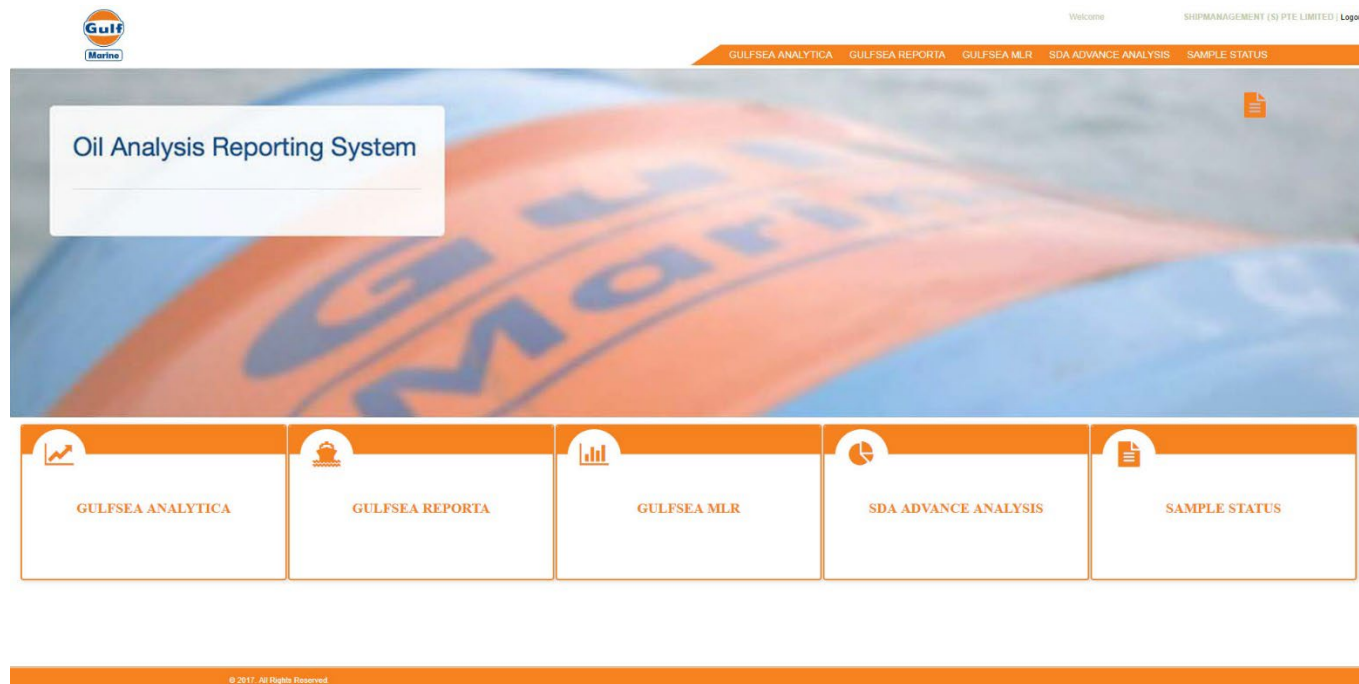




Oil Analysis Reporting System



Gulf Oil Marine's Oil Analysis Reporting system (<http://www.gulfoilmarine.com/>) provides a convenient one-stop-shop for running all the lubricants-related technical reports that vessels will require. This reporting system is fairly intuitive and easy to use.

Customers can easily access the different technical reports from the main page:

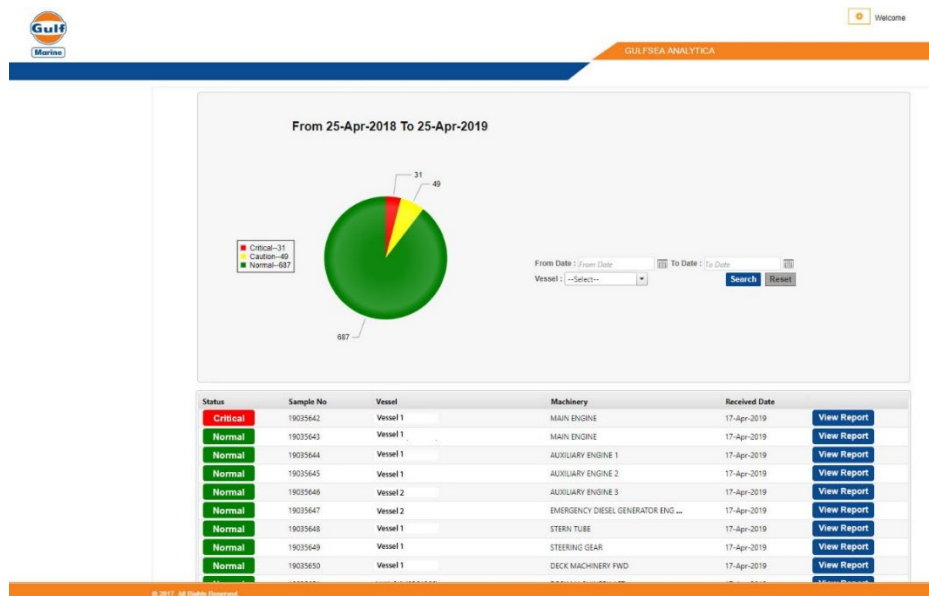
- **GulfSea UOA Analytica**
- **GulfSea SDA Advance Analysis**
- **GulfSea MLR**
- **GulfSea Reporta**
- **Sample Status**

