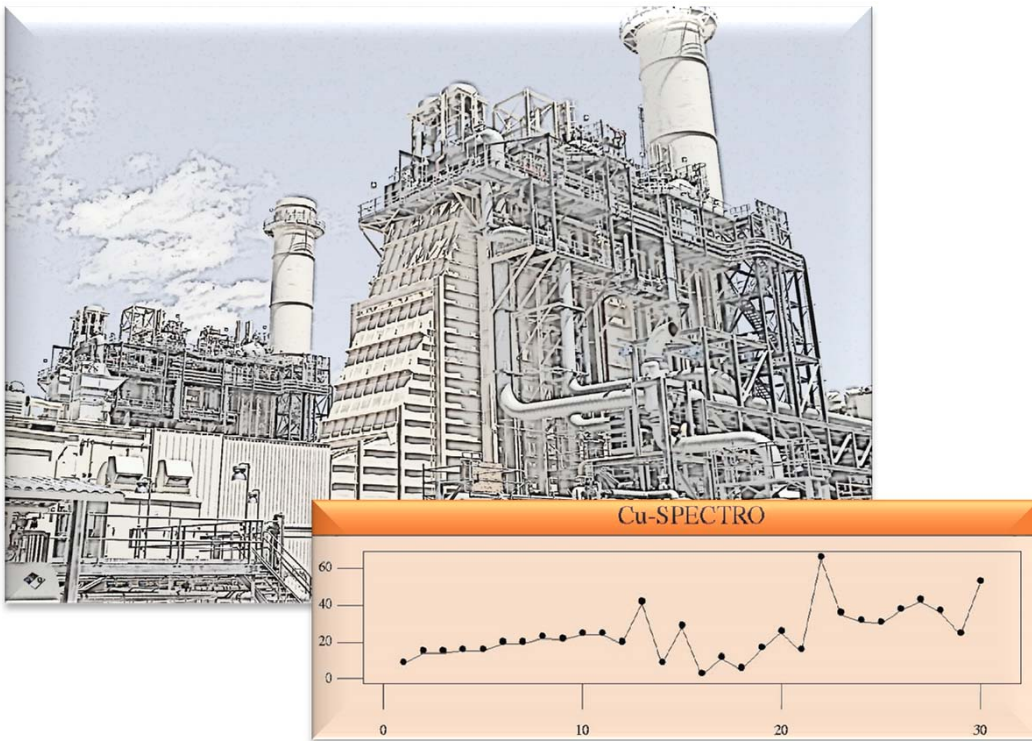


OIL ANALYSIS SURVEY REPORT

SAMPLE CLIENT

OCTOBER 2013



SAMPLE CLIENT

SAMPLE DATE	Unit Number	COMMENTS	RECOMMENDATIONS	CMS PRIORITY LEVEL	PAGE #
10/1/13	TURBINE #4 VARNISH REPORT	THE CURRENT TEST RESULTS INDICATE A LOW LEVEL OF DEGRADATION BY-PRODUCTS ASSOCIATED WITH VARNISHING.	PLEASE CONTINUE ROUTINE SAMPLING TO MONITOR THE TREND LEVEL.	PRIORITY 3	5
10/1/13	GAS TURBINE 6 ROUTINE REPORT	PARTICLE COUNT AND WATER ARE ELEVATED ON THIS UNIT. WATER IS AT 430 PPM AND PARTICLE COUNT IS 18/17/13. (CLIENT LIMITS ARE 300 PPM WATER AND 18/16/13).	INSPECT UNIT FOR POSSIBLE SOURCES OF CONTAMINATION INGRESSION. FILTER WITH A PORTABLE FILTRATION CART THAT IS ALSO CAPABLE OF REMOVING WATER.	PRIORITY 4	3
10/1/13	GAS TURBINE #2 ANNUAL TURBINE ANALYSIS	VISCOCITY IS SLIGHTLY ELEVATED FOR THIS LUBRICANT.	RECOMMEND TO CONTINUE TO TREND FOR CHANGE TO ENSURE OIL'S SERVICEABILITY.	PRIORITY 5	9
10/1/13	STEAM TURBINE 7 ROUTINE REPORT	MACHINE AND LUBRICANT APPEAR TO BE IN NORMAL CONDITION.	CONTINUE NORMAL OPERATION AND REGULAR SAMPLING.	PRIORITY 5	4



Machine Condition:

NORMAL

Lubricant Condition:

CRITICAL

GAS TURBINE 6 UNFILTERED

Analysis Report

Lube Type: Am. Chem. Tech. EcoSafe TF-25
Machine MFG: GENERAL ELECTRIC
Machine MOD: 7FA
MachineType: Industrial Turbine

Received: 9/25/2013 12:00:00AM
Rep: 9/25/2013 4:46:00PM
Sample No.: 3041 - 1 - 3 - 4
Analyst: MMM

ATTN: Kirk Cormany
 CMS Inc. - Sample Client
 395 Mesa Rd
 Nipomo, CA 93444

Problems: *** High WATER CONTENT. *** EXCESSIVE PARTICLE COUNT.

