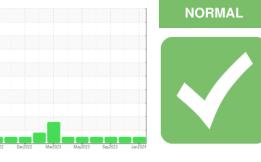


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

18130B/E74 Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

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

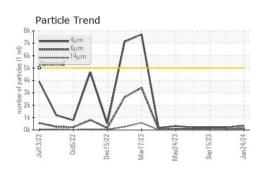
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PTK0005487	PTK0005109	PTK0004687
Sample Date		Client Info		24 Jan 2024	20 Nov 2023	15 Sep 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<1	0	0
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	0	0	0
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>20	11	11	10
Tin	ppm	ASTM D5185m	>20	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	25	1	0	2
Calcium	ppm	ASTM D5185m	200	27	26	28
	ppm	ASTM D5185m	300	277	296	270
Zinc	ppm	ASTM D5185m	370	329	345	317
Sulfur	ppm	ASTM D5185m	2500	785	727	647
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	0	<1	0
Sodium	ppm	ASTM D5185m		<1	0	0
Potassium		ACTM DE10Em				0
	ppm	ASTM D5185m	>20	<1	0	0
FLUID CLEANLINE		method	>20 limit/base	<1 current	0 history1	history2
Particles >4µm				current 334	history1 202	history2 225
Particles >4μm Particles >6μm		method	limit/base >5000 >1300	current 334 122	history1 202 59	history2 225 70
Particles >4μm Particles >6μm Particles >14μm		method ASTM D7647 ASTM D7647 ASTM D7647	limit/base >5000 >1300 >160	current 334 122 15	history1 202 59 7	history2 225 70 7
Particles >4µm Particles >6µm Particles >14µm Particles >21µm		method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >5000 >1300 >160 >40	current 334 122 15 6	history1 202 59 7 3	history2 225 70 7 3
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm		method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >5000 >1300 >160 >40 >10	current 334 122 15 6 1	history1 202 59 7 3 0	history2 225 70 7 3 0
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm		method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >5000 >1300 >160 >40 >10 >3	current 334 122 15 6 1 0	history1 202 59 7 3 0 0	history2 225 70 7 3 0 0
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm		method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >5000 >1300 >160 >40 >10	current 334 122 15 6 1	history1 202 59 7 3 0	history2 225 70 7 3 0
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	SS	method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >5000 >1300 >160 >40 >10 >3	current 334 122 15 6 1 0	history1 202 59 7 3 0 0	history2 225 70 7 3 0 0

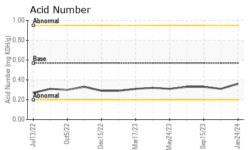
Report Id: NORCOTMN [WUSCAR] 06148651 (Generated: 04/16/2024 09:32:42) Rev: 1

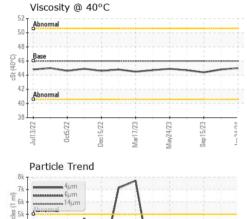
Contact/Location: ELISE MARBLE - NORCOTMN



OIL ANALYSIS REPORT







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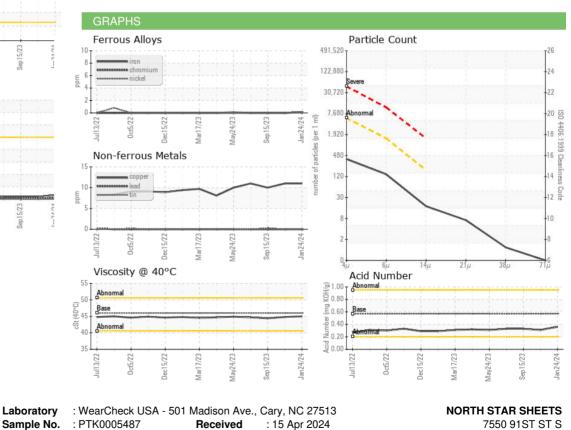
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B

scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NORML	NORML	NORML	NORML
scalar	*Visual	NORML	NORML	NORML	NORML
scalar	*Visual	>0.05	NEG	NEG	NEG
scalar	*Visual		NEG	NEG	NEG
IES	method	limit/base	current	history1	history2
cSt	ASTM D445	46	45.0	44.8	44.4
3	method	limit/base	current	history1	history2
	scalar scalar scalar scalar scalar scalar scalar scalar scalar	scalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visualscalar*Visual	scalar*VisualNONEscalar*VisualNONEscalar*VisualNONEscalar*VisualNONEscalar*VisualNORMLscalar*VisualNORMLscalar*VisualNORMLscalar*VisualNORMLscalar*VisualNORMLscalar*VisualNORMLscalar*VisualSolos	scalar*VisualNONENONEscalar*VisualNONENONEscalar*VisualNONENONEscalar*VisualNONENONEscalar*VisualNONENONEscalar*VisualNORMLNORMLscalar*VisualNORMLNORMLscalar*VisualNORMLNORMLscalar*Visual>0.05NEGscalar*VisualImit/basecurrentcStASTM D4454645.0	scalar*VisualNONENONENONEscalar*VisualNONENONENONEscalar*VisualNONENONENONEscalar*VisualNONENONENONEscalar*VisualNONENONENONEscalar*VisualNONENONENONEscalar*VisualNORMLNORMLNORMLscalar*VisualNORMLNORMLNORMLscalar*Visual>0.05NEGNEGscalar*VisualImit/basecurrenthistory1cStASTM D4454645.044.8

Bottom



Lab Number : 06148651 : 16 Apr 2024 COTTAGE GROVE, MN Unique Number : 10978729 Diagnosed : 16 Apr 2024 - Wes Davis Test Package : MOB 2 Contact: ELISE MARBLE Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. emarble@northstarsheets.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (651)888-8506 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Tested

Report Id: NORCOTMN [WUSCAR] 06148651 (Generated: 04/16/2024 09:32:42) Rev: 1

Sep15/23

Laboratory

May24/23

Contact/Location: ELISE MARBLE - NORCOTMN

F:

US 55016