

**DOUBLE SKIN BARGE**  
**CHEM-261**  
IB1936

**TANK: 1**

CAPACITIES IN U.S. GALLONS

HULL # 98-2357

TOTAL GAUGE HEIGHT: 16' 03 3/4"

IN	0 FT	1 FT	2 FT	3 FT	4 FT	5 FT	6 FT	7 FT
0	36	10442	22069	33695	45282	56875	68482	80111
1/4	67	10684	22311	33936	45523	57116	68724	80353
1/2	117	10927	22554	34177	45765	57358	68967	80595
3/4	188	11169	22796	34419	46006	57599	69209	80837
1	278	11411	23038	34660	46248	57841	69451	81080
1/4	389	11653	23280	34901	46489	58083	69693	81322
1/2	521	11895	23523	35143	46731	58324	69936	81564
3/4	672	12138	23765	35384	46972	58566	70178	81806
2	844	12380	24007	35625	47214	58807	70420	82049
1/4	1035	12622	24249	35867	47455	59049	70662	82291
1/2	1247	12864	24492	36108	47697	59290	70905	82533
3/4	1479	13107	24734	36349	47938	59532	71147	82775
1	1722	13349	24976	36591	48180	59773	71389	83018
1/4	1964	13591	25218	36832	48421	60015	71632	83260
1/2	2206	13833	25460	37074	48662	60257	71874	83502
3/4	2448	14076	25703	37315	48904	60498	72116	83744
4	2691	14318	25945	37556	49145	60740	72358	83987
1/4	2933	14560	26187	37798	49387	60981	72601	84229
1/2	3175	14802	26429	38039	49628	61223	72843	84471
3/4	3417	15044	26672	38280	49870	61464	73085	84713
5	3660	15287	26914	38522	50111	61706	73327	84956
1/4	3902	15529	27156	38763	50353	61947	73570	85198
1/2	4144	15771	27398	39005	50594	62189	73812	85440
3/4	4386	16013	27641	39246	50836	62431	74054	85683
6	4628	16256	27883	39487	51077	62672	74296	85925
1/4	4871	16498	28125	39729	51319	62914	74539	86167
1/2	5113	16740	28367	39970	51561	63155	74781	86409
3/4	5355	16982	28609	40212	51802	63397	75023	86652
7	5597	17225	28852	40453	52044	63638	75265	86894
1/4	5840	17467	29094	40694	52285	63880	75508	87136
1/2	6082	17709	29336	40936	52527	64122	75750	87378
3/4	6324	17951	29578	41177	52768	64364	75992	87621
8	6566	18193	29821	41419	53010	64606	76234	87863
1/4	6809	18436	30063	41660	53251	64848	76477	88105
1/2	7051	18678	30305	41901	53493	65091	76719	88347
3/4	7293	18920	30547	42143	53735	65333	76961	88590
9	7535	19162	30790	42384	53976	65575	77203	88832
1/4	7777	19405	31032	42625	54218	65817	77446	89074
1/2	8020	19647	31274	42867	54459	66060	77688	89316
3/4	8262	19889	31516	43108	54701	66302	77930	89559
10	8504	20131	31758	43350	54942	66544	78173	89801
1/4	8746	20374	32001	43591	55184	66786	78415	90043
1/2	8989	20616	32243	43833	55425	67029	78657	90285
3/4	9231	20858	32485	44074	55667	67271	78899	90528
11	9473	21100	32727	44316	55909	67513	79142	90770
1/4	9715	21343	32970	44557	56150	67755	79384	91012
1/2	9958	21585	33212	44799	56392	67998	79626	91254
3/4	10200	21827	33453	45040	56633	68240	79868	91497

VOLUME OF SUMP  
GAUGE FROM M/MCU VALVE LOCATED NEAR GEOMETRIC CENTER OF TANK

COMPUTATION IN ACCORDANCE WITH API MPMS CHAPTER 2.7

Calculated: J/D/JH

Calculation: WHF

Dated: October 28, 1998

**DOUBLE SKIN BARGE**  
**CHEM-261**

181936

**TANK: 1**

CAPACITIES IN U.S. GALLONS

HULL # 98-2357

TOTAL GAUGE HEIGHT: 16.03 3/4"

