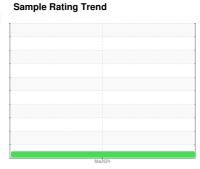


OIL ANALYSIS REPORT





Machine Id **UNIT A** Component **Diesel Engine**

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the

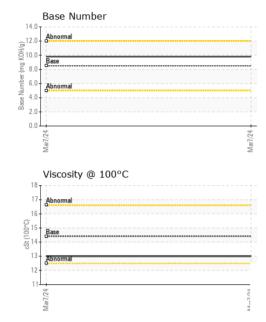
Fluid Condition

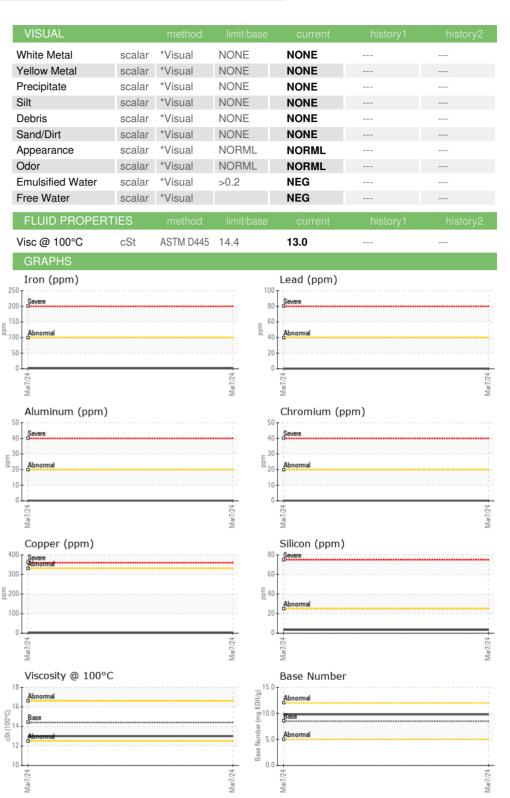
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Cample Number Client Info WC0448671							
Client Info					Mar2024		
Client Info	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Cample Date Client Info 07 Mar 2024	Sample Number		Client Info		WC0448671		
Machine Age			Client Info		07 Mar 2024		
Dil Age	•	hrs	Client Info		563		
Contamped Client Info Not Change Companies Contamped Client Info Normal Contamped Co	-	hrs	Client Info				
CONTAMINATION method limit/base current history1 history2			Client Info				
Water WC Method So. NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG	Sample Status						
Water Glycol WC Method WC Method >0.2 NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 1 Chromium ppm ASTM D5185m >20 <1	CONTAMINATION	V	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 1 Chromium ppm ASTM D5185m >20 <1	Water		WC Method	>0.2	NEG		
ASTM D5185m STM D5185m ST	Glycol		WC Method		NEG		
ASTM D5185m >20	WEAR METALS		method	limit/base	current	history1	history2
ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m DO	ron	ppm	ASTM D5185m	>100	1		
Description	Chromium	ppm	ASTM D5185m	>20	<1		
Saliver	Nickel	ppm		>4	0		
ASTM D5185m >20	Fitanium -	ppm	ASTM D5185m		0		
December December	Silver	ppm	ASTM D5185m	>3	0		
Act	Aluminum	ppm	ASTM D5185m	>20	<1		
Acade Acad	_ead	ppm	ASTM D5185m	>40	0		
ASTM D5185m Pop	Copper	ppm	ASTM D5185m	>330	2		
ADDITIVES		ppm	ASTM D5185m	>15	<1		
ADDITIVES	/anadium	ppm	ASTM D5185m		0		
Soron ppm ASTM D5185m 250 4	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 100 58 Manganese ppm ASTM D5185m 450 935 Magnesium ppm ASTM D5185m 3000 1023 Calcium ppm ASTM D5185m 1150 1035 Phosphorus ppm ASTM D5185m 1350 1194 Zinc ppm ASTM D5185m 1350 1194 Sulfur ppm ASTM D5185m 4250 3541 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 Potassium ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 Soot % *ASTM D7844 <td< td=""><td>Boron</td><td>ppm</td><td>ASTM D5185m</td><td>250</td><th>4</th><td></td><td></td></td<>	Boron	ppm	ASTM D5185m	250	4		
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 450 935 Calcium ppm ASTM D5185m 3000 1023 Phosphorus ppm ASTM D5185m 1150 1035 Zinc ppm ASTM D5185m 1350 1194 Sulfur ppm ASTM D5185m 4250 3541 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 Sodium ppm ASTM D5185m >158 <1	Barium	ppm	ASTM D5185m	10	0		
Magnesium ppm ASTM D5185m 450 935 Calcium ppm ASTM D5185m 3000 1023 Phosphorus ppm ASTM D5185m 1150 1035 Zinc ppm ASTM D5185m 1350 1194 Sulfur ppm ASTM D5185m 4250 3541 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 Sodium ppm ASTM D5185m >158 <1	Molybdenum	ppm	ASTM D5185m	100	58		