Customer Notes: *

Water content at .043% (430 ppm) is likely the result of condensation or water ingress. Water contamination can lead to oil degradation, corrosion and reduction in load carrying capacity. If specific source of moisture cannot be located, inspect or install desiccant breathers. The particulate contamination exceeds our limits for a turbine (18/16/13). High particulate contamination will lead to abrasive wear and damage internal components. Reducing particle levels will significantly extend component life.

Lab No	Reference	9/18/2013	8/23/2013	7/10/2013	6/4/2013
Oil Chng / Mach / Lube	1003529	1054380	1040115	1024238	1003531
		N / N / C	N / N / M	N / N / N	N / N / N

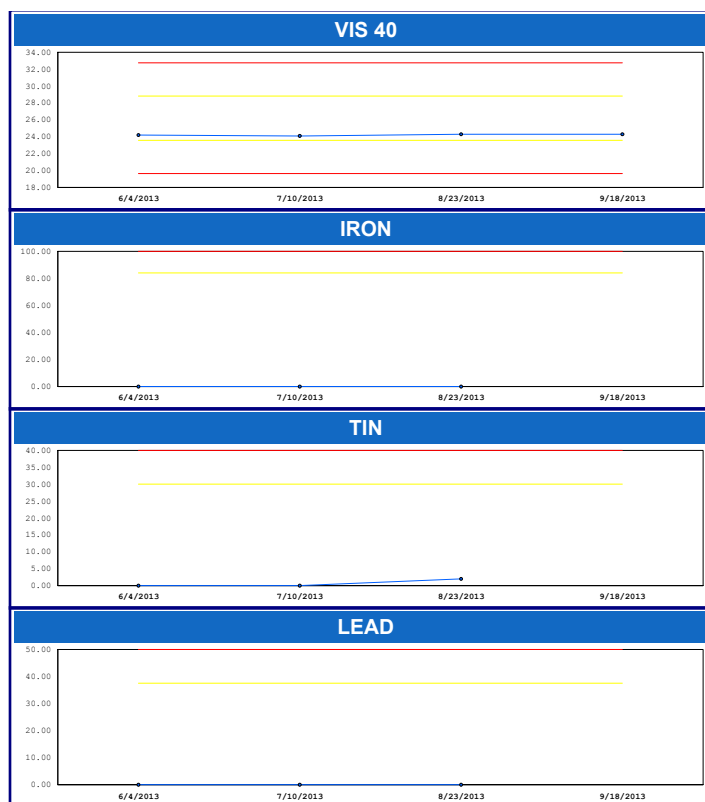
SPECTROSCOPIC ANALYSIS (ppm) ASTM D 5185					
Iron	0		0	0	0
Copper	0		0	0	0
Lead	0		0	0	0
Aluminum	0		0	0	0
Tin	0		2	0	0
Nickel	0		0	0	2
Chromium	0		0	0	0
Titanium	0		0	0	0
Vanadium	0		0	0	0
Silver	0		0	0	0
Silicon	0		0	0	0
Boron	2		1	0	1
Calcium	1		2	0	1
Magnesium	0		0	0	0
Phosphorus	2		3	6	5
Zinc	0		0	0	0
Barium	387		332	338	383
Molybdenum	0		0	0	0
Sodium	0		7	0	1
Potassium	0		0	0	0

VISCOSITY (centistokes) ASTM D 445					
Vis 40	24.3	24.3	24.3	24.1	24.2

FTIR SPECTROSCOPY (indexing numbers) JOAP Method					
Anti Wear	57		64	59	57
Nitration	6		6	6	6
Other Fluid	259		308	267	261
Oxidation	127		150	129	126

PARTICLE COUNT (particles per ml) ISO 4406:99					
ISO Code	16/ 15/ 11	18/ 17/ 13	18/ 17/ 13	17/ 15/ 12	17/ 16/ 12
>4 Micron	606	1936	1667	723	833
>6 Micron	235	753	648	281	324
>14 Micron	17	57	49	21	24
>50 Micron	0	2	2	0	1
>100 Micron	0	0	0	0	0

SINGLE COMPONENT TESTS					
Acid # mg KOH/g	0.04	0.12	0.06	0.01	0.01
Water %		0.043	NEG	NEG	NEG
Water ppm		430	NEG	NEG	NEG



TBN Methods: († - ASTM D4739), (‡ - IWI-390). CMS Inc. - Sample Client assumes sole responsibility for the application of and reliance upon results and recommendations reported by Insight Services, whose obligation is limited to good faith performance.