IN	8 FT	9 FT	10 FT	11 FT	12 FT	13 FT	14 FT	15 FT
0	91739	103368	114996	126207	137065	147921	158778	
1/4	91981	103610	115239	126434	137291	148147	159004	
1/2	92224	103852	115481	126660	137517	148374	159230	
3/4	92466	104094	115723	126886	137743	148600	159456	
1	92708	104337	115965	127112	137969	148826	159682	
1/4	92950	104579	116208	127338	138196	149052	159909	
1/2	93193	104821	116450	127565	138422	149278	160135	
3/4	93435	105063	116692	127791	138648	149504	160361	
2	93677	105306	116934	128017	138874	149731	160587	
1/4	93919	105548	117177	128243	139100	149957	160813	
1/2	94162	105790	117419	128470	139326	149957	161039	
3/4	94404	106032	117661	128696	139553	150409	161266	
3	94646	106275	117904	128922	139779	150635	161487	
1/4	94888	106517	118146	129148	140005	150861	161699	
1/2	95131	106759	118388	129374	140231	151088	161902	
3/4	95373	107002	118630	129601	140457	151314	162095	
4	95615	107244	118873	129827	140684	151540	162279	
1/4	95857	107486	119115	130053	140910	151766	162453	
1/2	96100	107728	119357	130279	141136	151992	162618	
3/4	96342	107971	119599	130505	141362	152219	162773	
5	96584	108213	119842	130732	141588	152445	162919	
1/4	96826	108455	120084	130958	141814	152671	163056	
1/2	97069	108697	120326	131184	142041	152897	163183	
3/4	97311	108940	120552	131410	142267	153123	163301	
6	97553	109182	120779	131636	142493	153349	163409	
1/4	97795	109424	121005	131863	142719	153576	163508	
1/2	98038	109666	121231	132089	142945	153802	163598	
3/4	98280	109909	121457	132315	143171	154028	163678	
7	98522	110151	121683	132541	143398	154254	163749	
1/4	98765	110393	121910	132767	143624	154480	163810	
1/2	99007	110636	122136	132994	143850	154706	163862	
3/4	99249	110878	122362	133220	144076	154933	163904	
8	99491	111120	122588	133446	144302	155159	163937	
1/4	99734	111362	122814	133672	144529	155385	163961	
1/2	99976	111605	123041	133898	144755	155611	163975	
3/4	100218	111847	123267	134124	144981	155837	163979	
9	100460	112089	123493	134351	145207	156064		
1/4	100703	112331	123719	134577	145433	156290		
1/2	100945	112574	123945	134803	145659	156516		
3/4	101187	112816	124172	135029	145886	156742		
10	101429	113058	124398	135255	146112	156968		
1/4	101672	113300	124624	135481	146338	157194		
1/2	101914	113543	124850	135708	146564	157421		
3/4	102156	113785	125076	135934	146790	157647		
11	102398	114027	125303	136160	147016	157873		
1/4	102641	114270	125529	136386	147243	158099		
1/2	102883	114512	125755	136612	147469	158325		
3/4	103125	114754	125981	136839	147695	158551		

