



# OIL ANALYSIS REPORT

Sample Rating Trend

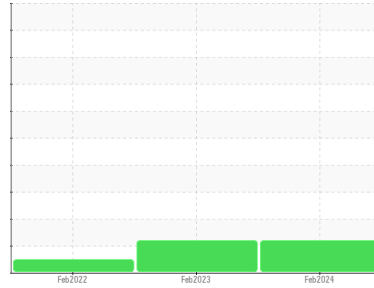
FUEL



Machine Id  
**LYNDON GEN 01 - 3000372175**

Component  
**Diesel Engine**

Fluid  
**NAPA Motor Oil 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0894390</b>	WC0771551	WC0637069
Sample Date	Client Info	<b>22 Feb 2024</b>	08 Feb 2023	09 Feb 2022
Machine Age	hrs	<b>220</b>	188	157
Oil Age	hrs	<b>24</b>	22	24
Oil Changed	Client Info	<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status		<b>ABNORMAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>1</b>	2	2
Chromium	ppm ASTM D5185m >20	<b>0</b>	0	0
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >20	<b>2</b>	1	1
Lead	ppm ASTM D5185m >40	<b>0</b>	<1	1
Copper	ppm ASTM D5185m >330	<b>4</b>	8	3
Tin	ppm ASTM D5185m >15	<b>0</b>	0	<1
Antimony	ppm ASTM D5185m	<b>---</b>	---	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>70</b>	317	408
Barium	ppm ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m	<b>58</b>	90	90
Manganese	ppm ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m	<b>53</b>	271	454
Calcium	ppm ASTM D5185m	<b>2015</b>	1499	1348
Phosphorus	ppm ASTM D5185m	<b>943</b>	830	829
Zinc	ppm ASTM D5185m	<b>1062</b>	966	930
Sulfur	ppm ASTM D5185m	<b>3521</b>	3019	2436

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	6	5
Sodium	ppm ASTM D5185m	<b>2</b>	1	3
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	1	1
Fuel	% ASTM D3524 >5	<b>▲ 7.0</b>	▲ 6.8	<1.0

## INFRA-RED

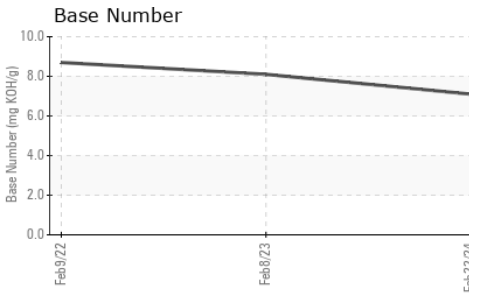
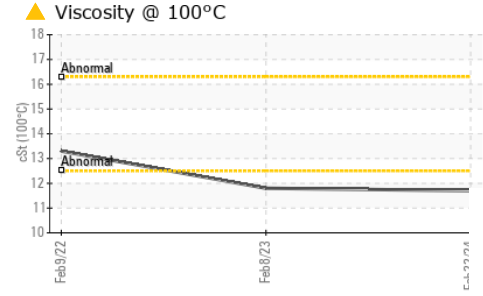
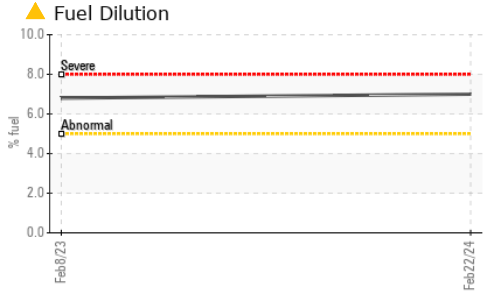
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0.1	0
Nitration	Abs/cm *ASTM D7624 >20	<b>7.0</b>	6.4	4.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>16.7</b>	18.7	21.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>12.8</b>	14.6	17.6
Base Number (BN)	mg KOH/g ASTM D2896	<b>7.1</b>	8.1	8.7