Machine Condition: **NORMAL**
 Lubricant Condition: **NORMAL**

STEAM TURBINE 7 UNFILTERED

Analysis Report

Lube Type: SHELL Turbo CC 32
Machine MFG: GENERAL ELECTRIC
Machine MOD: D11
MachineType: Industrial Turbine

Received: 9/25/2013 11:58:00AM
Rep: 9/25/2013 6:18:00PM
Sample No.: 3041 - 1 - 5 - 2
Analyst: MMM

ATTN: Kirk Cormany
 CMS Inc. - Sample Client
 395 Mesa Rd
 Nipomo, CA 93444

Problems: No problems found with current sample.
Customer Notes: *

The results for this sample indicate normal conditions. Please continue scheduled sampling.

	Reference	9/18/2013	8/23/2013		
Lab No	1024235	1054381	1040116		
Oil Chng / Mach / Lube		N / N / N	N / N / N		

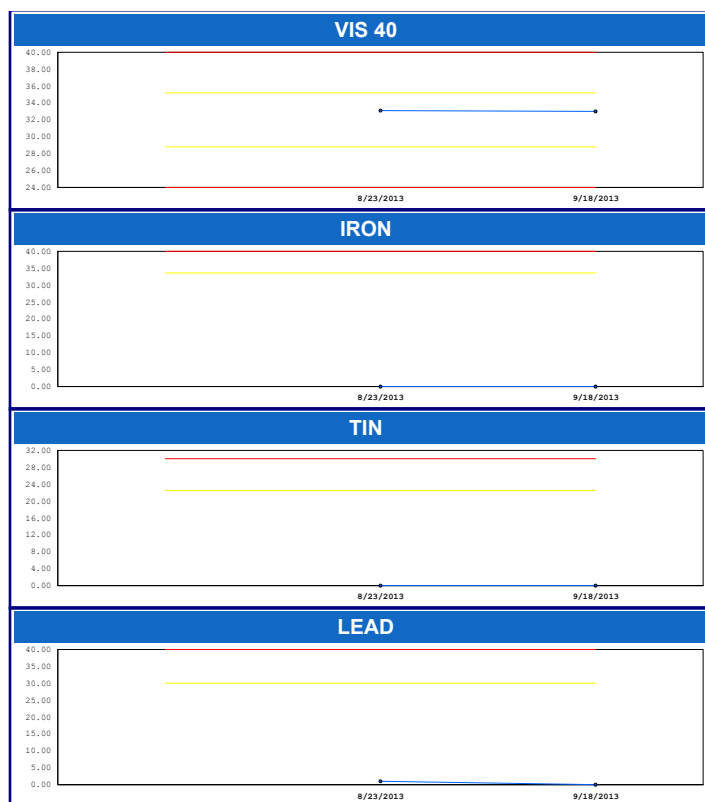
SPECTROSCOPIC ANALYSIS (ppm) ASTM D 5185					
Iron	0	0	0		
Copper	0	0	0		
Lead	0	0	1		
Aluminum	0	0	0		
Tin	0	0	0		
Nickel	0	0	0		
Chromium	0	0	0		
Titanium	0	0	0		
Vanadium	0	0	0		
Silver	0	0	0		
Silicon	0	0	0		
Boron	0	0	1		
Calcium	0	0	1		
Magnesium	0	0	0		
Phosphorus	45	34	43		
Zinc	0	1	0		
Barium	0	1	2		
Molybdenum	0	0	0		
Sodium	1	1	0		
Potassium	8	0	4		

FTIR SPECTROSCOPY (indexing numbers) Turbine Method					
Thermal Event Acid	0	0	0		
Acid Oxidation	0	2	2		
Ester	0	0	3		
Aromatic Additive	237	218	212		
Base Oil Aromatic	194	187	170		
Amine Antioxidants	105	102	101		
Phenolic Antioxidants	24	26	30		

