PGN	34	D	D		A	Yes	1		
Propylene tetramer	PTT	30	D	D		A	Yes	1		
Sulfolane	SFL	39	D	E		A	Yes	1		
Tetraethylene glycol	TTG	40	D	E		A	Yes	1		

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Cargo Authority Attachment

Vessel Name: CCL 419-L

Official #: 1306897

Page 8 of 9

Shipyard: Conrad Orange

Hull #: H526

Cargo Identification						Conditions of Carriage				
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery		Special Requirements in 46 CFR 151 General and Mat'l's of Construction	Insp. Period
							App'd (Y or N)	VCS Category		
Tetrahydronaphthalene	THN	32	D	E		A	Yes	1		
Tetramethylbenzene (all isomers)	TTC	32	D	#		A	Yes	1		
Toluene	TOL	32	D	C		A	Yes	1		
Tricresyl phosphate (containing less than 1% ortho isomer)	TCP	34	D	E		A	Yes	1		
Triethylbenzene	TEB	32	D	E		A	Yes	1		
Triethylene glycol	TEG	40	D	E		A	Yes	1		
Triethyl phosphate	TPS	34	D	E		A	Yes	1		
Trimethylbenzene (all isomers)	TRE	32	D	{D}		A	Yes	1		
2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate	TMP	34	D	E		A	Yes	1		
Trixylyl phosphate	TRP	34	D	E		A	Yes	1		
1-Undecene	UDC	30	D	D/E		A	Yes	1		
1-Undecyl alcohol	UND	20	D	E		A	Yes	1		
Xylenes (ortho-, meta-, para-)	XLX	32	D	D		A	Yes	1		

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Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L

Official #: 1306897

Page 9 of 9

Shipyard: Conrad Orange

Hull #: H526

Explanation of terms & symbols used in the Table:

Cargo Identification

Name	The proper shipping name as listed in 46 CFR Table 30.25-1, 46 CFR Table 151.05, and 46 CFR Part 153 Table 2.
Chem Code none	The three letter designation assigned to the cargo in the Chemical Hazards Response Information System (CHRIS) Manual. Certain mixtures of cargoes may not have a CHRIS Code assigned.
Compatibility Group No.	The cargo reactive group number assigned for compatibility determinations in 46 CFR Part 150 Tables I and II. In accordance with 46 CFR 150.130, the Person-in-Charge of the barge is responsible for ensuring that the compatibility requirements of 46 CFR Part 150 are met. Cargoes must be checked for compatibility using the figures, tables, and appendices of 46 CFR 150 in conjunction with the assigned reactive group number.
Note 1	Because of the very high reactivity or unusual conditions of carriage or potential compatibility problems, this product is not assigned to a specific group in the Compatibility Chart. For additional compatibility information, contact Commandant (CG-3PSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001. Telephone (202) 372-1425.
Note 2	See Appendix I to 46 CFR Part 150 - exceptions to the compatibility chart.
Subchapter Subchapter D Subchapter O Note 3	The subchapter in Title 46 Code of Federal Regulations under which the cargo has been classified. Those flammable and combustible liquids listed in 46 CFR Table 30.25-1. Those hazardous cargoes listed in 46 CFR Table 151.05 and 46 CFR Part 153 Table 2. Those cargoes listed in 46 CFR Part 153 Table 2 are non-regulated cargoes when carried in bulk on non-oceangoing barges.
Grade	The cargo classification assigned to each flammable or combustible liquid. Grades inside of "()" indicate a provisional assignment based upon literature sources which were not verified by manufacturers data. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo.
A, B, C D, E Note 4	Flammable liquid cargoes, as defined in 46 CFR 30-10.22. Combustible liquid cargoes, as defined in 46 CFR 30-10.15. The flammability/combustibility grade of these cargoes may vary depending upon the flashpoint and Reid vapor pressure. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo.
NA #	Those subchapter O cargoes which are not classified as a flammable or combustible liquid. No flammability/combustibility grade has been assigned yet as the necessary flash point/vapor pressure data for such assignments are presently not available.
Hull Type I II III NA	The required barge hull classification for carriage of the specified Subchapter O hazardous material cargo, see 46 CFR 151.10-1. Designed to carry products which require the maximum preventive measures to preclude the uncontrolled release of the cargo. See 46 CFR 151.10-1(b)(1). Designed to carry products which require significant preventive measures to preclude the uncontrolled release of cargo. See 46 CFR 151.10-1(b)(3). Designed to carry products of sufficient hazard to require a moderate degree of control. See 46 CFR 151.10-1(b)(4). Not applicable to barges certificated under Subchapter D.

Conditions of Carriage

Tank Group	The vessel's tank group (as defined in Section 4) which is authorized for carriage of the named cargo.
Vapor Recovery Approved (Y or N)	Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo.

Conditions of Carriage

Tank Group	The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo.
Vapor Recovery Approved (Y or N)	Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo.
VCS Category: Category 1	The specified cargo's provisional classification for vapor control systems. (No additional VCS requirements above those for benzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Code of Federal Regulations (CFR) apply to these cargoes. Those specifically dealing with vapor control systems are in 33 CFR 155.750, 33 CFR 156.120, 33 CFR 156.170, 46 CFR 35.35 and 46 CFR 39. The cargo tank venting system calculations (46 CFR 39.2011) and the pressure drop calculations (46 CFR 39.3001) must use appropriate friction factors, vapor densities and vapor growth rates.
Category 2	(Polymerizes) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety components and restricting vapor flow which could lead to cargo tank overpressurization. The vessel's owner must develop a method of ensuring all VCS safety components are functional and polymer build-up is not causing an unsafe condition due to increased pressure in the vapor control piping and cargo tanks. The method shall be acceptable to the local Officer in Charge, Marine Inspection. This is in addition to the requirements of Category 1. Please note that a material not normally considered a monomer can be a problem in detonation arrester.
Category 3	(Highly toxic) VCSs for these toxic cargoes cannot use a spill valve or rupture disk as the primary means to meet the overfill protection requirement of 46 CFR 39.2009. This requirement is in addition to the requirements of Category 1.
Category 4	(Polymerizes and highly toxic) Must comply with requirements of Categories 1, 2 and 3.
Category 5	(High vapor pressure) VCS pressure drop calculations for cargoes with a vapor pressure greater than 14.7 psia at 115 F must take into account increased vapor-air mixture densities and vapor growth rates as compared to Category 1 cargoes. Consult the Marine Safety Center's VCS Guidelines for further information. This requirement is in addition to the requirements of Category 1.
Category 6	(High vapor pressure and highly toxic) Must comply with requirements of Categories 1, 3 and 5.
Category 7	(High vapor pressure and polymerizes) Must comply with requirements of Categories 1, 2 and 5.
none	The cargo has not been evaluated/classified for use in vapor control systems.

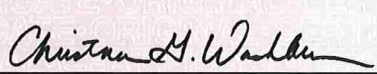


UNITED STATES OF AMERICA

DEPARTMENT OF HOMELAND SECURITY
UNITED STATES COAST GUARD

NATIONAL VESSEL DOCUMENTATION CENTER

CERTIFICATE OF DOCUMENTATION

VESSEL NAME CCL 419-L		OFFICIAL NUMBER 1306897	IMO OR OTHER NUMBER H-526	YEAR COMPLETED 2020	
HAILING PORT NEW ORLEANS LA		HULL MATERIAL STEEL		MECHANICAL PROPULSION NO	
GROSS TONNAGE 1619 GRT	NET TONNAGE 1619 NRT	LENGTH 297.5	BREADTH 54.0	DEPTH 12.0	
PLACE BUILT ORANGE TX					
OWNERS CHEM CARRIERS LLC COMPRISED OF ONE MEMBER		OPERATIONAL ENDORSEMENTS COASTWISE			
MANAGING OWNER CHEM CARRIERS LLC 1237 HIGHWAY 75 SUNSHINE LA 70780					
RESTRICTIONS NO RECREATION - BARGE, 79 FEET OR MORE IN LENGTH, MEASURED UNDER SIMPLIFIED SYSTEM					
ENTITLEMENTS NONE					
REMARKS NONE					
ISSUE DATE JANUARY 23, 2025		 DIRECTOR, NATIONAL VESSEL DOCUMENTATION CENTER			
THIS CERTIFICATE EXPIRES FEBRUARY 28, 2026					





National Pollution Funds Center

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Click on the Document Icon  to the left of a record to display a COFR Confirmation in html. You may print the COFR Confirmation by right clicking your mouse and selecting "print" from the list.

VESSEL NAME	VESSEL TYPE	HULL TYPE	GROSS TONNAGE	COFR NUMBER	EFFECTIVE DATE	EXPIRATION DATE	COFR APPLICANT	VIN	INSURANCE CANCEL FLAG
 CCL 419-L TANKBARGE D			1619	841310 - 21	1/5/2024	1/5/2027	CHEM CARRIERS, L.L.C	D1306897	

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Version 3.7 -- This version is designed for Internet Explorer, Edge, Chrome, Firefox and Safari.

Bobby's Industrial Services, Inc.
Contact: Bobby Edwards
Phone: 251-348-2143

TRANSFER PIPING SYSTEM

THE FOLLOWING ITEMS HAVE BEEN TESTED AS PER THE REQUIREMENTS OF 46 CFR 35-70 AND 33 CFR 156.170.

TANK BARGE: CCL 419

OFFICIAL NO: _____

A. TRANSFER PIPING SYSTEM:

TEST DATE: 7-21-25

PRESSURE: 188

PERFORMED BY: RE

B. TRANSFER SYSTEM RELIEF VALVE:

TEST DATE: 7-21-25

PRESSURE: N/A

PERFORMED BY: RE

C. PRESSURE GAUGE:

TEST DATE: 7-21-25

PRESSURE: 188

PERFORMED BY: RE

D. DETERMINATION OF TEST:

PASSED: 1 down good

FAILED: _____

I CERTIFY THAT ALL OF THE INFORMATION ON THIS DOCUMENT IS TRUE AND CORRECT.

PRINT NAME: Robert Edwards TITLE: Forman DATE: 7-21-25

SIGNATURE: Robert Edwards

Industrial Canal Road East
Mobile, Alabama 36633

BARGE VAPOR-TIGHTNESS DOCUMENT

THE FOLLOWING BARGE WAS TESTED IN ACCORDANCE WITH THE NATIONAL EMISSION
STANDARD FOR BENZENE EMISSIONS FROM BENZENE TRANSFER OPERATIONS, SECTION
61.304f.

BARGE NAME:

CCL #419

BARGE OWNER:

Chem Carriers

OWNER ADDRESS:

TESTING LOCATION:

At Yard 1
Bobby Industrial Services

DATE OF TEST:

7-21-75

NAME OF TESTER:

Robert Edwards

WITNESSING INSPECTOR:

Michael Edwards

INSPECTOR SIGNATURE:

Robert Edwards & Michael Edwards

TEST RESULTS

This barge has been tested in accordance to section 1.304f and is considered to be vapor-tight.

SIGNATURE OF TESTER:

Robert Edwards

TIME START: 9:00 AM

TIME STOP: 10:00 AM

STARTING PRESSURE:

10 psi

ENDING PRESSURE:

1.99 psi

New Pressure Relief Valve Test Report

Page 1 of 1

Sales Order # 899449
Job # 3351293LUL

Birth #: 00JRN0
Date: Tuesday, March 31, 2020
Shipped Date:

H-826

Type: SRV

Owner: W & O SUPPLY (VAC)
Plant: LaPorte, TX
Customer #:
PO #: 1503405

Tag Number Most Recent	N/A Yes (Relief Valve)	Location Unit	N/A N/A	Other Tag Data Client/Asset #	N/A N/A
Manufacturer Model Number	Consolidated 1905-00P-2-CC-MS-31-RF-LA-HP	Valve Size & Orifice S/N	4 P 6 = 6.38 IN ² SE07470	In/Outlet Rating Cap Type	150# RF / 150# RF Screwed
Soft Seal Mat'l	N/A	Soft Seal P/N	N/A	Special Cleaning?	No
Service	Liquid	Product Name	LIQUID	Applicable Code	Sec VIII
Pilot Model	****Pilot Information when applicable****		****Pilot Information when applicable****		
Set Pressure	125 PSIG	Total Back Pressure	0 PSIG	Cold Diff Test Press	125 PSIG
Operating Temp	72 F	BP Is / Constant	0	ASME Capacity	2214 US G/MIN
Mfg Lift	1.126 IN	Restricted Lift	N/A	Orifice	P Bore Diam. 3.073
Req'd Spring	0389CR	Material	ALLOY STEEL	From / To	124 to 138
Hydro Verified?	P.BORDELON	Operating Pressure	PSIG	Final Preparation Checklist Birth# Matches Valve Yes Client Req'ments Check Yes Valve Painted Yes Valve Boreboard Yes Client ID Tag Attached N/A Nameplate/Req'd Tags Attached Yes Replacement Parts Pres. Tested N/A VR/Code Stamp Applied Yes Ext Adjustments Sealed Yes Lever Adj'd & Strapped N/A Flg Cover/Plugs Installed Yes Sp Clean Valve Bagged N/A	
Checked-In By	P.BORDELON	Gauge 1 ID	Lul00492		
Dimensions By	J. WARD	Gge 2/EVT S/N	Lul00491		
Measured Lift	N/A	Final Test Press	127 PSIG		
Disc Rock	IN	Result (Seats Tight)@	Passed @ 115 PSIG		
Overlap Collar	N/A	BP Test @	Passed @ 30		
Assembled By	J.ward	Date Tested	2020/03/25		
BD Ring-Up	N/A	Tested By	P.bordelon		
BD Ring-Low	5 Notches	Witnessed By	J.ward		
Test Media	Water	Final Inspected By	J.ward		
Test Method	Bench	CI/QC Inspector	J. Rickenbacker		

Comments

Valve Converted on Date: 2020/03/25 Authorized By: Elizabeth Bourgeois

Convert valve to Liquid Trim Design
Install: LTR12
AS070 Rev. 20 - Machine Spring Washers

USE SETPOINT STANDARD BUTTON UP AND SHIPPING PROCEDURE

Description

ValuKeep

This historical record is stored in ValuKeep. For more
information contact Setpoint Integrated Solutions
1-800-256-7373.

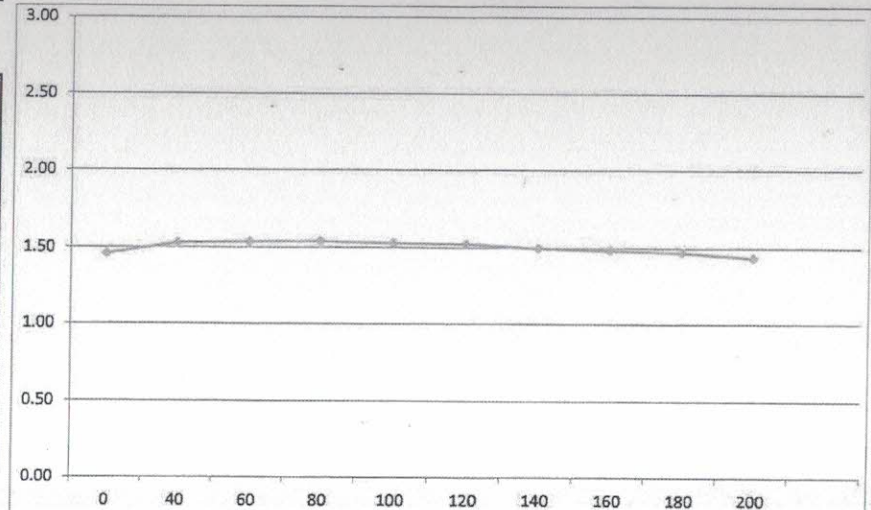
TEST RESULTS FOR ERL 6" PV VALVE

Customer	Conrad
PO	MAR-4884-SO
Test date:	5/29/2020
Serial Number	4435

VALVE SETTINGS	PRESSURE	VACUUM
	1.5	0.5

Opening Pressure Test	
Test Number	Valve Opening Pressure (PSI)
1	1.47
2	1.48
3	1.43
4	1.47
5	1.45
Average	1.46
Delta	0.044

Pressure Curve



Airflow PRESSURE Test

AIRFLOW (CFM)	0	40	60	80	100	120	140	160	180	200
Pressure	1.46	1.53	1.54	1.54	1.53	1.52	1.50	1.49	1.47	1.44
Differential from Opening Point		0.07	0.08	0.08	0.07	0.06	0.04	0.03	0.01	-0.02

Inspected By Dallas Owens

2nd Inspector

Airflow VACUUM Test

	1 Blower Airflow (PSI)	2 Blowers Airflow (PSI)
Pressure	-0.50	-0.47

[Signature]

[Signature]



Marine Safety Center Vapor Control System (VCS) Plan Review Information Sheet (PRIS)

**Vessel Name**

H-525

Shipyard

Conrad

Coast Guard Number

1306896

Hull Number

H525

1. This sheet consolidates critical VCS parameters for MSC Staff Engineers and CG Field Inspectors dealing with Vapor Control Systems. CG Inspectors should verify the vessel's VCS design is consistent with the information listed in boxes 2, 6, 7 & 8 prior to updating the vapor control endorsement on the vessel's Certificate of Inspection. For cases where the information in the VCS PRIS does not reflect the vessel's design the CG Inspector should contact the MSC's Cargo Authority branch.

2. Tank Maximum Design Working Pressure

3.00

psig

Raised Trunk**Flush Deck****3. Authorized Maximum Cargo Transfer Rate(s)**

5,000

bbl/hr loading

4,285

bbl/hr discharging

4. Authorized Maximum Vapor-Air Mixture Density

0.350

lbm/ft³**5. Authorized VCS Categories**

1 thru 5

6. Cargoes with the highest vapor density and/or pressure drop:

a. Cargo Name

Pentane (all isomers) [PTY]

b. Cargo Name

Pentane (all isomers) [PTY]

7. Pressure Vacuum Valve:**Manufacturer**

ERL

Size

ERL SUPERAC Model II

CG Approval

162.017/167/4

Settings in psig:

Pressure-side

1.5

Vacuum-side

0.5

8. VCS Pipe Sizes:

Approx. Inside Diameter

Longitudinal Header (inches)

8

Transverse Header (Inches)

8

Required Venting Capacity of Pressure-Side of P/V valve

13339

bbl/hr (air)

Required Venting Capacity of Vacuum-Side of P/V valve

4285

bbl/hr (air)

9. Tank Overfill Protection System (check appropriate box or boxes)

a. High Level/Tank Overfill Alarm



Type

ERL

b. Overfill Control Shutdown



Type

ERL

c. Spill Valve



Type

N/A

d. Rupture Disk



Type

N/A

Meets ASTM F1271

Setting in psig

N/A

10. Closed Gauging

Verify the vessel has closed gauging that satisfies 46 CFR 39.2003 and 151.15-10(c).

11. Instructions/Guidelines for the OCMI:

11a. The Marine Safety Center's recommended COI endorsements can be found in the following approval letters:

C2-2003454 dated October 27, 2020

11b. The MSC approval letters must be available at the OCMI's request.

11c. Verify isolation valve at the vapor connection flange is manually operable and designed in a way it is "clearly" open or closed.

11d. Verify the set-point of the overfill shutdown system. It shall be no higher than 6 inches (0.5 feet) below the tank tops of cargo tanks #1-2 P/S and 8.3 inches (0.69 feet) below the tank tops of cargo tanks #3 P/S.

11e. The tanks share a common vent header, which would allow mixing of various vapors and liquid cargoes. Note this configuration restricts the types of cargoes that can be carried simultaneously.

Current VCS Approval Letter

C2-2003454 dated October 27, 2020

MSC Plan Reviewer

LT J. D. MacArthur

CARGO TRANSFER PROCEDURES

CHEM CARRIERS L.L.C.

TRANSFER FROM BARGE TO DOCK

PARTS

1. **PRODUCTS TRANSFERRED**
2. **DESCRIPTION OF SYSTEM**
3. **PERSONS ON DUTY**
4. **PERSONS IN CHARGE**
5. **EMERGENCY SHUTDOWN**
6. **TOPPING OFF PROCEDURE**
7. **COMPLETION OF TRANSFER**
8. **REPORTING CARGO SPILLS**
9. **VESSEL CLOSURES**
10. **PRODUCT DATA**
11. **Vapor Control Procedures**
Barge CCL 418-L

PARTS 1. PRODUCTS TRANSFERRED

33 CFR 155.750 (a) (1) (i)

This vessel is certificated for the carriage of grades "A" and lower Sub-Chapter (D) and (O) Products. It has also been certified to carry vapor products. Reference Certificate of Inspection.

PARTS 2. DESCRIPTION OF CARGO TRANSFER SYSTEM

33 CFR 155.750 (a) (2) (i) (ii)

The cargo transfer procedures apply to all Chem Carrier L.L.C. owned or leased tank barges. In most cases other than series built barges, the cargo piping arrangement is usually slightly different on every barge, and for this reason, the piping diagram must be studied before loading or discharging a barge. The basic concept for loading and discharging is fairly standard depending on the location of the pump.

A. (Reference the piping diagram for transfer system arrangement.)

B. PROCEDURES FOR THE CONTAINMENT SYSTEM

33 CFR 155.310 (a) (1) (iv)

33 CFR 155.750 (a) (2) (iii)

1). The containment pans are equipped with a drain for the removal of slops to shore facilities:

NEVER DRAIN THE CONTAINMENT TANKS ONTO THE DECK.

2). CCL 418-L is equipped with a separate containment area for

the cargo trunk top and the aft deck area. Each containment area is equipped with drains and scupper plugs. Plugs should be installed prior to cargo transfer and removed after the cargo transfer is complete. PIC should notify Chem Carriers when containment areas need cleaning or if scupper plugs need replacing. **Never Drain Product captured in containment area overboard.**

PARTS 3. PERSONS ON DUTY DURING TRANSFER

33 CFR 155.750 (a) (3)

Number of persons required on duty during transfer operations:

- A. At no time during the transfer operation will be less than one responsible person on duty. The certified tanker man assigned shall be in charge and responsible for the safe transfer of cargo.

PARTS 4. PERSONS IN CHARGE

The tanker man (person in charge) is responsible for transferring cargo and carrying out related operations on board in an efficient, safe, and pollution free manner. The tanker man whether employed by the towboat, owner, operator, a shore tanker man service, or Chem Carriers L.L.C., shall comply with all Coast Guard, State and local regulations. Tanker man's responsibility shall include but not be limited to the following:

- A. To have on his/her person a valid merchant marine document endorsed as tanker man, certified to handle the grade of cargo to be transferred.
- B. Make a thorough inspection of the barge prior to the start of transfer operation.
- C. To have proper connection of the grounding cable.
- D. The vessel's moorings are adequate to hold during all expected conditions of surge, current, wind, tide, ect., and lines are long enough to allow for surge, tide, wind, changes in draft etc.
- E. Proper hose sizes, lengths, support, and connections.
- F. The condition of fire extinguishers and required number.
- G. The person in charge of transfer operations on the transferring vessel or facility and the person in charge of transferring operations on the receiving vessel or facility agree to begin the transfer operations.
- H. The transfer operation between tank barges and dock facilities should be lighted between sunset and sunrise to comply with the U. S. Coast Guard regulation pertaining to the displaying of lights on barges as required by Title 33.
- I. The PIC (PERSON IN CHARGE) will be responsible for the DOI (declaration of inspection) and DOS (declaration of security).
- J. Always maintain communications with dock or shore personnel with an agreed upon approved system.

PARTS 5: EMERGENCY SHUTDOWN

33 CFR 155.750 (a) (6)

THE EMERGENCY SHUTDOWN IS LOCATED NEAR THE CENTER OF THE BARGE.

- A. In the event of an emergency, transfer operations can be stopped by pulling the remote shutdown cable.
- B. Familiarize yourself with its location and operation prior to transfer.

PARTS 6; TOPPING OFF PROCEDURES

33 CFR 155.750 (a) (7)

In the process of topping off, tanks should be loaded at different levels to top off one at a time. Extra care should be taken to avoid over pressuring the connections, and hoses by closing valves against the receiving line. Since barges and facilities vary in their systems, no standard for topping off exist, but the following should be considered:

- A. The closing of one tank increases the rate of flow to other tanks on the same line.
- B. Always consider temperature and cargo in accordance with the amount of expansion that should be allowed.
- C. Always maintain communications with dock or shore personnel.
- D. A set of dipstick overfill devices have been installed on the CCL 418-L. Dipsticks can be made operational by releasing the covers or caps. Dipsticks should be used as a visual aid for overfill protection.

PARTS 7: COMPLETION OF TRANSFER

33 CFR 155.750 (a) (8)

Upon the completion of the transfer all pipelines should be drained into cargo tanks. The header valve used during the operation should then be closed, sealed off with a blind flange and shore personnel should seal lines and hatches on vessel.

PARTS 8: REPORTING CARGO SPILLS

33 CFR 155.750 (a) (9)

Should an accidental discharge of product occur, you should consider the following:

- A. Locate the source of the spill and try to stop it, if possible, and safe to do so.

- B. Make an attempt to contain the product if possible.
- C. Notify the Coast Guard. The national Response Center at 1-800-424-8802.
- E. Notify Chem Carriers L.L.C. at (225) 642-0060
- F. If loading, transfer the cargo from the leaking tank to an adjacent tank or back to the dock if safe to do so.
- G. If discharging, pump the product from the leaking tank as quickly as possible if safe to do so.

***When reporting a spill, the tankerman should provide the following information:**

- A. Name (his or her)
- B. Name of Company: (employed by; (contracted by;
- C. Name of Barge.
- D. Spill Location
- E. Specify Product.
- F. Estimate Quantity of Spill
- G. Weather, Tide, Sea and Current Conditions.
- H. Cause of Spill.
- I. Action Being Taken to Contain and Stop Spill

PART 9

CLOSURES ON VESSELS

Upon completion of cargo transfer operations, all tank hatch covers, ullage covers, and gauging device covers shall be dogged down and secured. In addition, the vent drain valves, if installed, should be secured and left in the proper position. All drain valves should be closed, and drip pan covers, if installed, should be made up tight. Covers for void spaces, bow and stern compartments shall be secured at all times and checked for tightness. Closing devices on clean-out hatches and clean-out opening should be checked, especially when the barge is loaded.

PART 10

PRODUCT DATA

See specific MSDS sheets provided with these procedures.

In case of any other emergency, immediately shut down and notify the transferring facility, and Chem Carriers L.L.C. (225) 642-0060 24 Hour Line.

PART 11

VAPOR CONTROL PROCEDURES

This is a guide only and is not intended to replace experience, sound judgment, and a proper assessment of the task at hand.

The tanker man on duty is the acting Designated Person In Charge (PIC) and is responsible for cargo transfer operations and carrying out related operations on barges.

1. Vapor Recovery Transfer Maximum Rate is 5000 BBLS/HR for

subchapter "D" Cargoes and 5000 BBLs/Hr for subchapter "O" Cargoes.

- 1.1 Transfer rates, which exceed these maximums, must be approved by Chem Carriers.
- 1.2 Transfer rates for each cargo tank should not exceed the maximum transfer rate.

2. Pre-transfer Inspection For Vapor Recovery Operations

2.1 Follow the procedures outlined below in addition to the procedures utilized during normal transfers:

2.1.1 Wear personal protective equipment (PPE) as needed for the cargo in the barge when testing P/V and, hooking up hoses, or draining low points.

2.1.2 Ensure that a Certificate of Vapor Tightness is onboard and valid.

2.1.3 Close the low point drain on the port/starboard vapor header, if applicable.

2.1.4 Close the low point drain near the vent stack, if applicable.

2.1.5 Close valve to the vent riser if applicable.

2.1.7 Blinds used for the vapor control manifold should have a hole to accommodate the ½" stud located in the vapor header.

2.1.8 Each cargo tank is fitted with a liquid level gauge stick. Remove the cap, raise the stick, this stick can be monitored visually to avoid overfilling.

2.1.9 Ensure that the last one meter (3.3 feet) of vapor piping before the vapor connection is painted red/yellow/red.

2.1.10 The cross-header should be stenciled with the word "VAPOR" in black letters at least 2" high.

2.1.11 The vapor connection flange should be fixed with a 1" long by 1/2" diameter stud projecting outward from the face of the flange, midway between bolt holes.

2.1.12 The high level alarms/shutdowns are installed near the center of each cargo tank. Dock alarm/shutdown should be connected prior to loading, and plugs located near the forward end of the barge Port and Starboard should be labeled "ALARM/SHUTDOWN SENSOR." High level alarms are set to alarm at 90% of the cargo tanks capacity and Shut downs are set to shut transfer down at 95% of each tanks capacity.

2.1.13 Ensure that the P/V relief valve flame screen, if required, is in place and in good condition prior to testing.

2.1.14 Ensure that the facility has a Letter of Adequacy endorsed as meeting the requirements of 33 CFR Subpart E.

3. Vapor Piping

3.1 The PIC checks the vapor piping diagram.

3.2 Characteristics of a vapor header:

3.2.1 The vapor collection piping system on tank barges is permanently installed and located as close as practical to the loading manifold. The piping system is electrically bonded to the hull and electrically continuous.

3.2.2 The last one meter (3.3 feet) of vapor piping prior to the valve before the vapor connection is painted red/yellow/red. The red bands are 4" wide and the yellow band is 32" wide.

3.2.3 The vapor header is stenciled with the word "VAPOR" in black letters at least 2" high.

3.2.4 The vapor connection flange is to be fixed with a 1" by 1/2" diameter stud projecting outward from the face of the flange. This stud is located at the top of the flange, midway between bolt holes.

3.2.5 When not in use, blank off the vapor headers using a blind flange with a bolt in every hole. Each blind flange used on the vapor piping has a hole drilled to accommodate the pin.

4. Inspection And Verification Of Vent Lines

4.1 The Person in Charge performs the following steps:

4.1.1 Checks the Certificate of Inspection on board the barge;

4.1.2 Locates polymerizing or inhibited cargoes in the section of the COI marked *Specific Hazardous Cargo Authority*;

4.1.3 Refers to the MSDS or Chemical Data Guide on board the vessel to determine what cargoes are subject to polymerization, or what cargoes are inhibited;

4.1.4 Locates the MSDS for the cargo and determines its toxicity and whether or not it is a polymerizing or inhibited cargo; and,

4.1.5 Notifies the Dispatcher and Field Supervisor when polymerization is suspected.

5. Any problems with the Vapor Control system must be reported immediately to the person in charge and Chem Carriers.

U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

2703 Martin Luther King Jr. Ave SE
Stop 7516
Washington, DC 20593-7516
Staff Symbol: CG-MER-4 (VRP)
Phone: (202) 372-1005
Fax: (202) 372-8376
Email: vrp@uscg.mil

16460
March 12, 2025

Chem Carriers, L.L.C.
C/O: FOREFRONT EMERGENCY MANAGEMENT, LP
ATTN: ALLIE MARTIN
1730 COTEAU ROAD
HOUMA, LA 70364

Dear Sir or Madam:

Your Shipboard Oil Pollution Emergency Plan (SOPEP), Control Number 56041, for CCL 419-L (1306897), has been reviewed and found to be in compliance with the requirements of Regulation 37 of Annex I of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).

This approval will remain valid until **March 21, 2030**. You must review your plan annually within one (1) month of the anniversary date of the plan's expiration date and submit a letter to this office certifying that the review has been completed. Any alteration or revision made to the plan, with the exception of those made to the appendices and non-mandatory provisions, must be submitted to this office for review and approval prior to the implementation of the revision. Further, the entire plan must be resubmitted to the Coast Guard for reapproval six (6) months before the end of the approval period of the plan.

I remind you that your plan is a vital working document and that implementing the plan will help ensure effective response and mitigation in the event of an oil pollution incident. Please be sure that all parties with responsibilities under the plan are familiar with the plan's procedures and requirements.

This letter shall be maintained onboard the vessel and placed in the front of the plan.

Sincerely,

A handwritten signature in blue ink that reads "Charron McCombs".

CHARRON MCCOMBS

Lieutenant Commander
Acting Chief, Domestic Preparedness & Planning Division
U.S. Coast Guard
By direction

U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

2703 Martin Luther King Jr. Ave SE
Stop 7516
Washington, DC 20593-7516
Staff Symbol: CG-MER-4 (VRP)
Phone: (202) 372-1005
Fax: (202) 372-8376
Email: vrp@uscg.mil

16460
March 12, 2025

Chem Carriers, L.L.C.
C/O: FOREFRONT EMERGENCY MANAGEMENT, LP
ATTN: ALLIE MARTIN
1730 COTEAU ROAD
HOUMA, LA 70364

Dear Sir or Madam:

Your Vessel Response Plan (Control Number 56041), submitted to meet the requirements of Title 33, Code of Federal Regulations (CFR), Part 155, Subparts D and I, is **approved**. Approval will remain valid until **March 21, 2030**.