This online report is secured: access needs to be approved by an authorized person and only one approved version is available per vessel.

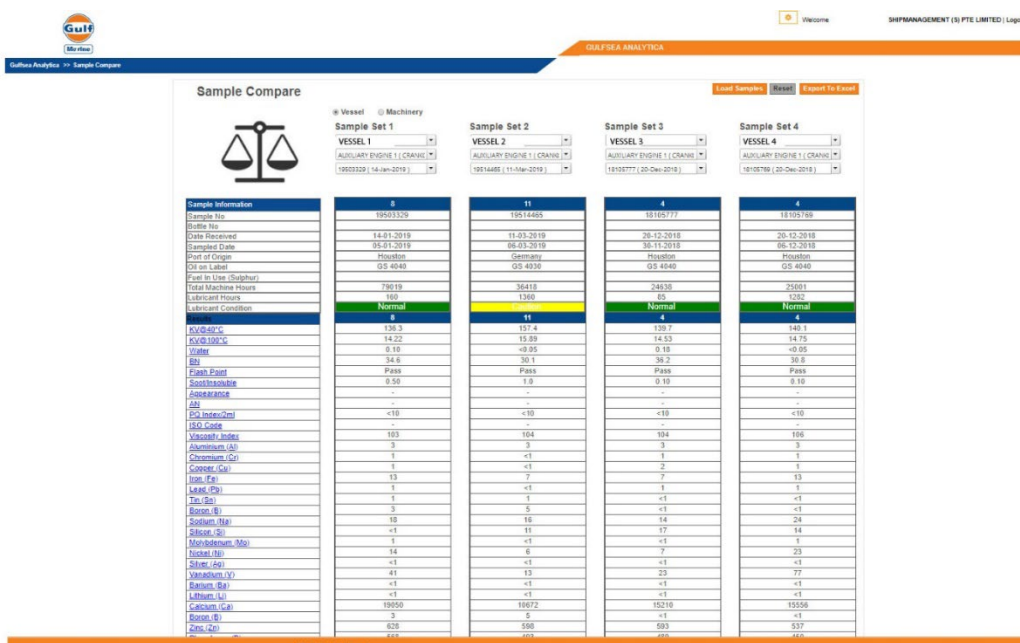
- GulfSea UOA Analytica

This used oil analysis (UOA) reporting program displays all analytical data related to UOAs.

Customers can access the individual sample as well as the overall rating information for a period of 1 year. All fleet information can be searched by specific criterion; they are also available in PDF format.