VISCOSITY (centistokes) ASTM D 445					
Vis 40	31.6	33.0	33.1		

PARTICLE COUNT (particles per ml) ISO 4406:99					
ISO Code	16/ 15/ 11	16/ 15/ 11	16/ 15/ 11		
>4 Micron	447	634	489		
>6 Micron	174	246	190		
>14 Micron	13	18	14		
>50 Micron	0	0	0		
>100 Micron	0	0	0		

SINGLE COMPONENT TESTS					
Acid # mg KOH/g	0.18	0.17	0.17		
Water %		0.003	NEG		
Water ppm		30	NEG		



TBN Methods: († - ASTM D4739), (‡ - IWI-390). CMS Inc. - Sample Client assumes sole responsibility for the application of and reliance upon results and recommendations reported by Insight Services, whose obligation is limited to good faith performance.


[BACK TO MATRIX](#)

SAMPLE INFORMATION

Customer Name:	CMS Inc. - Sample Client	Sample Number:	3094-1-2074
Lubricant Type:	TURBO T 32	Date Received:	07/29/2013
Equipment ID:	TRBLOCOND4U	Contact Name:	Lindsey Pillow
Sample Date:	07/18/2013	Report Date:	08/07/2013
Hours:	0 hours	Analyst:	DR
Machine Name:	4 TURBINE LO CONDITIONER-UNFILTERED-VARNISH	Filtration(type):	



TURBINE

RESULTS SUMMARY

The current test results indicate a low level of degradation by-products associated with varnishing. Please continue routine sampling to monitor the trend in the level.

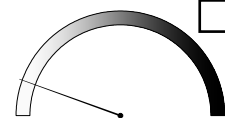
PRIMARY VARNISH INDICATORS

MEMBRANE PATCH COLORIMETRY

Current L . a . b Analysis
1026108

L

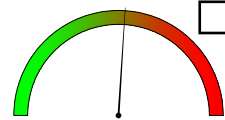
11



0 100

a

2



-50 50

b

20

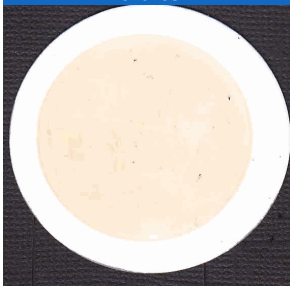


-50 50

Description of Test: The process of making a patch isolates and agglomerates insoluble by-products associated with varnish. The color of the membrane patch provides a guideline as to the extent of varnish potential. Generally a value over 23 is considered abnormal.

Date: 07/18/2013

Lab #: 1026108



MPC VALUE: 23

MPC VALUE:

MPC VALUE:

MPC VALUE:

L	a	b	L	a	b	L	a	b	L	a	b
11	2	20									

Membrane Patch Colorimetry Results:

This sample received a color result of 23. This is at the alarm of 23 and is considered abnormal. The result indicates the presence of insolubles that can lead to varnishing issues.

PARTICLE COUNT

Description of Test: Particulate contamination is tested using two methods, optical and pore blockage. Optical particle count passes the oil through a beam of light. Anything in the oil which interrupts the beam is counted as a particle. This method will count soft (varnish) particles. Pore blockage particle count passes the oil through a calibrated mesh screen which captures only hard particulates. A significant difference in the two results may be due to the presence of water, soft contaminants or insolubles.

Date: 07/18/2013

Lab #: 1026108

Particle Count (pore blockage)	15/14/10		
Particle Count (optical)	16/13/9		

Particle Count Results:

The difference between the optical particle count result (16/13/9) and the pore blockage particle count result (15/14/10) is not considered significant.

ULTRA CENTRIFUGE

Description of Test: A small amount of oil in a test tube is run for 30 minutes at 17,000 RPM in an ultra centrifuge. By subjecting the sample to significant G-forces, we are able to extract insoluble contaminants that are much too small to be detected by normal particle counting. The amount of the agglomerated material is compared to a rating scale to derive the UC Value (1-8). When the UC Value exceeds 4, a marginal condition is noted. A UC value exceeding 6 is considered to be a critical result.

Date: 07/18/2013

Lab #: 1026108



UC VALUE: 1

UC VALUE:

UC VALUE:

UC VALUE:

UC Results:

This sample received an Ultra Centrifuge rating of 1 indicating an acceptable result.