The CCL 419-L (1306897) is authorized to operate only in the ports or geographic areas indicated in the Captain of the Port zones listed below. If carrying oil as cargo, the vessel is prohibited from handling, storing, transporting, transferring, or lightering oil unless it is operating in full compliance with this plan. Compliance includes ensuring that required resources have been identified and planned for or are in place and available through contract or other approved means. If applicable to your routes, this includes the dispersant and aerial observation requirements of 33 CFR 155.1050.

You are reminded that your chosen salvage and marine firefighting resource provider may have submitted waivers from meeting one or more of the specified response times in accordance with 33 CFR 155.4055. If so, this may be rescinded by the U.S. Coast Guard if the appropriate response resources are not available when the approved waiver expires. You shall continue to assess the adequacy of your chosen salvors and firefighters as required by 33 CFR 155.4050.

The vessel must keep a copy of this approval letter onboard in addition to the minimum sections of the plan as required by 33 CFR 155.1030. In accordance with 33 CFR 155.1070, you are required to review your plan annually and submit plan amendments for approval. As per 33 CFR 155.1070(b), the entire plan must be resubmitted for a comprehensive review and approval six (6) months prior to the expiration date.

APPROVED CAPTAIN OF THE PORT ZONES

CORPUS CHRISTI
HOUMA
HOUSTON-GALVESTON

LOWER MISSISSIPPI RIVER OHIO VALLEY
(MEMPHIS) PORT ARTHUR AND LAKE
MOBILE CHARLES
NEW ORLEANS

UPPER MISSISSIPPI RIVER
(ST. LOUIS)

Sincerely,



CHARRON MCCOMBS

Lieutenant Commander

Acting Chief, Domestic Preparedness & Planning Division

U.S. Coast Guard

By direction

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Marine Safety Center

US Coast Guard Stop 7430
2703 Martin Luther King Jr. Ave. SE
Washington, DC 20593-7430
Staff Symbol: MSC-5
Phone: (202) 795-6729
Email: securityplaninfo@uscg.mil

16710
VS-326893
December 3, 2024

Chem Carriers, LLC
Attn: Robert Banta
1237 Hwy 75
Sunshine, LA 70780
robert@chemcarriers.com

Subj: CHEM CARRIERS, LLC VESSELS
VESSEL SECURITY PLAN APPROVAL WITH AMENDMENTS

Ref: (a) Your correspondence dated November 6, 2024
(b) Title 33 Code of Federal Regulations (CFR) Part 104
(c) MSC Vessel Security Plan Approval letter dated October 16, 2024

Dear Mr. Banta:

We have conducted a review of the Vessel Security Plan (VSP) submitted with reference (a) in accordance with reference (b) and it is **"Approved."**

Your vessel must operate in compliance with this approved VSP and the requirements contained in reference (b). You are reminded to immediately report any deviation from this approved plan to the local Captain of the Port (COTP)/Officer in Charge, Marine Inspection (OCMI).

This approval will remain valid until five years from the date of reference (c) unless rescinded in writing by the local COTP/OCMI. You must review your plan annually and submit any amendments to this office for approval. Please ensure that a copy of the VSP is maintained on board the vessel if manned, or, if unmanned, at a suitable secure location so that it is readily available during an emergency or security incident. You shall make available to the Coast Guard, upon request, this letter, the VSP and any information related to the implementation of the VSP. Our Case Number for this plan is 326893. Please ensure that all future correspondence includes this Case Number.

Sincerely,

K. C. WILLIAMS
Lieutenant Commander, U.S. Coast Guard
Chief, Vessel Security Division
By direction

Enclosures: (1) List of Vessel Security Plan Amendments
(2) List of Vessels Covered

List of Vessels Covered

<u>Vessel Name</u>	<u>Official Number (O.N.)</u>
CCL-1	518612
CCL 2	510107
CCL-3	296363
CCL 4	512519
CCL-5	512520
CCL-6	530996
CCL7	551980
CCL 8	551982
CCL 9	551983
CCL 10	551979
CCL 11	551976
CCL 14	1164451
CCL 15	1164452
CCL 16	1164666
CCL 17	1166179
CCL 18	1168981
CCL 19	1168980
CCL 20	1191598
CCL 21	1191599
CCL 22	1191600
CCL 23	1191601
CCL 24	1196547
CCL 25	1196548
CCL 26	1203816
CCL 27	1203817
CCL 28	1212828
CCL 29	1212829
CCL 30	1305871
CCL 31	1305870
CCL 32	1305869
CCL 33	1305868
CCL 401	1216671
CCL 402	1219910
CCL 403	1231311
CCL 404	1231312
CCL 405	1236867
CCL 406	1236866
CCL 407	1246320
CCL 408	1246097
CCL 409	1246098
CCL 410	1255906
CCL 411	1255907
CCL 414-L	1262941
CCL 415-T	1262942

<u>Vessel Name</u>	<u>Official Number (O.N.)</u>
CCL 416-T	1264691
CCL 417 T	1298307
CCL 418-L	1306896
CCL 419-L	1306897
CCL 420-T	1348560
CCL 421-T	CG1843359
CCL 3202	1089031
HFL 413	1237482
HFL 415	1237483
HFL 435	1236563
HFL 605	1237484



BARGE "CCL 419-L"

FUEL TANK INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 4'-00 1/2"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	0	0	107	0	271	0	432	0		0		0		0		0		0	
1/4	1	1/4	110	1/4	275	1/4	435	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1	1/2	113	1/2	279	1/2	438	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	2	3/4	116	3/4	282	3/4	441	3/4		3/4		3/4		3/4		3/4		3/4	
1	3	1	119	1	286	1	443	1		1		1		1		1		1	
1/4	4	1/4	123	1/4	289	1/4	446	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	5	1/2	126	1/2	293	1/2	449	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	7	3/4	129	3/4	296	3/4	452	3/4		3/4		3/4		3/4		3/4		3/4	
2	8	2	132	2	300	2	454	2		2		2		2		2		2	
1/4	9	1/4	136	1/4	303	1/4	457	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	11	1/2	139	1/2	307	1/2	460	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	13	3/4	142	3/4	310	3/4	462	3/4		3/4		3/4		3/4		3/4		3/4	
3	14	3	146	3	314	3	465	3		3		3		3		3		3	
1/4	16	1/4	149	1/4	317	1/4	467	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	18	1/2	152	1/2	321	1/2	470	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	20	3/4	156	3/4	324	3/4	472	3/4		3/4		3/4		3/4		3/4		3/4	
4	22	4	159	4	328	4	475	4		4		4		4		4		4	
1/4	24	1/4	163	1/4	331	1/4	477	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	26	1/2	166	1/2	335	1/2	480	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	28	3/4	169	3/4	338	3/4	482	3/4		3/4		3/4		3/4		3/4		3/4	
5	30	5	173	5	342	5	484	5		5		5		5		5		5	
1/4	33	1/4	176	1/4	345	1/4	486	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	35	1/2	180	1/2	348	1/2	488	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	37	3/4	183	3/4	352	3/4	490	3/4		3/4		3/4		3/4		3/4		3/4	
6	39	6	187	6	355	6	493	6		6		6		6		6		6	
1/4	42	1/4	190	1/4	359	1/4	494	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	44	1/2	194	1/2	362	1/2	496	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	47	3/4	197	3/4	365	3/4	498	3/4		3/4		3/4		3/4		3/4		3/4	
7	49	7	201	7	369	7	500	7		7		7		7		7		7	
1/4	52	1/4	204	1/4	372	1/4	502	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	55	1/2	208	1/2	375	1/2	503	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	57	3/4	211	3/4	379	3/4	505	3/4		3/4		3/4		3/4		3/4		3/4	
8	60	8	215	8	382	8	507	8		8		8		8		8		8	
1/4	63	1/4	218	1/4	385	1/4	508	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	65	1/2	222	1/2	388	1/2	509	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	68	3/4	225	3/4	392	3/4	510	3/4		3/4		3/4		3/4		3/4		3/4	
9	71	9	229	9	395	9	512	9		9		9		9		9		9	
1/4	74	1/4	232	1/4	398	1/4	512	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	77	1/2	236	1/2	401	1/2	513	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	80	3/4	239	3/4	404	3/4	514	3/4		3/4		3/4		3/4		3/4		3/4	
10	82	10	243	10	408	10	514	10		10		10		10		10		10	
1/4	85	1/4	247	1/4	411	1/4		1/4		1/4		1/4		1/4		1/4		1/4	
1/2	88	1/2	250	1/2	414	1/2		1/2		1/2		1/2		1/2		1/2		1/2	
3/4	91	3/4	254	3/4	417	3/4		3/4		3/4		3/4		3/4		3/4		3/4	
11	94	11	257	11	420	11		11		11		11		11		11		11	
1/4	98	1/4	261	1/4	423	1/4		1/4		1/4		1/4		1/4		1/4		1/4	
1/2	101	1/2	264	1/2	426	1/2		1/2		1/2		1/2		1/2		1/2		1/2	
3/4	104	3/4	268	3/4	429	3/4		3/4		3/4		3/4		3/4		3/4		3/4	

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK AT GAUGE POINT.

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BARGE "CCL 419-L"

SLOP TANK INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 5'-05 1/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	0	0	571	0	1,143	0	1,714	0	2,285	0		0		0		0		0	
1/4	12	1/4	583	1/4	1,155	1/4	1,726	1/4	2,297	1/4		1/4		1/4		1/4		1/4	
1/2	24	1/2	595	1/2	1,166	1/2	1,738	1/2	2,309	1/2		1/2		1/2		1/2		1/2	
3/4	36	3/4	607	3/4	1,178	3/4	1,750	3/4	2,321	3/4		3/4		3/4		3/4		3/4	
1	48	1	619	1	1,190	1	1,762	1	2,333	1		1		1		1		1	
1/4	60	1/4	631	1/4	1,202	1/4	1,773	1/4	2,345	1/4		1/4		1/4		1/4		1/4	
1/2	71	1/2	643	1/2	1,214	1/2	1,785	1/2	2,357	1/2		1/2		1/2		1/2		1/2	
3/4	83	3/4	655	3/4	1,226	3/4	1,797	3/4	2,369	3/4		3/4		3/4		3/4		3/4	
2	95	2	667	2	1,238	2	1,809	2	2,381	2		2		2		2		2	
1/4	107	1/4	678	1/4	1,250	1/4	1,821	1/4	2,392	1/4		1/4		1/4		1/4		1/4	
1/2	119	1/2	690	1/2	1,262	1/2	1,833	1/2	2,404	1/2		1/2		1/2		1/2		1/2	
3/4	131	3/4	702	3/4	1,274	3/4	1,845	3/4	2,416	3/4		3/4		3/4		3/4		3/4	
3	143	3	714	3	1,285	3	1,857	3	2,428	3		3		3		3		3	
1/4	155	1/4	726	1/4	1,297	1/4	1,869	1/4	2,440	1/4		1/4		1/4		1/4		1/4	
1/2	167	1/2	738	1/2	1,309	1/2	1,881	1/2	2,452	1/2		1/2		1/2		1/2		1/2	
3/4	179	3/4	750	3/4	1,321	3/4	1,893	3/4	2,464	3/4		3/4		3/4		3/4		3/4	
4	190	4	762	4	1,333	4	1,904	4	2,476	4		4		4		4		4	
1/4	202	1/4	774	1/4	1,345	1/4	1,916	1/4	2,488	1/4		1/4		1/4		1/4		1/4	
1/2	214	1/2	786	1/2	1,357	1/2	1,928	1/2	2,500	1/2		1/2		1/2		1/2		1/2	
3/4	226	3/4	797	3/4	1,369	3/4	1,940	3/4	2,511	3/4		3/4		3/4		3/4		3/4	
5	238	5	809	5	1,381	5	1,952	5	2,523	5		5		5		5		5	
1/4	250	1/4	821	1/4	1,393	1/4	1,964	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	262	1/2	833	1/2	1,405	1/2	1,976	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	274	3/4	845	3/4	1,416	3/4	1,988	3/4		3/4		3/4		3/4		3/4		3/4	
6	286	6	857	6	1,428	6	2,000	6		6		6		6		6		6	
1/4	298	1/4	869	1/4	1,440	1/4	2,012	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	309	1/2	881	1/2	1,452	1/2	2,023	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	321	3/4	893	3/4	1,464	3/4	2,035	3/4		3/4		3/4		3/4		3/4		3/4	
7	333	7	905	7	1,476	7	2,047	7		7		7		7		7		7	
1/4	345	1/4	917	1/4	1,488	1/4	2,059	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	357	1/2	928	1/2	1,500	1/2	2,071	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	369	3/4	940	3/4	1,512	3/4	2,083	3/4		3/4		3/4		3/4		3/4		3/4	
8	381	8	952	8	1,524	8	2,095	8		8		8		8		8		8	
1/4	393	1/4	964	1/4	1,535	1/4	2,107	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	405	1/2	976	1/2	1,547	1/2	2,119	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	417	3/4	988	3/4	1,559	3/4	2,131	3/4		3/4		3/4		3/4		3/4		3/4	
9	428	9	1,000	9	1,571	9	2,142	9		9		9		9		9		9	
1/4	440	1/4	1,012	1/4	1,583	1/4	2,154	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	452	1/2	1,024	1/2	1,595	1/2	2,166	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	464	3/4	1,036	3/4	1,607	3/4	2,178	3/4		3/4		3/4		3/4		3/4		3/4	
10	476	10	1,047	10	1,619	10	2,190	10		10		10		10		10		10	
1/4	488	1/4	1,059	1/4	1,631	1/4	2,202	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	500	1/2	1,071	1/2	1,643	1/2	2,214	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	512	3/4	1,083	3/4	1,654	3/4	2,226	3/4		3/4		3/4		3/4		3/4		3/4	
11	524	11	1,095	11	1,666	11	2,238	11		11		11		11		11		11	
1/4	536	1/4	1,107	1/4	1,678	1/4	2,250	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	548	1/2	1,119	1/2	1,690	1/2	2,261	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	559	3/4	1,131	3/4	1,702	3/4	2,273	3/4		3/4		3/4		3/4		3/4		3/4	

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BARGE "CCL 419-L"

INNAGE TRIM TABLE

	1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.	
	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>
1 PORT	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8
1 STBD	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8
2 PORT	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8
2 STBD	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8
3 PORT	- 00-5/8	00-5/8	- 01-1/4	01-1/4	- 01-7/8	01-7/8	- 02-1/2	02-1/2	- 03-1/4	03-1/4	- 03-3/4	03-3/4
3 STBD	- 00-5/8	00-5/8	- 01-1/4	01-1/4	- 01-7/8	01-7/8	- 02-1/2	02-1/2	- 03-1/4	03-1/4	- 03-3/4	03-3/4

(ALL MEASUREMENTS ABOVE ARE IN INCHES)

EXAMPLE FOR ABOVE TRIM CORRECTIONS:

FWD. DRAFT = 2'-00"
 AFT DRAFT = 4'-00"
 DIFF. = 2'-00" (DOWN BY STERN)

THE CORRECTION FOR 2'-00" TRIM DOWN BY STERN FOR 3 PORT IS 01-1/4"
 FOR A MEASURED INNAGE GAUGE OF 4'-00" ON 3 PORT, THE TRIM CORRECTED INNAGE IS 4'-01 1/4"

LENGTH BETWEEN DRAFT MARKS: 254'-00"

November 3, 2020

PRECISION MEASUREMENT
 & ANALYSIS, INC.

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 Pearland, Texas 77588

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BARGE "CCL 419-L"

1 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.40	0	359.38	0	722.25	0	1,084.88	0	1,447.51	0	1,810.40	0	2,173.28	0	2,536.17	0	2,898.94	0	3,261.69
1/4	25.66	1/4	366.94	1/4	729.81	1/4	1,092.43	1/4	1,455.07	1/4	1,817.96	1/4	2,180.84	1/4	2,543.73	1/4	2,906.50	1/4	3,269.25
1/2	29.91	1/2	374.50	1/2	737.37	1/2	1,099.98	1/2	1,462.63	1/2	1,825.52	1/2	2,188.40	1/2	2,551.29	1/2	2,914.06	1/2	3,276.81
3/4	34.16	3/4	382.06	3/4	744.93	3/4	1,107.53	3/4	1,470.19	3/4	1,833.08	3/4	2,195.96	3/4	2,558.85	3/4	2,921.61	3/4	3,284.36
1	38.41	1	389.62	1	752.49	1	1,115.07	1	1,477.75	1	1,840.64	1	2,203.52	1	2,566.41	1	2,929.17	1	3,291.92
1 1/4	43.92	1 1/4	397.18	1 1/4	760.05	1 1/4	1,122.62	1 1/4	1,485.31	1 1/4	1,848.20	1 1/4	2,211.08	1 1/4	2,573.97	1 1/4	2,936.73	1 1/4	3,299.48
1 1/2	49.43	1 1/2	404.74	1 1/2	767.61	1 1/2	1,130.17	1 1/2	1,492.87	1 1/2	1,855.76	1 1/2	2,218.64	1 1/2	2,581.53	1 1/2	2,944.29	1 1/2	3,307.04
3/4	54.94	3/4	412.30	3/4	775.17	3/4	1,137.72	3/4	1,500.43	3/4	1,863.32	3/4	2,226.20	3/4	2,589.09	3/4	2,951.84	3/4	3,314.59
2	60.46	2	419.86	2	782.73	2	1,145.26	2	1,507.99	2	1,870.88	2	2,233.76	2	2,596.65	2	2,959.40	2	3,322.15
1 1/4	67.23	1 1/4	427.42	1 1/4	790.29	1 1/4	1,152.81	1 1/4	1,515.55	1 1/4	1,878.44	1 1/4	2,241.32	1 1/4	2,604.21	1 1/4	2,966.96	1 1/4	3,329.71
1 1/2	74.00	1 1/2	434.98	1 1/2	797.85	1 1/2	1,160.36	1 1/2	1,523.11	1 1/2	1,886.00	1 1/2	2,248.88	1 1/2	2,611.77	1 1/2	2,974.52	1 1/2	3,337.27
3/4	80.77	3/4	442.54	3/4	805.41	3/4	1,167.91	3/4	1,530.67	3/4	1,893.56	3/4	2,256.44	3/4	2,619.33	3/4	2,982.07	3/4	3,344.82
3	87.54	3	450.10	3	812.97	3	1,175.46	3	1,538.23	3	1,901.12	3	2,264.00	3	2,626.89	3	2,989.63	3	3,352.38
1 1/4	95.02	1 1/4	457.66	1 1/4	820.53	1 1/4	1,183.00	1 1/4	1,545.79	1 1/4	1,908.68	1 1/4	2,271.56	1 1/4	2,634.44	1 1/4	2,997.19	1 1/4	3,359.94
1 1/2	102.51	1 1/2	465.22	1 1/2	828.09	1 1/2	1,190.55	1 1/2	1,553.35	1 1/2	1,916.24	1 1/2	2,279.12	1 1/2	2,642.00	1 1/2	3,004.74	1 1/2	3,367.49
3/4	109.99	3/4	472.78	3/4	835.65	3/4	1,198.10	3/4	1,560.91	3/4	1,923.80	3/4	2,286.68	3/4	2,649.55	3/4	3,012.30	3/4	3,375.05
4	117.47	4	480.34	4	843.21	4	1,205.65	4	1,568.47	4	1,931.36	4	2,294.24	4	2,657.11	4	3,019.86	4	3,382.61
1 1/4	125.03	1 1/4	487.90	1 1/4	850.77	1 1/4	1,213.19	1 1/4	1,576.03	1 1/4	1,938.92	1 1/4	2,301.80	1 1/4	2,664.67	1 1/4	3,027.42	1 1/4	3,390.17
1 1/2	132.59	1 1/2	495.46	1 1/2	858.33	1 1/2	1,220.74	1 1/2	1,583.59	1 1/2	1,946.48	1 1/2	2,309.36	1 1/2	2,672.22	1 1/2	3,034.97	1 1/2	3,397.72
3/4	140.15	3/4	503.02	3/4	865.89	3/4	1,228.29	3/4	1,591.15	3/4	1,954.04	3/4	2,316.92	3/4	2,679.78	3/4	3,042.53	3/4	3,405.28
5	147.71	5	510.58	5	873.45	5	1,235.84	5	1,598.71	5	1,961.60	5	2,324.48	5	2,687.34	5	3,050.09	5	3,412.84
1 1/4	155.27	1 1/4	518.14	1 1/4	881.01	1 1/4	1,243.40	1 1/4	1,606.27	1 1/4	1,969.16	1 1/4	2,332.04	1 1/4	2,694.90	1 1/4	3,057.65	1 1/4	3,420.40
1 1/2	162.83	1 1/2	525.70	1 1/2	888.57	1 1/2	1,250.95	1 1/2	1,613.83	1 1/2	1,976.72	1 1/2	2,339.60	1 1/2	2,702.45	1 1/2	3,065.20	1 1/2	3,427.95
3/4	170.39	3/4	533.26	3/4	896.13	3/4	1,258.51	3/4	1,621.39	3/4	1,984.28	3/4	2,347.16	3/4	2,710.01	3/4	3,072.76	3/4	3,435.51
6	177.95	6	540.82	6	903.69	6	1,266.07	6	1,628.95	6	1,991.84	6	2,354.72	6	2,717.57	6	3,080.32	6	3,443.07
1 1/4	185.51	1 1/4	548.38	1 1/4	911.25	1 1/4	1,273.63	1 1/4	1,636.52	1 1/4	1,999.40	1 1/4	2,362.28	1 1/4	2,725.12	1 1/4	3,087.87	1 1/4	3,450.63
1 1/2	193.07	1 1/2	555.94	1 1/2	918.81	1 1/2	1,281.19	1 1/2	1,644.08	1 1/2	2,006.96	1 1/2	2,369.84	1 1/2	2,732.68	1 1/2	3,095.43	1 1/2	3,458.18
3/4	200.63	3/4	563.50	3/4	926.37	3/4	1,288.75	3/4	1,651.64	3/4	2,014.52	3/4	2,377.40	3/4	2,740.24	3/4	3,102.99	3/4	3,465.74
7	208.18	7	571.06	7	933.93	7	1,296.31	7	1,659.20	7	2,022.08	7	2,384.96	7	2,747.80	7	3,110.55	7	3,473.30
1 1/4	215.74	1 1/4	578.62	1 1/4	941.47	1 1/4	1,303.87	1 1/4	1,666.76	1 1/4	2,029.64	1 1/4	2,392.53	1 1/4	2,755.35	1 1/4	3,118.10	1 1/4	3,480.85
1 1/2	223.30	1 1/2	586.17	1 1/2	949.02	1 1/2	1,311.43	1 1/2	1,674.32	1 1/2	2,037.20	1 1/2	2,400.09	1 1/2	2,762.91	1 1/2	3,125.66	1 1/2	3,488.41
3/4	230.86	3/4	593.73	3/4	956.57	3/4	1,318.99	3/4	1,681.88	3/4	2,044.76	3/4	2,407.65	3/4	2,770.47	3/4	3,133.22	3/4	3,495.97
8	238.42	8	601.29	8	964.12	8	1,326.55	8	1,689.44	8	2,052.32	8	2,415.21	8	2,778.03	8	3,140.78	8	3,503.53
1 1/4	245.98	1 1/4	608.85	1 1/4	971.66	1 1/4	1,334.11	1 1/4	1,697.00	1 1/4	2,059.88	1 1/4	2,422.77	1 1/4	2,785.58	1 1/4	3,148.33	1 1/4	3,511.08
1 1/2	253.54	1 1/2	616.41	1 1/2	979.21	1 1/2	1,341.67	1 1/2	1,704.56	1 1/2	2,067.44	1 1/2	2,430.33	1 1/2	2,793.14	1 1/2	3,155.89	1 1/2	3,518.64
3/4	261.10	3/4	623.97	3/4	986.76	3/4	1,349.23	3/4	1,712.12	3/4	2,075.00	3/4	2,437.89	3/4	2,800.70	3/4	3,163.45	3/4	3,526.20
9	268.66	9	631.53	9	994.31	9	1,356.79	9	1,719.68	9	2,082.56	9	2,445.45	9	2,808.25	9	3,171.00	9	3,533.76
1 1/4	276.22	1 1/4	639.09	1 1/4	1,001.86	1 1/4	1,364.35	1 1/4	1,727.24	1 1/4	2,090.12	1 1/4	2,453.01	1 1/4	2,815.81	1 1/4	3,178.56	1 1/4	3,541.31
1 1/2	283.78	1 1/2	646.65	1 1/2	1,009.40	1 1/2	1,371.91	1 1/2	1,734.80	1 1/2	2,097.68	1 1/2	2,460.57	1 1/2	2,823.37	1 1/2	3,186.12	1 1/2	3,548.87
3/4	291.34	3/4	654.21	3/4	1,016.95	3/4	1,379.47	3/4	1,742.36	3/4	2,105.24	3/4	2,468.13	3/4	2,830.93	3/4	3,193.68	3/4	3,556.43
10	298.90	10	661.77	10	1,024.50	10	1,387.03	10	1,749.92	10	2,112.80	10	2,475.69	10	2,838.48	10	3,201.23	10	3,563.98
1 1/4	306.46	1 1/4	669.33	1 1/4	1,032.05	1 1/4	1,394.59	1 1/4	1,757.48	1 1/4	2,120.36	1 1/4	2,483.25	1 1/4	2,846.04	1 1/4	3,208.79	1 1/4	3,571.54
1 1/2	314.02	1 1/2	676.89	1 1/2	1,039.59	1 1/2	1,402.15	1 1/2	1,765.04	1 1/2	2,127.92	1 1/2	2,490.81	1 1/2	2,853.60	1 1/2	3,216.35	1 1/2	3,579.10
3/4	321.58	3/4	684.45	3/4	1,047.14	3/4	1,409.71	3/4	1,772.60	3/4	2,135.48	3/4	2,498.37	3/4	2,861.16	3/4	3,223.91	3/4	3,586.66
11	329.14	11	692.01	11	1,054.69	11	1,417.27	11	1,780.16	11	2,143.04	11	2,505.93	11	2,868.71	11	3,231.46	11	3,594.21
1 1/4	336.70	1 1/4	699.57	1 1/4	1,062.24	1 1/4	1,424.83	1 1/4	1,787.72	1 1/4	2,150.60	1 1/4	2,513.49	1 1/4	2,876.27	1 1/4	3,239.02	1 1/4	3,601.77
1 1/2	344.26	1 1/2	707.13	1 1/2	1,069.79	1 1/2	1,432.39	1 1/2	1,795.28	1 1/2	2,158.16	1 1/2	2,521.05	1 1/2	2,883.83	1 1/2	3,246.58	1 1/2	3,609.33
3/4	351.82	3/4	714.69	3/4	1,077.33	3/4	1,439.95	3/4	1,802.84	3/4	2,165.72	3/4	2,528.61	3/4	2,891.38	3/4	3,254.14	3/4	3,616.89

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-09" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

1 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	3,624.44	0	3,987.15	0	4,342.31	0	4,684.21	0	5,011.38	0		0		0		0		0	
1/4	3,632.00	1/4	3,994.67	1/4	4,349.56	1/4	4,691.19	1/4	5,017.98	1/4		1/4		1/4		1/4		1/4	
1/2	3,639.56	1/2	4,002.20	1/2	4,356.80	1/2	4,698.16	1/2	5,024.58	1/2		1/2		1/2		1/2		1/2	
3/4	3,647.11	3/4	4,009.72	3/4	4,364.05	3/4	4,705.13	3/4	5,031.18	3/4		3/4		3/4		3/4		3/4	
1	3,654.67	1	4,017.25	1	4,371.30	1	4,712.11	1	5,037.78	1		1		1		1		1	
1/4	3,662.23	1/4	4,024.75	1/4	4,378.53	1/4	4,719.03	1/4	5,044.35	1/4		1/4		1/4		1/4		1/4	
1/2	3,669.79	1/2	4,032.26	1/2	4,385.76	1/2	4,725.96	1/2	5,050.93	1/2		1/2		1/2		1/2		1/2	
3/4	3,677.34	3/4	4,039.76	3/4	4,392.98	3/4	4,732.88	3/4	5,057.50	3/4		3/4		3/4		3/4		3/4	
2	3,684.90	2	4,047.26	2	4,400.21	2	4,739.81	2	5,064.08	2		2		2		2		2	
1/4	3,692.46	1/4	4,054.74	1/4	4,407.41	1/4	4,746.71	1/4	5,070.63	1/4		1/4		1/4		1/4		1/4	
1/2	3,700.02	1/2	4,062.22	1/2	4,414.62	1/2	4,753.60	1/2	5,077.19	1/2		1/2		1/2		1/2		1/2	
3/4	3,707.57	3/4	4,069.70	3/4	4,421.82	3/4	4,760.50	3/4	5,083.74	3/4		3/4		3/4		3/4		3/4	
3	3,715.13	3	4,077.18	3	4,429.02	3	4,767.40	3	5,090.29	3		3		3		3		3	
1/4	3,722.69	1/4	4,084.64	1/4	4,436.21	1/4	4,774.28	1/4	5,096.82	1/4		1/4		1/4		1/4		1/4	
1/2	3,730.25	1/2	4,092.09	1/2	4,443.39	1/2	4,781.15	1/2	5,103.35	1/2		1/2		1/2		1/2		1/2	
3/4	3,737.80	3/4	4,099.55	3/4	4,450.57	3/4	4,788.03	3/4	5,109.88	3/4		3/4		3/4		3/4		3/4	
4	3,745.36	4	4,107.01	4	4,457.75	4	4,794.90	4	5,116.41	4		4		4		4		4	
1/4	3,752.92	1/4	4,114.44	1/4	4,464.90	1/4	4,801.76	1/4	5,122.92	1/4		1/4		1/4		1/4		1/4	
1/2	3,760.47	1/2	4,121.87	1/2	4,472.06	1/2	4,808.61	1/2	5,129.43	1/2		1/2		1/2		1/2		1/2	
3/4	3,768.03	3/4	4,129.31	3/4	4,479.22	3/4	4,815.46	3/4	5,135.93	3/4		3/4		3/4		3/4		3/4	
5	3,775.59	5	4,136.74	5	4,486.38	5	4,822.31	5	5,142.44	5		5		5		5		5	
1/4	3,783.15	1/4	4,144.15	1/4	4,493.51	1/4	4,829.14	1/4	5,149.64	1/4		1/4		1/4		1/4		1/4	
1/2	3,790.70	1/2	4,151.56	1/2	4,500.65	1/2	4,835.97	1/2	5,156.84	1/2		1/2		1/2		1/2		1/2	
3/4	3,798.26	3/4	4,158.97	3/4	4,507.78	3/4	4,842.80	3/4	5,164.05	3/4		3/4		3/4		3/4		3/4	
6	3,805.82	6	4,166.38	6	4,514.92	6	4,849.63	6	5,171.25	6		6		6		6		6	
1/4	3,813.38	1/4	4,173.77	1/4	4,522.03	1/4	4,856.44	1/4	5,177.58	1/4		1/4		1/4		1/4		1/4	
1/2	3,820.93	1/2	4,181.16	1/2	4,529.14	1/2	4,863.24	1/2	5,183.92	1/2		1/2		1/2		1/2		1/2	
3/4	3,828.49	3/4	4,188.55	3/4	4,536.25	3/4	4,870.05	3/4	5,190.26	3/4		3/4		3/4		3/4		3/4	
7	3,836.05	7	4,195.93	7	4,543.36	7	4,876.86	7	5,196.59	7		7		7		7		7	
1/4	3,843.60	1/4	4,203.30	1/4	4,550.45	1/4	4,883.64	1/4	5,201.71	1/4		1/4		1/4		1/4		1/4	
1/2	3,851.16	1/2	4,210.66	1/2	4,557.54	1/2	4,890.42	1/2	5,206.84	1/2		1/2		1/2		1/2		1/2	
3/4	3,858.72	3/4	4,218.03	3/4	4,564.63	3/4	4,897.21	3/4	5,211.96	3/4		3/4		3/4		3/4		3/4	
8	3,866.28	8	4,225.39	8	4,571.72	8	4,903.99	8	5,217.08	8		8		8		8		8	
1/4	3,873.83	1/4	4,232.73	1/4	4,578.78	1/4	4,910.75	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,881.39	1/2	4,240.07	1/2	4,585.85	1/2	4,917.51	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,888.95	3/4	4,247.42	3/4	4,592.91	3/4	4,924.27	3/4		3/4		3/4		3/4		3/4		3/4	
9	3,896.51	9	4,254.76	9	4,599.98	9	4,931.03	9		9		9		9		9		9	
1/4	3,904.06	1/4	4,262.08	1/4	4,607.02	1/4	4,937.77	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,911.62	1/2	4,269.40	1/2	4,614.06	1/2	4,944.51	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,919.18	3/4	4,276.71	3/4	4,621.11	3/4	4,951.25	3/4		3/4		3/4		3/4		3/4		3/4	
10	3,926.73	10	4,284.03	10	4,628.15	10	4,957.99	10		10		10		10		10		10	
1/4	3,934.29	1/4	4,291.33	1/4	4,635.17	1/4	4,964.71	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,941.85	1/2	4,298.62	1/2	4,642.19	1/2	4,971.42	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,949.41	3/4	4,305.92	3/4	4,649.21	3/4	4,978.14	3/4		3/4		3/4		3/4		3/4		3/4	
11	3,956.96	11	4,313.21	11	4,656.23	11	4,984.86	11		11		11		11		11		11	
1/4	3,964.51	1/4	4,320.49	1/4	4,663.22	1/4	4,991.49	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,972.06	1/2	4,327.76	1/2	4,670.22	1/2	4,998.12	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,979.60	3/4	4,335.03	3/4	4,677.22	3/4	5,004.75	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
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BARGE "CCL 419-L"