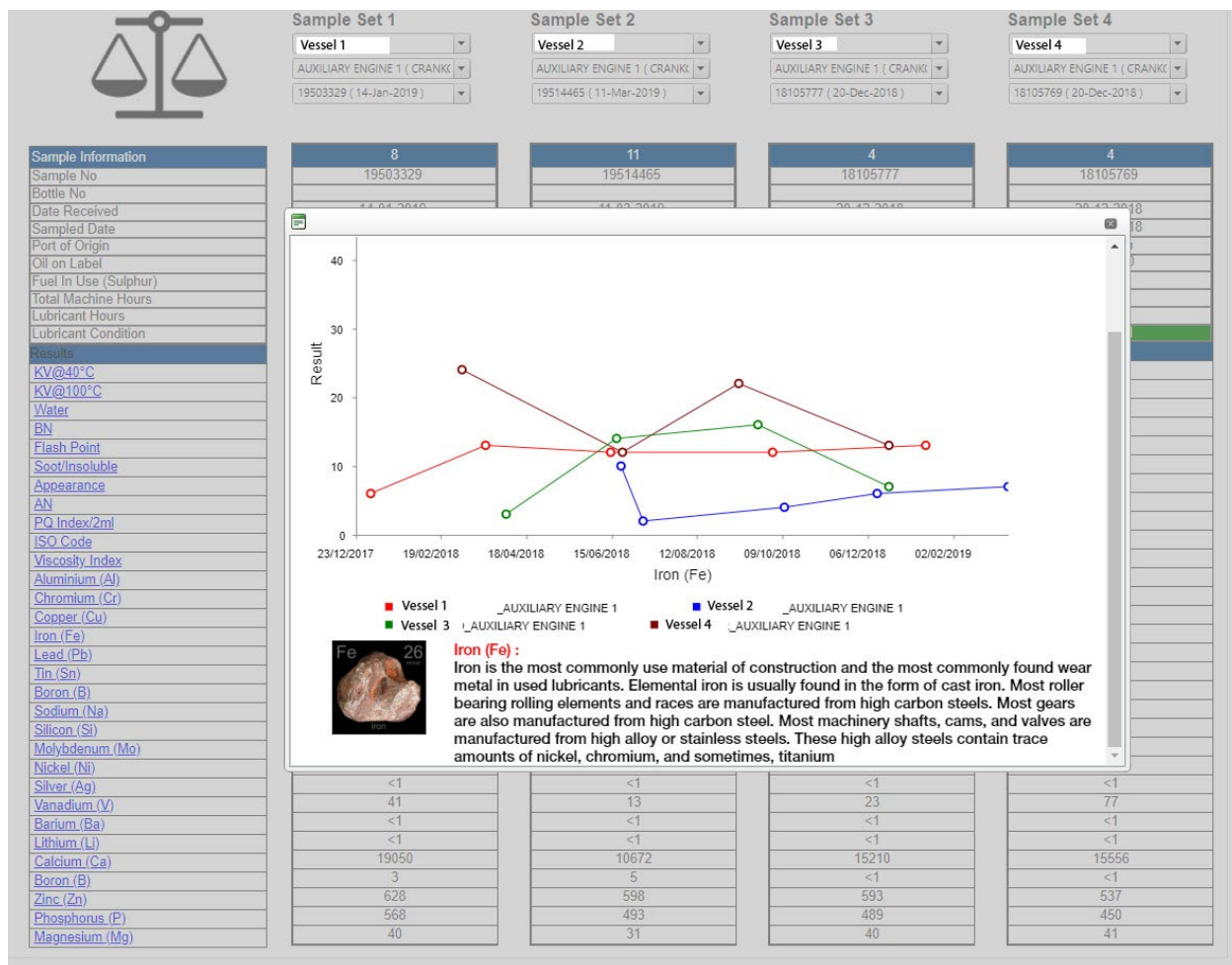
The advanced function in the system allows quick comparisons between different samples in terms of vessel or machinery. Graphs could be generated with individual/ multiple element parameters; and the analysis can be shown and exported in excel format.



The screenshot displays the 'Sample Compare' feature in the GulfSea UOA Analytica web interface. It shows a comparison of four sample sets (Sample Set 1, Sample Set 2, Sample Set 3, and Sample Set 4) across various parameters. The parameters are listed on the left, and the data is organized into columns for each sample set. The parameters include Sample No, Date Received, Sample Date, Port of Origin, Oil in Use, Fuel in Use, Total Machine Hours, Lubricant Hours, Lubricant Condition, and various chemical and physical parameters like Viscosity, Sulfur, Ash, and Metals.

Sample Information	Sample Set 1	Sample Set 2	Sample Set 3	Sample Set 4
Sample No	19033329	19034405	19035777	19035789
Date Received	14-01-2019	11-03-2019	26-12-2018	26-12-2018
Sample Date	05-01-2019	06-03-2019	30-11-2018	06-12-2018
Port of Origin	Malaysia	Germany	Malaysia	Malaysia
Oil in Use	025 4040	025 4040	025 4040	025 4040
Fuel in Use (Suphar)	19019	36418	24638	25681
Total Machine Hours	160	1360	65	1262
Lubricant Hours	160	1360	65	1262
Lubricant Condition	Normal	Normal	Normal	Normal
Viscosity @40°C	136.3	137.4	139.7	140.1
Viscosity @100°C	14.22	15.89	14.53	14.75
Sulfur	0.18	0.18	0.18	0.18
API	34.6	30.1	36.2	36.9
Flash Point	Pass	Pass	Pass	Pass
Sedimentation	0.50	1.8	0.18	0.18
Ash @400°C	-	-	-	-
API Interf. Cent	<10	<10	<10	<10
ISO Code	-	-	-	-
Viscosity Index	183	164	194	186
Aluminum (Al)	3	3	3	3
Chromium (Cr)	1	<1	1	1
Copper (Cu)	1	<1	2	1
Iron (Fe)	13	7	13	13
Lead (Pb)	1	<1	1	1
Tin (Sn)	1	1	<1	<1
Boron (B)	3	5	<1	<1
Sodium (Na)	10	16	14	24
Silicon (Si)	17	11	17	14
Non-Metals (Non)	1	<1	<1	1
Nickel (Ni)	14	6	7	23
Silver (Ag)	<1	<1	<1	<1
Vanadium (V)	41	13	23	77
Barium (Ba)	<1	<1	<1	<1
Lithium (Li)	<1	<1	<1	<1
Calcium (Ca)	19950	19072	15219	15558
Boron (B)	3	5	<1	<1
Zinc (Zn)	629	568	593	537