THIS TABLE IS SCALED FROM THE BOTTOM STRIKE POINT BELOW THE MNC/UTI VALVE TO TOP OF THE TANK AT CENTERLINE

Calibrated: JD/JH

W/HF

Dated: October 28, 1998

IN	0 FT	1 FT	2 FT	3 FT	4 FT	5 FT	6 FT	7 FT
0	36	10431	22046	33659	45237	56818	68413	80029
1/4	67	10673	22288	33900	45478	57059	68655	80271
1/2	117	10915	22530	34141	45720	57300	68897	80513
3/4	187	11157	22771	34382	45961	57542	69139	80755
1	278	11399	23013	34623	46202	57783	69381	80997
1/4	389	11641	23255	34865	46443	58024	69623	81239
1/2	520	11883	23497	35106	46684	58266	69865	81481
3/4	671	12125	23739	35347	46926	58507	70107	81723
2	843	12367	23981	35588	47167	58748	70349	81965
1/4	1034	12609	24223	35829	47408	58989	70591	82207
1/2	1246	12851	24465	36071	47649	59231	70833	82449
3/4	1478	13093	24707	36312	47891	59472	71075	82691
3	1720	13335	24949	36553	48132	59713	71317	82933
1/4	1962	13577	25191	36794	48373	59955	71559	83175
1/2	2204	13818	25433	37035	48614	60196	71801	83417
3/4	2446	14060	25675	37277	48855	60437	72043	83659
4	2688	14302	25917	37518	49097	60679	72285	83901
1/4	2930	14544	26159	37759	49338	60920	72527	84143
1/2	3172	14786	26401	38000	49579	61161	72769	84385
3/4	3414	15028	26643	38242	49820	61402	73011	84627
5	3656	15270	26885	38483	50062	61644	73253	84869
1/4	3898	15512	27127	38724	50303	61885	73495	85111
1/2	4140	15754	27369	38965	50544	62126	73737	85353
3/4	4382	15996	27611	39206	50785	62368	73979	85595
6	4624	16238	27853	39448	51027	62609	74221	85837
1/4	4865	16480	28095	39689	51268	62850	74463	86079
1/2	5107	16722	28337	39930	51509	63091	74705	86321
3/4	5349	16964	28579	40171	51751	63333	74947	86563
7	5591	17206	28821	40413	51992	63574	75189	86805
1/4	5833	17448	29063	40654	52233	63815	75431	87047
1/2	6075	17690	29305	40895	52474	64057	75673	87289
3/4	6317	17932	29547	41136	52716	64299	75915	87531
8	6559	18174	29789	41377	52957	64541	76157	87773
1/4	6801	18416	30031	41619	53198	64783	76399	88015
1/2	7043	18658	30273	41860	53440	65025	76641	88257
3/4	7285	18900	30515	42101	53681	65267	76883	88499
9	7527	19142	30757	42342	53922	65509	77125	88741
1/4	7769	19384	30999	42584	54164	65751	77367	88983
1/2	8011	19626	31241	42825	54405	65993	77609	89225
3/4	8253	19868	31483	43066	54646	66235	77851	89467
10	8495	20110	31724	43307	54887	66477	78093	89709
1/4	8737	20352	31966	43549	55129	66719	78335	89951
1/2	8979	20594	32208	43790	55370	66961	78577	90193
3/4	9221	20836	32450	44031	55611	67203	78819	90435
11	9463	21078	32692	44272	55853	67445	79061	90677
1/4	9705	21320	32934	44513	56094	67687	79303	90919
1/2	9947	21562	33176	44755	56335	67929	79545	91161
3/4	10189	21804	33417	44996	56576	68171	79787	91403

\*\* VOLUME OF SUMP  
GAUGE FROM MM/CUT VALVE LOCATED NEAR GEOMETRIC CENTER OF TANK

COMPUTATION IN ACCORDANCE WITH API MPMS CHAPTER 2.7

Calibrated: JD/H

Calculation: WHF

Dated: October 28, 1998

**DOUBLE SKIN BARGE**  
**CHEM-261** 181936

**TANK: 2**  
TOTAL GAUGE HEIGHT: 16' 04"

CAPACITIES IN U.S. GALLONS

HULL # 98-2357

IN	8 FT	9 FT	10 FT	11 FT	12 FT	13 FT	14 FT	15 FT
0	91645	103261	114877	126493	138109	149724	161339	
1/4	91887	103503	115119	126735	138351	149666	161581	
1/2	92129	103745	115361	126977	138593	150208	161823	
3/4	92371	103987	115603	127219	138835	150450	162065	
1	92613	104229	115845	127461	139077	150692	162307	
1/4	92855	104471	116087	127703	139319	150934	162549	
1/2	93097	104713	116329	127945	139561	151176	162791	
3/4	93339	104955	116571	128187	139803	151418	163033	
2	93581	105197	116813	128429	140045	151660	163275	
1/4	93823	105439	117055	128671	140287	151902	163517	
1/2	94065	105681	117297	128913	140529	152144	163759	
3/4	94307	105923	117539	129155	140771	152386	164001	
3	94549	106165	117781	129397	141013	152628	164238	
1/4	94791	106407	118023	129639	141255	152870	164465	
1/2	95033	106649	118265	129881	141497	153112	164682	
3/4	95275	106891	118507	130123	141739	153354	164889	
4	95517	107133	118749	130365	141981	153596	165085	
1/4	95759	107375	118991	130607	142223	153838	165272	
1/2	96001	107617	119233	130849	142465	154080	165448	
3/4	96243	107859	119475	131091	142707	154322	165614	
5	96485	108101	119717	131333	142949	154564	165771	
1/4	96727	108343	119959	131575	143191	154806	165917	
1/2	96969	108585	120201	131817	143433	155048	166053	
3/4	97211	108827	120443	132059	143675	155290	166179	
6	97453	109069	120685	132302	143917	155532	166295	
1/4	97695	109311	120927	132544	144159	155774	166401	
1/2	97937	109553	121169	132786	144401	156016	166497	
3/4	98179	109795	121411	133028	144643	156258	166582	
7	98421	110037	121653	133270	144885	156500	166588	
1/4	98663	110279	121895	133512	145127	156742	166723	
1/2	98905	110521	122137	133754	145369	156984	166779	
3/4	99147	110763	122379	133996	145611	157226	166824	
8	99389	111005	122621	134238	145853	157468	166859	
1/4	99631	111247	122863	134479	146095	157710	166885	
1/2	99873	111489	123105	134721	146337	157952	166900	
3/4	100115	111731	123347	134963	146579	158194	166905	
9	100357	111973	123589	135205	146821	158436		
1/4	100599	112215	123831	135447	147063	158678		
1/2	100841	112457	124073	135689	147305	158920		
3/4	101083	112699	124315	135931	147547	159162		
10	101325	112941	124557	136173	147788	159404		
1/4	101567	113183	124799	136415	148030	159646		
1/2	101809	113425	125041	136657	148272	159888		
3/4	102051	113667	125283	136899	148514	160130		
11	102293	113909	125525	137141	148756	160372		
1/4	102535	114151	125767	137383	148998	160614		
1/2	102777	114393	126009	137625	149240	160855		
3/4	103019	114635	126251	137867	149482	161097		