1 STBD

INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09 1/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.39	0	359.21	0	721.90	0	1,083.43	0	1,444.92	0	1,807.63	0	2,170.34	0	2,533.04	0	2,895.66	0	3,258.24
1/4	25.64	1/4	366.76	1/4	729.45	1/4	1,090.94	1/4	1,452.48	1/4	1,815.19	1/4	2,177.89	1/4	2,540.60	1/4	2,903.21	1/4	3,265.79
1/2	29.89	1/2	374.32	1/2	737.01	1/2	1,098.44	1/2	1,460.04	1/2	1,822.74	1/2	2,185.45	1/2	2,548.16	1/2	2,910.77	1/2	3,273.34
3/4	34.14	3/4	381.87	3/4	744.57	3/4	1,105.95	3/4	1,467.59	3/4	1,830.30	3/4	2,193.01	3/4	2,555.71	3/4	2,918.32	3/4	3,280.90
1	38.39	1	389.43	1	752.12	1	1,113.45	1	1,475.15	1	1,837.86	1	2,200.56	1	2,563.27	1	2,925.87	1	3,288.45
1/4	43.90	1/4	396.99	1/4	759.68	1/4	1,120.96	1/4	1,482.70	1/4	1,845.41	1/4	2,208.12	1/4	2,570.83	1/4	2,933.43	1/4	3,296.01
1/2	49.41	1/2	404.54	1/2	767.24	1/2	1,128.46	1/2	1,490.26	1/2	1,852.97	1/2	2,215.68	1/2	2,578.38	1/2	2,940.98	1/2	3,303.56
3/4	54.92	3/4	412.10	3/4	774.79	3/4	1,135.97	3/4	1,497.82	3/4	1,860.52	3/4	2,223.23	3/4	2,585.94	3/4	2,948.54	3/4	3,311.11
2	60.43	2	419.65	2	782.35	2	1,143.47	2	1,505.37	2	1,868.08	2	2,230.79	2	2,593.50	2	2,956.09	2	3,318.67
1/4	67.20	1/4	427.21	1/4	789.90	1/4	1,150.98	1/4	1,512.93	1/4	1,875.64	1/4	2,238.34	1/4	2,601.05	1/4	2,963.64	1/4	3,326.22
1/2	73.96	1/2	434.77	1/2	797.46	1/2	1,158.48	1/2	1,520.49	1/2	1,883.19	1/2	2,245.90	1/2	2,608.61	1/2	2,971.20	1/2	3,333.77
3/4	80.73	3/4	442.32	3/4	805.02	3/4	1,165.99	3/4	1,528.04	3/4	1,890.75	3/4	2,253.46	3/4	2,616.16	3/4	2,978.75	3/4	3,341.33
3	87.50	3	449.88	3	812.57	3	1,173.49	3	1,535.60	3	1,898.31	3	2,261.01	3	2,623.72	3	2,986.30	3	3,348.88
1/4	94.98	1/4	457.44	1/4	820.13	1/4	1,181.00	1/4	1,543.16	1/4	1,905.86	1/4	2,268.57	1/4	2,631.28	1/4	2,993.86	1/4	3,356.44
1/2	102.46	1/2	464.99	1/2	827.68	1/2	1,188.50	1/2	1,550.71	1/2	1,913.42	1/2	2,276.13	1/2	2,638.83	1/2	3,001.41	1/2	3,363.99
3/4	109.93	3/4	472.55	3/4	835.24	3/4	1,196.00	3/4	1,558.27	3/4	1,920.98	3/4	2,283.68	3/4	2,646.39	3/4	3,008.96	3/4	3,371.54
4	117.41	4	480.10	4	842.80	4	1,203.51	4	1,565.82	4	1,928.53	4	2,291.24	4	2,653.94	4	3,016.52	4	3,379.10
1/4	124.97	1/4	487.66	1/4	850.35	1/4	1,211.01	1/4	1,573.38	1/4	1,936.09	1/4	2,298.80	1/4	2,661.49	1/4	3,024.07	1/4	3,386.65
1/2	132.52	1/2	495.22	1/2	857.91	1/2	1,218.52	1/2	1,580.94	1/2	1,943.64	1/2	2,306.35	1/2	2,669.05	1/2	3,031.63	1/2	3,394.20
3/4	140.08	3/4	502.77	3/4	865.46	3/4	1,226.02	3/4	1,588.49	3/4	1,951.20	3/4	2,313.91	3/4	2,676.60	3/4	3,039.18	3/4	3,401.76
5	147.64	5	510.33	5	873.02	5	1,233.53	5	1,596.05	5	1,958.76	5	2,321.46	5	2,684.16	5	3,046.73	5	3,409.31
1/4	155.19	1/4	517.88	1/4	880.58	1/4	1,241.04	1/4	1,603.61	1/4	1,966.31	1/4	2,329.02	1/4	2,691.71	1/4	3,054.29	1/4	3,416.86
1/2	162.75	1/2	525.44	1/2	888.13	1/2	1,248.56	1/2	1,611.16	1/2	1,973.87	1/2	2,336.58	1/2	2,699.26	1/2	3,061.84	1/2	3,424.42
3/4	170.30	3/4	533.00	3/4	895.69	3/4	1,256.07	3/4	1,618.72	3/4	1,981.43	3/4	2,344.13	3/4	2,706.82	3/4	3,069.39	3/4	3,431.97
6	177.86	6	540.55	6	903.25	6	1,263.59	6	1,626.28	6	1,988.98	6	2,351.69	6	2,714.37	6	3,076.95	6	3,439.53
1/4	185.42	1/4	548.11	1/4	910.77	1/4	1,271.14	1/4	1,633.83	1/4	1,996.54	1/4	2,359.25	1/4	2,721.92	1/4	3,084.50	1/4	3,447.08
1/2	192.97	1/2	555.66	1/2	918.29	1/2	1,278.69	1/2	1,641.39	1/2	2,004.10	1/2	2,366.80	1/2	2,729.48	1/2	3,092.06	1/2	3,454.63
3/4	200.53	3/4	563.22	3/4	925.81	3/4	1,286.24	3/4	1,648.95	3/4	2,011.65	3/4	2,374.36	3/4	2,737.03	3/4	3,099.61	3/4	3,462.19
7	208.08	7	570.78	7	933.33	7	1,293.79	7	1,656.50	7	2,019.21	7	2,381.92	7	2,744.59	7	3,107.16	7	3,469.74
1/4	215.64	1/4	578.33	1/4	940.84	1/4	1,301.35	1/4	1,664.06	1/4	2,026.77	1/4	2,389.47	1/4	2,752.14	1/4	3,114.72	1/4	3,477.29
1/2	223.20	1/2	585.89	1/2	948.35	1/2	1,308.91	1/2	1,671.61	1/2	2,034.32	1/2	2,397.03	1/2	2,759.69	1/2	3,122.27	1/2	3,484.85
3/4	230.75	3/4	593.45	3/4	955.85	3/4	1,316.46	3/4	1,679.17	3/4	2,041.88	3/4	2,404.59	3/4	2,767.25	3/4	3,129.82	3/4	3,492.40
8	238.31	8	601.00	8	963.36	8	1,324.02	8	1,686.73	8	2,049.43	8	2,412.14	8	2,774.80	8	3,137.38	8	3,499.96
1/4	245.86	1/4	608.56	1/4	970.86	1/4	1,331.58	1/4	1,694.28	1/4	2,056.99	1/4	2,419.70	1/4	2,782.35	1/4	3,144.93	1/4	3,507.51
1/2	253.42	1/2	616.11	1/2	978.37	1/2	1,339.13	1/2	1,701.84	1/2	2,064.55	1/2	2,427.25	1/2	2,789.91	1/2	3,152.49	1/2	3,515.06
3/4	260.98	3/4	623.67	3/4	985.87	3/4	1,346.69	3/4	1,709.40	3/4	2,072.10	3/4	2,434.81	3/4	2,797.46	3/4	3,160.04	3/4	3,522.62
9	268.53	9	631.23	9	993.38	9	1,354.25	9	1,716.95	9	2,079.66	9	2,442.37	9	2,805.02	9	3,167.59	9	3,530.17
1/4	276.09	1/4	638.78	1/4	1,000.88	1/4	1,361.80	1/4	1,724.51	1/4	2,087.22	1/4	2,449.92	1/4	2,812.57	1/4	3,175.15	1/4	3,537.72
1/2	283.64	1/2	646.34	1/2	1,008.39	1/2	1,369.36	1/2	1,732.07	1/2	2,094.77	1/2	2,457.48	1/2	2,820.12	1/2	3,182.70	1/2	3,545.28
3/4	291.20	3/4	653.89	3/4	1,015.89	3/4	1,376.91	3/4	1,739.62	3/4	2,102.33	3/4	2,465.04	3/4	2,827.68	3/4	3,190.25	3/4	3,552.83
10	298.76	10	661.45	10	1,023.40	10	1,384.47	10	1,747.18	10	2,109.89	10	2,472.59	10	2,835.23	10	3,197.81	10	3,560.39
1/4	306.31	1/4	669.01	1/4	1,030.90	1/4	1,392.03	1/4	1,754.73	1/4	2,117.44	1/4	2,480.15	1/4	2,842.78	1/4	3,205.36	1/4	3,567.94
1/2	313.87	1/2	676.56	1/2	1,038.41	1/2	1,399.58	1/2	1,762.29	1/2	2,125.00	1/2	2,487.71	1/2	2,850.34	1/2	3,212.91	1/2	3,575.49
3/4	321.43	3/4	684.12	3/4	1,045.91	3/4	1,407.14	3/4	1,769.85	3/4	2,132.55	3/4	2,495.26	3/4	2,857.89	3/4	3,220.47	3/4	3,583.05
11	328.98	11	691.67	11	1,053.42	11	1,414.70	11	1,777.40	11	2,140.11	11	2,502.82	11	2,865.44	11	3,228.02	11	3,590.60
1/4	336.54	1/4	699.23	1/4	1,060.92	1/4	1,422.25	1/4	1,784.96	1/4	2,147.67	1/4	2,510.37	1/4	2,873.00	1/4	3,235.58	1/4	3,598.15
1/2	344.09	1/2	706.79	1/2	1,068.42	1/2	1,429.81	1/2	1,792.52	1/2	2,155.22	1/2	2,517.93	1/2	2,880.55	1/2	3,243.13	1/2	3,605.71
3/4	351.65	3/4	714.34	3/4	1,075.93	3/4	1,437.37	3/4	1,800.07	3/4	2,162.78	3/4	2,525.49	3/4	2,888.11	3/4	3,250.68	3/4	3,613.26

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAUGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-09" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

1 STBD
INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09 1/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	3,620.81	0	3,983.34	0	4,338.34	0	4,680.10	0	5,007.14	0		0		0		0		0	
1/4	3,628.37	1/4	3,990.87	1/4	4,345.58	1/4	4,687.07	1/4	5,013.74	1/4		1/4		1/4		1/4		1/4	
1/2	3,635.92	1/2	3,998.39	1/2	4,352.83	1/2	4,694.04	1/2	5,020.33	1/2		1/2		1/2		1/2		1/2	
3/4	3,643.48	3/4	4,005.91	3/4	4,360.08	3/4	4,701.01	3/4	5,026.93	3/4		3/4		3/4		3/4		3/4	
1	3,651.03	1	4,013.43	1	4,367.32	1	4,707.98	1	5,033.53	1		1		1		1		1	
1/4	3,658.58	1/4	4,020.93	1/4	4,374.55	1/4	4,714.90	1/4	5,040.10	1/4		1/4		1/4		1/4		1/4	
1/2	3,666.14	1/2	4,028.43	1/2	4,381.77	1/2	4,721.83	1/2	5,046.67	1/2		1/2		1/2		1/2		1/2	
3/4	3,673.69	3/4	4,035.93	3/4	4,388.99	3/4	4,728.75	3/4	5,053.25	3/4		3/4		3/4		3/4		3/4	
2	3,681.24	2	4,043.43	2	4,396.22	2	4,735.67	2	5,059.82	2		2		2		2		2	
1/4	3,688.80	1/4	4,050.90	1/4	4,403.42	1/4	4,742.57	1/4	5,066.37	1/4		1/4		1/4		1/4		1/4	
1/2	3,696.35	1/2	4,058.38	1/2	4,410.62	1/2	4,749.46	1/2	5,072.92	1/2		1/2		1/2		1/2		1/2	
3/4	3,703.91	3/4	4,065.86	3/4	4,417.82	3/4	4,756.36	3/4	5,079.47	3/4		3/4		3/4		3/4		3/4	
3	3,711.46	3	4,073.33	3	4,425.02	3	4,763.25	3	5,086.02	3		3		3		3		3	
1/4	3,719.01	1/4	4,080.79	1/4	4,432.20	1/4	4,770.13	1/4	5,092.55	1/4		1/4		1/4		1/4		1/4	
1/2	3,726.57	1/2	4,088.24	1/2	4,439.37	1/2	4,777.00	1/2	5,099.08	1/2		1/2		1/2		1/2		1/2	
3/4	3,734.12	3/4	4,095.69	3/4	4,446.55	3/4	4,783.87	3/4	5,105.61	3/4		3/4		3/4		3/4		3/4	
4	3,741.67	4	4,103.14	4	4,453.73	4	4,790.74	4	5,112.14	4		4		4		4		4	
1/4	3,749.23	1/4	4,110.57	1/4	4,460.88	1/4	4,797.59	1/4	5,118.64	1/4		1/4		1/4		1/4		1/4	
1/2	3,756.78	1/2	4,118.01	1/2	4,468.04	1/2	4,804.44	1/2	5,125.15	1/2		1/2		1/2		1/2		1/2	
3/4	3,764.33	3/4	4,125.44	3/4	4,475.19	3/4	4,811.29	3/4	5,131.65	3/4		3/4		3/4		3/4		3/4	
5	3,771.89	5	4,132.87	5	4,482.35	5	4,818.14	5	5,138.15	5		5		5		5		5	
1/4	3,779.44	1/4	4,140.27	1/4	4,489.48	1/4	4,824.97	1/4	5,145.35	1/4		1/4		1/4		1/4		1/4	
1/2	3,787.00	1/2	4,147.68	1/2	4,496.61	1/2	4,831.80	1/2	5,152.55	1/2		1/2		1/2		1/2		1/2	
3/4	3,794.55	3/4	4,155.09	3/4	4,503.74	3/4	4,838.62	3/4	5,159.75	3/4		3/4		3/4		3/4		3/4	
6	3,802.10	6	4,162.49	6	4,510.87	6	4,845.45	6	5,166.94	6		6		6		6		6	
1/4	3,809.66	1/4	4,169.88	1/4	4,517.98	1/4	4,852.25	1/4	5,173.28	1/4		1/4		1/4		1/4		1/4	
1/2	3,817.21	1/2	4,177.26	1/2	4,525.09	1/2	4,859.06	1/2	5,179.61	1/2		1/2		1/2		1/2		1/2	
3/4	3,824.76	3/4	4,184.65	3/4	4,532.20	3/4	4,865.86	3/4	5,185.94	3/4		3/4		3/4		3/4		3/4	
7	3,832.32	7	4,192.03	7	4,539.31	7	4,872.67	7	5,192.28	7		7		7		7		7	
1/4	3,839.87	1/4	4,199.39	1/4	4,546.39	1/4	4,879.45	1/4	5,197.39	1/4		1/4		1/4		1/4		1/4	
1/2	3,847.43	1/2	4,206.75	1/2	4,553.48	1/2	4,886.23	1/2	5,202.51	1/2		1/2		1/2		1/2		1/2	
3/4	3,854.98	3/4	4,214.11	3/4	4,560.56	3/4	4,893.01	3/4	5,207.63	3/4		3/4		3/4		3/4		3/4	
8	3,862.53	8	4,221.48	8	4,567.65	8	4,899.79	8	5,212.75	8		8		8		8		8	
1/4	3,870.09	1/4	4,228.81	1/4	4,574.71	1/4	4,906.55	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,877.64	1/2	4,236.15	1/2	4,581.77	1/2	4,913.30	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,885.19	3/4	4,243.49	3/4	4,588.84	3/4	4,920.06	3/4		3/4		3/4		3/4		3/4		3/4	
9	3,892.75	9	4,250.83	9	4,595.90	9	4,926.82	9		9		9		9		9		9	
1/4	3,900.30	1/4	4,258.14	1/4	4,602.94	1/4	4,933.56	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,907.86	1/2	4,265.46	1/2	4,609.98	1/2	4,940.29	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,915.41	3/4	4,272.78	3/4	4,617.02	3/4	4,947.03	3/4		3/4		3/4		3/4		3/4		3/4	
10	3,922.96	10	4,280.09	10	4,624.06	10	4,953.77	10		10		10		10		10		10	
1/4	3,930.52	1/4	4,287.38	1/4	4,631.07	1/4	4,960.48	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,938.07	1/2	4,294.68	1/2	4,638.09	1/2	4,967.20	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,945.62	3/4	4,301.97	3/4	4,645.11	3/4	4,973.91	3/4		3/4		3/4		3/4		3/4		3/4	
11	3,953.18	11	4,309.26	11	4,652.12	11	4,980.62	11		11		11		11		11		11	
1/4	3,960.72	1/4	4,316.53	1/4	4,659.12	1/4	4,987.25	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,968.26	1/2	4,323.80	1/2	4,666.11	1/2	4,993.88	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,975.80	3/4	4,331.07	3/4	4,673.11	3/4	5,000.51	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
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Pearland, Texas 77588
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BARGE "CCL 419-L"

2 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.34	0	358.35	0	720.18	0	1,081.77	0	1,443.36	0	1,805.20	0	2,167.05	0	2,528.89	0	2,890.63	0	3,252.34
1/4	25.58	1/4	365.89	1/4	727.72	1/4	1,089.30	1/4	1,450.90	1/4	1,812.74	1/4	2,174.59	1/4	2,536.43	1/4	2,898.17	1/4	3,259.87
1/2	29.82	1/2	373.43	1/2	735.26	1/2	1,096.82	1/2	1,458.44	1/2	1,820.28	1/2	2,182.12	1/2	2,543.97	1/2	2,905.70	1/2	3,267.41
3/4	34.06	3/4	380.96	3/4	742.79	3/4	1,104.35	3/4	1,465.98	3/4	1,827.82	3/4	2,189.66	3/4	2,551.51	3/4	2,913.24	3/4	3,274.95
1	38.30	1	388.50	1	750.33	1	1,111.88	1	1,473.52	1	1,835.36	1	2,197.20	1	2,559.04	1	2,920.77	1	3,282.48
1/4	43.80	1/4	396.04	1/4	757.87	1/4	1,119.40	1/4	1,481.05	1/4	1,842.90	1/4	2,204.74	1/4	2,566.58	1/4	2,928.31	1/4	3,290.02
1/2	49.29	1/2	403.58	1/2	765.41	1/2	1,126.93	1/2	1,488.59	1/2	1,850.44	1/2	2,212.28	1/2	2,574.12	1/2	2,935.84	1/2	3,297.55
3/4	54.79	3/4	411.12	3/4	772.95	3/4	1,134.45	3/4	1,496.13	3/4	1,857.97	3/4	2,219.82	3/4	2,581.66	3/4	2,943.38	3/4	3,305.09
2	60.28	2	418.65	2	780.48	2	1,141.98	2	1,503.67	2	1,865.51	2	2,227.36	2	2,589.20	2	2,950.91	2	3,312.62
1/4	67.04	1/4	426.19	1/4	788.02	1/4	1,149.51	1/4	1,511.21	1/4	1,873.05	1/4	2,234.89	1/4	2,596.74	1/4	2,958.45	1/4	3,320.16
1/2	73.79	1/2	433.73	1/2	795.56	1/2	1,157.03	1/2	1,518.75	1/2	1,880.59	1/2	2,242.43	1/2	2,604.28	1/2	2,965.99	1/2	3,327.69
3/4	80.54	3/4	441.27	3/4	803.10	3/4	1,164.56	3/4	1,526.28	3/4	1,888.13	3/4	2,249.97	3/4	2,611.81	3/4	2,973.52	3/4	3,335.23
3	87.29	3	448.81	3	810.64	3	1,172.08	3	1,533.82	3	1,895.67	3	2,257.51	3	2,619.35	3	2,981.06	3	3,342.77
1/4	94.75	1/4	456.35	1/4	818.17	1/4	1,179.61	1/4	1,541.36	1/4	1,903.20	1/4	2,265.05	1/4	2,626.89	1/4	2,988.59	1/4	3,350.30
1/2	102.21	1/2	463.88	1/2	825.71	1/2	1,187.14	1/2	1,548.90	1/2	1,910.74	1/2	2,272.59	1/2	2,634.42	1/2	2,996.13	1/2	3,357.84
3/4	109.67	3/4	471.42	3/4	833.25	3/4	1,194.66	3/4	1,556.44	3/4	1,918.28	3/4	2,280.12	3/4	2,641.96	3/4	3,003.66	3/4	3,365.37
4	117.13	4	478.96	4	840.79	4	1,202.19	4	1,563.98	4	1,925.82	4	2,287.66	4	2,649.49	4	3,011.20	4	3,372.91
1/4	124.67	1/4	486.50	1/4	848.33	1/4	1,209.72	1/4	1,571.51	1/4	1,933.36	1/4	2,295.20	1/4	2,657.03	1/4	3,018.74	1/4	3,380.44
1/2	132.21	1/2	494.04	1/2	855.86	1/2	1,217.24	1/2	1,579.05	1/2	1,940.90	1/2	2,302.74	1/2	2,664.56	1/2	3,026.27	1/2	3,387.98
3/4	139.75	3/4	501.57	3/4	863.40	3/4	1,224.77	3/4	1,586.59	3/4	1,948.43	3/4	2,310.28	3/4	2,672.10	3/4	3,033.81	3/4	3,395.52
5	147.28	5	509.11	5	870.94	5	1,232.29	5	1,594.13	5	1,955.97	5	2,317.82	5	2,679.63	5	3,041.34	5	3,403.05
1/4	154.82	1/4	516.65	1/4	878.48	1/4	1,239.83	1/4	1,601.67	1/4	1,963.51	1/4	2,325.35	1/4	2,687.17	1/4	3,048.88	1/4	3,410.59
1/2	162.36	1/2	524.19	1/2	886.02	1/2	1,247.37	1/2	1,609.21	1/2	1,971.05	1/2	2,332.89	1/2	2,694.70	1/2	3,056.41	1/2	3,418.12
3/4	169.90	3/4	531.73	3/4	893.56	3/4	1,254.90	3/4	1,616.74	3/4	1,978.59	3/4	2,340.43	3/4	2,702.24	3/4	3,063.95	3/4	3,425.66
6	177.44	6	539.26	6	901.09	6	1,262.44	6	1,624.28	6	1,986.13	6	2,347.97	6	2,709.78	6	3,071.48	6	3,433.19
1/4	184.97	1/4	546.80	1/4	908.63	1/4	1,269.98	1/4	1,631.82	1/4	1,993.66	1/4	2,355.51	1/4	2,717.31	1/4	3,079.02	1/4	3,440.73
1/2	192.51	1/2	554.34	1/2	916.17	1/2	1,277.52	1/2	1,639.36	1/2	2,001.20	1/2	2,363.05	1/2	2,724.85	1/2	3,086.56	1/2	3,448.26
3/4	200.05	3/4	561.88	3/4	923.71	3/4	1,285.06	3/4	1,646.90	3/4	2,008.74	3/4	2,370.58	3/4	2,732.38	3/4	3,094.09	3/4	3,455.80
7	207.59	7	569.42	7	931.25	7	1,292.59	7	1,654.44	7	2,016.28	7	2,378.12	7	2,739.92	7	3,101.63	7	3,463.34
1/4	215.13	1/4	576.95	1/4	938.77	1/4	1,300.13	1/4	1,661.98	1/4	2,023.82	1/4	2,385.66	1/4	2,747.45	1/4	3,109.16	1/4	3,470.87
1/2	222.66	1/2	584.49	1/2	946.30	1/2	1,307.67	1/2	1,669.51	1/2	2,031.36	1/2	2,393.20	1/2	2,754.99	1/2	3,116.70	1/2	3,478.41
3/4	230.20	3/4	592.03	3/4	953.83	3/4	1,315.21	3/4	1,677.05	3/4	2,038.90	3/4	2,400.74	3/4	2,762.52	3/4	3,124.23	3/4	3,485.94
8	237.74	8	599.57	8	961.35	8	1,322.75	8	1,684.59	8	2,046.43	8	2,408.28	8	2,770.06	8	3,131.77	8	3,493.48
1/4	245.28	1/4	607.11	1/4	968.88	1/4	1,330.29	1/4	1,692.13	1/4	2,053.97	1/4	2,415.82	1/4	2,777.60	1/4	3,139.30	1/4	3,501.01
1/2	252.82	1/2	614.65	1/2	976.41	1/2	1,337.82	1/2	1,699.67	1/2	2,061.51	1/2	2,423.35	1/2	2,785.13	1/2	3,146.84	1/2	3,508.55
3/4	260.35	3/4	622.18	3/4	983.93	3/4	1,345.36	3/4	1,707.21	3/4	2,069.05	3/4	2,430.89	3/4	2,792.67	3/4	3,154.38	3/4	3,516.08
9	267.89	9	629.72	9	991.46	9	1,352.90	9	1,714.74	9	2,076.59	9	2,438.43	9	2,800.20	9	3,161.91	9	3,523.62
1/4	275.43	1/4	637.26	1/4	998.98	1/4	1,360.44	1/4	1,722.28	1/4	2,084.13	1/4	2,445.97	1/4	2,807.74	1/4	3,169.45	1/4	3,531.16
1/2	282.97	1/2	644.80	1/2	1,006.51	1/2	1,367.98	1/2	1,729.82	1/2	2,091.66	1/2	2,453.51	1/2	2,815.27	1/2	3,176.98	1/2	3,538.69
3/4	290.51	3/4	652.34	3/4	1,014.04	3/4	1,375.52	3/4	1,737.36	3/4	2,099.20	3/4	2,461.05	3/4	2,822.81	3/4	3,184.52	3/4	3,546.23
10	298.05	10	659.87	10	1,021.56	10	1,383.05	10	1,744.90	10	2,106.74	10	2,468.58	10	2,830.35	10	3,192.05	10	3,553.76
1/4	305.58	1/4	667.41	1/4	1,029.09	1/4	1,390.59	1/4	1,752.44	1/4	2,114.28	1/4	2,476.12	1/4	2,837.88	1/4	3,199.59	1/4	3,561.30
1/2	313.12	1/2	674.95	1/2	1,036.61	1/2	1,398.13	1/2	1,759.97	1/2	2,121.82	1/2	2,483.66	1/2	2,845.42	1/2	3,207.13	1/2	3,568.83
3/4	320.66	3/4	682.49	3/4	1,044.14	3/4	1,405.67	3/4	1,767.51	3/4	2,129.36	3/4	2,491.20	3/4	2,852.95	3/4	3,214.66	3/4	3,576.37
11	328.20	11	690.03	11	1,051.67	11	1,413.21	11	1,775.05	11	2,136.89	11	2,498.74	11	2,860.49	11	3,222.20	11	3,583.91
1/4	335.74	1/4	697.56	1/4	1,059.19	1/4	1,420.75	1/4	1,782.59	1/4	2,144.43	1/4	2,506.28	1/4	2,868.02	1/4	3,229.73	1/4	3,591.44
1/2	343.27	1/2	705.10	1/2	1,066.72	1/2	1,428.28	1/2	1,790.13	1/2	2,151.97	1/2	2,513.81	1/2	2,875.56	1/2	3,237.27	1/2	3,598.98
3/4	350.81	3/4	712.64	3/4	1,074.25	3/4	1,435.82	3/4	1,797.67	3/4	2,159.51	3/4	2,521.35	3/4	2,883.09	3/4	3,244.80	3/4	3,606.51

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

2 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	3,614.05	0	3,975.72	0	4,329.84	0	4,670.72	0	4,996.88	0		0		0		0		0	
1/4	3,621.58	1/4	3,983.22	1/4	4,337.07	1/4	4,677.68	1/4	5,003.46	1/4		1/4		1/4		1/4		1/4	
1/2	3,629.12	1/2	3,990.72	1/2	4,344.30	1/2	4,684.63	1/2	5,010.04	1/2		1/2		1/2		1/2		1/2	
3/4	3,636.65	3/4	3,998.23	3/4	4,351.52	3/4	4,691.58	3/4	5,016.62	3/4		3/4		3/4		3/4		3/4	
1	3,644.19	1	4,005.73	1	4,358.75	1	4,698.53	1	5,023.19	1		1		1		1		1	
1/4	3,651.73	1/4	4,013.21	1/4	4,365.96	1/4	4,705.44	1/4	5,029.75	1/4		1/4		1/4		1/4		1/4	
1/2	3,659.26	1/2	4,020.69	1/2	4,373.16	1/2	4,712.34	1/2	5,036.30	1/2		1/2		1/2		1/2		1/2	
3/4	3,666.80	3/4	4,028.17	3/4	4,380.37	3/4	4,719.25	3/4	5,042.86	3/4		3/4		3/4		3/4		3/4	
2	3,674.33	2	4,035.66	2	4,387.57	2	4,726.15	2	5,049.41	2		2		2		2		2	
1/4	3,681.87	1/4	4,043.11	1/4	4,394.76	1/4	4,733.03	1/4	5,055.95	1/4		1/4		1/4		1/4		1/4	
1/2	3,689.40	1/2	4,050.57	1/2	4,401.94	1/2	4,739.90	1/2	5,062.48	1/2		1/2		1/2		1/2		1/2	
3/4	3,696.94	3/4	4,058.03	3/4	4,409.12	3/4	4,746.78	3/4	5,069.01	3/4		3/4		3/4		3/4		3/4	
3	3,704.47	3	4,065.49	3	4,416.30	3	4,753.66	3	5,075.54	3		3		3		3		3	
1/4	3,712.01	1/4	4,072.92	1/4	4,423.46	1/4	4,760.51	1/4	5,082.05	1/4		1/4		1/4		1/4		1/4	
1/2	3,719.55	1/2	4,080.36	1/2	4,430.62	1/2	4,767.37	1/2	5,088.56	1/2		1/2		1/2		1/2		1/2	
3/4	3,727.08	3/4	4,087.79	3/4	4,437.78	3/4	4,774.22	3/4	5,095.07	3/4		3/4		3/4		3/4		3/4	
4	3,734.62	4	4,095.23	4	4,444.94	4	4,781.08	4	5,101.58	4		4		4		4		4	
1/4	3,742.15	1/4	4,102.64	1/4	4,452.08	1/4	4,787.91	1/4	5,108.07	1/4		1/4		1/4		1/4		1/4	
1/2	3,749.69	1/2	4,110.05	1/2	4,459.21	1/2	4,794.74	1/2	5,114.55	1/2		1/2		1/2		1/2		1/2	
3/4	3,757.22	3/4	4,117.46	3/4	4,466.35	3/4	4,801.57	3/4	5,121.04	3/4		3/4		3/4		3/4		3/4	
5	3,764.76	5	4,124.88	5	4,473.48	5	4,808.40	5	5,127.53	5		5		5		5		5	
1/4	3,772.30	1/4	4,132.27	1/4	4,480.60	1/4	4,815.21	1/4	5,134.71	1/4		1/4		1/4		1/4		1/4	
1/2	3,779.83	1/2	4,139.65	1/2	4,487.71	1/2	4,822.02	1/2	5,141.89	1/2		1/2		1/2		1/2		1/2	
3/4	3,787.37	3/4	4,147.04	3/4	4,494.82	3/4	4,828.83	3/4	5,149.07	3/4		3/4		3/4		3/4		3/4	
6	3,794.90	6	4,154.43	6	4,501.94	6	4,835.63	6	5,156.25	6		6		6		6		6	
1/4	3,802.44	1/4	4,161.80	1/4	4,509.03	1/4	4,842.42	1/4	5,162.57	1/4		1/4		1/4		1/4		1/4	
1/2	3,809.97	1/2	4,169.16	1/2	4,516.12	1/2	4,849.21	1/2	5,168.88	1/2		1/2		1/2		1/2		1/2	
3/4	3,817.51	3/4	4,176.53	3/4	4,523.21	3/4	4,855.99	3/4	5,175.20	3/4		3/4		3/4		3/4		3/4	
7	3,825.04	7	4,183.90	7	4,530.30	7	4,862.78	7	5,181.52	7		7		7		7		7	
1/4	3,832.58	1/4	4,191.24	1/4	4,537.37	1/4	4,869.54	1/4	5,186.63	1/4		1/4		1/4		1/4		1/4	
1/2	3,840.12	1/2	4,198.58	1/2	4,544.43	1/2	4,876.30	1/2	5,191.73	1/2		1/2		1/2		1/2		1/2	
3/4	3,847.65	3/4	4,205.93	3/4	4,551.50	3/4	4,883.06	3/4	5,196.84	3/4		3/4		3/4		3/4		3/4	
8	3,855.19	8	4,213.27	8	4,558.57	8	4,889.83	8	5,201.94	8		8		8		8		8	
1/4	3,862.72	1/4	4,220.59	1/4	4,565.61	1/4	4,896.57	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,870.26	1/2	4,227.91	1/2	4,572.66	1/2	4,903.30	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,877.79	3/4	4,235.23	3/4	4,579.70	3/4	4,910.04	3/4		3/4		3/4		3/4		3/4		3/4	
9	3,885.33	9	4,242.55	9	4,586.74	9	4,916.78	9		9		9		9		9		9	
1/4	3,892.86	1/4	4,249.85	1/4	4,593.77	1/4	4,923.50	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,900.40	1/2	4,257.14	1/2	4,600.79	1/2	4,930.22	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,907.94	3/4	4,264.44	3/4	4,607.81	3/4	4,936.94	3/4		3/4		3/4		3/4		3/4		3/4	
10	3,915.47	10	4,271.74	10	4,614.83	10	4,943.66	10		10		10		10		10		10	
1/4	3,923.01	1/4	4,279.01	1/4	4,621.83	1/4	4,950.35	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,930.54	1/2	4,286.29	1/2	4,628.83	1/2	4,957.05	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,938.08	3/4	4,293.56	3/4	4,635.82	3/4	4,963.74	3/4		3/4		3/4		3/4		3/4		3/4	
11	3,945.61	11	4,300.84	11	4,642.82	11	4,970.44	11		11		11		11		11		11	
1/4	3,953.14	1/4	4,308.09	1/4	4,649.80	1/4	4,977.05	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,960.67	1/2	4,315.34	1/2	4,656.77	1/2	4,983.66	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,968.19	3/4	4,322.59	3/4	4,663.75	3/4	4,990.27	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
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BARGE "CCL 419-L"