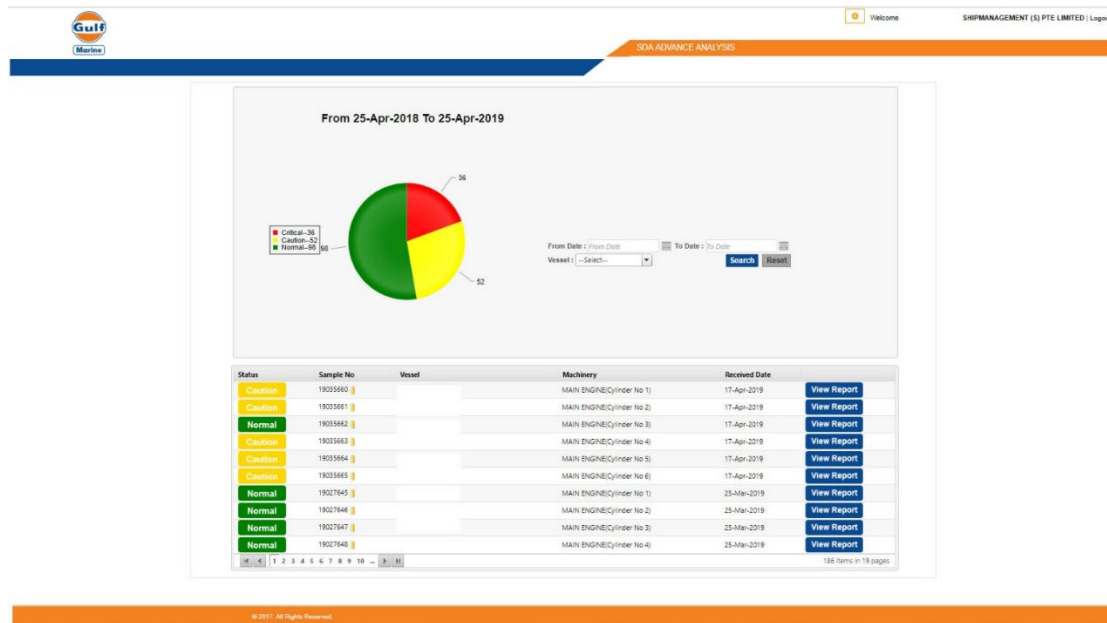
For individual samples, the trends of the multiple elements with the respective sample # and their element parameters can be previewed in a graph. The results can also be generated in PDF format.