Calcium ppm ASTM D5185m 3000 1023 Phosphorus ppm ASTM D5185m 1150 1035 Zinc ppm ASTM D5185m 1350 1194 Sulfur ppm ASTM D5185m 4250 3541 CONTAMINANTS method limit/base current history1 history2 Soliicon ppm ASTM D5185m >25 3 Soliicon ppm ASTM D5185m >158 <1	Manganese	ppm	ASTM D5185m		<1		
Phosphorus ppm ASTM D5185m 1150 1035 Zinc ppm ASTM D5185m 1350 1194 Sulfur ppm ASTM D5185m 4250 3541 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 Godium ppm ASTM D5185m >158 <1 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0 Sulfation Abs/.1mm *ASTM D7415 >30 17.5 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM	Magnesium	ppm	ASTM D5185m	450	935		
Time	Calcium	ppm	ASTM D5185m	3000	1023		
Sulfur ppm ASTM D5185m 4250 3541 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 Sodium ppm ASTM D5185m >158 <1 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0 Sulfation Abs/cm *ASTM D7624 >20 4.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 12.8	Phosphorus	ppm	ASTM D5185m	1150	1035		
Sulfur ppm ASTM D5185m 4250 3541 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 Sodium ppm ASTM D5185m >158 <1 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Goot % % *ASTM D7844 >3 0 Sulfation Abs/.1mm *ASTM D7624 >20 4.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 12.8			ASTM D5185m	1350	1194		
Solition ppm ASTM D5185m >25 3	Sulfur	ppm	ASTM D5185m	4250	3541		
Sodium	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0 Nitration Abs/cm *ASTM D7624 >20 4.6 Sulfation Abs/.1mm *ASTM D7415 >30 17.5 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 12.8	Silicon	ppm	ASTM D5185m	>25	3		
INFRA-RED	Sodium	ppm	ASTM D5185m	>158	<1		
Soot %	Potassium	ppm	ASTM D5185m	>20	0		
Nitration Abs/cm *ASTM D7624 >20 4.6 Sulfation Abs/.1mm *ASTM D7415 >30 17.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 12.8	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 17.5 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 12.8	Soot %	%	*ASTM D7844	>3	0		
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 12.8	Nitration	Abs/cm	*ASTM D7624	>20	4.6		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30			
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 8.5 9.8	Oxidation	Abs/.1mm	*ASTM D7414	>25	12.8		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.8		



OIL ANALYSIS REPORT









Laboratory Sample No.

Lab Number : 06125553 Unique Number: 10939704

: WC0448671

Received **Tested** Diagnosed

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 21 Mar 2024 : 22 Mar 2024

: 22 Mar 2024 - Wes Davis

Test Package : MOB 1 (Additional Tests: TBN)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

NATIONAL POWER CORP

4541 PRESLYN DR RALEIGH, NC US 27616

Contact: ANDREW RANDALL andrew.randall@natpow.com

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Report Id: NATRAL [WUSCAR] 06125553 (Generated: 03/22/2024 15:44:21) Rev: 1

Contact/Location: ANDREW RANDALL - NATRAL