2 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.35	0	358.39	0	720.27	0	1,074.11	0	1,427.62	0	1,789.50	0	2,151.38	0	2,513.26	0	2,875.06	0	3,236.81
1/4	25.59	1/4	365.93	1/4	727.80	1/4	1,081.30	1/4	1,435.16	1/4	1,797.04	1/4	2,158.92	1/4	2,520.80	1/4	2,882.60	1/4	3,244.35
1/2	29.83	1/2	373.47	1/2	735.34	1/2	1,088.50	1/2	1,442.70	1/2	1,804.58	1/2	2,166.46	1/2	2,528.34	1/2	2,890.13	1/2	3,251.89
3/4	34.06	3/4	381.01	3/4	742.88	3/4	1,095.70	3/4	1,450.23	3/4	1,812.12	3/4	2,174.00	3/4	2,535.88	3/4	2,897.67	3/4	3,259.42
1	38.30	1	388.55	1	750.42	1	1,102.89	1	1,457.77	1	1,819.66	1	2,181.54	1	2,543.42	1	2,905.21	1	3,266.96
1 1/4	43.80	1 1/4	396.09	1 1/4	757.96	1 1/4	1,110.09	1 1/4	1,465.31	1 1/4	1,827.19	1 1/4	2,189.08	1 1/4	2,550.96	1 1/4	2,912.74	1 1/4	3,274.49
1 1/2	49.30	1 1/2	403.63	1 1/2	765.50	1 1/2	1,117.28	1 1/2	1,472.85	1 1/2	1,834.73	1 1/2	2,196.62	1 1/2	2,558.50	1 1/2	2,920.28	1 1/2	3,282.03
3/4	54.79	3/4	411.17	3/4	773.04	3/4	1,124.48	3/4	1,480.39	3/4	1,842.27	3/4	2,204.15	3/4	2,566.04	3/4	2,927.82	3/4	3,289.57
2	60.29	2	418.71	2	780.58	2	1,131.67	2	1,487.93	2	1,849.81	2	2,211.69	2	2,573.58	2	2,935.35	2	3,297.10
1 1/4	67.04	1 1/4	426.24	1 1/4	788.12	1 1/4	1,138.87	1 1/4	1,495.47	1 1/4	1,857.35	1 1/4	2,219.23	1 1/4	2,581.11	1 1/4	2,942.89	1 1/4	3,304.64
1 1/2	73.80	1 1/2	433.78	1 1/2	795.66	1 1/2	1,146.06	1 1/2	1,503.01	1 1/2	1,864.89	1 1/2	2,226.77	1 1/2	2,588.65	1 1/2	2,950.43	1 1/2	3,312.18
3/4	80.55	3/4	441.32	3/4	803.19	3/4	1,153.26	3/4	1,510.55	3/4	1,872.43	3/4	2,234.31	3/4	2,596.19	3/4	2,957.96	3/4	3,319.71
3	87.30	3	448.86	3	810.73	3	1,160.46	3	1,518.09	3	1,879.97	3	2,241.85	3	2,603.73	3	2,965.50	3	3,327.25
1 1/4	94.76	1 1/4	456.40	1 1/4	818.27	1 1/4	1,167.65	1 1/4	1,525.63	1 1/4	1,887.51	1 1/4	2,249.39	1 1/4	2,611.27	1 1/4	2,973.03	1 1/4	3,334.79
1 1/2	102.22	1 1/2	463.94	1 1/2	825.81	1 1/2	1,174.85	1 1/2	1,533.17	1 1/2	1,895.05	1 1/2	2,256.93	1 1/2	2,618.81	1 1/2	2,980.57	1 1/2	3,342.32
3/4	109.68	3/4	471.48	3/4	833.35	3/4	1,182.04	3/4	1,540.70	3/4	1,902.59	3/4	2,264.47	3/4	2,626.35	3/4	2,988.11	3/4	3,349.86
4	117.15	4	479.02	4	840.89	4	1,189.24	4	1,548.24	4	1,910.13	4	2,272.01	4	2,633.89	4	2,995.64	4	3,357.40
1 1/4	124.68	1 1/4	486.56	1 1/4	848.43	1 1/4	1,196.43	1 1/4	1,555.78	1 1/4	1,917.66	1 1/4	2,279.55	1 1/4	2,641.43	1 1/4	3,003.18	1 1/4	3,364.93
1 1/2	132.22	1 1/2	494.10	1 1/2	855.97	1 1/2	1,203.63	1 1/2	1,563.32	1 1/2	1,925.20	1 1/2	2,287.09	1 1/2	2,648.97	1 1/2	3,010.72	1 1/2	3,372.47
3/4	139.76	3/4	501.63	3/4	863.51	3/4	1,210.82	3/4	1,570.86	3/4	1,932.74	3/4	2,294.62	3/4	2,656.50	3/4	3,018.25	3/4	3,380.01
5	147.30	5	509.17	5	871.05	5	1,218.02	5	1,578.40	5	1,940.28	5	2,302.16	5	2,664.04	5	3,025.79	5	3,387.54
1 1/4	154.84	1 1/4	516.71	1 1/4	878.58	1 1/4	1,225.22	1 1/4	1,585.94	1 1/4	1,947.82	1 1/4	2,309.70	1 1/4	2,671.57	1 1/4	3,033.33	1 1/4	3,395.08
1 1/2	162.38	1 1/2	524.25	1 1/2	886.12	1 1/2	1,232.43	1 1/2	1,593.48	1 1/2	1,955.36	1 1/2	2,317.24	1 1/2	2,679.11	1 1/2	3,040.86	1 1/2	3,402.62
3/4	169.92	3/4	531.79	3/4	893.66	3/4	1,239.64	3/4	1,601.02	3/4	1,962.90	3/4	2,324.78	3/4	2,686.65	3/4	3,048.40	3/4	3,410.15
6	177.46	6	539.33	6	901.20	6	1,246.84	6	1,608.56	6	1,970.44	6	2,332.32	6	2,694.18	6	3,055.94	6	3,417.69
1 1/4	185.00	1 1/4	546.87	1 1/4	908.45	1 1/4	1,254.34	1 1/4	1,616.10	1 1/4	1,977.98	1 1/4	2,339.86	1 1/4	2,701.72	1 1/4	3,063.47	1 1/4	3,425.22
1 1/2	192.54	1 1/2	554.41	1 1/2	915.70	1 1/2	1,261.84	1 1/2	1,623.54	1 1/2	1,985.52	1 1/2	2,347.40	1 1/2	2,709.26	1 1/2	3,071.01	1 1/2	3,432.76
3/4	200.07	3/4	561.95	3/4	922.95	3/4	1,269.33	3/4	1,631.18	3/4	1,993.06	3/4	2,354.94	3/4	2,716.79	3/4	3,078.55	3/4	3,440.30
7	207.61	7	569.49	7	930.19	7	1,276.83	7	1,638.71	7	2,000.60	7	2,362.48	7	2,724.33	7	3,086.08	7	3,447.83
1 1/4	215.15	1 1/4	577.02	1 1/4	937.39	1 1/4	1,284.37	1 1/4	1,646.25	1 1/4	2,008.14	1 1/4	2,370.02	1 1/4	2,731.87	1 1/4	3,093.62	1 1/4	3,455.37
1 1/2	222.69	1 1/2	584.56	1 1/2	944.59	1 1/2	1,291.91	1 1/2	1,653.79	1 1/2	2,015.67	1 1/2	2,377.56	1 1/2	2,739.40	1 1/2	3,101.16	1 1/2	3,462.91
3/4	230.23	3/4	592.10	3/4	951.78	3/4	1,299.45	3/4	1,661.33	3/4	2,023.21	3/4	2,385.10	3/4	2,746.94	3/4	3,108.69	3/4	3,470.44
8	237.77	8	599.64	8	958.98	8	1,306.99	8	1,668.87	8	2,030.75	8	2,392.63	8	2,754.48	8	3,116.23	8	3,477.98
1 1/4	245.31	1 1/4	607.18	1 1/4	966.18	1 1/4	1,314.53	1 1/4	1,676.41	1 1/4	2,038.29	1 1/4	2,400.17	1 1/4	2,762.01	1 1/4	3,123.76	1 1/4	3,485.52
1 1/2	252.85	1 1/2	614.72	1 1/2	973.37	1 1/2	1,322.07	1 1/2	1,683.95	1 1/2	2,045.83	1 1/2	2,407.71	1 1/2	2,769.55	1 1/2	3,131.30	1 1/2	3,493.05
3/4	260.39	3/4	622.26	3/4	980.57	3/4	1,329.61	3/4	1,691.49	3/4	2,053.37	3/4	2,415.25	3/4	2,777.09	3/4	3,138.84	3/4	3,500.59
9	267.93	9	629.80	9	987.76	9	1,337.15	9	1,699.03	9	2,060.91	9	2,422.79	9	2,784.62	9	3,146.37	9	3,508.13
1 1/4	275.46	1 1/4	637.34	1 1/4	994.96	1 1/4	1,344.69	1 1/4	1,706.57	1 1/4	2,068.45	1 1/4	2,430.33	1 1/4	2,792.16	1 1/4	3,153.91	1 1/4	3,515.66
1 1/2	283.00	1 1/2	644.88	1 1/2	1,002.15	1 1/2	1,352.22	1 1/2	1,714.11	1 1/2	2,075.99	1 1/2	2,437.87	1 1/2	2,799.70	1 1/2	3,161.45	1 1/2	3,523.20
3/4	290.54	3/4	652.41	3/4	1,009.35	3/4	1,359.76	3/4	1,721.65	3/4	2,083.53	3/4	2,445.41	3/4	2,807.23	3/4	3,168.98	3/4	3,530.74
10	298.08	10	659.95	10	1,016.55	10	1,367.30	10	1,729.18	10	2,091.07	10	2,452.95	10	2,814.77	10	3,176.52	10	3,538.27
1 1/4	305.62	1 1/4	667.49	1 1/4	1,023.74	1 1/4	1,374.84	1 1/4	1,736.72	1 1/4	2,098.61	1 1/4	2,460.49	1 1/4	2,822.30	1 1/4	3,184.06	1 1/4	3,545.81
1 1/2	313.16	1 1/2	675.03	1 1/2	1,030.94	1 1/2	1,382.38	1 1/2	1,744.26	1 1/2	2,106.14	1 1/2	2,468.03	1 1/2	2,829.84	1 1/2	3,191.59	1 1/2	3,553.35
3/4	320.70	3/4	682.57	3/4	1,038.13	3/4	1,389.92	3/4	1,751.80	3/4	2,113.68	3/4	2,475.57	3/4	2,837.38	3/4	3,199.13	3/4	3,560.88
11	328.24	11	690.11	11	1,045.33	11	1,397.46	11	1,759.34	11	2,121.22	11	2,483.10	11	2,844.91	11	3,206.67	11	3,568.42
1 1/4	335.78	1 1/4	697.65	1 1/4	1,052.52	1 1/4	1,405.00	1 1/4	1,766.88	1 1/4	2,128.76	1 1/4	2,490.64	1 1/4	2,852.45	1 1/4	3,214.20	1 1/4	3,575.95
1 1/2	343.32	1 1/2	705.19	1 1/2	1,059.72	1 1/2	1,412.54	1 1/2	1,774.42	1 1/2	2,136.30	1 1/2	2,498.18	1 1/2	2,859.99	1 1/2	3,221.74	1 1/2	3,583.49
3/4	350.85	3/4	712.73	3/4	1,066.91	3/4	1,420.08	3/4	1,781.96	3/4	2,143.84	3/4	2,505.72	3/4	2,867.52	3/4	3,229.28	3/4	3,591.03

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

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BARGE "CCL 419-L"

2 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	3,598.56	0	3,960.27	0	4,314.44	0	4,655.36	0	4,981.54	0		0		0		0		0	
1/4	3,606.10	1/4	3,967.78	1/4	4,321.67	1/4	4,662.31	1/4	4,988.12	1/4		1/4		1/4		1/4		1/4	
1/2	3,613.64	1/2	3,975.28	1/2	4,328.90	1/2	4,669.26	1/2	4,994.70	1/2		1/2		1/2		1/2		1/2	
3/4	3,621.17	3/4	3,982.79	3/4	4,336.13	3/4	4,676.22	3/4	5,001.27	3/4		3/4		3/4		3/4		3/4	
1	3,628.71	1	3,990.29	1	4,343.35	1	4,683.17	1	5,007.85	1		1		1		1		1	
1/4	3,636.25	1/4	3,997.78	1/4	4,350.56	1/4	4,690.07	1/4	5,014.41	1/4		1/4		1/4		1/4		1/4	
1/2	3,643.78	1/2	4,005.26	1/2	4,357.77	1/2	4,696.98	1/2	5,020.96	1/2		1/2		1/2		1/2		1/2	
3/4	3,651.32	3/4	4,012.74	3/4	4,364.97	3/4	4,703.88	3/4	5,027.52	3/4		3/4		3/4		3/4		3/4	
2	3,658.86	2	4,020.22	2	4,372.18	2	4,710.79	2	5,034.08	2		2		2		2		2	
1/4	3,666.39	1/4	4,027.68	1/4	4,379.36	1/4	4,717.66	1/4	5,040.61	1/4		1/4		1/4		1/4		1/4	
1/2	3,673.93	1/2	4,035.14	1/2	4,386.54	1/2	4,724.54	1/2	5,047.14	1/2		1/2		1/2		1/2		1/2	
3/4	3,681.47	3/4	4,042.60	3/4	4,393.73	3/4	4,731.42	3/4	5,053.67	3/4		3/4		3/4		3/4		3/4	
3	3,689.00	3	4,050.06	3	4,400.91	3	4,738.30	3	5,060.21	3		3		3		3		3	
1/4	3,696.54	1/4	4,057.49	1/4	4,408.07	1/4	4,745.15	1/4	5,066.72	1/4		1/4		1/4		1/4		1/4	
1/2	3,704.08	1/2	4,064.93	1/2	4,415.23	1/2	4,752.01	1/2	5,073.23	1/2		1/2		1/2		1/2		1/2	
3/4	3,711.61	3/4	4,072.37	3/4	4,422.39	3/4	4,758.86	3/4	5,079.74	3/4		3/4		3/4		3/4		3/4	
4	3,719.15	4	4,079.80	4	4,429.55	4	4,765.72	4	5,086.24	4		4		4		4		4	
1/4	3,726.68	1/4	4,087.21	1/4	4,436.69	1/4	4,772.55	1/4	5,092.73	1/4		1/4		1/4		1/4		1/4	
1/2	3,734.22	1/2	4,094.63	1/2	4,443.82	1/2	4,779.38	1/2	5,099.22	1/2		1/2		1/2		1/2		1/2	
3/4	3,741.76	3/4	4,102.04	3/4	4,450.96	3/4	4,786.21	3/4	5,105.70	3/4		3/4		3/4		3/4		3/4	
5	3,749.29	5	4,109.45	5	4,458.10	5	4,793.04	5	5,112.19	5		5		5		5		5	
1/4	3,756.83	1/4	4,116.84	1/4	4,465.21	1/4	4,799.85	1/4	5,119.37	1/4		1/4		1/4		1/4		1/4	
1/2	3,764.37	1/2	4,124.23	1/2	4,472.32	1/2	4,806.66	1/2	5,126.56	1/2		1/2		1/2		1/2		1/2	
3/4	3,771.90	3/4	4,131.62	3/4	4,479.44	3/4	4,813.47	3/4	5,133.74	3/4		3/4		3/4		3/4		3/4	
6	3,779.44	6	4,139.01	6	4,486.55	6	4,820.28	6	5,140.92	6		6		6		6		6	
1/4	3,786.98	1/4	4,146.38	1/4	4,493.64	1/4	4,827.07	1/4	5,147.24	1/4		1/4		1/4		1/4		1/4	
1/2	3,794.51	1/2	4,153.75	1/2	4,500.73	1/2	4,833.85	1/2	5,153.56	1/2		1/2		1/2		1/2		1/2	
3/4	3,802.05	3/4	4,161.11	3/4	4,507.83	3/4	4,840.64	3/4	5,159.88	3/4		3/4		3/4		3/4		3/4	
7	3,809.59	7	4,168.48	7	4,514.92	7	4,847.42	7	5,166.20	7		7		7		7		7	
1/4	3,817.12	1/4	4,175.82	1/4	4,521.98	1/4	4,854.19	1/4	5,171.30	1/4		1/4		1/4		1/4		1/4	
1/2	3,824.66	1/2	4,183.17	1/2	4,529.05	1/2	4,860.95	1/2	5,176.41	1/2		1/2		1/2		1/2		1/2	
3/4	3,832.20	3/4	4,190.51	3/4	4,536.12	3/4	4,867.71	3/4	5,181.52	3/4		3/4		3/4		3/4		3/4	
8	3,839.73	8	4,197.86	8	4,543.19	8	4,874.47	8	5,186.62	8		8		8		8		8	
1/4	3,847.27	1/4	4,205.18	1/4	4,550.23	1/4	4,881.21	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,854.81	1/2	4,212.50	1/2	4,557.28	1/2	4,887.95	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,862.34	3/4	4,219.82	3/4	4,564.32	3/4	4,894.69	3/4		3/4		3/4		3/4		3/4		3/4	
9	3,869.88	9	4,227.14	9	4,571.37	9	4,901.43	9		9		9		9		9		9	
1/4	3,877.41	1/4	4,234.44	1/4	4,578.39	1/4	4,908.15	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,884.95	1/2	4,241.73	1/2	4,585.41	1/2	4,914.87	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,892.49	3/4	4,249.03	3/4	4,592.43	3/4	4,921.59	3/4		3/4		3/4		3/4		3/4		3/4	
10	3,900.02	10	4,256.33	10	4,599.46	10	4,928.31	10		10		10		10		10		10	
1/4	3,907.56	1/4	4,263.61	1/4	4,606.46	1/4	4,935.01	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,915.10	1/2	4,270.88	1/2	4,613.45	1/2	4,941.70	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,922.63	3/4	4,278.16	3/4	4,620.45	3/4	4,948.40	3/4		3/4		3/4		3/4		3/4		3/4	
11	3,930.17	11	4,285.43	11	4,627.45	11	4,955.10	11		11		11		11		11		11	
1/4	3,937.70	1/4	4,292.68	1/4	4,634.43	1/4	4,961.71	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	3,945.22	1/2	4,299.93	1/2	4,641.40	1/2	4,968.32	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	3,952.75	3/4	4,307.19	3/4	4,648.38	3/4	4,974.93	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
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BARGE "CCL 419-L"

3 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.24	0	356.61	0	716.67	0	1,076.54	0	1,436.45	0	1,796.52	0	2,156.58	0	2,516.58	0	2,876.38	0	3,235.30
1/4	25.46	1/4	364.11	1/4	724.17	1/4	1,084.03	1/4	1,443.95	1/4	1,804.03	1/4	2,164.08	1/4	2,524.08	1/4	2,883.87	1/4	3,242.75
1/2	29.68	1/2	371.61	1/2	731.67	1/2	1,091.52	1/2	1,451.45	1/2	1,811.53	1/2	2,171.58	1/2	2,531.58	1/2	2,891.35	1/2	3,250.20
3/4	33.90	3/4	379.11	3/4	739.17	3/4	1,099.01	3/4	1,458.95	3/4	1,819.03	3/4	2,179.08	3/4	2,539.08	3/4	2,898.84	3/4	3,257.66
1	38.12	1	386.61	1	746.67	1	1,106.51	1	1,466.45	1	1,826.53	1	2,186.58	1	2,546.58	1	2,906.32	1	3,265.11
1/4	43.59	1/4	394.11	1/4	754.18	1/4	1,114.00	1/4	1,473.96	1/4	1,834.03	1/4	2,194.08	1/4	2,554.08	1/4	2,913.81	1/4	3,272.56
1/2	49.05	1/2	401.61	1/2	761.68	1/2	1,121.49	1/2	1,481.46	1/2	1,841.53	1/2	2,201.58	1/2	2,561.58	1/2	2,921.29	1/2	3,280.01
3/4	54.52	3/4	409.12	3/4	769.18	3/4	1,128.98	3/4	1,488.96	3/4	1,849.04	3/4	2,209.08	3/4	2,569.08	3/4	2,928.78	3/4	3,287.46
2	59.99	2	416.62	2	776.68	2	1,136.47	2	1,496.46	2	1,856.54	2	2,216.58	2	2,576.58	2	2,936.27	2	3,294.91
1/4	66.71	1/4	424.12	1/4	784.18	1/4	1,143.97	1/4	1,503.96	1/4	1,864.04	1/4	2,224.08	1/4	2,584.08	1/4	2,943.75	1/4	3,302.37
1/2	73.43	1/2	431.62	1/2	791.68	1/2	1,151.46	1/2	1,511.46	1/2	1,871.54	1/2	2,231.58	1/2	2,591.58	1/2	2,951.24	1/2	3,309.82
3/4	80.15	3/4	439.12	3/4	799.18	3/4	1,158.95	3/4	1,518.96	3/4	1,879.04	3/4	2,239.08	3/4	2,599.08	3/4	2,958.72	3/4	3,317.27
3	86.87	3	446.62	3	806.68	3	1,166.44	3	1,526.47	3	1,886.54	3	2,246.58	3	2,606.58	3	2,966.21	3	3,324.72
1/4	94.30	1/4	454.12	1/4	814.19	1/4	1,173.94	1/4	1,533.97	1/4	1,894.04	1/4	2,254.08	1/4	2,614.07	1/4	2,973.69	1/4	3,332.18
1/2	101.72	1/2	461.62	1/2	821.69	1/2	1,181.43	1/2	1,541.47	1/2	1,901.55	1/2	2,261.58	1/2	2,621.57	1/2	2,981.18	1/2	3,339.65
3/4	109.14	3/4	469.13	3/4	829.19	3/4	1,188.92	3/4	1,548.97	3/4	1,909.05	3/4	2,269.08	3/4	2,629.07	3/4	2,988.67	3/4	3,347.12
4	116.56	4	476.63	4	836.69	4	1,196.41	4	1,556.47	4	1,916.55	4	2,276.58	4	2,636.57	4	2,996.15	4	3,354.58
1/4	124.07	1/4	484.13	1/4	844.19	1/4	1,203.91	1/4	1,563.97	1/4	1,924.05	1/4	2,284.08	1/4	2,644.07	1/4	3,003.64	1/4	3,362.05
1/2	131.57	1/2	491.63	1/2	851.69	1/2	1,211.41	1/2	1,571.48	1/2	1,931.55	1/2	2,291.58	1/2	2,651.57	1/2	3,011.12	1/2	3,369.51
3/4	139.07	3/4	499.13	3/4	859.19	3/4	1,218.91	3/4	1,578.98	3/4	1,939.05	3/4	2,299.08	3/4	2,659.06	3/4	3,018.61	3/4	3,376.98
5	146.57	5	506.63	5	866.69	5	1,226.40	5	1,586.48	5	1,946.56	5	2,306.58	5	2,666.56	5	3,026.09	5	3,384.45
1/4	154.07	1/4	514.13	1/4	874.20	1/4	1,233.91	1/4	1,593.98	1/4	1,954.06	1/4	2,314.08	1/4	2,674.06	1/4	3,033.58	1/4	3,391.92
1/2	161.57	1/2	521.64	1/2	881.70	1/2	1,241.41	1/2	1,601.48	1/2	1,961.56	1/2	2,321.58	1/2	2,681.56	1/2	3,041.07	1/2	3,399.38
3/4	169.07	3/4	529.14	3/4	889.20	3/4	1,248.91	3/4	1,608.98	3/4	1,969.06	3/4	2,329.08	3/4	2,689.06	3/4	3,048.55	3/4	3,406.85
6	176.58	6	536.64	6	896.70	6	1,256.41	6	1,616.49	6	1,976.56	6	2,336.58	6	2,696.56	6	3,056.04	6	3,414.32
1/4	184.08	1/4	544.14	1/4	904.20	1/4	1,263.91	1/4	1,623.99	1/4	1,984.06	1/4	2,344.08	1/4	2,704.05	1/4	3,063.52	1/4	3,421.78
1/2	191.58	1/2	551.64	1/2	911.70	1/2	1,271.41	1/2	1,631.49	1/2	1,991.57	1/2	2,351.58	1/2	2,711.55	1/2	3,071.01	1/2	3,429.25
3/4	199.08	3/4	559.14	3/4	919.19	3/4	1,278.91	3/4	1,638.99	3/4	1,999.07	3/4	2,359.08	3/4	2,719.05	3/4	3,078.49	3/4	3,436.72
7	206.58	7	566.64	7	926.69	7	1,286.42	7	1,646.49	7	2,006.57	7	2,366.58	7	2,726.55	7	3,085.98	7	3,444.18
1/4	214.08	1/4	574.14	1/4	934.18	1/4	1,293.92	1/4	1,653.99	1/4	2,014.07	1/4	2,374.08	1/4	2,734.05	1/4	3,093.47	1/4	3,451.65
1/2	221.58	1/2	581.65	1/2	941.68	1/2	1,301.42	1/2	1,661.50	1/2	2,021.57	1/2	2,381.58	1/2	2,741.55	1/2	3,100.95	1/2	3,459.12
3/4	229.08	3/4	589.15	3/4	949.17	3/4	1,308.92	3/4	1,669.00	3/4	2,029.07	3/4	2,389.08	3/4	2,749.04	3/4	3,108.44	3/4	3,466.59
8	236.59	8	596.65	8	956.66	8	1,316.42	8	1,676.50	8	2,036.58	8	2,396.58	8	2,756.54	8	3,115.92	8	3,474.05
1/4	244.09	1/4	604.15	1/4	964.15	1/4	1,323.92	1/4	1,684.00	1/4	2,044.08	1/4	2,404.08	1/4	2,764.04	1/4	3,123.41	1/4	3,481.52
1/2	251.59	1/2	611.65	1/2	971.65	1/2	1,331.42	1/2	1,691.50	1/2	2,051.58	1/2	2,411.58	1/2	2,771.54	1/2	3,130.89	1/2	3,488.99
3/4	259.09	3/4	619.15	3/4	979.14	3/4	1,338.93	3/4	1,699.00	3/4	2,059.08	3/4	2,419.08	3/4	2,779.04	3/4	3,138.38	3/4	3,496.45
9	266.59	9	626.65	9	986.63	9	1,346.43	9	1,706.50	9	2,066.58	9	2,426.58	9	2,786.54	9	3,145.87	9	3,503.92
1/4	274.09	1/4	634.15	1/4	994.12	1/4	1,353.93	1/4	1,714.01	1/4	2,074.08	1/4	2,434.08	1/4	2,794.03	1/4	3,153.32	1/4	3,508.39
1/2	281.59	1/2	641.66	1/2	1,001.61	1/2	1,361.43	1/2	1,721.51	1/2	2,081.58	1/2	2,441.58	1/2	2,801.52	1/2	3,160.78	1/2	3,512.85
3/4	289.09	3/4	649.16	3/4	1,009.11	3/4	1,368.93	3/4	1,729.01	3/4	2,089.08	3/4	2,449.08	3/4	2,809.01	3/4	3,168.23	3/4	3,517.32
10	296.60	10	656.66	10	1,016.60	10	1,376.43	10	1,736.51	10	2,096.58	10	2,456.58	10	2,816.49	10	3,175.69	10	3,521.78
1/4	304.10	1/4	664.16	1/4	1,024.09	1/4	1,383.94	1/4	1,744.01	1/4	2,104.08	1/4	2,464.08	1/4	2,823.98	1/4	3,183.14	1/4	3,525.82
1/2	311.60	1/2	671.66	1/2	1,031.58	1/2	1,391.44	1/2	1,751.51	1/2	2,111.58	1/2	2,471.58	1/2	2,831.47	1/2	3,190.59	1/2	3,529.86
3/4	319.10	3/4	679.16	3/4	1,039.08	3/4	1,398.94	3/4	1,759.02	3/4	2,119.08	3/4	2,479.08	3/4	2,838.95	3/4	3,198.04	3/4	3,533.89
11	326.60	11	686.66	11	1,046.57	11	1,406.44	11	1,766.52	11	2,126.58	11	2,486.58	11	2,846.44	11	3,205.50	11	3,537.93
1/4	334.10	1/4	694.17	1/4	1,054.06	1/4	1,413.94	1/4	1,774.02	1/4	2,134.08	1/4	2,494.08	1/4	2,853.92	1/4	3,212.95	1/4	3,541.97
1/2	341.60	1/2	701.67	1/2	1,061.55	1/2	1,421.44	1/2	1,781.52	1/2	2,141.58	1/2	2,501.58	1/2	2,861.41	1/2	3,220.40	1/2	3,546.00
3/4	349.11	3/4	709.17	3/4	1,069.04	3/4	1,428.95	3/4	1,789.02	3/4	2,149.08	3/4	2,509.08	3/4	2,868.89	3/4	3,227.85	3/4	3,550.04

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 56'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