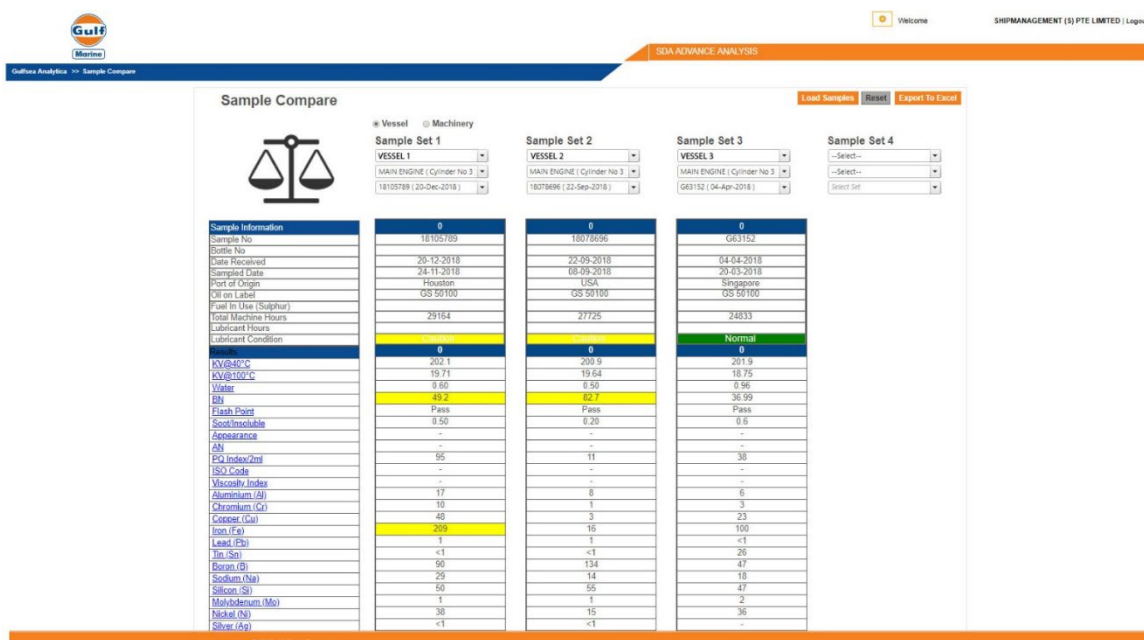
- GulfSea SDA Advance Analysis

This reports the condition of used cylinder oil through scrape-down analysis.

Customers can view the individual sample and overall rating information in the list or each published sample information by different intervals. All reports for the latest year are available at a glance.



Its advanced function also supports comparisons between different samples in one screen by selecting either vessel or machinery. Graphs could be generated according to the respective sample # and their element parameters.



The Sample Compare screen allows users to compare four different sample sets. It includes a balance scale icon and a table of sample information and parameters.

Sample Information	Sample Set 1	Sample Set 2	Sample Set 3	Sample Set 4
Sample No	18105789	18078696	063152	
Engine No	20-12-2018	22-09-2018	04-04-2018	
Date Received	24-11-2018	08-09-2018	20-03-2018	
Port of Origin	USA	USA	Singapore	
Oil on Label	OS 50100	OS 50100	OS 50100	
Fuel In Use (Sulphur)	29164	27725	24833	
Total Machine Hours				
Lubricant Condition	Normal	Normal	Normal	
KV@40°C	202.1	200.9	201.9	
KV@100°C	19.71	19.64	18.75	
Water	0.60	0.50	0.56	
DB	48.2	42.7	36.99	
Flash Point	Pass	Pass	Pass	
Soot/Insoluble	0.50	0.20	0.6	
Appearance	-	-	-	
API	-	-	-	
Fe Index/mt	95	11	38	
ISO Code	-	-	-	
Viscosity Index	-	-	-	
Aluminum (Al)	17	8	6	
Chromium (Cr)	10	1	3	
Copper (Cu)	48	3	23	
Iron (Fe)	209	16	100	
Lead (Pb)	1	1	<1	
Ni (Ni)	<1	<1	20	
Boron (B)	90	134	47	
Sodium (Na)	29	14	18	
Silicon (Si)	50	55	47	
Molybdenum (Mo)	1	1	2	
Nickel (Ni)	38	15	36	
Silver (Ag)	<1	<1	-	





- GulfSea MLR

This is designed to help ship operators by having all the vessels' and vessel machineries' lubrication recommendations (MLR) in one place.

All the reports can be sorted by various selection criteria and can be generated in excel format.

Welcome

SHIPMANAGEMENT (S) PTE

MLR

--Select Ship Manag--

--Select Vessel--

IMO #

Created Dt From

Created Dt To

Search

Reset

Ship Manager	Vessel	IMO #	Status	Created Dt	Actions
SHIPMANAGEMENT (S) PTE LIMITED	SEA	9726	Approved	05-Apr-2019	
SHIPMANAGEMENT (S) PTE LIMITED	SERJ	9694	Approved	05-Apr-2019	
SHIPMANAGEMENT (S) PTE LIMITED	NUJI	9364	Approved	18-Oct-2018	
SHIPMANAGEMENT (S) PTE LIMITED	MANI	9625	Approved	12-Sep-2018	
SHIPMANAGEMENT (S) PTE LIMITED	CRYSTAL	9274	Approved	16-Apr-2018	
SHIPMANAGEMENT (S) PTE LIMITED	DANA	9501	Approved	16-Apr-2018	
SHIPMANAGEMENT (S) PTE LIMITED	VATOR	9604	Approved	16-Apr-2018	
SHIPMANAGEMENT (S) PTE LIMITED	PIN	9790	Approved	16-Apr-2018	
SHIPMANAGEMENT (S) PTE LIMITED	SALT	9694	Approved	16-Apr-2018	
SHIPMANAGEMENT (S) PTE LIMITED	SECI	9726	Approved	16-Apr-2018	
SHIPMANAGEMENT (S) PTE LIMITED	SHA	9726	Approved	16-Apr-2018	
SHIPMANAGEMENT (S) PTE LIMITED	SHAI	9726	Approved	16-Apr-2018	
SHIPMANAGEMENT (S) PTE LIMITED	SHER	9726	Approved	16-Apr-2018	
SHIPMANAGEMENT (S) PTE LIMITED	SI	9722	Approved	16-Apr-2018	
SHIPMANAGEMENT (S) PTE LIMITED	SPREAD	9699	Approved	16-Apr-2018	
SHIPMANAGEMENT (S) PTE LIMITED	UNIQUE	9609	Approved	16-Apr-2018	