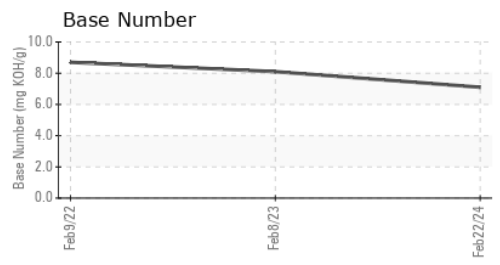
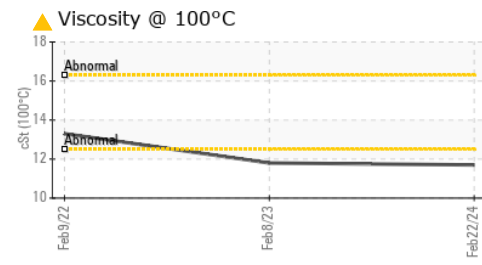
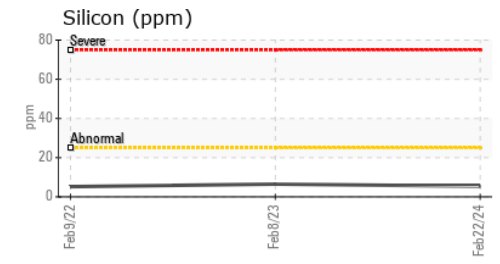
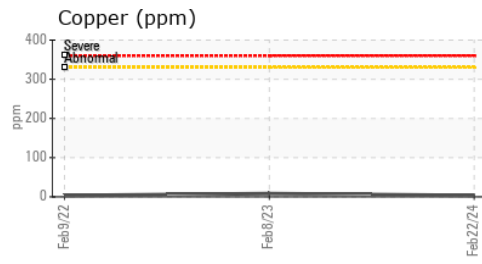
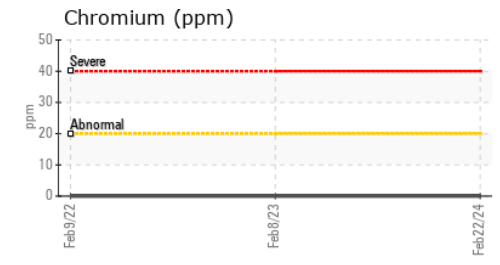
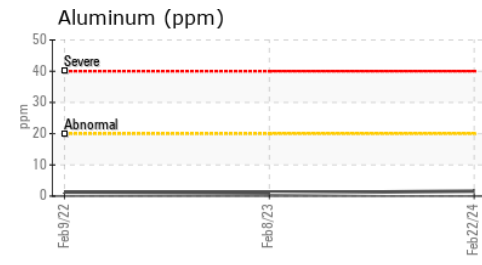
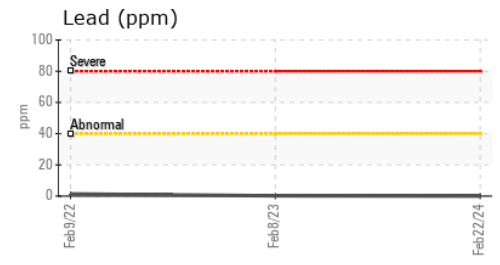
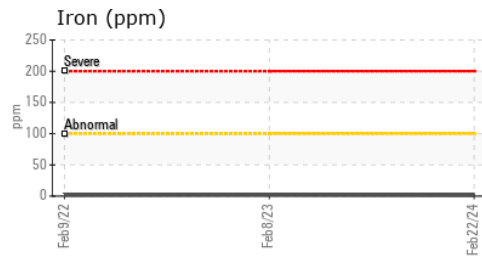
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	▲ 11.7	▲ 11.8	13.3

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0894390      **Received** : 27 Feb 2024  
**Lab Number** : 06101320      **Tested** : 29 Feb 2024  
**Unique Number** : 10899550      **Diagnosed** : 29 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel, TBN )

**NATIONAL POWER CORP**  
 4541 PRESLYN DR  
 RALEIGH, NC  
 US 27616  
 Contact: BRANDON RICE  
 brandon.rice@natpow.com

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)

T: (919)790-9714