3 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	3,554.08	0	3,747.81	0	3,937.50	0	4,120.11	0	4,294.86	0		0		0		0		0	
1/4	3,558.11	1/4	3,751.83	1/4	3,941.37	1/4	4,123.83	1/4	4,298.38	1/4		1/4		1/4		1/4		1/4	
1/2	3,562.15	1/2	3,755.85	1/2	3,945.24	1/2	4,127.56	1/2	4,301.91	1/2		1/2		1/2		1/2		1/2	
3/4	3,566.19	3/4	3,759.87	3/4	3,949.12	3/4	4,131.28	3/4	4,305.43	3/4		3/4		3/4		3/4		3/4	
1	3,570.22	1	3,763.89	1	3,952.99	1	4,135.00	1	4,308.95	1		1		1		1		1	
1 1/4	3,574.26	1 1/4	3,767.89	1 1/4	3,956.85	1 1/4	4,138.70	1 1/4	4,312.46	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,578.30	1 1/2	3,771.90	1 1/2	3,960.71	1 1/2	4,142.40	1 1/2	4,315.97	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,582.33	3 1/4	3,775.91	3 1/4	3,964.57	3 1/4	4,146.10	3 1/4	4,319.49	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
2	3,586.37	2	3,779.92	2	3,968.43	2	4,149.80	2	4,323.00	2		2		2		2		2	
1 3/4	3,590.41	1 3/4	3,783.91	1 3/4	3,972.28	1 3/4	4,153.49	1 3/4	4,326.50	1 3/4		1 3/4		1 3/4		1 3/4		1 3/4	
1 1/2	3,594.44	1 1/2	3,787.91	1 1/2	3,976.12	1 1/2	4,157.17	1 1/2	4,330.00	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,598.48	3 1/4	3,791.90	3 1/4	3,979.97	3 1/4	4,160.86	3 1/4	4,333.49	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
3	3,602.52	3	3,795.90	3	3,983.82	3	4,164.54	3	4,336.99	3		3		3		3		3	
1 1/4	3,606.55	1 1/4	3,799.88	1 1/4	3,987.65	1 1/4	4,168.21	1 1/4	4,340.48	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,610.59	1 1/2	3,803.86	1 1/2	3,991.49	1 1/2	4,171.89	1 1/2	4,343.97	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,614.63	3 1/4	3,807.84	3 1/4	3,995.32	3 1/4	4,175.56	3 1/4	4,347.45	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
4	3,618.66	4	3,811.83	4	3,999.16	4	4,179.23	4	4,350.94	4		4		4		4		4	
1 3/4	3,622.70	1 3/4	3,815.80	1 3/4	4,002.98	1 3/4	4,182.89	1 3/4	4,354.41	1 3/4		1 3/4		1 3/4		1 3/4		1 3/4	
1 1/2	3,626.74	1 1/2	3,819.77	1 1/2	4,006.80	1 1/2	4,186.55	1 1/2	4,357.89	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,630.77	3 1/4	3,823.74	3 1/4	4,010.63	3 1/4	4,190.21	3 1/4	4,361.36	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
5	3,634.81	5	3,827.71	5	4,014.45	5	4,193.88	5	4,364.84	5		5		5		5		5	
1 1/4	3,638.85	1 1/4	3,831.67	1 1/4	4,018.26	1 1/4	4,197.52	1 1/4	4,368.62	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,642.88	1 1/2	3,835.62	1 1/2	4,022.07	1 1/2	4,201.17	1 1/2	4,372.41	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,646.92	3 1/4	3,839.58	3 1/4	4,025.88	3 1/4	4,204.82	3 1/4	4,376.19	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
6	3,650.95	6	3,843.54	6	4,029.69	6	4,208.47	6	4,379.98	6		6		6		6		6	
1 1/4	3,654.99	1 1/4	3,847.49	1 1/4	4,033.49	1 1/4	4,212.10	1 1/4	4,382.85	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,659.03	1 1/2	3,851.43	1 1/2	4,037.29	1 1/2	4,215.74	1 1/2	4,385.72	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,663.06	3 1/4	3,855.38	3 1/4	4,041.08	3 1/4	4,219.38	3 1/4	4,388.59	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
7	3,667.10	7	3,859.32	7	4,044.88	7	4,223.01	7	4,391.46	7		7		7		7		7	
1 3/4	3,671.14	1 3/4	3,863.26	1 3/4	4,048.67	1 3/4	4,226.64	1 3/4	4,393.11	1 3/4		1 3/4		1 3/4		1 3/4		1 3/4	
1 1/2	3,675.17	1 1/2	3,867.19	1 1/2	4,052.45	1 1/2	4,230.26	1 1/2	4,394.77	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,679.21	3 1/4	3,871.12	3 1/4	4,056.24	3 1/4	4,233.88	3 1/4	4,396.42	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
8	3,683.25	8	3,875.06	8	4,060.03	8	4,237.51	8	4,398.07	8		8		8		8		8	
1 1/4	3,687.28	1 1/4	3,878.98	1 1/4	4,063.80	1 1/4	4,241.12	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,691.32	1 1/2	3,882.90	1 1/2	4,067.57	1 1/2	4,244.73	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,695.36	3 1/4	3,886.82	3 1/4	4,071.35	3 1/4	4,248.34	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
9	3,699.39	9	3,890.74	9	4,075.12	9	4,251.95	9		9		9		9		9		9	
1 3/4	3,703.43	1 3/4	3,894.65	1 3/4	4,078.88	1 3/4	4,255.55	1 3/4		1 3/4		1 3/4		1 3/4		1 3/4		1 3/4	
1 1/2	3,707.47	1 1/2	3,898.56	1 1/2	4,082.64	1 1/2	4,259.15	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,711.50	3 1/4	3,902.47	3 1/4	4,086.40	3 1/4	4,262.75	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
10	3,715.54	10	3,906.38	10	4,090.16	10	4,266.35	10		10		10		10		10		10	
1 1/4	3,719.58	1 1/4	3,910.27	1 1/4	4,093.91	1 1/4	4,269.93	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,723.61	1 1/2	3,914.17	1 1/2	4,097.66	1 1/2	4,273.52	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,727.65	3 1/4	3,918.07	3 1/4	4,101.41	3 1/4	4,277.11	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
11	3,731.69	11	3,921.96	11	4,105.16	11	4,280.69	11		11		11		11		11		11	
1 1/4	3,735.72	1 1/4	3,925.85	1 1/4	4,108.90	1 1/4	4,284.24	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,739.75	1 1/2	3,929.73	1 1/2	4,112.63	1 1/2	4,287.78	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,743.78	3 1/4	3,933.62	3 1/4	4,116.37	3 1/4	4,291.32	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

3 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.25	0	356.13	0	715.69	0	1,063.68	0	1,416.64	0	1,775.56	0	2,134.99	0	2,494.35	0	2,853.53	0	3,211.64
1/4	25.46	1/4	363.63	1/4	723.18	1/4	1,070.83	1/4	1,424.06	1/4	1,783.05	1/4	2,142.48	1/4	2,501.84	1/4	2,861.00	1/4	3,219.08
1/2	29.68	1/2	371.12	1/2	730.67	1/2	1,077.98	1/2	1,431.49	1/2	1,790.54	1/2	2,149.96	1/2	2,509.33	1/2	2,868.48	1/2	3,226.52
3/4	33.90	3/4	378.61	3/4	738.16	3/4	1,085.14	3/4	1,438.92	3/4	1,798.03	3/4	2,157.45	3/4	2,516.82	3/4	2,875.95	3/4	3,233.96
1	38.12	1	386.10	1	745.65	1	1,092.29	1	1,446.34	1	1,805.52	1	2,164.94	1	2,524.30	1	2,883.42	1	3,241.40
1/4	43.58	1/4	393.59	1/4	753.14	1/4	1,099.44	1/4	1,453.77	1/4	1,813.01	1/4	2,172.42	1/4	2,531.79	1/4	2,890.89	1/4	3,248.83
1/2	49.04	1/2	401.08	1/2	760.63	1/2	1,106.59	1/2	1,461.20	1/2	1,820.50	1/2	2,179.91	1/2	2,539.28	1/2	2,898.35	1/2	3,256.27
3/4	54.50	3/4	408.57	3/4	768.12	3/4	1,113.75	3/4	1,468.63	3/4	1,827.98	3/4	2,187.40	3/4	2,546.76	3/4	2,905.82	3/4	3,263.71
2	59.96	2	416.06	2	775.61	2	1,120.90	2	1,476.05	2	1,835.47	2	2,194.88	2	2,554.25	2	2,913.29	2	3,271.15
1/4	66.66	1/4	423.55	1/4	783.10	1/4	1,128.05	1/4	1,483.53	1/4	1,842.96	1/4	2,202.37	1/4	2,561.74	1/4	2,920.75	1/4	3,278.59
1/2	73.36	1/2	431.04	1/2	790.59	1/2	1,135.21	1/2	1,491.01	1/2	1,850.45	1/2	2,209.86	1/2	2,569.22	1/2	2,928.22	1/2	3,286.03
3/4	80.06	3/4	438.53	3/4	798.09	3/4	1,142.36	3/4	1,498.49	3/4	1,857.94	3/4	2,217.34	3/4	2,576.71	3/4	2,935.68	3/4	3,293.46
3	86.76	3	446.02	3	805.58	3	1,149.51	3	1,505.97	3	1,865.43	3	2,224.83	3	2,584.20	3	2,943.15	3	3,300.90
1/4	94.17	1/4	453.51	1/4	812.82	1/4	1,156.91	1/4	1,513.46	1/4	1,872.92	1/4	2,232.32	1/4	2,591.68	1/4	2,950.61	1/4	3,308.36
1/2	101.59	1/2	461.00	1/2	820.06	1/2	1,164.31	1/2	1,520.95	1/2	1,880.40	1/2	2,239.80	1/2	2,599.17	1/2	2,958.08	1/2	3,315.81
3/4	109.00	3/4	468.49	3/4	827.30	3/4	1,171.72	3/4	1,528.44	3/4	1,887.89	3/4	2,247.29	3/4	2,606.65	3/4	2,965.54	3/4	3,323.26
4	116.41	4	475.99	4	834.54	4	1,179.12	4	1,535.93	4	1,895.38	4	2,254.78	4	2,614.14	4	2,973.01	4	3,330.71
1/4	123.91	1/4	483.48	1/4	841.72	1/4	1,186.53	1/4	1,543.42	1/4	1,902.87	1/4	2,262.26	1/4	2,621.62	1/4	2,980.47	1/4	3,338.16
1/2	131.40	1/2	490.97	1/2	848.90	1/2	1,193.94	1/2	1,550.91	1/2	1,910.36	1/2	2,269.75	1/2	2,629.11	1/2	2,987.94	1/2	3,345.62
3/4	138.90	3/4	498.46	3/4	856.09	3/4	1,201.35	3/4	1,558.40	3/4	1,917.85	3/4	2,277.24	3/4	2,636.59	3/4	2,995.40	3/4	3,353.07
5	146.39	5	505.95	5	863.27	5	1,208.76	5	1,565.88	5	1,925.34	5	2,284.72	5	2,644.08	5	3,002.87	5	3,360.53
1/4	153.88	1/4	513.44	1/4	870.45	1/4	1,216.17	1/4	1,573.37	1/4	1,932.82	1/4	2,292.21	1/4	2,651.57	1/4	3,010.33	1/4	3,367.98
1/2	161.38	1/2	520.93	1/2	877.63	1/2	1,223.58	1/2	1,580.86	1/2	1,940.31	1/2	2,299.70	1/2	2,659.05	1/2	3,017.80	1/2	3,375.43
3/4	168.87	3/4	528.42	3/4	884.80	3/4	1,230.99	3/4	1,588.35	3/4	1,947.80	3/4	2,307.18	3/4	2,666.54	3/4	3,025.26	3/4	3,382.89
6	176.36	6	535.91	6	891.98	6	1,238.40	6	1,595.84	6	1,955.29	6	2,314.67	6	2,674.02	6	3,032.73	6	3,390.34
1/4	183.85	1/4	543.40	1/4	899.14	1/4	1,245.83	1/4	1,603.33	1/4	1,962.78	1/4	2,322.16	1/4	2,681.51	1/4	3,040.19	1/4	3,397.80
1/2	191.34	1/2	550.89	1/2	906.30	1/2	1,253.25	1/2	1,610.82	1/2	1,970.27	1/2	2,329.65	1/2	2,688.99	1/2	3,047.66	1/2	3,405.25
3/4	198.83	3/4	558.38	3/4	913.46	3/4	1,260.68	3/4	1,618.30	3/4	1,977.76	3/4	2,337.13	3/4	2,696.48	3/4	3,055.12	3/4	3,412.70
7	206.32	7	565.87	7	920.62	7	1,268.10	7	1,625.79	7	1,985.25	7	2,344.62	7	2,703.96	7	3,062.59	7	3,420.16
1/4	213.81	1/4	573.36	1/4	927.77	1/4	1,275.53	1/4	1,633.28	1/4	1,992.73	1/4	2,352.11	1/4	2,711.45	1/4	3,070.06	1/4	3,427.61
1/2	221.30	1/2	580.86	1/2	934.92	1/2	1,282.96	1/2	1,640.77	1/2	2,000.22	1/2	2,359.59	1/2	2,718.93	1/2	3,077.53	1/2	3,435.07
3/4	228.79	3/4	588.35	3/4	942.08	3/4	1,290.38	3/4	1,648.26	3/4	2,007.71	3/4	2,367.08	3/4	2,726.42	3/4	3,085.00	3/4	3,442.52
8	236.28	8	595.84	8	949.23	8	1,297.81	8	1,655.75	8	2,015.20	8	2,374.57	8	2,733.90	8	3,092.47	8	3,449.97
1/4	243.77	1/4	603.33	1/4	956.38	1/4	1,305.24	1/4	1,663.24	1/4	2,022.69	1/4	2,382.05	1/4	2,741.39	1/4	3,099.95	1/4	3,457.43
1/2	251.26	1/2	610.82	1/2	963.54	1/2	1,312.66	1/2	1,670.72	1/2	2,030.17	1/2	2,389.54	1/2	2,748.88	1/2	3,107.42	1/2	3,464.88
3/4	258.76	3/4	618.31	3/4	970.69	3/4	1,320.09	3/4	1,678.21	3/4	2,037.66	3/4	2,397.03	3/4	2,756.37	3/4	3,114.89	3/4	3,472.33
9	266.25	9	625.80	9	977.84	9	1,327.52	9	1,685.70	9	2,045.15	9	2,404.51	9	2,763.85	9	3,122.36	9	3,479.79
1/4	273.74	1/4	633.29	1/4	984.99	1/4	1,334.94	1/4	1,693.19	1/4	2,052.63	1/4	2,412.00	1/4	2,771.33	1/4	3,129.81	1/4	3,484.24
1/2	281.23	1/2	640.78	1/2	992.15	1/2	1,342.37	1/2	1,700.68	1/2	2,060.12	1/2	2,419.49	1/2	2,778.80	1/2	3,137.25	1/2	3,488.69
3/4	288.72	3/4	648.27	3/4	999.30	3/4	1,349.80	3/4	1,708.17	3/4	2,067.61	3/4	2,426.97	3/4	2,786.28	3/4	3,144.69	3/4	3,493.14
10	296.21	10	655.76	10	1,006.45	10	1,357.22	10	1,715.66	10	2,075.09	10	2,434.46	10	2,793.75	10	3,152.14	10	3,497.59
1/4	303.70	1/4	663.25	1/4	1,013.61	1/4	1,364.65	1/4	1,723.14	1/4	2,082.58	1/4	2,441.95	1/4	2,801.22	1/4	3,159.57	1/4	3,501.61
1/2	311.19	1/2	670.74	1/2	1,020.76	1/2	1,372.08	1/2	1,730.63	1/2	2,090.07	1/2	2,449.43	1/2	2,808.70	1/2	3,167.01	1/2	3,505.63
3/4	318.68	3/4	678.23	3/4	1,027.91	3/4	1,379.50	3/4	1,738.12	3/4	2,097.55	3/4	2,456.92	3/4	2,816.17	3/4	3,174.45	3/4	3,509.66
11	326.17	11	685.73	11	1,035.06	11	1,386.93	11	1,745.61	11	2,105.04	11	2,464.41	11	2,823.64	11	3,181.89	11	3,513.68
1/4	333.66	1/4	693.22	1/4	1,042.22	1/4	1,394.36	1/4	1,753.10	1/4	2,112.53	1/4	2,471.89	1/4	2,831.11	1/4	3,189.33	1/4	3,517.70
1/2	341.15	1/2	700.71	1/2	1,049.37	1/2	1,401.78	1/2	1,760.59	1/2	2,120.01	1/2	2,479.38	1/2	2,838.59	1/2	3,196.77	1/2	3,521.72
3/4	348.64	3/4	708.20	3/4	1,056.52	3/4	1,409.21	3/4	1,768.08	3/4	2,127.50	3/4	2,486.87	3/4	2,846.06	3/4	3,204.20	3/4	3,525.74

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 56'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

3 STBD
INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	3,529.76	0	3,722.77	0	3,911.73	0	4,093.60	0	4,267.61	0		0		0		0		0	
1/4	3,533.78	1/4	3,726.77	1/4	3,915.58	1/4	4,097.31	1/4	4,271.12	1/4		1/4		1/4		1/4		1/4	
1/2	3,537.81	1/2	3,730.77	1/2	3,919.44	1/2	4,101.02	1/2	4,274.62	1/2		1/2		1/2		1/2		1/2	
3/4	3,541.83	3/4	3,734.78	3/4	3,923.30	3/4	4,104.72	3/4	4,278.13	3/4		3/4		3/4		3/4		3/4	
1	3,545.85	1	3,738.78	1	3,927.15	1	4,108.43	1	4,281.64	1		1		1		1		1	
1 1/4	3,549.87	1 1/4	3,742.78	1 1/4	3,931.00	1 1/4	4,112.12	1 1/4	4,285.14	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,553.89	1 1/2	3,746.77	1 1/2	3,934.84	1 1/2	4,115.80	1 1/2	4,288.63	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,557.91	3 1/4	3,750.76	3 1/4	3,938.69	3 1/4	4,119.48	3 1/4	4,292.13	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
2	3,561.93	2	3,754.75	2	3,942.53	2	4,123.17	2	4,295.62	2		2		2		2		2	
1 3/4	3,565.95	1 3/4	3,758.73	1 3/4	3,946.36	1 3/4	4,126.84	1 3/4	4,299.11	1 3/4		1 3/4		1 3/4		1 3/4		1 3/4	
1 1/2	3,569.98	1 1/2	3,762.71	1 1/2	3,950.20	1 1/2	4,130.51	1 1/2	4,302.59	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,574.00	3 1/4	3,766.69	3 1/4	3,954.03	3 1/4	4,134.18	3 1/4	4,306.07	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
3	3,578.02	3	3,770.67	3	3,957.86	3	4,137.85	3	4,309.56	3		3		3		3		3	
1 1/4	3,582.04	1 1/4	3,774.64	1 1/4	3,961.68	1 1/4	4,141.50	1 1/4	4,313.03	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,586.06	1 1/2	3,778.61	1 1/2	3,965.50	1 1/2	4,145.16	1 1/2	4,316.50	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,590.08	3 1/4	3,782.57	3 1/4	3,969.32	3 1/4	4,148.82	3 1/4	4,319.97	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
4	3,594.10	4	3,786.54	4	3,973.14	4	4,152.48	4	4,323.44	4		4		4		4		4	
1 3/4	3,598.12	1 3/4	3,790.50	1 3/4	3,976.95	1 3/4	4,156.12	1 3/4	4,326.90	1 3/4		1 3/4		1 3/4		1 3/4		1 3/4	
1 1/2	3,602.15	1 1/2	3,794.45	1 1/2	3,980.75	1 1/2	4,159.77	1 1/2	4,330.36	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,606.17	3 1/4	3,798.41	3 1/4	3,984.56	3 1/4	4,163.41	3 1/4	4,333.82	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
5	3,610.19	5	3,802.36	5	3,988.37	5	4,167.06	5	4,337.28	5		5		5		5		5	
1 1/4	3,614.21	1 1/4	3,806.30	1 1/4	3,992.16	1 1/4	4,170.69	1 1/4	4,341.05	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,618.23	1 1/2	3,810.25	1 1/2	3,995.96	1 1/2	4,174.32	1 1/2	4,344.82	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,622.25	3 1/4	3,814.19	3 1/4	3,999.75	3 1/4	4,177.95	3 1/4	4,348.59	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
6	3,626.27	6	3,818.13	6	4,003.55	6	4,181.59	6	4,352.36	6		6		6		6		6	
1 1/4	3,630.29	1 1/4	3,822.06	1 1/4	4,007.33	1 1/4	4,185.21	1 1/4	4,355.21	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,634.32	1 1/2	3,825.99	1 1/2	4,011.11	1 1/2	4,188.83	1 1/2	4,358.07	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,638.34	3 1/4	3,829.92	3 1/4	4,014.90	3 1/4	4,192.45	3 1/4	4,360.92	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
7	3,642.36	7	3,833.86	7	4,018.68	7	4,196.07	7	4,363.78	7		7		7		7		7	
1 3/4	3,646.38	1 3/4	3,837.77	1 3/4	4,022.45	1 3/4	4,199.68	1 3/4	4,365.42	1 3/4		1 3/4		1 3/4		1 3/4		1 3/4	
1 1/2	3,650.40	1 1/2	3,841.69	1 1/2	4,026.22	1 1/2	4,203.29	1 1/2	4,367.05	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,654.42	3 1/4	3,845.61	3 1/4	4,029.99	3 1/4	4,206.90	3 1/4	4,368.69	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
8	3,658.44	8	3,849.53	8	4,033.76	8	4,210.50	8	4,370.33	8		8		8		8		8	
1 1/4	3,662.47	1 1/4	3,853.43	1 1/4	4,037.52	1 1/4	4,214.10	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,666.49	1 1/2	3,857.34	1 1/2	4,041.28	1 1/2	4,217.70	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,670.51	3 1/4	3,861.25	3 1/4	4,045.04	3 1/4	4,221.29	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
9	3,674.53	9	3,865.15	9	4,048.79	9	4,224.89	9		9		9		9		9		9	
1 1/4	3,678.55	1 1/4	3,869.05	1 1/4	4,052.54	1 1/4	4,228.47	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,682.57	1 1/2	3,872.94	1 1/2	4,056.29	1 1/2	4,232.05	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,686.59	3 1/4	3,876.83	3 1/4	4,060.03	3 1/4	4,235.64	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
10	3,690.61	10	3,880.73	10	4,063.78	10	4,239.22	10		10		10		10		10		10	
1 3/4	3,694.64	1 3/4	3,884.61	1 3/4	4,067.51	1 3/4	4,242.79	1 3/4		1 3/4		1 3/4		1 3/4		1 3/4		1 3/4	
1 1/2	3,698.66	1 1/2	3,888.49	1 1/2	4,071.25	1 1/2	4,246.36	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,702.68	3 1/4	3,892.37	3 1/4	4,074.98	3 1/4	4,249.94	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
11	3,706.70	11	3,896.25	11	4,078.71	11	4,253.51	11		11		11		11		11		11	
1 1/4	3,710.72	1 1/4	3,900.12	1 1/4	4,082.43	1 1/4	4,257.03	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	3,714.73	1 1/2	3,903.99	1 1/2	4,086.15	1 1/2	4,260.56	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	3,718.75	3 1/4	3,907.86	3 1/4	4,089.88	3 1/4	4,264.08	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

ULLAGE TRIM TABLE

	1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.	
	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>
1 PORT	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8
1 STBD	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8
2 PORT	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8
2 STBD	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8
3 PORT	00-5/8	- 00-5/8	01-1/4	- 01-1/4	01-7/8	- 01-7/8	02-1/2	- 02-1/2	03-1/4	- 03-1/4	03-3/4	- 03-3/4
3 STBD	00-5/8	- 00-5/8	01-1/4	- 01-1/4	01-7/8	- 01-7/8	02-1/2	- 02-1/2	03-1/4	- 03-1/4	03-3/4	- 03-3/4

(ALL MEASUREMENTS ABOVE ARE IN INCHES)

EXAMPLE FOR ABOVE TRIM CORRECTIONS:

FWD. DRAFT = 2'-00"
 AFT DRAFT = 4'-00"
 DIFF. = 2'-00" (DOWN BY STERN)

THE CORRECTION FOR 2'-00" TRIM DOWN BY STERN FOR 3 PORT IS - 01-1/4"
 FOR A MEASURED ULLAGE GAUGE OF 4'-00" ON 3 PORT, THE TRIM CORRECTED ULLAGE IS 3'-10 3/4"

LENGTH BETWEEN DRAFT MARKS: 254'-00"

November 3, 2020

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
 Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "CCL 419-L"

1 PORT

ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0		0		0	4,931.03	0	4,599.98	0	4,254.76	0	3,896.51	0	3,533.76	0	3,171.01	0	2,808.26	0	2,445.45
1/4		1/4		1/4	4,924.27	1/4	4,592.92	1/4	4,247.42	1/4	3,888.95	1/4	3,526.20	1/4	3,163.45	1/4	2,800.70	1/4	2,437.89
1/2		1/2		1/2	4,917.51	1/2	4,585.85	1/2	4,240.08	1/2	3,881.39	1/2	3,518.64	1/2	3,155.89	1/2	2,793.14	1/2	2,430.33
3/4		3/4		3/4	4,910.75	3/4	4,578.78	3/4	4,232.74	3/4	3,873.84	3/4	3,511.09	3/4	3,148.34	3/4	2,785.58	3/4	2,422.77
1		1	5,217.08	1	4,903.99	1	4,571.72	1	4,225.39	1	3,866.28	1	3,503.53	1	3,140.78	1	2,778.03	1	2,415.21
1/4		1/4	5,211.96	1/4	4,897.21	1/4	4,564.63	1/4	4,218.03	1/4	3,858.72	1/4	3,495.97	1/4	3,133.22	1/4	2,770.47	1/4	2,407.65
1/2		1/2	5,206.84	1/2	4,890.43	1/2	4,557.54	1/2	4,210.66	1/2	3,851.16	1/2	3,488.41	1/2	3,125.66	1/2	2,762.91	1/2	2,400.09
3/4		3/4	5,201.72	3/4	4,883.64	3/4	4,550.45	3/4	4,203.30	3/4	3,843.61	3/4	3,480.86	3/4	3,118.11	3/4	2,755.36	3/4	2,392.53
2		2	5,196.60	2	4,876.86	2	4,543.36	2	4,195.94	2	3,836.05	2	3,473.30	2	3,110.55	2	2,747.80	2	2,384.97
1/4		1/4	5,190.26	1/4	4,870.05	1/4	4,536.25	1/4	4,188.55	1/4	3,828.49	1/4	3,465.74	1/4	3,102.99	1/4	2,740.24	1/4	2,377.41
1/2		1/2	5,183.92	1/2	4,863.25	1/2	4,529.14	1/2	4,181.16	1/2	3,820.94	1/2	3,458.18	1/2	3,095.43	1/2	2,732.68	1/2	2,369.85
3/4		3/4	5,177.59	3/4	4,856.44	3/4	4,522.03	3/4	4,173.77	3/4	3,813.38	3/4	3,450.63	3/4	3,087.88	3/4	2,725.13	3/4	2,362.29
3		3	5,171.25	3	4,849.63	3	4,514.92	3	4,166.38	3	3,805.82	3	3,443.07	3	3,080.32	3	2,717.57	3	2,354.73
1/4		1/4	5,164.05	1/4	4,842.80	1/4	4,507.78	1/4	4,158.97	1/4	3,798.26	1/4	3,435.51	1/4	3,072.76	1/4	2,710.01	1/4	2,347.17
1/2		1/2	5,156.85	1/2	4,835.97	1/2	4,500.65	1/2	4,151.56	1/2	3,790.71	1/2	3,427.96	1/2	3,065.21	1/2	2,702.45	1/2	2,339.61
3/4		3/4	5,149.65	3/4	4,829.14	3/4	4,493.51	3/4	4,144.15	3/4	3,783.15	3/4	3,420.40	3/4	3,057.65	3/4	2,694.90	3/4	2,332.05
4		4	5,142.44	4	4,822.31	4	4,486.38	4	4,136.74	4	3,775.59	4	3,412.84	4	3,050.09	4	2,687.34	4	2,324.49
1/4		1/4	5,135.94	1/4	4,815.46	1/4	4,479.22	1/4	4,129.31	1/4	3,768.03	1/4	3,405.28	1/4	3,042.53	1/4	2,679.78	1/4	2,316.93
1/2		1/2	5,129.43	1/2	4,808.61	1/2	4,472.06	1/2	4,121.88	1/2	3,760.48	1/2	3,397.73	1/2	3,034.98	1/2	2,672.23	1/2	2,309.37
3/4		3/4	5,122.92	3/4	4,801.76	3/4	4,464.91	3/4	4,114.44	3/4	3,752.92	3/4	3,390.17	3/4	3,027.42	3/4	2,664.67	3/4	2,301.81
5		5	5,116.42	5	4,794.91	5	4,457.75	5	4,107.01	5	3,745.36	5	3,382.61	5	3,019.86	5	2,657.11	5	2,294.25
1/4		1/4	5,109.89	1/4	4,788.03	1/4	4,450.57	1/4	4,099.55	1/4	3,737.80	1/4	3,375.05	1/4	3,012.30	1/4	2,649.56	1/4	2,286.69
1/2		1/2	5,103.36	1/2	4,781.15	1/2	4,443.39	1/2	4,092.09	1/2	3,730.25	1/2	3,367.50	1/2	3,004.75	1/2	2,642.00	1/2	2,279.13
3/4		3/4	5,096.83	3/4	4,774.28	3/4	4,436.21	3/4	4,084.64	3/4	3,722.69	3/4	3,359.94	3/4	2,997.19	3/4	2,634.45	3/4	2,271.57
6		6	5,090.30	6	4,767.40	6	4,429.03	6	4,077.18	6	3,715.13	6	3,352.38	6	2,989.63	6	2,626.89	6	2,264.01
1/4		1/4	5,083.74	1/4	4,760.51	1/4	4,421.82	1/4	4,069.70	1/4	3,707.58	1/4	3,344.83	1/4	2,982.07	1/4	2,619.33	1/4	2,256.45
1/2		1/2	5,077.19	1/2	4,753.61	1/2	4,414.62	1/2	4,062.22	1/2	3,700.02	1/2	3,337.27	1/2	2,974.52	1/2	2,611.77	1/2	2,248.89
3/4		3/4	5,070.64	3/4	4,746.71	3/4	4,407.42	3/4	4,054.74	3/4	3,692.46	3/4	3,329.71	3/4	2,966.96	3/4	2,604.21	3/4	2,241.33
7		7	5,064.08	7	4,739.81	7	4,400.21	7	4,047.26	7	3,684.90	7	3,322.15	7	2,959.40	7	2,596.65	7	2,233.77
1/4		1/4	5,057.51	1/4	4,732.88	1/4	4,392.99	1/4	4,039.76	1/4	3,677.35	1/4	3,314.60	1/4	2,951.85	1/4	2,589.09	1/4	2,226.21
1/2		1/2	5,050.93	1/2	4,725.96	1/2	4,385.76	1/2	4,032.26	1/2	3,669.79	1/2	3,307.04	1/2	2,944.29	1/2	2,581.53	1/2	2,218.65
3/4		3/4	5,044.35	3/4	4,719.03	3/4	4,378.53	3/4	4,024.76	3/4	3,662.23	3/4	3,299.48	3/4	2,936.73	3/4	2,573.97	3/4	2,211.08
8		8	5,037.78	8	4,712.11	8	4,371.31	8	4,017.25	8	3,654.67	8	3,291.92	8	2,929.17	8	2,566.41	8	2,203.52
1/4		1/4	5,031.18	1/4	4,705.14	1/4	4,364.06	1/4	4,009.73	1/4	3,647.12	1/4	3,284.37	1/4	2,921.62	1/4	2,558.85	1/4	2,195.96
1/2		1/2	5,024.58	1/2	4,698.16	1/2	4,356.81	1/2	4,002.20	1/2	3,639.56	1/2	3,276.81	1/2	2,914.06	1/2	2,551.29	1/2	2,188.40
3/4		3/4	5,017.98	3/4	4,691.19	3/4	4,349.56	3/4	3,994.68	3/4	3,632.00	3/4	3,269.25	3/4	2,906.50	3/4	2,543.73	3/4	2,180.84
9		9	5,011.38	9	4,684.22	9	4,342.31	9	3,987.15	9	3,624.45	9	3,261.69	9	2,898.94	9	2,536.17	9	2,173.28
1/4		1/4	5,004.75	1/4	4,677.22	1/4	4,335.04	1/4	3,979.60	1/4	3,616.89	1/4	3,254.14	1/4	2,891.39	1/4	2,528.61	1/4	2,165.72
1/2		1/2	4,998.12	1/2	4,670.22	1/2	4,327.76	1/2	3,972.06	1/2	3,609.33	1/2	3,246.58	1/2	2,883.83	1/2	2,521.05	1/2	2,158.16
3/4		3/4	4,991.49	3/4	4,663.23	3/4	4,320.49	3/4	3,964.51	3/4	3,601.77	3/4	3,239.02	3/4	2,876.27	3/4	2,513.49	3/4	2,150.60
10		10	4,984.86	10	4,656.23	10	4,313.22	10	3,956.97	10	3,594.22	10	3,231.47	10	2,868.72	10	2,505.93	10	2,143.04
1/4		1/4	4,978.14	1/4	4,649.21	1/4	4,305.92	1/4	3,949.41	1/4	3,586.66	1/4	3,223.91	1/4	2,861.16	1/4	2,498.37	1/4	2,135.48
1/2		1/2	4,971.42	1/2	4,642.19	1/2	4,298.63	1/2	3,941.85	1/2	3,579.10	1/2	3,216.35	1/2	2,853.60	1/2	2,490.81	1/2	2,127.92
3/4		3/4	4,964.71	3/4	4,635.17	3/4	4,291.33	3/4	3,934.29	3/4	3,571.54	3/4	3,208.79	3/4	2,846.04	3/4	2,483.25	3/4	2,120.36
11		11	4,957.99	11	4,628.15	11	4,284.03	11	3,926.74	11	3,563.99	11	3,201.24	11	2,838.49	11	2,475.69	11	2,112.80
1/4		1/4	4,951.25	1/4	4,621.11	1/4	4,276.72	1/4	3,919.18	1/4	3,556.43	1/4	3,193.68	1/4	2,830.93	1/4	2,468.13	1/4	2,105.24
1/2		1/2	4,944.51	1/2	4,614.07	1/2	4,269.40	1/2	3,911.62	1/2	3,548.87	1/2	3,186.12	1/2	2,823.37	1/2	2,460.57	1/2	2,097.68
3/4		3/4	4,937.77	3/4	4,607.02	3/4	4,262.08	3/4	3,904.07	3/4	3,541.31	3/4	3,178.56	3/4	2,815.81	3/4	2,453.01	3/4	2,090.12