GULF OIL MARINE

LUBRICATION CHART

Vessel Name	
Customer	
IMO No	
Year Built	2015
Last Update	27 August 2015
Prepared by	
Approved by	Irwan Jaafar

always at the ship's side


Gulf Oil Marine Limited
13th Floor, Fortis Tower, No 77-79 Gloucester Road, Wan Chai, Hong Kong
Tel: +852 3693 0568 • Fax: +852 3693 9960 • Web: www.gulf-marine.com

LUBRICATION CHART		
Vessel Name		
Customer		
Last Update	27 August 2015	
EQUIPMENT	LUBRICATED PARTS	LUBRICANT
MAIN PROPULSION		
Main Engine Make : HYUNDAI - MAN B&W Type : 6G60ME-C9.2 12,400KW @ 92.2RPM	Cylinders (High Sulfur Fuel) Cylinders (Low Sulfur Fuel) Cylinders (<0.1% S ECA Fuel) System	GulfSea Cycicare 50100 GulfSea Cycicare DCA 5040H GulfSea Cycicare ECA 50 GulfSea SuperBear 3006
M/E Turning Gear	Enclosed Gears Grease Points	GulfSea Gear Oil 320 GulfSea HYPERBAR CS2
M/E Auxiliary Blower	Grease Points	GulfSea HYPERBAR LCM2
M/E Fuel Valve Test Device	Oil Reservoir	GulfSea Hydraulic HVI Plus 15
M/E Hydraulic Tool Unit	Oil Reservoir	GulfSea Hydraulic HVI Plus 32
M/E Top Bracing	Oil Reservoir	GulfSea Hydraulic HVI Plus 32
Intermediate Shaft Make : WARTSILA JAPAN	Bearings	GulfSea SuperBear 3006
Stern Tube Make : WARTSILA JAPAN Type : OLS4A 0600(AFT) OLS2 0630(FWD)	Bearings & Seals	*GulfSea BD Sterntube Oil 100
Propeller Make : HHI - EMD	Hydraulic Nut Bonnet Inside	GulfSea Hydraulic HVI Plus 32 *GulfSea BD EP2 Grease
AUXILIARY MACHINERY		
Diesel Generator Engine Make : HYUNDAI HIHSEN Type : 8H21/J2	Cylinders & Crankcase	GulfSea Power 4040
G/E Governor Make : WOODWARD Type : UG25-P3	Hydraulic System	GulfSea Power 4040
G/E Alternator Make : HYUNDAI HEAVY IND	Bearings	GulfSea Hydraulic HVI Plus 68
Page 2 of 8		
<p>Gulf Oil Marine Limited 13th Floor, Fortis Tower, No 77-79 Gloucester Road, Wan Chai, Hong Kong Tel: +852 3693 0568 • Fax: +852 3693 9960 • Web: www.gulf-marine.com</p>		



- GulfSea Reporta

This enables customers to manage their vessel inspection reports – both old and new. With the search filter(s), customers can have various report types, view the full archive of reports, and can quickly access the most recently run report as well. Customers can then create their own Inspection Reports in PDF format with the relevant vessel information here.

Welcome Admin | Logout

GULFSEA REPORTA

Add Ship Visit

Ship Manager Vessel IMO# Status --Select-- From Date To Date

Ship Manager	Vessel	IMO #	Version	Created By	Created Date	Status	Actions
SHIPMANAGEMENT (S) PTE LIMITED	SH	9726	0.1	System Admin	24/07/2018 15:34:20	Draft	
MARITIME SERVICES PTE LIMITED	CAPE	9603	0.1	System Admin	24/07/2018 14:13:08	Draft	
SHIP MANAGEMENT LIMITED	DOUBLE	9478	1.0	Gulf Oil Marine	09/05/2018 00:00:00	Approved	
SHIPMANAGEMENT (HK) LTD PART	INTEF	9486	1.0	Gulf Oil Marine	24/04/2018 00:00:00	Approved	
SHIPMANAGEMENT (HONGKONG)	INTER	9738	1.0	Sreenivas G	02/04/2018 00:00:00	Approved	
Ship Managers Pte Ltd	RISING	9767	1.0	Gulf Oil Marine	21/03/2018 08:57:30	Approved	
Ship Managers Pte Ltd	BAGAT	9442	1.0	Gulf Oil Marine	21/03/2018 08:55:54	Approved	
Ship Managers Pte Ltd	GLORIOUS	9550...	1.0	Gulf Oil Marine	21/03/2018 08:55:07	Approved	
Ship Managers Pte Ltd	ALAM	9281	1.0	Gulf Oil Marine	21/03/2018 08:54:32	Approved	
Ship Managers Pte Ltd	ALAM	9285	1.0	Gulf Oil Marine	21/03/2018 08:54:05	Approved	
Ship Managers Pte Ltd	ALAM	9615	1.0	Gulf Oil Marine	21/03/2018 08:53:35	Approved	
Ship Managers Pte Ltd	ALAM	9748	1.0	Gulf Oil Marine	21/03/2018 08:53:00	Approved	
Shipmanagement Service.	VE	947	1.0	Gulf Oil Marine	21/03/2018 08:51:25	Approved	