THIS TABLE IS SCALED FROM THE BOTTOM STRIKE POINT BELOW THE MMC/UTI VALVE TO TOP OF THE TANK AT CENTERLINE

Calculated: JD/JH

Calculation: WHF

Dated: October 28, 1998

CAPACITIES IN U.S. GALLONS

HULL # 98-2357

TOTAL GAUGE HEIGHT: 16' 04 1/8"

IN	0 FT	1 FT	2 FT	3 FT	4 FT	5 FT	6 FT	7 FT
0	35	9385	19833	30278	40713	51156	61602	72048
1/4	63	9603	20050	30495	40931	51373	61820	72266
1/2	108	9821	20268	30713	41148	51591	62037	72484
3/4	171	10038	20486	30930	41366	51809	62255	72701
1	253	10256	20703	31147	41583	52026	62473	72919
1/4	353	10474	20921	31365	41801	52244	62690	73137
1/2	471	10691	21138	31582	42018	52462	62908	73354
3/4	607	10909	21356	31799	42236	52679	63125	73572
2	761	11127	21574	32017	42453	52897	63343	73789
1/4	933	11344	21791	32234	42670	53114	63561	74007
1/2	1123	11562	22009	32451	42888	53332	63778	74225
3/4	1332	11780	22227	32669	43105	53550	63996	74442
3	1550	11997	22444	32886	43323	53767	64214	74660
1/4	1767	12215	22662	33104	43540	53985	64431	74878
1/2	1985	12433	22879	33321	43758	54203	64649	75095
3/4	2203	12650	23097	33538	43975	54420	64866	75313
4	2420	12868	23315	33756	44193	54638	65084	75530
1/4	2638	13086	23532	33973	44410	54855	65302	75748
1/2	2856	13303	23750	34191	44628	55073	65519	75966
3/4	3073	13521	23967	34408	44845	55291	65737	76183
5	3291	13738	24185	34626	45062	55508	65955	76401
1/4	3509	13956	24403	34843	45280	55726	66172	76619
1/2	3726	14174	24620	35060	45497	55944	66390	76836
3/4	3944	14391	24838	35278	45715	56161	66608	77054
6	4162	14609	25056	35495	45933	56379	66825	77272
1/4	4379	14827	25273	35713	46150	56596	67043	77489
1/2	4597	15044	25491	35930	46368	56814	67260	77707
3/4	4815	15262	25708	36147	46586	57032	67478	77924
7	5032	15480	25926	36365	46803	57249	67696	78142
1/4	5250	15697	26144	36582	47021	57467	67913	78360
1/2	5468	15915	26361	36800	47238	57685	68131	78577
3/4	5685	16133	26579	37017	47456	57902	68349	78795
8	5903	16350	26796	37234	47674	58120	68566	79013
1/4	6120	16568	27014	37452	47891	58338	68784	79230
1/2	6338	16786	27232	37669	48109	58555	69002	79448
3/4	6556	17003	27449	37887	48327	58773	69219	79666
9	6773	17221	27667	38104	48544	58990	69437	79883
1/4	6991	17439	27885	38321	48762	59208	69654	80101
1/2	7209	17656	28102	38539	48979	59426	69872	80318
3/4	7426	17874	28320	38756	49197	59643	70090	80536
10	7644	18092	28537	38974	49415	59861	70307	80754
1/4	7862	18309	28755	39191	49632	60079	70525	80971
1/2	8079	18527	28973	39409	49850	60296	70743	81189
3/4	8297	18745	29190	39626	50068	60514	70960	81407
11	8515	18962	29408	39844	50285	60731	71178	81624
1/4	8732	19180	29625	40061	50503	60949	71395	81842
1/2	8950	19398	29843	40279	50720	61167	71613	82059
3/4	9168	19615	30060	40496	50938	61384	71831	82277