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-09" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT

& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "CCL 419-L"

1 PORT
ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,082.56	0	1,719.68	0	1,356.79	0	994.31	0	631.54	0	268.67	0		0		0		0	
1/4	2,075.00	1/4	1,712.12	1/4	1,349.23	1/4	986.76	1/4	623.98	1/4	261.11	1/4		1/4		1/4		1/4	
1/2	2,067.44	1/2	1,704.56	1/2	1,341.67	1/2	979.21	1/2	616.42	1/2	253.55	1/2		1/2		1/2		1/2	
3/4	2,059.88	3/4	1,697.00	3/4	1,334.11	3/4	971.67	3/4	608.86	3/4	245.99	3/4		3/4		3/4		3/4	
1	2,052.32	1	1,689.44	1	1,326.55	1	964.12	1	601.30	1	238.43	1		1		1		1	
1/4	2,044.76	1/4	1,681.88	1/4	1,318.99	1/4	956.57	1/4	593.74	1/4	230.87	1/4		1/4		1/4		1/4	
1/2	2,037.20	1/2	1,674.32	1/2	1,311.43	1/2	949.02	1/2	586.18	1/2	223.31	1/2		1/2		1/2		1/2	
3/4	2,029.64	3/4	1,666.76	3/4	1,303.87	3/4	941.48	3/4	578.62	3/4	215.75	3/4		3/4		3/4		3/4	
2	2,022.08	2	1,659.20	2	1,296.31	2	933.93	2	571.06	2	208.19	2		2		2		2	
1/4	2,014.52	1/4	1,651.64	1/4	1,288.75	1/4	926.37	1/4	563.50	1/4	200.63	1/4		1/4		1/4		1/4	
1/2	2,006.96	1/2	1,644.08	1/2	1,281.19	1/2	918.81	1/2	555.94	1/2	193.07	1/2		1/2		1/2		1/2	
3/4	1,999.40	3/4	1,636.52	3/4	1,273.63	3/4	911.25	3/4	548.38	3/4	185.51	3/4		3/4		3/4		3/4	
3	1,991.84	3	1,628.96	3	1,266.07	3	903.69	3	540.82	3	177.95	3		3		3		3	
1/4	1,984.28	1/4	1,621.40	1/4	1,258.51	1/4	896.13	1/4	533.26	1/4	170.39	1/4		1/4		1/4		1/4	
1/2	1,976.72	1/2	1,613.84	1/2	1,250.96	1/2	888.57	1/2	525.70	1/2	162.83	1/2		1/2		1/2		1/2	
3/4	1,969.16	3/4	1,606.28	3/4	1,243.40	3/4	881.01	3/4	518.14	3/4	155.27	3/4		3/4		3/4		3/4	
4	1,961.60	4	1,598.72	4	1,235.84	4	873.45	4	510.58	4	147.71	4		4		4		4	
1/4	1,954.04	1/4	1,591.16	1/4	1,228.29	1/4	865.89	1/4	503.02	1/4	140.15	1/4		1/4		1/4		1/4	
1/2	1,946.48	1/2	1,583.60	1/2	1,220.74	1/2	858.33	1/2	495.46	1/2	132.59	1/2		1/2		1/2		1/2	
3/4	1,938.92	3/4	1,576.04	3/4	1,213.20	3/4	850.77	3/4	487.90	3/4	125.03	3/4		3/4		3/4		3/4	
5	1,931.36	5	1,568.48	5	1,205.65	5	843.21	5	480.34	5	117.47	5		5		5		5	
1/4	1,923.80	1/4	1,560.92	1/4	1,198.10	1/4	835.65	1/4	472.78	1/4	109.99	1/4		1/4		1/4		1/4	
1/2	1,916.24	1/2	1,553.36	1/2	1,190.55	1/2	828.09	1/2	465.22	1/2	102.51	1/2		1/2		1/2		1/2	
3/4	1,908.68	3/4	1,545.80	3/4	1,183.01	3/4	820.53	3/4	457.66	3/4	95.03	3/4		3/4		3/4		3/4	
6	1,901.12	6	1,538.24	6	1,175.46	6	812.97	6	450.10	6	87.55	6		6		6		6	
1/4	1,893.56	1/4	1,530.68	1/4	1,167.91	1/4	805.41	1/4	442.54	1/4	80.77	1/4		1/4		1/4		1/4	
1/2	1,886.00	1/2	1,523.12	1/2	1,160.36	1/2	797.85	1/2	434.98	1/2	74.00	1/2		1/2		1/2		1/2	
3/4	1,878.44	3/4	1,515.56	3/4	1,152.81	3/4	790.29	3/4	427.42	3/4	67.23	3/4		3/4		3/4		3/4	
7	1,870.88	7	1,508.00	7	1,145.27	7	782.73	7	419.86	7	60.46	7		7		7		7	
1/4	1,863.32	1/4	1,500.44	1/4	1,137.72	1/4	775.17	1/4	412.30	1/4	54.95	1/4		1/4		1/4		1/4	
1/2	1,855.76	1/2	1,492.88	1/2	1,130.17	1/2	767.61	1/2	404.74	1/2	49.43	1/2		1/2		1/2		1/2	
3/4	1,848.20	3/4	1,485.32	3/4	1,122.62	3/4	760.05	3/4	397.18	3/4	43.92	3/4		3/4		3/4		3/4	
8	1,840.64	8	1,477.76	8	1,115.08	8	752.49	8	389.62	8	38.41	8		8		8		8	
1/4	1,833.08	1/4	1,470.20	1/4	1,107.53	1/4	744.93	1/4	382.06	1/4	34.16	1/4		1/4		1/4		1/4	
1/2	1,825.52	1/2	1,462.64	1/2	1,099.98	1/2	737.37	1/2	374.50	1/2	29.91	1/2		1/2		1/2		1/2	
3/4	1,817.96	3/4	1,455.07	3/4	1,092.43	3/4	729.81	3/4	366.94	3/4	25.66	3/4		3/4		3/4		3/4	
9	1,810.40	9	1,447.51	9	1,084.88	9	722.25	9	359.38	9	21.40	9		9		9		9	
1/4	1,802.84	1/4	1,439.95	1/4	1,077.34	1/4	714.69	1/4	351.82	1/4		1/4		1/4		1/4		1/4	
1/2	1,795.28	1/2	1,432.39	1/2	1,069.79	1/2	707.13	1/2	344.26	1/2		1/2		1/2		1/2		1/2	
3/4	1,787.72	3/4	1,424.83	3/4	1,062.24	3/4	699.57	3/4	336.70	3/4		3/4		3/4		3/4		3/4	
10	1,780.16	10	1,417.27	10	1,054.69	10	692.01	10	329.14	10		10		10		10		10	
1/4	1,772.60	1/4	1,409.71	1/4	1,047.15	1/4	684.45	1/4	321.58	1/4		1/4		1/4		1/4		1/4	
1/2	1,765.04	1/2	1,402.15	1/2	1,039.60	1/2	676.89	1/2	314.02	1/2		1/2		1/2		1/2		1/2	
3/4	1,757.48	3/4	1,394.59	3/4	1,032.05	3/4	669.34	3/4	306.46	3/4		3/4		3/4		3/4		3/4	
11	1,749.92	11	1,387.03	11	1,024.50	11	661.78	11	298.90	11		11		11		11		11	
1/4	1,742.36	1/4	1,379.47	1/4	1,016.95	1/4	654.22	1/4	291.35	1/4		1/4		1/4		1/4		1/4	
1/2	1,734.80	1/2	1,371.91	1/2	1,009.41	1/2	646.66	1/2	283.79	1/2		1/2		1/2		1/2		1/2	
3/4	1,727.24	3/4	1,364.35	3/4	1,001.86	3/4	639.10	3/4	276.23	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
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BARGE "CCL 419-L"

1 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09 1/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0		0		0	4,933.56	0	4,602.94	0	4,258.14	0	3,900.30	0	3,537.72	0	3,175.15	0	2,812.57	0	2,449.92
1/4		1/4		1/4	4,926.82	1/4	4,595.90	1/4	4,250.83	1/4	3,892.75	1/4	3,530.17	1/4	3,167.59	1/4	2,805.01	1/4	2,442.37
1/2		1/2		1/2	4,920.06	1/2	4,588.84	1/2	4,243.49	1/2	3,885.19	1/2	3,522.62	1/2	3,160.04	1/2	2,797.46	1/2	2,434.81
3/4		3/4		3/4	4,913.30	3/4	4,581.77	3/4	4,236.15	3/4	3,877.64	3/4	3,515.06	3/4	3,152.49	3/4	2,789.91	3/4	2,427.25
1		1		1	4,906.55	1	4,574.71	1	4,228.81	1	3,870.09	1	3,507.51	1	3,144.93	1	2,782.35	1	2,419.70
1/4		1/4	5,212.75	1/4	4,899.79	1/4	4,567.65	1/4	4,221.48	1/4	3,862.53	1/4	3,499.96	1/4	3,137.38	1/4	2,774.80	1/4	2,412.14
1/2		1/2	5,207.63	1/2	4,893.01	1/2	4,560.56	1/2	4,214.11	1/2	3,854.98	1/2	3,492.40	1/2	3,129.82	1/2	2,767.25	1/2	2,404.58
3/4		3/4	5,202.51	3/4	4,886.23	3/4	4,553.48	3/4	4,206.75	3/4	3,847.43	3/4	3,484.85	3/4	3,122.27	3/4	2,759.69	3/4	2,397.03
2		2	5,197.39	2	4,879.45	2	4,546.39	2	4,199.39	2	3,839.87	2	3,477.29	2	3,114.72	2	2,752.14	2	2,389.47
1/4		1/4	5,192.28	1/4	4,872.66	1/4	4,539.31	1/4	4,192.03	1/4	3,832.32	1/4	3,469.74	1/4	3,107.16	1/4	2,744.59	1/4	2,381.92
1/2		1/2	5,185.94	1/2	4,865.86	1/2	4,532.20	1/2	4,184.65	1/2	3,824.76	1/2	3,462.19	1/2	3,099.61	1/2	2,737.03	1/2	2,374.36
3/4		3/4	5,179.61	3/4	4,859.06	3/4	4,525.09	3/4	4,177.26	3/4	3,817.21	3/4	3,454.63	3/4	3,092.06	3/4	2,729.48	3/4	2,366.80
3		3	5,173.28	3	4,852.25	3	4,517.98	3	4,169.88	3	3,809.66	3	3,447.08	3	3,084.50	3	2,721.92	3	2,359.25
1/4		1/4	5,166.94	1/4	4,845.45	1/4	4,510.87	1/4	4,162.49	1/4	3,802.10	1/4	3,439.53	1/4	3,076.95	1/4	2,714.37	1/4	2,351.69
1/2		1/2	5,159.75	1/2	4,838.62	1/2	4,503.74	1/2	4,155.09	1/2	3,794.55	1/2	3,431.97	1/2	3,069.39	1/2	2,706.82	1/2	2,344.13
3/4		3/4	5,152.55	3/4	4,831.80	3/4	4,496.61	3/4	4,147.68	3/4	3,787.00	3/4	3,424.42	3/4	3,061.84	3/4	2,699.26	3/4	2,336.58
4		4	5,145.35	4	4,824.97	4	4,489.48	4	4,140.27	4	3,779.44	4	3,416.86	4	3,054.29	4	2,691.71	4	2,329.02
1/4		1/4	5,138.15	1/4	4,818.14	1/4	4,482.35	1/4	4,132.87	1/4	3,771.89	1/4	3,409.31	1/4	3,046.73	1/4	2,684.16	1/4	2,321.46
1/2		1/2	5,131.65	1/2	4,811.29	1/2	4,475.19	1/2	4,125.44	1/2	3,764.33	1/2	3,401.76	1/2	3,039.18	1/2	2,676.60	1/2	2,313.91
3/4		3/4	5,125.14	3/4	4,804.44	3/4	4,468.04	3/4	4,118.00	3/4	3,756.78	3/4	3,394.20	3/4	3,031.63	3/4	2,669.05	3/4	2,306.35
5		5	5,118.64	5	4,797.59	5	4,460.88	5	4,110.57	5	3,749.23	5	3,386.65	5	3,024.07	5	2,661.49	5	2,298.80
1/4		1/4	5,112.14	1/4	4,790.74	1/4	4,453.73	1/4	4,103.14	1/4	3,741.67	1/4	3,379.10	1/4	3,016.52	1/4	2,653.94	1/4	2,291.24
1/2		1/2	5,105.61	1/2	4,783.87	1/2	4,446.55	1/2	4,095.69	1/2	3,734.12	1/2	3,371.54	1/2	3,008.96	1/2	2,646.39	1/2	2,283.68
3/4		3/4	5,099.08	3/4	4,777.00	3/4	4,439.37	3/4	4,088.24	3/4	3,726.57	3/4	3,363.99	3/4	3,001.41	3/4	2,638.83	3/4	2,276.13
6		6	5,092.55	6	4,770.13	6	4,432.20	6	4,080.79	6	3,719.01	6	3,356.43	6	2,993.86	6	2,631.28	6	2,268.57
1/4		1/4	5,086.02	1/4	4,763.25	1/4	4,425.02	1/4	4,073.33	1/4	3,711.46	1/4	3,348.88	1/4	2,986.30	1/4	2,623.72	1/4	2,261.01
1/2		1/2	5,079.47	1/2	4,756.36	1/2	4,417.82	1/2	4,065.86	1/2	3,703.91	1/2	3,341.33	1/2	2,978.75	1/2	2,616.16	1/2	2,253.46
3/4		3/4	5,072.92	3/4	4,749.46	3/4	4,410.62	3/4	4,058.38	3/4	3,696.35	3/4	3,333.77	3/4	2,971.20	3/4	2,608.61	3/4	2,245.90
7		7	5,066.37	7	4,742.57	7	4,403.42	7	4,050.90	7	3,688.80	7	3,326.22	7	2,963.64	7	2,601.05	7	2,238.34
1/4		1/4	5,059.82	1/4	4,735.67	1/4	4,396.22	1/4	4,043.43	1/4	3,681.24	1/4	3,318.67	1/4	2,956.09	1/4	2,593.49	1/4	2,230.79
1/2		1/2	5,053.25	1/2	4,728.75	1/2	4,388.99	1/2	4,035.93	1/2	3,673.69	1/2	3,311.11	1/2	2,948.54	1/2	2,585.94	1/2	2,223.23
3/4		3/4	5,046.67	3/4	4,721.83	3/4	4,381.77	3/4	4,028.43	3/4	3,666.14	3/4	3,303.56	3/4	2,940.98	3/4	2,578.38	3/4	2,215.67
8		8	5,040.10	8	4,714.90	8	4,374.55	8	4,020.93	8	3,658.58	8	3,296.01	8	2,933.43	8	2,570.83	8	2,208.12
1/4		1/4	5,033.53	1/4	4,707.98	1/4	4,367.32	1/4	4,013.43	1/4	3,651.03	1/4	3,288.45	1/4	2,925.87	1/4	2,563.27	1/4	2,200.56
1/2		1/2	5,026.93	1/2	4,701.01	1/2	4,360.08	1/2	4,005.91	1/2	3,643.48	1/2	3,280.90	1/2	2,918.32	1/2	2,555.71	1/2	2,193.01
3/4		3/4	5,020.33	3/4	4,694.04	3/4	4,352.83	3/4	3,998.39	3/4	3,635.92	3/4	3,273.34	3/4	2,910.77	3/4	2,548.16	3/4	2,185.45
9		9	5,013.74	9	4,687.07	9	4,345.58	9	3,990.87	9	3,628.37	9	3,265.79	9	2,903.21	9	2,540.60	9	2,177.89
1/4		1/4	5,007.14	1/4	4,680.10	1/4	4,338.34	1/4	3,983.34	1/4	3,620.81	1/4	3,258.24	1/4	2,895.66	1/4	2,533.04	1/4	2,170.34
1/2		1/2	5,000.51	1/2	4,673.11	1/2	4,331.07	1/2	3,975.80	1/2	3,613.26	1/2	3,250.68	1/2	2,888.11	1/2	2,525.49	1/2	2,162.78
3/4		3/4	4,993.88	3/4	4,666.11	3/4	4,323.80	3/4	3,968.26	3/4	3,605.71	3/4	3,243.13	3/4	2,880.55	3/4	2,517.93	3/4	2,155.22
10		10	4,987.25	10	4,659.12	10	4,316.53	10	3,960.72	10	3,598.15	10	3,235.58	10	2,873.00	10	2,510.37	10	2,147.67
1/4		1/4	4,980.62	1/4	4,652.12	1/4	4,309.26	1/4	3,953.18	1/4	3,590.60	1/4	3,228.02	1/4	2,865.44	1/4	2,502.82	1/4	2,140.11
1/2		1/2	4,973.91	1/2	4,645.11	1/2	4,301.97	1/2	3,945.62	1/2	3,583.05	1/2	3,220.47	1/2	2,857.89	1/2	2,495.26	1/2	2,132.55
3/4		3/4	4,967.20	3/4	4,638.09	3/4	4,294.68	3/4	3,938.07	3/4	3,575.49	3/4	3,212.91	3/4	2,850.34	3/4	2,487.71	3/4	2,125.00
11		11	4,960.48	11	4,631.07	11	4,287.38	11	3,930.52	11	3,567.94	11	3,205.36	11	2,842.78	11	2,480.15	11	2,117.44
1/4		1/4	4,953.77	1/4	4,624.06	1/4	4,280.09	1/4	3,922.96	1/4	3,560.38	1/4	3,197.81	1/4	2,835.23	1/4	2,472.59	1/4	2,109.89
1/2		1/2	4,947.03	1/2	4,617.02	1/2	4,272.78	1/2	3,915.41	1/2	3,552.83	1/2	3,190.25	1/2	2,827.68	1/2	2,465.04	1/2	2,102.33
3/4		3/4	4,940.29	3/4	4,609.98	3/4	4,265.46	3/4	3,907.86	3/4	3,545.28	3/4	3,182.70	3/4	2,820.12	3/4	2,457.48	3/4	2,094.77

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-09" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

1 STBD
ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09 1/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,087.22	0	1,724.51	0	1,361.80	0	1,000.88	0	638.78	0	276.09	0		0		0		0	
1/4	2,079.66	1/4	1,716.95	1/4	1,354.25	1/4	993.38	1/4	631.23	1/4	268.53	1/4		1/4		1/4		1/4	
1/2	2,072.10	1/2	1,709.40	1/2	1,346.69	1/2	985.87	1/2	623.67	1/2	260.98	1/2		1/2		1/2		1/2	
3/4	2,064.55	3/4	1,701.84	3/4	1,339.13	3/4	978.37	3/4	616.11	3/4	253.42	3/4		3/4		3/4		3/4	
1	2,056.99	1	1,694.28	1	1,331.58	1	970.86	1	608.56	1	245.86	1		1		1		1	
1/4	2,049.43	1/4	1,686.73	1/4	1,324.02	1/4	963.36	1/4	601.00	1/4	238.31	1/4		1/4		1/4		1/4	
1/2	2,041.88	1/2	1,679.17	1/2	1,316.46	1/2	955.85	1/2	593.44	1/2	230.75	1/2		1/2		1/2		1/2	
3/4	2,034.32	3/4	1,671.61	3/4	1,308.91	3/4	948.35	3/4	585.89	3/4	223.20	3/4		3/4		3/4		3/4	
2	2,026.76	2	1,664.06	2	1,301.35	2	940.84	2	578.33	2	215.64	2		2		2		2	
1/4	2,019.21	1/4	1,656.50	1/4	1,293.79	1/4	933.33	1/4	570.78	1/4	208.08	1/4		1/4		1/4		1/4	
1/2	2,011.65	1/2	1,648.94	1/2	1,286.24	1/2	925.81	1/2	563.22	1/2	200.53	1/2		1/2		1/2		1/2	
3/4	2,004.10	3/4	1,641.39	3/4	1,278.69	3/4	918.29	3/4	555.66	3/4	192.97	3/4		3/4		3/4		3/4	
3	1,996.54	3	1,633.83	3	1,271.14	3	910.77	3	548.11	3	185.42	3		3		3		3	
1/4	1,988.98	1/4	1,626.28	1/4	1,263.59	1/4	903.24	1/4	540.55	1/4	177.86	1/4		1/4		1/4		1/4	
1/2	1,981.43	1/2	1,618.72	1/2	1,256.07	1/2	895.69	1/2	533.00	1/2	170.30	1/2		1/2		1/2		1/2	
3/4	1,973.87	3/4	1,611.16	3/4	1,248.56	3/4	888.13	3/4	525.44	3/4	162.75	3/4		3/4		3/4		3/4	
4	1,966.31	4	1,603.61	4	1,241.04	4	880.58	4	517.88	4	155.19	4		4		4		4	
1/4	1,958.76	1/4	1,596.05	1/4	1,233.53	1/4	873.02	1/4	510.33	1/4	147.63	1/4		1/4		1/4		1/4	
1/2	1,951.20	1/2	1,588.49	1/2	1,226.02	1/2	865.46	1/2	502.77	1/2	140.08	1/2		1/2		1/2		1/2	
3/4	1,943.64	3/4	1,580.94	3/4	1,218.52	3/4	857.91	3/4	495.22	3/4	132.52	3/4		3/4		3/4		3/4	
5	1,936.09	5	1,573.38	5	1,211.01	5	850.35	5	487.66	5	124.97	5		5		5		5	
1/4	1,928.53	1/4	1,565.82	1/4	1,203.51	1/4	842.80	1/4	480.10	1/4	117.41	1/4		1/4		1/4		1/4	
1/2	1,920.98	1/2	1,558.27	1/2	1,196.00	1/2	835.24	1/2	472.55	1/2	109.93	1/2		1/2		1/2		1/2	
3/4	1,913.42	3/4	1,550.71	3/4	1,188.50	3/4	827.68	3/4	464.99	3/4	102.46	3/4		3/4		3/4		3/4	
6	1,905.86	6	1,543.16	6	1,180.99	6	820.13	6	457.43	6	94.98	6		6		6		6	
1/4	1,898.31	1/4	1,535.60	1/4	1,173.49	1/4	812.57	1/4	449.88	1/4	87.50	1/4		1/4		1/4		1/4	
1/2	1,890.75	1/2	1,528.04	1/2	1,165.99	1/2	805.02	1/2	442.32	1/2	80.73	1/2		1/2		1/2		1/2	
3/4	1,883.19	3/4	1,520.49	3/4	1,158.48	3/4	797.46	3/4	434.77	3/4	73.96	3/4		3/4		3/4		3/4	
7	1,875.64	7	1,512.93	7	1,150.98	7	789.90	7	427.21	7	67.19	7		7		7		7	
1/4	1,868.08	1/4	1,505.37	1/4	1,143.47	1/4	782.35	1/4	419.65	1/4	60.43	1/4		1/4		1/4		1/4	
1/2	1,860.52	1/2	1,497.82	1/2	1,135.97	1/2	774.79	1/2	412.10	1/2	54.92	1/2		1/2		1/2		1/2	
3/4	1,852.97	3/4	1,490.26	3/4	1,128.46	3/4	767.24	3/4	404.54	3/4	49.41	3/4		3/4		3/4		3/4	
8	1,845.41	8	1,482.70	8	1,120.96	8	759.68	8	396.99	8	43.90	8		8		8		8	
1/4	1,837.85	1/4	1,475.15	1/4	1,113.45	1/4	752.12	1/4	389.43	1/4	38.39	1/4		1/4		1/4		1/4	
1/2	1,830.30	1/2	1,467.59	1/2	1,105.95	1/2	744.57	1/2	381.87	1/2	34.14	1/2		1/2		1/2		1/2	
3/4	1,822.74	3/4	1,460.03	3/4	1,098.44	3/4	737.01	3/4	374.32	3/4	29.89	3/4		3/4		3/4		3/4	
9	1,815.19	9	1,452.48	9	1,090.94	9	729.45	9	366.76	9	25.64	9		9		9		9	
1/4	1,807.63	1/4	1,444.92	1/4	1,083.43	1/4	721.90	1/4	359.21	1/4	21.39	1/4		1/4		1/4		1/4	
1/2	1,800.07	1/2	1,437.37	1/2	1,075.93	1/2	714.34	1/2	351.65	1/2		1/2		1/2		1/2		1/2	
3/4	1,792.52	3/4	1,429.81	3/4	1,068.42	3/4	706.79	3/4	344.09	3/4		3/4		3/4		3/4		3/4	
10	1,784.96	10	1,422.25	10	1,060.92	10	699.23	10	336.54	10		10		10		10		10	
1/4	1,777.40	1/4	1,414.70	1/4	1,053.41	1/4	691.67	1/4	328.98	1/4		1/4		1/4		1/4		1/4	
1/2	1,769.85	1/2	1,407.14	1/2	1,045.91	1/2	684.12	1/2	321.43	1/2		1/2		1/2		1/2		1/2	
3/4	1,762.29	3/4	1,399.58	3/4	1,038.41	3/4	676.56	3/4	313.87	3/4		3/4		3/4		3/4		3/4	
11	1,754.73	11	1,392.03	11	1,030.90	11	669.01	11	306.31	11		11		11		11		11	
1/4	1,747.18	1/4	1,384.47	1/4	1,023.40	1/4	661.45	1/4	298.76	1/4		1/4		1/4		1/4		1/4	
1/2	1,739.62	1/2	1,376.91	1/2	1,015.89	1/2	653.89	1/2	291.20	1/2		1/2		1/2		1/2		1/2	
3/4	1,732.07	3/4	1,369.36	3/4	1,008.39	3/4	646.34	3/4	283.64	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
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BARGE "CCL 419-L"

2 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0		0		0	4,910.04	0	4,579.70	0	4,235.23	0	3,877.79	0	3,516.08	0	3,154.37	0	2,792.66	0	2,430.89
1/4		1/4		1/4	4,903.30	1/4	4,572.65	1/4	4,227.91	1/4	3,870.25	1/4	3,508.55	1/4	3,146.84	1/4	2,785.13	1/4	2,423.35
1/2		1/2		1/2	4,896.56	1/2	4,565.61	1/2	4,220.59	1/2	3,862.72	1/2	3,501.01	1/2	3,139.30	1/2	2,777.59	1/2	2,415.81
3/4		3/4		3/4	5,201.94	3/4	4,889.82	3/4	4,558.56	3/4	4,213.27	3/4	3,855.18	3/4	3,493.47	3/4	3,131.77	3/4	2,408.27
1		1		1	5,196.83	1	4,883.06	1	4,551.50	1	4,205.92	1	3,847.65	1	3,485.94	1	3,124.23	1	2,762.52
1/4		1/4		1/4	5,191.73	1/4	4,876.30	1/4	4,544.43	1/4	4,198.58	1/4	3,840.11	1/4	3,478.40	1/4	3,116.69	1/4	2,754.99
1/2		1/2		1/2	5,186.62	1/2	4,869.53	1/2	4,537.36	1/2	4,191.24	1/2	3,832.58	1/2	3,470.87	1/2	3,109.16	1/2	2,747.45
3/4		3/4		3/4	5,181.52	3/4	4,862.77	3/4	4,530.29	3/4	4,183.89	3/4	3,825.04	3/4	3,463.33	3/4	3,101.62	3/4	2,739.91
2		2		2	5,175.20	2	4,855.99	2	4,523.20	2	4,176.53	2	3,817.50	2	3,455.80	2	3,094.09	2	2,732.38
1/4		1/4		1/4	5,168.88	1/4	4,849.20	1/4	4,516.11	1/4	4,169.16	1/4	3,809.97	1/4	3,448.26	1/4	3,086.55	1/4	2,724.84
1/2		1/2		1/2	5,162.56	1/2	4,842.42	1/2	4,509.02	1/2	4,161.79	1/2	3,802.43	1/2	3,440.72	1/2	3,079.02	1/2	2,717.31
3/4		3/4		3/4	5,156.24	3/4	4,835.63	3/4	4,501.93	3/4	4,154.43	3/4	3,794.90	3/4	3,433.19	3/4	3,071.48	3/4	2,709.77
3		3		3	5,149.06	3	4,828.82	3	4,494.82	3	4,147.04	3	3,787.36	3	3,425.65	3	3,063.94	3	2,702.24
1/4		1/4		1/4	5,141.88	1/4	4,822.01	1/4	4,487.71	1/4	4,139.65	1/4	3,779.83	1/4	3,418.12	1/4	3,056.41	1/4	2,694.70
1/2		1/2		1/2	5,134.70	1/2	4,815.21	1/2	4,480.59	1/2	4,132.26	1/2	3,772.29	1/2	3,410.58	1/2	3,048.87	1/2	2,687.16
3/4		3/4		3/4	5,127.52	3/4	4,808.40	3/4	4,473.48	3/4	4,124.87	3/4	3,764.76	3/4	3,403.05	3/4	3,041.34	3/4	2,679.63
4		4		4	5,121.04	4	4,801.57	4	4,466.34	4	4,117.46	4	3,757.22	4	3,395.51	4	3,033.80	4	2,672.09
1/4		1/4		1/4	5,114.55	1/4	4,794.73	1/4	4,459.21	1/4	4,110.05	1/4	3,749.68	1/4	3,387.98	1/4	3,026.27	1/4	2,664.56
1/2		1/2		1/2	5,108.06	1/2	4,787.90	1/2	4,452.07	1/2	4,102.64	1/2	3,742.15	1/2	3,380.44	1/2	3,018.73	1/2	2,657.02
3/4		3/4		3/4	5,101.58	3/4	4,781.07	3/4	4,444.93	3/4	4,095.22	3/4	3,734.61	3/4	3,372.90	3/4	3,011.20	3/4	2,649.49
5		5		5	5,095.07	5	4,774.22	5	4,437.78	5	4,087.79	5	3,727.08	5	3,365.37	5	3,003.66	5	2,641.95
1/4		1/4		1/4	5,088.56	1/4	4,767.36	1/4	4,430.62	1/4	4,080.35	1/4	3,719.54	1/4	3,357.83	1/4	2,996.12	1/4	2,634.42
1/2		1/2		1/2	5,082.05	1/2	4,760.51	1/2	4,423.46	1/2	4,072.92	1/2	3,712.01	1/2	3,350.30	1/2	2,988.59	1/2	2,626.88
3/4		3/4		3/4	5,075.54	3/4	4,753.65	3/4	4,416.30	3/4	4,065.48	3/4	3,704.47	3/4	3,342.76	3/4	2,981.05	3/4	2,619.35
6		6		6	5,069.01	6	4,746.78	6	4,409.12	6	4,058.03	6	3,696.94	6	3,335.23	6	2,973.52	6	2,611.81
1/4		1/4		1/4	5,062.48	1/4	4,739.90	1/4	4,401.93	1/4	4,050.57	1/4	3,689.40	1/4	3,327.69	1/4	2,965.98	1/4	2,604.27
1/2		1/2		1/2	5,055.94	1/2	4,733.02	1/2	4,394.75	1/2	4,043.11	1/2	3,681.86	1/2	3,320.16	1/2	2,958.45	1/2	2,596.73
3/4		3/4		3/4	5,049.41	3/4	4,726.15	3/4	4,387.57	3/4	4,035.65	3/4	3,674.33	3/4	3,312.62	3/4	2,950.91	3/4	2,589.19
7		7		7	5,042.86	7	4,719.24	7	4,380.36	7	4,028.17	7	3,666.79	7	3,305.08	7	2,943.38	7	2,581.66
1/4		1/4		1/4	5,036.30	1/4	4,712.34	1/4	4,373.16	1/4	4,020.69	1/4	3,659.26	1/4	3,297.55	1/4	2,935.84	1/4	2,574.12
1/2		1/2		1/2	5,029.74	1/2	4,705.43	1/2	4,365.95	1/2	4,013.21	1/2	3,651.72	1/2	3,290.01	1/2	2,928.30	1/2	2,566.58
3/4		3/4		3/4	5,023.19	3/4	4,698.53	3/4	4,358.75	3/4	4,005.73	3/4	3,644.19	3/4	3,282.48	3/4	2,920.77	3/4	2,559.04
8		8		8	5,016.61	8	4,691.58	8	4,351.52	8	3,998.22	8	3,636.65	8	3,274.94	8	2,913.23	8	2,551.50
1/4		1/4		1/4	5,010.03	1/4	4,684.63	1/4	4,344.29	1/4	3,990.72	1/4	3,629.11	1/4	3,267.41	1/4	2,905.70	1/4	2,543.96
1/2		1/2		1/2	5,003.46	1/2	4,677.67	1/2	4,337.06	1/2	3,983.22	1/2	3,621.58	1/2	3,259.87	1/2	2,898.16	1/2	2,536.43
3/4		3/4		3/4	4,996.88	3/4	4,670.72	3/4	4,329.84	3/4	3,975.71	3/4	3,614.04	3/4	3,252.33	3/4	2,890.63	3/4	2,528.89
9		9		9	4,990.27	9	4,663.75	9	4,322.58	9	3,968.19	9	3,606.51	9	3,244.80	9	2,883.09	9	2,521.35
1/4		1/4		1/4	4,983.66	1/4	4,656.77	1/4	4,315.33	1/4	3,960.66	1/4	3,598.97	1/4	3,237.26	1/4	2,875.55	1/4	2,513.81
1/2		1/2		1/2	4,977.05	1/2	4,649.79	1/2	4,308.08	1/2	3,953.14	1/2	3,591.44	1/2	3,229.73	1/2	2,868.02	1/2	2,506.27
3/4		3/4		3/4	4,970.44	3/4	4,642.82	3/4	4,300.83	3/4	3,945.61	3/4	3,583.90	3/4	3,222.19	3/4	2,860.48	3/4	2,498.73
10		10		10	4,963.74	10	4,635.82	10	4,293.56	10	3,938.07	10	3,576.37	10	3,214.66	10	2,852.95	10	2,491.20
1/4		1/4		1/4	4,957.04	1/4	4,628.82	1/4	4,286.28	1/4	3,930.54	1/4	3,568.83	1/4	3,207.12	1/4	2,845.41	1/4	2,483.66
1/2		1/2		1/2	4,950.35	1/2	4,621.82	1/2	4,279.01	1/2	3,923.00	1/2	3,561.29	1/2	3,199.59	1/2	2,837.88	1/2	2,476.12
3/4		3/4		3/4	4,943.65	3/4	4,614.83	3/4	4,271.73	3/4	3,915.47	3/4	3,553.76	3/4	3,192.05	3/4	2,830.34	3/4	2,468.58
11		11		11	4,936.93	11	4,607.80	11	4,264.44	11	3,907.93	11	3,546.22	11	3,184.51	11	2,822.81	11	2,461.04
1/4		1/4		1/4	4,930.22	1/4	4,600.78	1/4	4,257.14	1/4	3,900.40	1/4	3,538.69	1/4	3,176.98	1/4	2,815.27	1/4	2,453.50
1/2		1/2		1/2	4,923.50	1/2	4,593.76	1/2	4,249.84	1/2	3,892.86	1/2	3,531.15	1/2	3,169.44	1/2	2,807.73	1/2	2,445.96
3/4		3/4		3/4	4,916.78	3/4	4,586.74	3/4	4,242.55	3/4	3,885.33	3/4	3,523.62	3/4	3,161.91	3/4	2,800.20	3/4	2,438.43