AT RISK INDICATORS

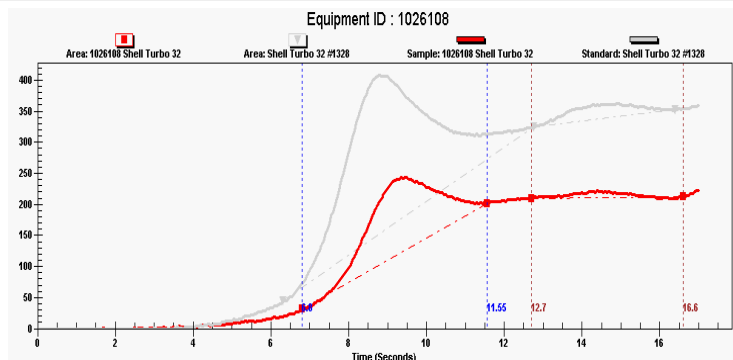
RULER

Description of Test: The RULER accurately measures the remaining active antioxidants in the lubricant. Antioxidants are the most important additive components in many lubricants including turbine, hydraulic, compressor and aerospace fluids. The RULER number represents the concentration of the antioxidants monitored relative to a new oil.

Date: 07/18/2013

Lab #: 1026108

AMINE	38		
PHENOLIC	27		
ZDDP	N/A		

**Ruler Results:**

RULER data shows the level of active amine antioxidants to be 38% of the level present in new oil. The level of phenolic antioxidants is 27% of new oil level.

ACID NUMBER (mg KOH/g)

Description of Test: Acid Number (AN) is an indicator of oil health. As the oil oxidizes, acidic byproducts are generated within the oil. As the oil's ability to resist oxidation drops, more of these byproducts are generated causing the AN to increase. A sharp increase in acid number can indicate that the oil is approaching the end of its useful life. Turbine oil generally has an AN of around 0.03 new, and in service should not exceed 0.2.

Date: 07/18/2013

Lab #: 1026108

Acid Number	0.02		
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Acid Number Results:

The acid number result (0.02) is within acceptable limits for this type of lubricant.

KARL FISCHER WATER

Description of Test: Karl Fischer titration is a direct measurement of water in a lubricating oil. Water is considered to be the most destructive of contaminants causing accelerated oil degradation and corrosion to system components. Also, excessive water in large static reservoirs can lead to microbial growth. The presence of water can severely alter the load carrying capacity of a lubricant. Industrial specifications set the warning limit for turbines at 0.1% or 1000 ppm.

Date: 07/18/2013

Lab #: 1026108

Water %	0.002		
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Karl Fischer Results:

The water result for this sample was: 0.002% (20 ppm). This is considered an acceptable result.

AT RISK INDICATORS

FTIR SPECTROSCOPY (indexing numbers) Turbine Method

Description of Test: FTIR covers the monitoring of base stock degradation, oxidation and additive depletion in machine lubricants, hydraulic fluids, and other fluid types. This test is based on trending of different parameters in various oils and fluids.

Oil Type: TURBO T 32

Date: 07/18/2013

Lab #:	New Oil	1026108			
Thermal Event Acid	0	7			
Acid Oxidation	3	35			
Ester	17	3			
Aromatic Additive	0	0			
Base Oil Aromatic	26	11			
Amine Antioxidants	60	63			
Phenolic Antioxidants	34	39			

FTIR Results:

FTIR data shows a good correlation to new oil data, and does not indicate significant fluid degradation.

Annual Turbine Oil Analysis Report

CMS Inc. - Sample Client 10/08/13





Turbine Oil Condition

Lubricant Health	Marginal
Contamination	Normal
Turbine Wear	Normal
Varnish Potential	Normal

Plant: Sample Client
 Address: PO Box 278
 Nipomo, CA 93444
 Contact: Kirk Cormany



Machine Name:	GT #2 - Unfiltered		
Unit Id:			
Sample Date:	09/24/2013	Received Date:	10/03/2013
Report Date:	10/08/2013	Lab Number:	1058809
Analyst:	MM	Sample Number:	3137-1-2
Lube Type:	DIAMOND 32	Machine Type:	Industrial Turbine
Machine Manuf.:	UNKNOWN	Machine Model:	7FA

Problems:

The viscosity is high for this lubricant.

Recommendation:

Historic viscosity results have been high with little change between samples. This may not be a serious concern but continue to monitor for any significant changes. Other test results are satisfactory and this lubricant is suitable for continued service.