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Vessel Info | Summary

☐ Before Summary
☐ After Vessel Image
☐ Before Storage Tanks
☐ Before Narrations

Report Preview

Edit | Approve Report | Export to PDF



GULFSEA REPORTA


Vessel Name	: OCEANIC	Owner	:
Place, date	: SINGAPORE @ 04 APRIL 2015	Attended by	: IRWAN
Subject of call	: SWITCH-OVER SHIP VISIT		
Main Engine Make	: MAN B&W	Model	: 6S60ME-C8.2
Licensee	:	Engine no.	: AA4913
Run hrs.@ date	: 17,854HRS @ 04 APRIL 2015	Power	: 13,570KW @ 104
Cyl Oil Feed Rate	: 0.98g/KWh	IMO	: 9624029
M/E Cylinder Oil	: GULFSEA CYLCARE 50100	M/E System Oil	: GULFSEA SUPE
G/ Engine Make	:	Model	: 6H21/32
No. Of Engines	: 03nos	Power	: 1,280KW @ 900
Run hrs.@ date #1	: 10,466HRS @	#1 Engine no.	: BA4618-1
Run hrs.@ date #2	: 7,290HRS @ 04 APRIL 2015	#2 Engine no.	: BA4618-2
Run hrs.@ date #3	: 10,813HRS @ 04 APRIL 2015	#3 Engine no.	: BA4618-3
System Oil	: GULFSEA POWER 4040		

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- Sample Status

This enables customers to export all their analysis reports in the system into excel, providing convenience to customers to manage and monitor their reports in a timely manner.

This feature supports different menus, including Analysis Summary, Received Samples, Adhoc Reports, Samples Update, Oil Condition Summary, helping customers to improve the efficiency of their reporting.