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

2 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,069.04	0	1,707.20	0	1,345.36	0	983.93	0	622.18	0	260.35	0		0		0		0	
1/4	2,061.51	1/4	1,699.66	1/4	1,337.82	1/4	976.40	1/4	614.64	1/4	252.81	1/4		1/4		1/4		1/4	
1/2	2,053.97	1/2	1,692.12	1/2	1,330.28	1/2	968.88	1/2	607.10	1/2	245.27	1/2		1/2		1/2		1/2	
3/4	2,046.43	3/4	1,684.59	3/4	1,322.74	3/4	961.35	3/4	599.57	3/4	237.74	3/4		3/4		3/4		3/4	
1	2,038.89	1	1,677.05	1	1,315.20	1	953.82	1	592.03	1	230.20	1		1		1		1	
1/4	2,031.35	1/4	1,669.51	1/4	1,307.67	1/4	946.30	1/4	584.49	1/4	222.66	1/4		1/4		1/4		1/4	
1/2	2,023.81	1/2	1,661.97	1/2	1,300.13	1/2	938.77	1/2	576.95	1/2	215.12	1/2		1/2		1/2		1/2	
3/4	2,016.28	3/4	1,654.43	3/4	1,292.59	3/4	931.24	3/4	569.41	3/4	207.58	3/4		3/4		3/4		3/4	
2	2,008.74	2	1,646.89	2	1,285.05	2	923.70	2	561.87	2	200.05	2		2		2		2	
1/4	2,001.20	1/4	1,639.36	1/4	1,277.51	1/4	916.17	1/4	554.34	1/4	192.51	1/4		1/4		1/4		1/4	
1/2	1,993.66	1/2	1,631.82	1/2	1,269.97	1/2	908.63	1/2	546.80	1/2	184.97	1/2		1/2		1/2		1/2	
3/4	1,986.12	3/4	1,624.28	3/4	1,262.44	3/4	901.09	3/4	539.26	3/4	177.43	3/4		3/4		3/4		3/4	
3	1,978.58	3	1,616.74	3	1,254.90	3	893.55	3	531.72	3	169.89	3		3		3		3	
1/4	1,971.05	1/4	1,609.20	1/4	1,247.36	1/4	886.01	1/4	524.18	1/4	162.36	1/4		1/4		1/4		1/4	
1/2	1,963.51	1/2	1,601.66	1/2	1,239.83	1/2	878.47	1/2	516.65	1/2	154.82	1/2		1/2		1/2		1/2	
3/4	1,955.97	3/4	1,594.13	3/4	1,232.29	3/4	870.94	3/4	509.11	3/4	147.28	3/4		3/4		3/4		3/4	
4	1,948.43	4	1,586.59	4	1,224.76	4	863.40	4	501.57	4	139.74	4		4		4		4	
1/4	1,940.89	1/4	1,579.05	1/4	1,217.24	1/4	855.86	1/4	494.03	1/4	132.20	1/4		1/4		1/4		1/4	
1/2	1,933.35	1/2	1,571.51	1/2	1,209.71	1/2	848.32	1/2	486.49	1/2	124.66	1/2		1/2		1/2		1/2	
3/4	1,925.82	3/4	1,563.97	3/4	1,202.18	3/4	840.78	3/4	478.96	3/4	117.13	3/4		3/4		3/4		3/4	
5	1,918.28	5	1,556.43	5	1,194.66	5	833.25	5	471.42	5	109.67	5		5		5		5	
1/4	1,910.74	1/4	1,548.90	1/4	1,187.13	1/4	825.71	1/4	463.88	1/4	102.21	1/4		1/4		1/4		1/4	
1/2	1,903.20	1/2	1,541.36	1/2	1,179.61	1/2	818.17	1/2	456.34	1/2	94.75	1/2		1/2		1/2		1/2	
3/4	1,895.66	3/4	1,533.82	3/4	1,172.08	3/4	810.63	3/4	448.80	3/4	87.29	3/4		3/4		3/4		3/4	
6	1,888.12	6	1,526.28	6	1,164.55	6	803.09	6	441.27	6	80.54	6		6		6		6	
1/4	1,880.58	1/4	1,518.74	1/4	1,157.03	1/4	795.56	1/4	433.73	1/4	73.78	1/4		1/4		1/4		1/4	
1/2	1,873.05	1/2	1,511.20	1/2	1,149.50	1/2	788.02	1/2	426.19	1/2	67.02	1/2		1/2		1/2		1/2	
3/4	1,865.51	3/4	1,503.66	3/4	1,141.98	3/4	780.48	3/4	418.65	3/4	60.28	3/4		3/4		3/4		3/4	
7	1,857.97	7	1,496.13	7	1,134.45	7	772.94	7	411.11	7	54.78	7		7		7		7	
1/4	1,850.43	1/4	1,488.59	1/4	1,126.92	1/4	765.40	1/4	403.57	1/4	49.29	1/4		1/4		1/4		1/4	
1/2	1,842.89	1/2	1,481.05	1/2	1,119.40	1/2	757.87	1/2	396.04	1/2	43.79	1/2		1/2		1/2		1/2	
3/4	1,835.35	3/4	1,473.51	3/4	1,111.87	3/4	750.33	3/4	388.50	3/4	38.30	3/4		3/4		3/4		3/4	
8	1,827.82	8	1,465.97	8	1,104.35	8	742.79	8	380.96	8	34.06	8		8		8		8	
1/4	1,820.28	1/4	1,458.43	1/4	1,096.82	1/4	735.25	1/4	373.42	1/4	29.82	1/4		1/4		1/4		1/4	
1/2	1,812.74	1/2	1,450.90	1/2	1,089.29	1/2	727.71	1/2	365.88	1/2	25.58	1/2		1/2		1/2		1/2	
3/4	1,805.20	3/4	1,443.36	3/4	1,081.77	3/4	720.17	3/4	358.35	3/4	21.34	3/4		3/4		3/4		3/4	
9	1,797.66	9	1,435.82	9	1,074.24	9	712.64	9	350.81	9		9		9		9		9	
1/4	1,790.12	1/4	1,428.28	1/4	1,066.71	1/4	705.10	1/4	343.27	1/4		1/4		1/4		1/4		1/4	
1/2	1,782.59	1/2	1,420.74	1/2	1,059.19	1/2	697.56	1/2	335.73	1/2		1/2		1/2		1/2		1/2	
3/4	1,775.05	3/4	1,413.20	3/4	1,051.66	3/4	690.02	3/4	328.19	3/4		3/4		3/4		3/4		3/4	
10	1,767.51	10	1,405.67	10	1,044.14	10	682.48	10	320.66	10		10		10		10		10	
1/4	1,759.97	1/4	1,398.13	1/4	1,036.61	1/4	674.95	1/4	313.12	1/4		1/4		1/4		1/4		1/4	
1/2	1,752.43	1/2	1,390.59	1/2	1,029.08	1/2	667.41	1/2	305.58	1/2		1/2		1/2		1/2		1/2	
3/4	1,744.89	3/4	1,383.05	3/4	1,021.56	3/4	659.87	3/4	298.04	3/4		3/4		3/4		3/4		3/4	
11	1,737.36	11	1,375.51	11	1,014.03	11	652.33	11	290.50	11		11		11		11		11	
1/4	1,729.82	1/4	1,367.97	1/4	1,006.51	1/4	644.79	1/4	282.96	1/4		1/4		1/4		1/4		1/4	
1/2	1,722.28	1/2	1,360.44	1/2	998.98	1/2	637.26	1/2	275.43	1/2		1/2		1/2		1/2		1/2	
3/4	1,714.74	3/4	1,352.90	3/4	991.45	3/4	629.72	3/4	267.89	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

2 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0		0	5,186.62	0	4,874.47	0	4,543.19	0	4,197.85	0	3,839.73	0	3,477.98	0	3,116.23	0	2,754.47	0	2,392.63
1/4		1/4	5,181.51	1/4	4,867.71	1/4	4,536.12	1/4	4,190.51	1/4	3,832.19	1/4	3,470.44	1/4	3,108.69	1/4	2,746.94	1/4	2,385.09
1/2		1/2	5,176.41	1/2	4,860.95	1/2	4,529.05	1/2	4,183.16	1/2	3,824.66	1/2	3,462.90	1/2	3,101.15	1/2	2,739.40	1/2	2,377.55
3/4		3/4	5,171.30	3/4	4,854.18	3/4	4,521.98	3/4	4,175.82	3/4	3,817.12	3/4	3,455.37	3/4	3,093.62	3/4	2,731.86	3/4	2,370.01
1		1	5,166.19	1	4,847.42	1	4,514.91	1	4,168.48	1	3,809.58	1	3,447.83	1	3,086.08	1	2,724.33	1	2,362.47
1 1/4		1 1/4	5,159.87	1 1/4	4,840.63	1 1/4	4,507.82	1 1/4	4,161.11	1 1/4	3,802.05	1 1/4	3,440.29	1 1/4	3,078.54	1 1/4	2,716.79	1 1/4	2,354.94
1 1/2		1 1/2	5,153.56	1 1/2	4,833.85	1 1/2	4,500.73	1 1/2	4,153.74	1 1/2	3,794.51	1 1/2	3,432.76	1 1/2	3,071.01	1 1/2	2,709.25	1 1/2	2,347.40
3 1/4		3 1/4	5,147.24	3 1/4	4,827.06	3 1/4	4,493.64	3 1/4	4,146.38	3 1/4	3,786.97	3 1/4	3,425.22	3 1/4	3,063.47	3 1/4	2,701.72	3 1/4	2,339.86
2		2	5,140.92	2	4,820.28	2	4,486.55	2	4,139.01	2	3,779.44	2	3,417.69	2	3,055.93	2	2,694.18	2	2,332.32
1 1/4		1 1/4	5,133.74	1 1/4	4,813.47	1 1/4	4,479.44	1 1/4	4,131.62	1 1/4	3,771.90	1 1/4	3,410.15	1 1/4	3,048.40	1 1/4	2,686.64	1 1/4	2,324.78
1 1/2		1 1/2	5,126.55	1 1/2	4,806.66	1 1/2	4,472.32	1 1/2	4,124.23	1 1/2	3,764.36	1 1/2	3,402.61	1 1/2	3,040.86	1 1/2	2,679.11	1 1/2	2,317.24
3 1/4		3 1/4	5,119.37	3 1/4	4,799.85	3 1/4	4,465.21	3 1/4	4,116.84	3 1/4	3,756.83	3 1/4	3,395.08	3 1/4	3,033.32	3 1/4	2,671.57	3 1/4	2,309.70
3		3	5,112.19	3	4,793.04	3	4,458.09	3	4,109.45	3	3,749.29	3	3,387.54	3	3,025.79	3	2,664.04	3	2,302.16
1 1/4		1 1/4	5,105.70	1 1/4	4,786.21	1 1/4	4,450.96	1 1/4	4,102.04	1 1/4	3,741.75	1 1/4	3,380.00	1 1/4	3,018.25	1 1/4	2,656.50	1 1/4	2,294.62
1 1/2		1 1/2	5,099.22	1 1/2	4,779.38	1 1/2	4,443.82	1 1/2	4,094.62	1 1/2	3,734.22	1 1/2	3,372.47	1 1/2	3,010.71	1 1/2	2,648.96	1 1/2	2,287.08
3 1/4		3 1/4	5,092.73	3 1/4	4,772.55	3 1/4	4,436.68	3 1/4	4,087.21	3 1/4	3,726.68	3 1/4	3,364.93	3 1/4	3,003.18	3 1/4	2,641.43	3 1/4	2,279.54
4		4	5,086.24	4	4,765.71	4	4,429.55	4	4,079.80	4	3,719.15	4	3,357.39	4	2,995.64	4	2,633.89	4	2,272.00
1 1/4		1 1/4	5,079.73	1 1/4	4,758.86	1 1/4	4,422.39	1 1/4	4,072.36	1 1/4	3,711.61	1 1/4	3,349.86	1 1/4	2,988.10	1 1/4	2,626.35	1 1/4	2,264.47
1 1/2		1 1/2	5,073.22	1 1/2	4,752.00	1 1/2	4,415.23	1 1/2	4,064.93	1 1/2	3,704.07	1 1/2	3,342.32	1 1/2	2,980.57	1 1/2	2,618.81	1 1/2	2,256.93
3 1/4		3 1/4	5,066.71	3 1/4	4,745.15	3 1/4	4,408.07	3 1/4	4,057.49	3 1/4	3,696.54	3 1/4	3,334.78	3 1/4	2,973.03	3 1/4	2,611.27	3 1/4	2,249.39
5		5	5,060.20	5	4,738.29	5	4,400.91	5	4,050.05	5	3,689.00	5	3,327.25	5	2,965.50	5	2,603.73	5	2,241.85
1 1/4		1 1/4	5,053.67	1 1/4	4,731.42	1 1/4	4,393.72	1 1/4	4,042.60	1 1/4	3,681.46	1 1/4	3,319.71	1 1/4	2,957.96	1 1/4	2,596.19	1 1/4	2,234.31
1 1/2		1 1/2	5,047.14	1 1/2	4,724.54	1 1/2	4,386.54	1 1/2	4,035.14	1 1/2	3,673.93	1 1/2	3,312.17	1 1/2	2,950.42	1 1/2	2,588.65	1 1/2	2,226.77
3 1/4		3 1/4	5,040.61	3 1/4	4,717.66	3 1/4	4,379.36	3 1/4	4,027.68	3 1/4	3,666.39	3 1/4	3,304.64	3 1/4	2,942.89	3 1/4	2,581.11	3 1/4	2,219.23
6		6	5,034.07	6	4,710.78	6	4,372.17	6	4,020.22	6	3,658.85	6	3,297.10	6	2,935.35	6	2,573.57	6	2,211.69
1 1/4		1 1/4	5,027.52	1 1/4	4,703.88	1 1/4	4,364.97	1 1/4	4,012.74	1 1/4	3,651.32	1 1/4	3,289.56	1 1/4	2,927.81	1 1/4	2,566.03	1 1/4	2,204.15
1 1/2		1 1/2	5,020.96	1 1/2	4,696.97	1 1/2	4,357.76	1 1/2	4,005.26	1 1/2	3,643.78	1 1/2	3,282.03	1 1/2	2,920.28	1 1/2	2,558.49	1 1/2	2,196.61
3 1/4		3 1/4	5,014.41	3 1/4	4,690.07	3 1/4	4,350.56	3 1/4	3,997.77	3 1/4	3,636.24	3 1/4	3,274.49	3 1/4	2,912.74	3 1/4	2,550.95	3 1/4	2,189.07
7		7	5,007.85	7	4,683.17	7	4,343.35	7	3,990.29	7	3,628.71	7	3,266.96	7	2,905.20	7	2,543.42	7	2,181.53
1 1/4		1 1/4	5,001.27	1 1/4	4,676.21	1 1/4	4,336.12	1 1/4	3,982.79	1 1/4	3,621.17	1 1/4	3,259.42	1 1/4	2,897.67	1 1/4	2,535.88	1 1/4	2,173.99
1 1/2		1 1/2	4,994.69	1 1/2	4,669.26	1 1/2	4,328.89	1 1/2	3,975.28	1 1/2	3,613.63	1 1/2	3,251.88	1 1/2	2,890.13	1 1/2	2,528.34	1 1/2	2,166.46
3 1/4		3 1/4	4,988.11	3 1/4	4,662.31	3 1/4	4,321.66	3 1/4	3,967.78	3 1/4	3,606.10	3 1/4	3,244.35	3 1/4	2,882.59	3 1/4	2,520.80	3 1/4	2,158.92
8		8	4,981.54	8	4,655.35	8	4,314.44	8	3,960.27	8	3,598.56	8	3,236.81	8	2,875.06	8	2,513.26	8	2,151.38
1 1/4		1 1/4	4,974.93	1 1/4	4,648.38	1 1/4	4,307.18	1 1/4	3,952.75	1 1/4	3,591.02	1 1/4	3,229.27	1 1/4	2,867.52	1 1/4	2,505.72	1 1/4	2,143.84
1 1/2		1 1/2	4,968.31	1 1/2	4,641.40	1 1/2	4,299.93	1 1/2	3,945.22	1 1/2	3,583.49	1 1/2	3,221.74	1 1/2	2,859.98	1 1/2	2,498.18	1 1/2	2,136.30
3 1/4		3 1/4	4,961.70	3 1/4	4,634.43	3 1/4	4,292.68	3 1/4	3,937.69	3 1/4	3,575.95	3 1/4	3,214.20	3 1/4	2,852.45	3 1/4	2,490.64	3 1/4	2,128.76
9		9	4,955.09	9	4,627.45	9	4,285.43	9	3,930.17	9	3,568.42	9	3,206.66	9	2,844.91	9	2,483.10	9	2,121.22
1 1/4		1 1/4	4,948.40	1 1/4	4,620.45	1 1/4	4,278.15	1 1/4	3,922.63	1 1/4	3,560.88	1 1/4	3,199.13	1 1/4	2,837.37	1 1/4	2,475.56	1 1/4	2,113.68
1 1/2		1 1/2	4,941.70	1 1/2	4,613.45	1 1/2	4,270.88	1 1/2	3,915.09	1 1/2	3,553.34	1 1/2	3,191.59	1 1/2	2,829.84	1 1/2	2,468.02	1 1/2	2,106.14
3 1/4		3 1/4	4,935.00	3 1/4	4,606.45	3 1/4	4,263.60	3 1/4	3,907.56	3 1/4	3,545.81	3 1/4	3,184.05	3 1/4	2,822.30	3 1/4	2,460.48	3 1/4	2,098.60
10		10	4,928.31	10	4,599.45	10	4,256.33	10	3,900.02	10	3,538.27	10	3,176.52	10	2,814.77	10	2,452.95	10	2,091.06
1 1/4		1 1/4	4,921.59	1 1/4	4,592.43	1 1/4	4,249.03	1 1/4	3,892.48	1 1/4	3,530.73	1 1/4	3,168.98	1 1/4	2,807.23	1 1/4	2,445.41	1 1/4	2,083.52
1 1/2		1 1/2	4,914.87	1 1/2	4,585.41	1 1/2	4,241.73	1 1/2	3,884.95	1 1/2	3,523.20	1 1/2	3,161.44	1 1/2	2,799.69	1 1/2	2,437.87	1 1/2	2,075.99
3 1/4		3 1/4	4,908.15	3 1/4	4,578.39	3 1/4	4,234.43	3 1/4	3,877.41	3 1/4	3,515.66	3 1/4	3,153.91	3 1/4	2,792.16	3 1/4	2,430.33	3 1/4	2,068.45
11		11	4,901.43	11	4,571.37	11	4,227.14	11	3,869.88	11	3,508.12	11	3,146.37	11	2,784.62	11	2,422.79	11	2,060.91
1 1/4		1 1/4	4,894.69	1 1/4	4,564.32	1 1/4	4,219.82	1 1/4	3,862.34	1 1/4	3,500.59	1 1/4	3,138.83	1 1/4	2,777.08	1 1/4	2,415.25	1 1/4	2,053.37
1 1/2		1 1/2	4,887.95	1 1/2	4,557.28	1 1/2	4,212.49	1 1/2	3,854.80	1 1/2	3,493.05	1 1/2	3,131.30	1 1/2	2,769.55	1 1/2	2,407.71	1 1/2	2,045.83
3 1/4		3 1/4	4,881.21	3 1/4	4,550.23	3 1/4	4,205.17	3 1/4	3,847.27	3 1/4	3,485.51	3 1/4	3,123.76	3 1/4	2,762.01	3 1/4	2,400.17	3 1/4	2,038.29

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

2 STBD
ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,030.75	0	1,668.87	0	1,306.99	0	958.98	0	599.64	0	237.77	0		0		0		0	
1/4	2,023.21	1/4	1,661.33	1/4	1,299.45	1/4	951.78	1/4	592.10	1/4	230.23	1/4		1/4		1/4		1/4	
1/2	2,015.67	1/2	1,653.79	1/2	1,291.91	1/2	944.58	1/2	584.56	1/2	222.69	1/2		1/2		1/2		1/2	
3/4	2,008.13	3/4	1,646.25	3/4	1,284.37	3/4	937.39	3/4	577.02	3/4	215.15	3/4		3/4		3/4		3/4	
1	2,000.59	1	1,638.71	1	1,276.83	1	930.19	1	569.48	1	207.61	1		1		1		1	
1/4	1,993.05	1/4	1,631.17	1/4	1,269.33	1/4	922.94	1/4	561.94	1/4	200.07	1/4		1/4		1/4		1/4	
1/2	1,985.51	1/2	1,623.63	1/2	1,261.83	1/2	915.69	1/2	554.40	1/2	192.53	1/2		1/2		1/2		1/2	
3/4	1,977.98	3/4	1,616.09	3/4	1,254.34	3/4	908.45	3/4	546.87	3/4	184.99	3/4		3/4		3/4		3/4	
2	1,970.44	2	1,608.55	2	1,246.84	2	901.20	2	539.33	2	177.45	2		2		2		2	
1/4	1,962.90	1/4	1,601.02	1/4	1,239.63	1/4	893.66	1/4	531.79	1/4	169.92	1/4		1/4		1/4		1/4	
1/2	1,955.36	1/2	1,593.48	1/2	1,232.43	1/2	886.12	1/2	524.25	1/2	162.38	1/2		1/2		1/2		1/2	
3/4	1,947.82	3/4	1,585.94	3/4	1,225.22	3/4	878.58	3/4	516.71	3/4	154.84	3/4		3/4		3/4		3/4	
3	1,940.28	3	1,578.40	3	1,218.02	3	871.04	3	509.17	3	147.30	3		3		3		3	
1/4	1,932.74	1/4	1,570.86	1/4	1,210.82	1/4	863.50	1/4	501.63	1/4	139.76	1/4		1/4		1/4		1/4	
1/2	1,925.20	1/2	1,563.32	1/2	1,203.63	1/2	855.96	1/2	494.09	1/2	132.22	1/2		1/2		1/2		1/2	
3/4	1,917.66	3/4	1,555.78	3/4	1,196.43	3/4	848.43	3/4	486.55	3/4	124.68	3/4		3/4		3/4		3/4	
4	1,910.12	4	1,548.24	4	1,189.23	4	840.89	4	479.01	4	117.14	4		4		4		4	
1/4	1,902.58	1/4	1,540.70	1/4	1,182.04	1/4	833.35	1/4	471.48	1/4	109.68	1/4		1/4		1/4		1/4	
1/2	1,895.04	1/2	1,533.16	1/2	1,174.84	1/2	825.81	1/2	463.94	1/2	102.22	1/2		1/2		1/2		1/2	
3/4	1,887.51	3/4	1,525.62	3/4	1,167.65	3/4	818.27	3/4	456.40	3/4	94.76	3/4		3/4		3/4		3/4	
5	1,879.97	5	1,518.08	5	1,160.45	5	810.73	5	448.86	5	87.30	5		5		5		5	
1/4	1,872.43	1/4	1,510.55	1/4	1,153.26	1/4	803.19	1/4	441.32	1/4	80.55	1/4		1/4		1/4		1/4	
1/2	1,864.89	1/2	1,503.01	1/2	1,146.06	1/2	795.65	1/2	433.78	1/2	73.79	1/2		1/2		1/2		1/2	
3/4	1,857.35	3/4	1,495.47	3/4	1,138.87	3/4	788.11	3/4	426.24	3/4	67.04	3/4		3/4		3/4		3/4	
6	1,849.81	6	1,487.93	6	1,131.67	6	780.57	6	418.70	6	60.29	6		6		6		6	
1/4	1,842.27	1/4	1,480.39	1/4	1,124.47	1/4	773.04	1/4	411.16	1/4	54.79	1/4		1/4		1/4		1/4	
1/2	1,834.73	1/2	1,472.85	1/2	1,117.28	1/2	765.50	1/2	403.62	1/2	49.29	1/2		1/2		1/2		1/2	
3/4	1,827.19	3/4	1,465.31	3/4	1,110.08	3/4	757.96	3/4	396.09	3/4	43.80	3/4		3/4		3/4		3/4	
7	1,819.65	7	1,457.77	7	1,102.89	7	750.42	7	388.55	7	38.30	7		7		7		7	
1/4	1,812.11	1/4	1,450.23	1/4	1,095.69	1/4	742.88	1/4	381.01	1/4	34.06	1/4		1/4		1/4		1/4	
1/2	1,804.57	1/2	1,442.69	1/2	1,088.50	1/2	735.34	1/2	373.47	1/2	29.82	1/2		1/2		1/2		1/2	
3/4	1,797.03	3/4	1,435.15	3/4	1,081.30	3/4	727.80	3/4	365.93	3/4	25.58	3/4		3/4		3/4		3/4	
8	1,789.50	8	1,427.61	8	1,074.11	8	720.26	8	358.39	8	21.35	8		8		8		8	
1/4	1,781.96	1/4	1,420.07	1/4	1,066.91	1/4	712.72	1/4	350.85	1/4		1/4		1/4		1/4		1/4	
1/2	1,774.42	1/2	1,412.54	1/2	1,059.72	1/2	705.18	1/2	343.31	1/2		1/2		1/2		1/2		1/2	
3/4	1,766.88	3/4	1,405.00	3/4	1,052.52	3/4	697.65	3/4	335.77	3/4		3/4		3/4		3/4		3/4	
9	1,759.34	9	1,397.46	9	1,045.32	9	690.11	9	328.23	9		9		9		9		9	
1/4	1,751.80	1/4	1,389.92	1/4	1,038.13	1/4	682.57	1/4	320.70	1/4		1/4		1/4		1/4		1/4	
1/2	1,744.26	1/2	1,382.38	1/2	1,030.93	1/2	675.03	1/2	313.16	1/2		1/2		1/2		1/2		1/2	
3/4	1,736.72	3/4	1,374.84	3/4	1,023.74	3/4	667.49	3/4	305.62	3/4		3/4		3/4		3/4		3/4	
10	1,729.18	10	1,367.30	10	1,016.54	10	659.95	10	298.08	10		10		10		10		10	
1/4	1,721.64	1/4	1,359.76	1/4	1,009.35	1/4	652.41	1/4	290.54	1/4		1/4		1/4		1/4		1/4	
1/2	1,714.10	1/2	1,352.22	1/2	1,002.15	1/2	644.87	1/2	283.00	1/2		1/2		1/2		1/2		1/2	
3/4	1,706.56	3/4	1,344.68	3/4	994.96	3/4	637.33	3/4	275.46	3/4		3/4		3/4		3/4		3/4	
11	1,699.03	11	1,337.14	11	987.76	11	629.79	11	267.92	11		11		11		11		11	
1/4	1,691.49	1/4	1,329.60	1/4	980.56	1/4	622.26	1/4	260.38	1/4		1/4		1/4		1/4		1/4	
1/2	1,683.95	1/2	1,322.07	1/2	973.37	1/2	614.72	1/2	252.84	1/2		1/2		1/2		1/2		1/2	
3/4	1,676.41	3/4	1,314.53	3/4	966.17	3/4	607.18	3/4	245.31	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
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BARGE "CCL 419-L"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0		0		0	4,248.34	0	4,071.34	0	3,886.82	0	3,695.36	0	3,496.45	0	3,138.38	0	2,779.04	0	2,419.08
1/4		1/4		1/4	4,244.73	1/4	4,067.57	1/4	3,882.90	1/4	3,691.32	1/4	3,488.99	1/4	3,130.89	1/4	2,771.54	1/4	2,411.58
1/2		1/2		1/2	4,241.12	1/2	4,063.80	1/2	3,878.98	1/2	3,687.28	1/2	3,481.52	1/2	3,123.41	1/2	2,764.04	1/2	2,404.08
3/4		3/4		3/4	4,398.07	3/4	4,237.51	3/4	4,060.02	3/4	3,875.06	3/4	3,683.25	3/4	3,474.05	3/4	3,115.92	3/4	2,756.54
1		1		1	4,396.42	1	4,233.88	1	4,056.24	1	3,871.12	1	3,679.21	1	3,466.58	1	3,108.44	1	2,749.04
1/4		1/4		1/4	4,394.77	1/4	4,230.26	1/4	4,052.45	1/4	3,867.19	1/4	3,675.17	1/4	3,459.12	1/4	3,100.95	1/4	2,741.55
1/2		1/2		1/2	4,393.11	1/2	4,226.63	1/2	4,048.67	1/2	3,863.26	1/2	3,671.14	1/2	3,451.65	1/2	3,093.46	1/2	2,734.05
3/4		3/4		3/4	4,391.46	3/4	4,223.01	3/4	4,044.88	3/4	3,859.32	3/4	3,667.10	3/4	3,444.18	3/4	3,085.98	3/4	2,726.55
2		2		2	4,388.59	2	4,219.37	2	4,041.08	2	3,855.38	2	3,663.06	2	3,436.72	2	3,078.49	2	2,719.05
1/4		1/4		1/4	4,385.72	1/4	4,215.74	1/4	4,037.28	1/4	3,851.43	1/4	3,659.03	1/4	3,429.25	1/4	3,071.01	1/4	2,711.55
1/2		1/2		1/2	4,382.85	1/2	4,212.10	1/2	4,033.49	1/2	3,847.48	1/2	3,654.99	1/2	3,421.78	1/2	3,063.52	1/2	2,704.05
3/4		3/4		3/4	4,379.98	3/4	4,208.47	3/4	4,029.69	3/4	3,843.54	3/4	3,650.95	3/4	3,414.32	3/4	3,056.04	3/4	2,696.55
3		3		3	4,376.19	3	4,204.82	3	4,025.88	3	3,839.58	3	3,646.92	3	3,406.85	3	3,048.55	3	2,689.06
1/4		1/4		1/4	4,372.41	1/4	4,201.17	1/4	4,022.07	1/4	3,835.62	1/4	3,642.88	1/4	3,399.38	1/4	3,041.06	1/4	2,681.56
1/2		1/2		1/2	4,368.62	1/2	4,197.52	1/2	4,018.26	1/2	3,831.66	1/2	3,638.84	1/2	3,391.91	1/2	3,033.58	1/2	2,674.06
3/4		3/4		3/4	4,364.84	3/4	4,193.87	3/4	4,014.45	3/4	3,827.71	3/4	3,634.81	3/4	3,384.45	3/4	3,026.09	3/4	2,666.56
4		4		4	4,361.36	4	4,190.21	4	4,010.62	4	3,823.74	4	3,630.77	4	3,376.98	4	3,018.61	4	2,659.06
1/4		1/4		1/4	4,357.89	1/4	4,186.55	1/4	4,006.80	1/4	3,819.77	1/4	3,626.73	1/4	3,369.51	1/4	3,011.12	1/4	2,651.56
1/2		1/2		1/2	4,354.41	1/2	4,182.89	1/2	4,002.98	1/2	3,815.80	1/2	3,622.70	1/2	3,362.05	1/2	3,003.64	1/2	2,644.07
3/4		3/4		3/4	4,350.94	3/4	4,179.23	3/4	3,999.16	3/4	3,811.83	3/4	3,618.66	3/4	3,354.58	3/4	2,996.15	3/4	2,636.57
5		5		5	4,347.45	5	4,175.56	5	3,995.32	5	3,807.84	5	3,614.62	5	3,347.11	5	2,988.66	5	2,629.07
1/4		1/4		1/4	4,343.97	1/4	4,171.89	1/4	3,991.49	1/4	3,803.86	1/4	3,610.59	1/4	3,339.65	1/4	2,981.18	1/4	2,621.57
1/2		1/2		1/2	4,340.48	1/2	4,168.21	1/2	3,987.65	1/2	3,799.88	1/2	3,606.55	1/2	3,332.18	1/2	2,973.69	1/2	2,614.07
3/4		3/4		3/4	4,336.99	3/4	4,164.54	3/4	3,983.82	3/4	3,795.89	3/4	3,602.51	3/4	3,324.72	3/4	2,966.21	3/4	2,606.57
6		6		6	4,333.49	6	4,160.86	6	3,979.97	6	3,791.90	6	3,598.48	6	3,317.27	6	2,958.72	6	2,599.07
1/4		1/4		1/4	4,329.99	1/4	4,157.17	1/4	3,976.12	1/4	3,787.90	1/4	3,594.44	1/4	3,309.82	1/4	2,951.24	1/4	2,591.57
1/2		1/2		1/2	4,326.50	1/2	4,153.49	1/2	3,972.27	1/2	3,783.91	1/2	3,590.40	1/2	3,302.36	1/2	2,943.75	1/2	2,584.08
3/4		3/4		3/4	4,323.00	3/4	4,149.80	3/4	3,968.43	3/4	3,779.91	3/4	3,586.37	3/4	3,294.91	3/4	2,936.26	3/4	2,576.58
7		7		7	4,319.48	7	4,146.10	7	3,964.57	7	3,775.91	7	3,582.33	7	3,287.46	7	2,928.78	7	2,569.08
1/4		1/4		1/4	4,315.97	1/4	4,142.40	1/4	3,960.71	1/4	3,771.90	1/4	3,578.29	1/4	3,280.01	1/4	2,921.29	1/4	2,561.58
1/2		1/2		1/2	4,312.46	1/2	4,138.70	1/2	3,956.85	1/2	3,767.89	1/2	3,574.26	1/2	3,272.56	1/2	2,913.81	1/2	2,554.08
3/4		3/4		3/4	4,308.95	3/4	4,135.00	3/4	3,952.99	3/4	3,763.88	3/4	3,570.22	3/4	3,265.11	3/4	2,906.32	3/4	2,546.58
8		8		8	4,305.43	8	4,131.28	8	3,949.12	8	3,759.87	8	3,566.19	8	3,257.65	8	2,898.84	8	2,539.08
1/4		1/4		1/4	4,301.90	1/4	4,127.55	1/4	3,945.24	1/4	3,755.85	1/4	3,562.15	1/4	3,250.20	1/4	2,891.35	1/4	2,531.58
1/2		1/2		1/2	4,298.38	1/2	4,123.83	1/2	3,941.37	1/2	3,751.83	1/2	3,558.11	1/2	3,242.75	1/2	2,883.86	1/2	2,524.08
3/4		3/4		3/4	4,294.86	3/4	4,120.11	3/4	3,937.50	3/4	3,747.81	3/4	3,554.08	3/4	3,235.30	3/4	2,876.38	3/4	2,516.58
9		9		9	4,291.32	9	4,116.37	9	3,933.62	9	3,743.78	9	3,550.04	9	3,227.85	9	2,868.89	9	2,509.08
1/4		1/4		1/4	4,287.77	1/4	4,112.63	1/4	3,929.73	1/4	3,739.75	1/4	3,546.00	1/4	3,220.40	1/4	2,861.41	1/4	2,501.58
1/2		1/2		1/2	4,284.23	1/2	4,108.90	1/2	3,925.85	1/2	3,735.72	1/2	3,541.97	1/2	3,212.95	1/2	2,853.92	1/2	2,494.08
3/4		3/4		3/4	4,280.69	3/4	4,105.16	3/4	3,921.96	3/4	3,731.69	3/4	3,537.93	3/4	3,205.49	3/4	2,846.44	3/4	2,486.58
10		10		10	4,277.11	10	4,101.41	10	3,918.07	10	3,727.65	10	3,533.89	10	3,198.04	10	2,838.95	10	2,479.08
1/4		1/4		1/4	4,273.52	1/4	4,097.66	1/4	3,914.17	1/4	3,723.61	1/4	3,529.86	1/4	3,190.59	1/4	2,831.46	1/4	2,471.58
1/2		1/2		1/2	4,269.93	1/2	4,093.91	1/2	3,910.27	1/2	3,719.58	1/2	3,525.82	1/2	3,183.14	1/2	2,823.98	1/2	2,464.08
3/4		3/4		3/4	4,266.35	3/4	4,090.16	3/4	3,906.38	3/4	3,715.54	3/4	3,521.78	3/4	3,175.69	3/4	2,816.49	3/4	2,456.58
11		11		11	4,262.75	11	4,086.40	11	3,902.47	11	3,711.50	11	3,517.32	11	3,168.23	11	2,809.01	11	2,449.08
1/4		1/4		1/4	4,259.15	1/4	4,082.64	1/4	3,898.56	1/4	3,707.47	1/4	3,512.85	1/4	3,160.78	1/4	2,801.52	1/4	2,441.58
1/2		1/2		1/2	4,255.55	1/2	4,078.88	1/2	3,894.65	1/2	3,703.43	1/2	3,508.39	1/2	3,153.32	1/2	2,794.03	1/2	2,434.08
3/4		3/4		3/4	4,251.95	3/4	4,075.12	3/4	3,890.74	3/4	3,699.39	3/4	3,503.92	3/4	3,145.86	3/4	2,786.54	3/4	2,426.58