Test Data Summary Table

Date		9/24/2013	8/28/2013	7/30/2013				
Lab No	Reference	1058809	1044989	1032917				
Hours		0	0	0				
Event		n/a	n/a	n/a				
SPECTROSCOPIC ANALYSIS (Reported in ppm) ASTM D5185								
Wear Metals	Iron	<40	0	0	0			
	Copper	<25	0	0	0			
	Lead	<25	0	0	0			
	Aluminum	<35	0	0	0			
	Tin	<25	0	0	0			
	Nickel	<15	0	0	0			
	Chromium	<15	0	0	0			
	Titanium	n/a	0	0	0			
	Vanadium	n/a	0	0	0			
	Silver	n/a	0	0	0			
Additives	Calcium	0	0	0	0			
	Magnesium	0	0	0	0			
	Phosphorus	0	0	0	1			
	Zinc	0	0	0	0			
	Barium	0	0	0	0			
	Molybdenum	0	0	0	0			
Contam.	Silicon	<25	0	0	0			
	Boron	<25	2	0	1			
	Sodium	<25	1	0	0			
	Potassium	<25	9	0	0			
PHYSICAL PROPERTIES								
Viscosity @ 40C	32	36.0	36.1	35.8				
Acid Number	<0.2	0.01	0.09	0.01				
FTIR Indexing Number (Turbine Method)								
Thermal Event Acid	0	11	10	10				
Acid Oxidation	0	49	49	48				
Ester	31	38	42	41				
Aromatic Additive	0	0	0	0				
Base Oil Aromatic	34	26	26	24				
Amine Antioxidants	68	67	67	67				
Phenolic Antioxidants	44	42	44	42				
PARTICLE COUNT (Reported in particles per ml) ISO 4406.99								
ISO CODE	18/16/14	16/15/11	14/13/9	17/16/12				
CONTAMINATION								
Water ppm	<0.05	40	20	Neg				
ADDITIONAL TESTS								
Demulsibility	40/40/0 (30)	40/40/0 (20)						
Color		<4.0						
Foam Test (Sec.)	<250 s	0 / 0 / 0						
RPVOT (Mins.)	>200	886						
Rust	Pass	PASS						
VARNISH POTENTIAL ANALYSIS								
Ultra Centrifuge	<5	2						
MPC Value	< 23	14						
Ruler Amine %		49						
Ruler Phenolic %		44						

Discussion of test results:

Spectroscopic Analysis by ASTM D5185

SPECTROSCOPIC ANALYSIS (Reported in ppm) ASTM D5185								
Date		09/24/2013	08/28/2013	07/30/2013				
Lab No	Reference	1058809	1044989	1032917				
Wear Metals	Iron	<40	0	0	0			
	Copper	<25	0	0	0			
	Lead	<25	0	0	0			
	Aluminum	<35	0	0	0			
	Tin	<25	0	0	0			
	Nickel	<15	0	0	0			
	Chromium	<15	0	0	0			
	Titanium	n/a	0	0	0			
	Vanadium	n/a	0	0	0			
	Silver	n/a	0	0	0			
	Additives	Calcium	0	0	0	0		
Magnesium		0	0	0	0			
Phosphorus		0	0	0	1			
Zinc		0	0	0	0			
Barium		0	0	0	0			
Molybdenum		0	0	0	0			
Contam.	Silicon	<25	0	0	0			
	Boron	<25	2	0	1			
	Sodium	<25	1	0	0			
	Potassium	<25	9	0	0			

Spectroscopic analysis quantifies the presence of metals in parts per million (ppm). The reported elements may be associated with machine wear, contamination or oil additives.

Wear Metals - All wear metal levels are low and do not indicate any abnormal wear.

Additives - The levels of additive metals in this sample are consistent with the oil type listed.

Contaminants - No significant levels of contaminant metals were found.

Demulsibility by ASTM D1401

ADDITIONAL TESTS							
Date		09/24/2013					
Lab No	Reference	1058809					
Demulsibility	40/40/0 (30)	40/40/0 (20)					

Demulsibility tests the oil's ability to separate from water. A turbine oil should fully separate from water in 30 minutes, with a passing result defined as less than 3 ml of emulsion after 30 minutes.

This sample passed the demulsibility test indicating that it readily separates from water.

Acid Number by ASTM D974

PHYSICAL PROPERTIES							
Date		09/24/2013	08/28/2013	07/30/2013			
Lab No	Reference	1058809	1044989	1032917			
Acid Number	<0.2	0.01	0.09	0.01			

Acid Number (AN) is an indicator of oil health. As the oil oxidizes, acidic byproducts are generated within the oil. As the oil's ability to resist oxidation drops, more of these byproducts are generated causing the AN to increase. A sharp increase in acid number can indicate that the oil is approaching the end of its useful life. Turbine oil generally has an AN of around 0.03 new, and in service should not exceed 0.2.