Welcome

Sample Statistical Report

SAMPLE STATUS

Operator	ANGLO-EASTERN S	Vessels	--Select Vessel--	IMO#	IMO	Date From	26-Mar-201	Date To	26-Apr-201	Search	Reset	Export To Excel
SNo	Sample #	Operator	Vessel	IMO #	Machinery	Manufacturer	Model	Received Date	Rating			
1	19525800	SHIPMANAGEM ...		9726	MAIN ENGINE	MAN B&W	6G60ME-C9.2	25-Apr-2019	👍			
2	19525801	SHIPMANAGEM ...		9726	MAIN ENGINE	MAN B&W	6G60ME-C9.2	25-Apr-2019	👍			
3	19525802	SHIPMANAGEM ...		9726	MAIN ENGINE	MAN B&W	6G60ME-C9.2	25-Apr-2019	👍			
4	19525803	SHIPMANAGEM ...		9726	AUXILIARY ENGINE 1	HIMSEN	8H21/32	25-Apr-2019	👍			
5	19525804	SHIPMANAGEM ...		9726	AUXILIARY ENGINE 2	HIMSEN	8H21/32	25-Apr-2019	👍			
6	19525805	SHIPMANAGEM ...		9726	AUXILIARY ENGINE 3	HIMSEN	8H21/32	25-Apr-2019	👍			
7	19525806	SHIPMANAGEM ...		9726	EMERGENCY DIESEL GENERATOR	GPC-DOOSAN	AD 086 TI	25-Apr-2019	👍			
8	19525807	SHIPMANAGEM ...		9726	STERN TUBE	WARTSILA	OLS4-A 0600	25-Apr-2019	👍			
9	19525808	SHIPMANAGEM ...		9726	STEERING GEAR 1	KAWASAKI HEAVY INDUSTRIES	FE21-140-T050	25-Apr-2019	👍			
10	19525809	SHIPMANAGEM ...		9726	STEERING GEAR 2	KAWASAKI HEAVY INDUSTRIES	FE21-140-T050	25-Apr-2019	👍			
11	19525810	SHIPMANAGEM ...		9726	CARGO COMPRESSOR STBD	BURCKHARDT	3K160-3K-1	25-Apr-2019	👍			
12	19525811	SHIPMANAGEM ...		9726	CARGO COMPRESSOR CENTER	BURCKHARDT	3K160-3K-1	25-Apr-2019	👍			
13	19525812	SHIPMANAGEM ...		9726	CARGO COMPRESSOR PORT	BURCKHARDT	3K160-3K-1	25-Apr-2019	👍			
14	19525813	SHIPMANAGEM ...		9726	PROVISION CRANE STBD	ORIENTAL PRECISION	HPC 070-Q216	25-Apr-2019	👍			
15	19525814	SHIPMANAGEM ...		9726	PROVISION CRANE PORT	ORIENTAL PRECISION	HPC 120	25-Apr-2019	👍			
16	19525815	SHIPMANAGEM ...		9726	HOSE HANDLING CRANE	ORIENTAL PRECISION	NOT STATED	25-Apr-2019	👍			
17	19525816	SHIPMANAGEM ...		9726	DECK MACHINERY PWD	DONGNAM MARINE CO. LTD.	NOT STATED	25-Apr-2019	👍			
18	19525817	SHIPMANAGEM ...		9726	DECK MACHINERY APT	DONGNAM MARINE CO. LTD.	NOT STATED	25-Apr-2019	👍			
19	19525818	SHIPMANAGEM ...		9726	VALVE REMOTE CONTROL	KSB SEIL CO. LTD.	NOT STATED	25-Apr-2019	👍			
20	19525865	SHIPMANAGEM ...		9722	AUXILIARY ENGINE 1	HIMSEN	8H21/32	25-Apr-2019	👍			
21	19035642	SHIPMANAGEM ...		9364	MAIN ENGINE	MAN B&W	6550MC-C7	17-Apr-2019	👍			
22	19035643	SHIPMANAGEM ...		9364	MAIN ENGINE	MAN B&W	6550MC-C7	17-Apr-2019	👍			
23	19035644	SHIPMANAGEM ...		9364	AUXILIARY ENGINE 1	MAN B&W	7L23/30H	17-Apr-2019	👍			
24	19035645	SHIPMANAGEM ...		9364	AUXILIARY ENGINE 2	MAN B&W	7L23/30H	17-Apr-2019	👍			
25	19035646	SHIPMANAGEM ...		9364	AUXILIARY ENGINE 3	MAN B&W	7L23/30H	17-Apr-2019	👍			
26	19035647	SHIPMANAGEM ...		9364	EMERGENCY DIESEL GENERATOR	CUMMINS	NOT STATED	17-Apr-2019	👍			

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Welcome Admin | Logout

SAMPLE STATUS

Vessel --Select-- Search

today Jul, 2018

Mon	Tue	Wed	Thu	Fri	Sat	Sun
25 Published 100	26 Published 108	27 Published 105	28 Published 44	29 Published 45	30 Published 119	1 Jul Published 64
2 Published 67	3 Published 67	4 Published 67	5 Published 67	6 Published 62	7 Published 92	8 Published 32
9 Published 146	10 Published 146	11 Published 146	12 Published 146	13 Published 120	14 Published 31	15 Published 32

27-Jun-2018

Published Approved In progress Not Started

Vessel	Count
CRIMSON MONARCH	8
DARYA LOK	13
HONG KONG SPIRIT	49
MELATI 4	10
OCEAN SAPPHIRE	12
PTI ORION	13

IE 8 + & 1



Welcome

SHIPMANAGEMENT (S) PTE LIMITED | Logout

GULFSEA ANALYTICA GULFSEA REPORTA GULFSEA MLR SDA ADVANCE ANALYSIS SAMPLE STATUS

Oil Analysis Reporting System



GULFSEA ANALYTICA



GULFSEA REPORTA



GULFSEA MLR



SDA ADVANCE ANALYSIS



SAMPLE STATUS

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Gulf Oil Marine's upgraded version of the Oil Analysis Reporting System enables easy navigation of used oil analysis summaries for all contracted vessels, contracted from 2018. The system can be conveniently accessed (online), anytime and everywhere; it is also highly secured with access being well controlled, ensuring that customers' data are well protected.

The reports are presented visually with a simple summary and comparison tables to enable customers to assess the health of their own machinery against the equivalent average levels of their vessels. It should be useful in helping customers make useful diagnosis/insights and take precautionary actions earlier, protecting their engines in long term.

Experience our reporting system and log in now at <http://www.gulfoilmarine.com/> , or contact our Global Technical Team for more information.

[Updated on May 2019]