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 56'-06" FORWARD OF AFT BULKHEAD.

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

PRECISION MEASUREMENT
& ANALYSIS, INC.

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Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,059.08	0	1,699.00	0	1,338.93	0	979.14	0	619.15	0	259.09	0		0		0		0	
1/4	2,051.58	1/4	1,691.50	1/4	1,331.42	1/4	971.64	1/4	611.65	1/4	251.59	1/4		1/4		1/4		1/4	
1/2	2,044.08	1/2	1,684.00	1/2	1,323.92	1/2	964.15	1/2	604.15	1/2	244.09	1/2		1/2		1/2		1/2	
3/4	2,036.57	3/4	1,676.50	3/4	1,316.42	3/4	956.66	3/4	596.65	3/4	236.58	3/4		3/4		3/4		3/4	
1	2,029.07	1	1,669.00	1	1,308.92	1	949.17	1	589.15	1	229.08	1		1		1		1	
1 1/4	2,021.57	1 1/4	1,661.49	1 1/4	1,301.42	1 1/4	941.67	1 1/4	581.64	1 1/4	221.58	1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	2,014.07	1 1/2	1,653.99	1 1/2	1,293.92	1 1/2	934.18	1 1/2	574.14	1 1/2	214.08	1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	2,006.57	3 1/4	1,646.49	3 1/4	1,286.41	3 1/4	926.69	3 1/4	566.64	3 1/4	206.58	3 1/4		3 1/4		3 1/4		3 1/4	
2	1,999.07	2	1,638.99	2	1,278.91	2	919.19	2	559.14	2	199.08	2		2		2		2	
1 1/4	1,991.56	1 1/4	1,631.49	1 1/4	1,271.41	1 1/4	911.69	1 1/4	551.64	1 1/4	191.58	1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	1,984.06	1 1/2	1,623.99	1 1/2	1,263.91	1 1/2	904.20	1 1/2	544.14	1 1/2	184.08	1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	1,976.56	3 1/4	1,616.48	3 1/4	1,256.41	3 1/4	896.70	3 1/4	536.64	3 1/4	176.57	3 1/4		3 1/4		3 1/4		3 1/4	
3	1,969.06	3	1,608.98	3	1,248.91	3	889.20	3	529.14	3	169.07	3		3		3		3	
1 1/4	1,961.56	1 1/4	1,601.48	1 1/4	1,241.41	1 1/4	881.70	1 1/4	521.63	1 1/4	161.57	1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	1,954.06	1 1/2	1,593.98	1 1/2	1,233.90	1 1/2	874.19	1 1/2	514.13	1 1/2	154.07	1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	1,946.55	3 1/4	1,586.48	3 1/4	1,226.40	3 1/4	866.69	3 1/4	506.63	3 1/4	146.57	3 1/4		3 1/4		3 1/4		3 1/4	
4	1,939.05	4	1,578.98	4	1,218.90	4	859.19	4	499.13	4	139.07	4		4		4		4	
1 1/4	1,931.55	1 1/4	1,571.47	1 1/4	1,211.41	1 1/4	851.69	1 1/4	491.63	1 1/4	131.57	1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	1,924.05	1 1/2	1,563.97	1 1/2	1,203.91	1 1/2	844.19	1 1/2	484.13	1 1/2	124.06	1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	1,916.55	3 1/4	1,556.47	3 1/4	1,196.41	3 1/4	836.69	3 1/4	476.63	3 1/4	116.56	3 1/4		3 1/4		3 1/4		3 1/4	
5	1,909.05	5	1,548.97	5	1,188.92	5	829.19	5	469.12	5	109.14	5		5		5		5	
1 1/4	1,901.55	1 1/4	1,541.47	1 1/4	1,181.43	1 1/4	821.69	1 1/4	461.62	1 1/4	101.72	1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	1,894.04	1 1/2	1,533.97	1 1/2	1,173.93	1 1/2	814.18	1 1/2	454.12	1 1/2	94.29	1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	1,886.54	3 1/4	1,526.47	3 1/4	1,166.44	3 1/4	806.68	3 1/4	446.62	3 1/4	86.87	3 1/4		3 1/4		3 1/4		3 1/4	
6	1,879.04	6	1,518.96	6	1,158.95	6	799.18	6	439.12	6	80.15	6		6		6		6	
1 1/4	1,871.54	1 1/4	1,511.46	1 1/4	1,151.46	1 1/4	791.68	1 1/4	431.62	1 1/4	73.43	1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	1,864.04	1 1/2	1,503.96	1 1/2	1,143.97	1 1/2	784.18	1 1/2	424.12	1 1/2	66.71	1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	1,856.54	3 1/4	1,496.46	3 1/4	1,136.47	3 1/4	776.68	3 1/4	416.62	3 1/4	59.99	3 1/4		3 1/4		3 1/4		3 1/4	
7	1,849.03	7	1,488.96	7	1,128.98	7	769.18	7	409.11	7	54.52	7		7		7		7	
1 1/4	1,841.53	1 1/4	1,481.46	1 1/4	1,121.49	1 1/4	761.68	1 1/4	401.61	1 1/4	49.05	1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	1,834.03	1 1/2	1,473.95	1 1/2	1,114.00	1 1/2	754.17	1 1/2	394.11	1 1/2	43.58	1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	1,826.53	3 1/4	1,466.45	3 1/4	1,106.50	3 1/4	746.67	3 1/4	386.61	3 1/4	38.12	3 1/4		3 1/4		3 1/4		3 1/4	
8	1,819.03	8	1,458.95	8	1,099.01	8	739.17	8	379.11	8	33.90	8		8		8		8	
1 1/4	1,811.53	1 1/4	1,451.45	1 1/4	1,091.52	1 1/4	731.67	1 1/4	371.61	1 1/4	29.68	1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	1,804.02	1 1/2	1,443.95	1 1/2	1,084.03	1 1/2	724.17	1 1/2	364.11	1 1/2	25.46	1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	1,796.52	3 1/4	1,436.45	3 1/4	1,076.54	3 1/4	716.67	3 1/4	356.61	3 1/4	21.24	3 1/4		3 1/4		3 1/4		3 1/4	
9	1,789.02	9	1,428.94	9	1,069.04	9	709.17	9	349.10	9		9		9		9		9	
1 1/4	1,781.52	1 1/4	1,421.44	1 1/4	1,061.55	1 1/4	701.67	1 1/4	341.60	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	1,774.02	1 1/2	1,413.94	1 1/2	1,054.06	1 1/2	694.16	1 1/2	334.10	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	1,766.52	3 1/4	1,406.44	3 1/4	1,046.57	3 1/4	686.66	3 1/4	326.60	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
10	1,759.01	10	1,398.94	10	1,039.07	10	679.16	10	319.10	10		10		10		10		10	
1 1/4	1,751.51	1 1/4	1,391.44	1 1/4	1,031.58	1 1/4	671.66	1 1/4	311.60	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	1,744.01	1 1/2	1,383.93	1 1/2	1,024.09	1 1/2	664.16	1 1/2	304.10	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	1,736.51	3 1/4	1,376.43	3 1/4	1,016.60	3 1/4	656.66	3 1/4	296.59	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	
11	1,729.01	11	1,368.93	11	1,009.11	11	649.16	11	289.09	11		11		11		11		11	
1 1/4	1,721.51	1 1/4	1,361.43	1 1/4	1,001.61	1 1/4	641.65	1 1/4	281.59	1 1/4		1 1/4		1 1/4		1 1/4		1 1/4	
1 1/2	1,714.01	1 1/2	1,353.93	1 1/2	994.12	1 1/2	634.15	1 1/2	274.09	1 1/2		1 1/2		1 1/2		1 1/2		1 1/2	
3 1/4	1,706.50	3 1/4	1,346.43	3 1/4	986.63	3 1/4	626.65	3 1/4	266.59	3 1/4		3 1/4		3 1/4		3 1/4		3 1/4	

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0		0		0	4,221.29	0	4,045.04	0	3,861.25	0	3,670.51	0	3,472.34	0	3,114.89	0	2,756.37	0	2,397.03
1/4		1/4		1/4	4,217.70	1/4	4,041.28	1/4	3,857.34	1/4	3,666.49	1/4	3,464.88	1/4	3,107.42	1/4	2,748.88	1/4	2,389.54
1/2		1/2		1/2	4,214.10	1/2	4,037.52	1/2	3,853.44	1/2	3,662.47	1/2	3,457.43	1/2	3,099.95	1/2	2,741.39	1/2	2,382.06
3/4		3/4		3/4	4,370.33	3/4	4,210.51	3/4	4,033.76	3/4	3,849.53	3/4	3,658.45	3/4	3,449.98	3/4	3,092.48	3/4	2,733.91
1		1		1	4,368.69	1	4,206.90	1	4,029.99	1	3,845.61	1	3,654.43	1	3,442.52	1	3,085.00	1	2,726.42
1/4		1/4		1/4	4,367.06	1/4	4,203.29	1/4	4,026.22	1/4	3,841.69	1/4	3,650.40	1/4	3,435.07	1/4	3,077.53	1/4	2,718.94
1/2		1/2		1/2	4,365.42	1/2	4,199.68	1/2	4,022.45	1/2	3,837.78	1/2	3,646.38	1/2	3,427.61	1/2	3,070.06	1/2	2,711.45
3/4		3/4		3/4	4,363.78	3/4	4,196.07	3/4	4,018.68	3/4	3,833.86	3/4	3,642.36	3/4	3,420.16	3/4	3,062.59	3/4	2,703.97
2		2		2	4,360.93	2	4,192.45	2	4,014.90	2	3,829.93	2	3,638.34	2	3,412.71	2	3,055.12	2	2,696.48
1/4		1/4		1/4	4,358.07	1/4	4,188.83	1/4	4,011.12	1/4	3,826.00	1/4	3,634.32	1/4	3,405.25	1/4	3,047.66	1/4	2,688.99
1/2		1/2		1/2	4,355.22	1/2	4,185.21	1/2	4,007.33	1/2	3,822.07	1/2	3,630.30	1/2	3,397.80	1/2	3,040.19	1/2	2,681.51
3/4		3/4		3/4	4,352.36	3/4	4,181.59	3/4	4,003.55	3/4	3,818.14	3/4	3,626.28	3/4	3,390.34	3/4	3,032.73	3/4	2,674.02
3		3		3	4,348.59	3	4,177.96	3	3,999.76	3	3,814.19	3	3,622.25	3	3,382.89	3	3,025.26	3	2,666.54
1/4		1/4		1/4	4,344.82	1/4	4,174.33	1/4	3,995.96	1/4	3,810.25	1/4	3,618.23	1/4	3,375.44	1/4	3,017.80	1/4	2,659.05
1/2		1/2		1/2	4,341.05	1/2	4,170.69	1/2	3,992.17	1/2	3,806.31	1/2	3,614.21	1/2	3,367.98	1/2	3,010.33	1/2	2,651.57
3/4		3/4		3/4	4,337.28	3/4	4,167.06	3/4	3,988.37	3/4	3,802.36	3/4	3,610.19	3/4	3,360.53	3/4	3,002.87	3/4	2,644.08
4		4		4	4,333.82	4	4,163.42	4	3,984.56	4	3,798.41	4	3,606.17	4	3,353.07	4	2,995.40	4	2,636.60
1/4		1/4		1/4	4,330.36	1/4	4,159.77	1/4	3,980.76	1/4	3,794.45	1/4	3,602.15	1/4	3,345.62	1/4	2,987.94	1/4	2,629.11
1/2		1/2		1/2	4,326.90	1/2	4,156.12	1/2	3,976.95	1/2	3,790.50	1/2	3,598.13	1/2	3,338.17	1/2	2,980.47	1/2	2,621.63
3/4		3/4		3/4	4,323.44	3/4	4,152.48	3/4	3,973.14	3/4	3,786.54	3/4	3,594.11	3/4	3,330.71	3/4	2,973.01	3/4	2,614.14
5		5		5	4,319.97	5	4,148.82	5	3,969.32	5	3,782.58	5	3,590.08	5	3,323.26	5	2,965.54	5	2,606.66
1/4		1/4		1/4	4,316.50	1/4	4,145.16	1/4	3,965.50	1/4	3,778.61	1/4	3,586.06	1/4	3,315.81	1/4	2,958.08	1/4	2,599.17
1/2		1/2		1/2	4,313.03	1/2	4,141.51	1/2	3,961.68	1/2	3,774.64	1/2	3,582.04	1/2	3,308.36	1/2	2,950.61	1/2	2,591.68
3/4		3/4		3/4	4,309.56	3/4	4,137.85	3/4	3,957.86	3/4	3,770.67	3/4	3,578.02	3/4	3,300.91	3/4	2,943.15	3/4	2,584.20
6		6		6	4,306.08	6	4,134.18	6	3,954.03	6	3,766.69	6	3,574.00	6	3,293.47	6	2,935.68	6	2,576.71
1/4		1/4		1/4	4,302.59	1/4	4,130.51	1/4	3,950.20	1/4	3,762.71	1/4	3,569.98	1/4	3,286.03	1/4	2,928.22	1/4	2,569.23
1/2		1/2		1/2	4,299.11	1/2	4,126.84	1/2	3,946.37	1/2	3,758.73	1/2	3,565.96	1/2	3,278.59	1/2	2,920.75	1/2	2,561.74
3/4		3/4		3/4	4,295.63	3/4	4,123.17	3/4	3,942.53	3/4	3,754.75	3/4	3,561.94	3/4	3,271.15	3/4	2,913.29	3/4	2,554.25
7		7		7	4,292.13	7	4,119.49	7	3,938.69	7	3,750.76	7	3,557.91	7	3,263.71	7	2,905.82	7	2,546.76
1/4		1/4		1/4	4,288.63	1/4	4,115.80	1/4	3,934.85	1/4	3,746.77	1/4	3,553.89	1/4	3,256.28	1/4	2,898.36	1/4	2,539.28
1/2		1/2		1/2	4,285.14	1/2	4,112.12	1/2	3,931.00	1/2	3,742.78	1/2	3,549.87	1/2	3,248.84	1/2	2,890.89	1/2	2,531.79
3/4		3/4		3/4	4,281.64	3/4	4,108.44	3/4	3,927.16	3/4	3,738.79	3/4	3,545.85	3/4	3,241.40	3/4	2,883.42	3/4	2,524.30
8		8		8	4,278.13	8	4,104.73	8	3,923.30	8	3,734.78	8	3,541.83	8	3,233.96	8	2,875.95	8	2,516.82
1/4		1/4		1/4	4,274.63	1/4	4,101.02	1/4	3,919.44	1/4	3,730.78	1/4	3,537.81	1/4	3,226.52	1/4	2,868.48	1/4	2,509.33
1/2		1/2		1/2	4,271.12	1/2	4,097.31	1/2	3,915.59	1/2	3,726.77	1/2	3,533.79	1/2	3,219.08	1/2	2,861.01	1/2	2,501.84
3/4		3/4		3/4	4,267.61	3/4	4,093.60	3/4	3,911.73	3/4	3,722.77	3/4	3,529.76	3/4	3,211.64	3/4	2,853.53	3/4	2,494.36
9		9		9	4,264.09	9	4,089.88	9	3,907.86	9	3,718.75	9	3,525.74	9	3,204.21	9	2,846.06	9	2,486.87
1/4		1/4		1/4	4,260.56	1/4	4,086.16	1/4	3,903.99	1/4	3,714.74	1/4	3,521.72	1/4	3,196.77	1/4	2,838.59	1/4	2,479.38
1/2		1/2		1/2	4,257.03	1/2	4,082.44	1/2	3,900.12	1/2	3,710.72	1/2	3,517.70	1/2	3,189.33	1/2	2,831.12	1/2	2,471.90
3/4		3/4		3/4	4,253.51	3/4	4,078.71	3/4	3,896.25	3/4	3,706.70	3/4	3,513.68	3/4	3,181.89	3/4	2,823.64	3/4	2,464.41
10		10		10	4,249.94	10	4,074.98	10	3,892.37	10	3,702.68	10	3,509.66	10	3,174.45	10	2,816.17	10	2,456.92
1/4		1/4		1/4	4,246.37	1/4	4,071.25	1/4	3,888.49	1/4	3,698.66	1/4	3,505.64	1/4	3,167.01	1/4	2,808.70	1/4	2,449.44
1/2		1/2		1/2	4,242.80	1/2	4,067.51	1/2	3,884.61	1/2	3,694.64	1/2	3,501.62	1/2	3,159.58	1/2	2,801.22	1/2	2,441.95
3/4		3/4		3/4	4,239.22	3/4	4,063.78	3/4	3,880.73	3/4	3,690.62	3/4	3,497.59	3/4	3,152.14	3/4	2,793.75	3/4	2,434.46
11		11		11	4,235.64	11	4,060.03	11	3,876.83	11	3,686.60	11	3,493.14	11	3,144.69	11	2,786.28	11	2,426.98
1/4		1/4		1/4	4,232.06	1/4	4,056.29	1/4	3,872.94	1/4	3,682.57	1/4	3,488.69	1/4	3,137.25	1/4	2,778.80	1/4	2,419.49
1/2		1/2		1/2	4,228.47	1/2	4,052.54	1/2	3,869.05	1/2	3,678.55	1/2	3,484.24	1/2	3,129.81	1/2	2,771.33	1/2	2,412.00
3/4		3/4		3/4	4,224.89	3/4	4,048.80	3/4	3,865.15	3/4	3,674.53	3/4	3,479.79	3/4	3,122.37	3/4	2,763.85	3/4	2,404.52

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 56'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
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BARGE "CCL 419-L"

3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,037.66	0	1,678.22	0	1,320.09	0	970.69	0	618.31	0	258.76	0		0		0		0	
1/4	2,030.18	1/4	1,670.73	1/4	1,312.66	1/4	963.54	1/4	610.82	1/4	251.27	1/4		1/4		1/4		1/4	
1/2	2,022.69	1/2	1,663.24	1/2	1,305.24	1/2	956.39	1/2	603.33	1/2	243.78	1/2		1/2		1/2		1/2	
3/4	2,015.20	3/4	1,655.75	3/4	1,297.81	3/4	949.23	3/4	595.84	3/4	236.29	3/4		3/4		3/4		3/4	
1	2,007.71	1	1,648.26	1	1,290.38	1	942.08	1	588.35	1	228.79	1		1		1		1	
1/4	2,000.22	1/4	1,640.77	1/4	1,282.96	1/4	934.93	1/4	580.86	1/4	221.30	1/4		1/4		1/4		1/4	
1/2	1,992.74	1/2	1,633.28	1/2	1,275.53	1/2	927.77	1/2	573.37	1/2	213.81	1/2		1/2		1/2		1/2	
3/4	1,985.25	3/4	1,625.79	3/4	1,268.10	3/4	920.62	3/4	565.88	3/4	206.32	3/4		3/4		3/4		3/4	
2	1,977.76	2	1,618.31	2	1,260.68	2	913.46	2	558.39	2	198.83	2		2		2		2	
1/4	1,970.27	1/4	1,610.82	1/4	1,253.25	1/4	906.30	1/4	550.89	1/4	191.34	1/4		1/4		1/4		1/4	
1/2	1,962.78	1/2	1,603.33	1/2	1,245.83	1/2	899.14	1/2	543.40	1/2	183.85	1/2		1/2		1/2		1/2	
3/4	1,955.29	3/4	1,595.84	3/4	1,238.40	3/4	891.99	3/4	535.91	3/4	176.36	3/4		3/4		3/4		3/4	
3	1,947.80	3	1,588.35	3	1,230.99	3	884.81	3	528.42	3	168.87	3		3		3		3	
1/4	1,940.32	1/4	1,580.86	1/4	1,223.58	1/4	877.63	1/4	520.93	1/4	161.38	1/4		1/4		1/4		1/4	
1/2	1,932.83	1/2	1,573.37	1/2	1,216.17	1/2	870.45	1/2	513.44	1/2	153.89	1/2		1/2		1/2		1/2	
3/4	1,925.34	3/4	1,565.89	3/4	1,208.76	3/4	863.27	3/4	505.95	3/4	146.39	3/4		3/4		3/4		3/4	
4	1,917.85	4	1,558.40	4	1,201.35	4	856.09	4	498.46	4	138.90	4		4		4		4	
1/4	1,910.36	1/4	1,550.91	1/4	1,193.94	1/4	848.91	1/4	490.97	1/4	131.40	1/4		1/4		1/4		1/4	
1/2	1,902.87	1/2	1,543.42	1/2	1,186.53	1/2	841.72	1/2	483.48	1/2	123.91	1/2		1/2		1/2		1/2	
3/4	1,895.38	3/4	1,535.93	3/4	1,179.12	3/4	834.54	3/4	475.99	3/4	116.41	3/4		3/4		3/4		3/4	
5	1,887.90	5	1,528.44	5	1,171.72	5	827.30	5	468.50	5	109.00	5		5		5		5	
1/4	1,880.41	1/4	1,520.95	1/4	1,164.32	1/4	820.06	1/4	461.01	1/4	101.59	1/4		1/4		1/4		1/4	
1/2	1,872.92	1/2	1,513.47	1/2	1,156.92	1/2	812.82	1/2	453.52	1/2	94.18	1/2		1/2		1/2		1/2	
3/4	1,865.43	3/4	1,505.98	3/4	1,149.51	3/4	805.58	3/4	446.03	3/4	86.76	3/4		3/4		3/4		3/4	
6	1,857.94	6	1,498.50	6	1,142.36	6	798.09	6	438.53	6	80.06	6		6		6		6	
1/4	1,850.45	1/4	1,491.02	1/4	1,135.21	1/4	790.60	1/4	431.04	1/4	73.36	1/4		1/4		1/4		1/4	
1/2	1,842.96	1/2	1,483.54	1/2	1,128.05	1/2	783.11	1/2	423.55	1/2	66.66	1/2		1/2		1/2		1/2	
3/4	1,835.48	3/4	1,476.05	3/4	1,120.90	3/4	775.62	3/4	416.06	3/4	59.96	3/4		3/4		3/4		3/4	
7	1,827.99	7	1,468.63	7	1,113.75	7	768.13	7	408.57	7	54.50	7		7		7		7	
1/4	1,820.50	1/4	1,461.20	1/4	1,106.60	1/4	760.63	1/4	401.08	1/4	49.04	1/4		1/4		1/4		1/4	
1/2	1,813.01	1/2	1,453.77	1/2	1,099.44	1/2	753.14	1/2	393.59	1/2	43.58	1/2		1/2		1/2		1/2	
3/4	1,805.52	3/4	1,446.35	3/4	1,092.29	3/4	745.65	3/4	386.10	3/4	38.12	3/4		3/4		3/4		3/4	
8	1,798.03	8	1,438.92	8	1,085.14	8	738.16	8	378.61	8	33.90	8		8		8		8	
1/4	1,790.54	1/4	1,431.49	1/4	1,077.98	1/4	730.67	1/4	371.12	1/4	29.69	1/4		1/4		1/4		1/4	
1/2	1,783.06	1/2	1,424.07	1/2	1,070.83	1/2	723.18	1/2	363.63	1/2	25.47	1/2		1/2		1/2		1/2	
3/4	1,775.57	3/4	1,416.64	3/4	1,063.68	3/4	715.69	3/4	356.14	3/4	21.25	3/4		3/4		3/4		3/4	
9	1,768.08	9	1,409.21	9	1,056.53	9	708.20	9	348.65	9		9		9		9		9	
1/4	1,760.59	1/4	1,401.79	1/4	1,049.37	1/4	700.71	1/4	341.16	1/4		1/4		1/4		1/4		1/4	
1/2	1,753.10	1/2	1,394.36	1/2	1,042.22	1/2	693.22	1/2	333.66	1/2		1/2		1/2		1/2		1/2	
3/4	1,745.61	3/4	1,386.93	3/4	1,035.07	3/4	685.73	3/4	326.17	3/4		3/4		3/4		3/4		3/4	
10	1,738.12	10	1,379.51	10	1,027.91	10	678.24	10	318.68	10		10		10		10		10	
1/4	1,730.64	1/4	1,372.08	1/4	1,020.76	1/4	670.75	1/4	311.19	1/4		1/4		1/4		1/4		1/4	
1/2	1,723.15	1/2	1,364.65	1/2	1,013.61	1/2	663.26	1/2	303.70	1/2		1/2		1/2		1/2		1/2	
3/4	1,715.66	3/4	1,357.23	3/4	1,006.46	3/4	655.76	3/4	296.21	3/4		3/4		3/4		3/4		3/4	
11	1,708.17	11	1,349.80	11	999.30	11	648.27	11	288.72	11		11		11		11		11	
1/4	1,700.68	1/4	1,342.37	1/4	992.15	1/4	640.78	1/4	281.23	1/4		1/4		1/4		1/4		1/4	
1/2	1,693.19	1/2	1,334.95	1/2	985.00	1/2	633.29	1/2	273.74	1/2		1/2		1/2		1/2		1/2	
3/4	1,685.70	3/4	1,327.52	3/4	977.84	3/4	625.80	3/4	266.25	3/4		3/4		3/4		3/4		3/4	

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PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

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