The acid number for this sample was 0.01 which is considered an acceptable result for this lubricant.

Viscosity by ASTM D445

PHYSICAL PROPERTIES							
Date		09/24/2013	08/28/2013	07/30/2013			
Lab No	Reference	1058809	1044989	1032917			
Viscosity @ 40C	32	36.0	36.1	35.8			

Viscosity is a measure of lubricant's resistance to flow. Changes in viscosity indicate improper servicing, dilution, contamination or lubricant breakdown in service. Test results are reported in centistokes (cSt) at 40 C.

The viscosity result is >10% over the specification. This is considered out of range for an ISO 32 lubricant.

FTIR Spectroscopy by Turbine Method

ADDITIONAL TESTS							
Date		09/24/2013	08/28/2013	07/30/2013			
Lab No	Reference	1058809	1044989	1032917			
Thermal Event Acid	0	11	10	10			
Acid Oxidation	0	49	49	48			
Ester	31	38	42	41			
Aromatic Additive	0	0	0	0			
Base Oil Aromatic	34	26	26	24			
Amine Antioxidants	68	67	67	67			
Phenolic Antioxidants	44	42	44	42			

FTIR covers the monitoring of base stock degradation, oxidation and additive depletion in machine lubricants, hydraulic fluids, and other fluid types. This test is based on trending of different parameters in various oils and fluids. For the turbine oil method Thermal Event Acid and Acid Oxidation are indicators of lubricant degradation. Ester, Aromatic Additive and Base Oil Aromatic provide formulation information and should correlate with new oil data. Amine antioxidants and Phenolic antioxidants are oxidation inhibitors with data expressed in indexing numbers.

FTIR results for this sample indicate no significant lubricant degradation and a strong correlation to both reference and trend data.

Particle Count by ISO 4406

ADDITIONAL TESTS							
Date		09/24/2013	08/28/2013	07/30/2013			
Lab No	Reference	1058809	1044989	1032917			
ISO CODE	18/16/14	16/15/11	14/13/9	17/16/12			
>4 Micron	2500	572	124	1,020			
>6 Micron	640	222	48	396			
>14 Micron	160	16	3	30			
>50 Micron	0	0	0	1			
>100 Micron	0	0	0	0			

Using the fluid flow decay principle, oil is passed through a calibrated screen and particles are classified according to their size in microns. The raw data is then converted to an ISO code using ISO 4406.

Particle count data for this sample indicates a very low level of particulate contamination and is below the alarm of 18/16/14.

Color by ASTM D1500

ADDITIONAL TESTS								
Date		09/24/2013						
Lab No	Reference	1058809						
Color		<4.0						

Color analysis is a simple quantification of the oil's appearance. There are no pass or fail specifications. The results are used as a comparison to new oil or trend data.

Foam Test by ASTM D892

ADDITIONAL TESTS								
Date		09/24/2013						
Lab No	Reference	1058809						
Foam Test (Sec.)	<250 s	0 / 0 / 0						

Foaming tendency is a measurement of the relative resistance to foaming exhibited by the oil. Air introduced into the oil sample should generate no more than 450 ml of foam after 5 minutes, and the foam should dissipate after a 10 minute settling period and ideally less than 250 seconds.

This sample did not generate a foam layer during testing. This is considered an acceptable result.

Rotating Pressure Vessel Oxidation Test by ASTM D2272

ADDITIONAL TESTS								
Date		09/24/2013						
Lab No	Reference	1058809						
RPVOT (Mins.)	>200	886						

The RPVOT test accelerates the oxidation process in order to evaluate the oil's remaining ability to resist oxidation, with the result expressed in minutes. Generally, an oil's condemning limit is 25% of new oil value, with an absolute lower limit of 200 minutes.

The RPVOT result for this sample was 886 minutes, indicating a healthy antioxidant additive package.

Rust Test by ASTM D665 A

ADDITIONAL TESTS								
Date		09/24/2013						
Lab No	Reference	1058809						
Rust	Pass	PASS						

The rust test is an indication of the rust preventing characteristics of inhibited mineral oil in the presence of distilled water. A portion of the sampled oil is mixed with water. A steel test rod is placed in the mixture and is agitated by stirring. The test duration is 4 hours after which the steel rod is inspected for the presence of rust. A passing result is the absence of rust on the steel rod.

