



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**RIG 252**  
 Machine Id  
**R252-DW**  
 Component  
**Gearbox**  
 Fluid  
**{not provided} (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### ▲ Contamination

There is a high amount of particulates present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>KL0013951</b>	---	---
Sample Date	Client Info			<b>05 Jan 2024</b>	---	---
Machine Age	hrs	Client Info		<b>0</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed	Client Info			<b>N/A</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>76</b>	---	---
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	---	---
Lead	ppm	ASTM D5185m	>50	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>200	<b>2</b>	---	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>1</b>	---	---
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	---	---
Manganese	ppm	ASTM D5185m		<b>2</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>6</b>	---	---
Calcium	ppm	ASTM D5185m		<b>15</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>661</b>	---	---
Zinc	ppm	ASTM D5185m		<b>18</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>1578</b>	---	---

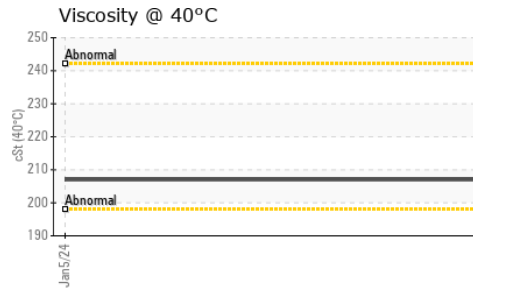
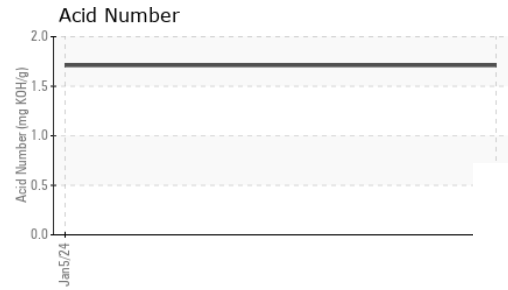
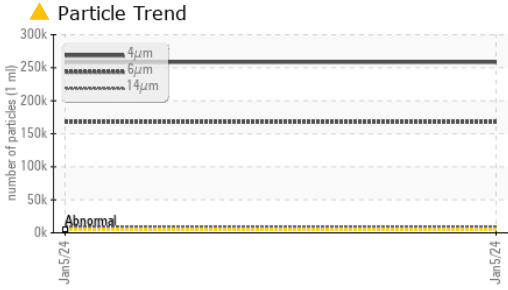
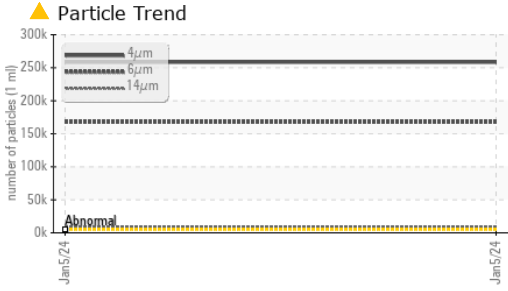
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>15</b>	---	---
Sodium	ppm	ASTM D5185m		<b>4</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ <b>258402</b>	---	---
Particles >6µm		ASTM D7647	>1300	▲ <b>167663</b>	---	---
Particles >14µm		ASTM D7647	>160	▲ <b>9117</b>	---	---
Particles >21µm		ASTM D7647	>40	▲ <b>940</b>	---	---
Particles >38µm		ASTM D7647	>10	<b>5</b>	---	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ <b>25/25/20</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.71</b>	---	---



# OIL ANALYSIS REPORT



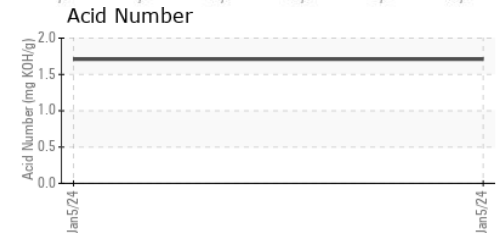
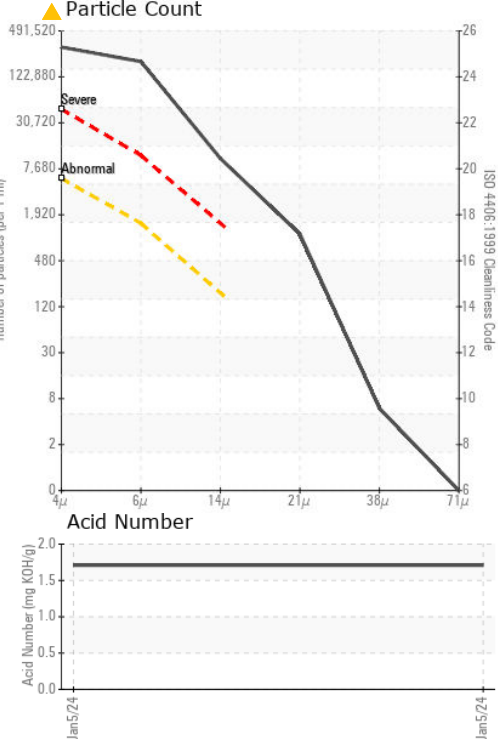
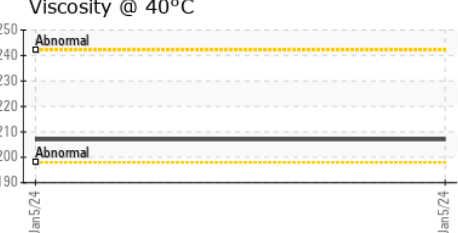
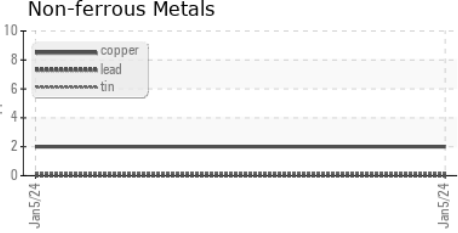
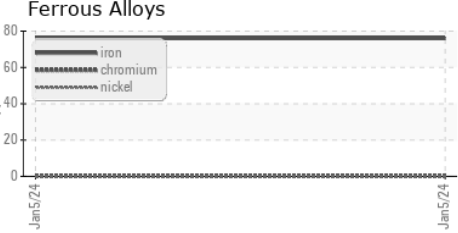
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	207	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

Color				no image	no image
Bottom				no image	no image

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013951 **Received** : 10 Jan 2024  
**Lab Number** : 06056635 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822584 **Diagnostician** : Doug Bogart  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

**PATTERSON - UTI DRILLING**  
 9915 WEST INDUSTRIAL  
 MIDLAND, TX  
 US 79706  
 Contact: RICKY MATA  
 ricky.mata@patenergy.com  
 T: (832)219-4559  
 F: (432)561-9388

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)