VOLUME OF PUMP  
GAUGE FROM MM/CUT VALVE LOCATED NEAR GEOMETRIC CENTER OF TANK

COMPUTATION IN ACCORDANCE WITH API MPMS CHAPTER 2.7

Calibrated: JD/JH

WHF

Dated: October 28, 1998

IN	8 FT	9 FT	10 FT	11 FT	12 FT	13 FT	14 FT	15 FT
0	82495	92941	103388	113835	124281	134726	145172	155618
1/4	82712	93159	103605	114052	124498	134944	145389	155835
1/2	82930	93376	103823	114270	124716	135161	145607	156053
3/4	83148	93594	104041	114487	124934	135379	145824	156271
1	83365	93812	104258	114705	125151	135597	146042	156488
1/4	83583	94029	104476	114923	125369	135814	146260	156706
1/2	83801	94247	104694	115140	125586	136032	146477	156924
3/4	84018	94465	104911	115358	125804	136250	146695	157142
2	84236	94682	105129	115576	126022	136467	146913	157360
1/4	84453	94900	105347	115793	126239	136685	147130	157578
1/2	84671	95118	105564	116011	126457	136902	147348	157796
3/4	84889	95335	105782	116229	126675	137120	147570	158014
3	85106	95553	106000	116446	126892	137338	147782	158232
1/4	85324	95770	106217	116664	127110	137555	147985	158445
1/2	85542	95988	106435	116881	127327	137773	148177	158658
3/4	85759	96206	106652	117099	127545	137990	148360	158871
4	85977	96423	106870	117317	127763	138208	148532	159084
1/4	86194	96641	107088	117534	127980	138426	148695	159297
1/2	86412	96859	107305	117752	128198	138643	148848	159510
3/4	86630	97076	107523	117970	128415	138861	148992	159723
5	86847	97294	107741	118187	128633	139078	149125	159936
1/4	87065	97512	107958	118405	128851	139296	149248	160149
1/2	87283	97729	108176	118623	129068	139514	149362	160362
3/4	87500	97947	108394	118840	129286	139731	149465	160575
6	87718	98165	108611	119058	129503	139949	149559	160788
1/4	87936	98382	108829	119276	129721	140167	149643	160992
1/2	88153	98600	109046	119493	129939	140384	149717	161196
3/4	88371	98817	109264	119711	130156	140602	149781	161400
7	88588	99035	109482	119928	130374	140819	149835	161604
1/4	88806	99253	109699	120146	130592	141037	149880	161808
1/2	89024	99470	109917	120364	130809	141255	149914	162012
3/4	89241	99688	110135	120581	131027	141472	149939	162216
8	89459	99906	110352	120799	131244	141690	149953	162420
1/4	89677	100123	110570	121017	131462	141907	149958	162624
1/2	89894	100341	110788	121234	131680	142125	149958	162828
3/4	90112	100559	111005	121452	131897	142343	149958	163032
9	90330	100776	111223	121669	132115	142560	149958	163236
1/4	90547	100994	111441	121887	132332	142778	149958	163440
1/2	90765	101211	111658	122105	132550	142996	149958	163644
3/4	90982	101429	111876	122322	132768	143213	149958	163848
10	91200	101647	112093	122540	132985	143431	149958	164052
1/4	91418	101864	112311	122757	133203	143648	149958	164256
1/2	91635	102082	112529	122975	133421	143866	149958	164460
3/4	91853	102300	112746	123193	133638	144084	149958	164664
11	92071	102517	112964	123410	133856	144301	149958	164868
1/4	92288	102735	113182	123628	134073	144519	149958	165072
1/2	92506	102953	113399	123846	134291	144736	149958	165276
3/4	92724	103170	113617	124063	134509	144954	149958	165480

THIS TABLE IS SCALED FROM THE BOTTOM STRIKE POINT BELOW THE M/C/U VALVE TO TOP OF THE TANK AT CENTERLINE

Calculated: JDJ/H  
W/HF  
Dated: October 28, 1998