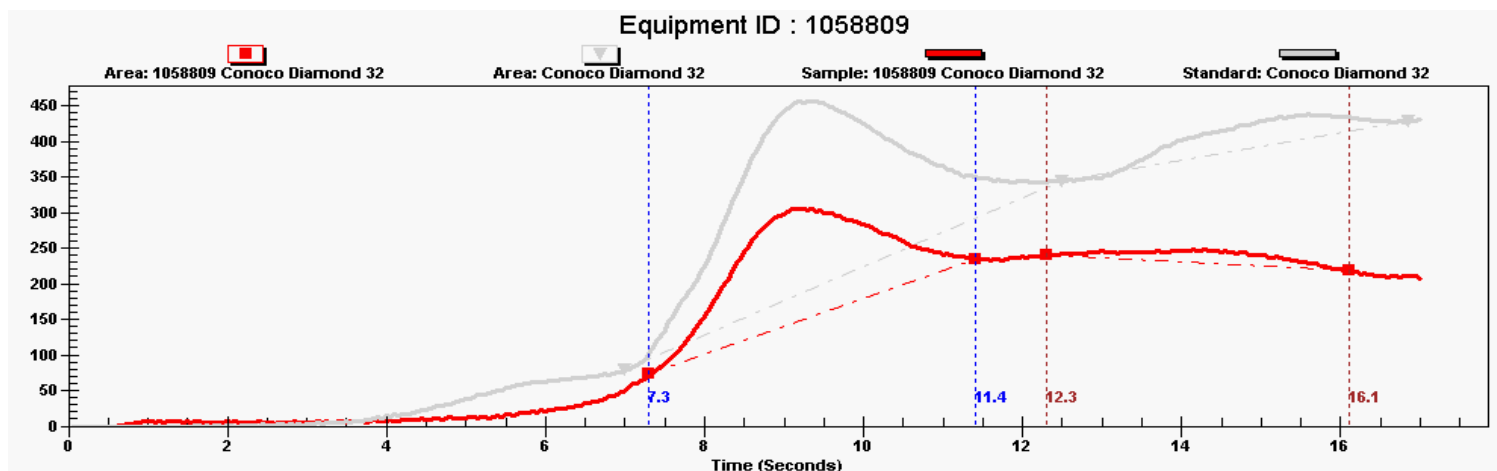
This sample received a result of Pass - Clean indicating excellent rust preventing characteristics.

RULER

VARNISH POTENTIAL ANALYSIS								
Date		09/24/2013						
Lab No	Reference	1058809						
Amine		49						
Phenolic		44						

The RULER accurately measures the remaining active antioxidants in the lubricant. Antioxidants are the most important additive components in many lubricants including turbine, hydraulic, compressor and aerospace fluids. The RULER number represents the concentration of the antioxidants monitored relative to a new oil.

This sample tested at 49% for Amines and 44% Phenolics. This is an acceptable result and indicates a healthy active antioxidant additive package.



Water by Karl Fisher by ASTM D6304

CONTAMINATION								
Date		09/24/2013	08/28/2013					
Lab No	Reference	1058809	1044989					
Water ppm	<0.05	40	20					

Karl Fischer titration is a direct measurement of water in a lubricating oil. Water is considered to be the most destructive of contaminants causing accelerated oil degradation and corrosion to system components. Also, excessive water in large static reservoirs can lead to microbial growth. The presence of water can severely alter the load carrying capacity of a lubricant. Industrial specifications set the warning limit for turbines at 0.1% or 1000 ppm.

The water result for this sample was: 0.004% (40 ppm). This is considered an acceptable result.

Ultra Centrifuge Test

VARNISH POTENTIAL ANALYSIS								
Date		09/24/2013						
Lab No	Reference	1058809						
Ultra Centrifuge	<5	2						

A small amount of oil in a test tube is run for 30 minutes at 17,000 RPM in an ultra centrifuge. By subjecting the sample to significant G-forces, we are able to extract insoluble contaminants that are much too small to be detected by normal particle counting. The amount of the agglomerated material is compared to a rating scale to derive the UC Value (1-8). When the UC Value exceeds 4, a marginal condition is noted. A UC value exceeding 6 is considered to be a critical result.

This sample received an Ultra Centrifuge rating of 2 indicating an acceptable result.



Membrane Patch Colorimetry

VARNISH POTENTIAL ANALYSIS								
Date		09/24/2013						
Lab No	Reference	1058809						
MPC Value	< 23	14						

The process of making a patch isolates and agglomerates insoluble by-products associated with varnish. The color of the membrane patch provides a guideline as to the extent of varnish potential. Generally a value over 23 is considered abnormal.

This sample received a color result of 14. This is below the alarm limit of 23 and is considered to be an acceptable result.

