

OIL ANALYSIS REPORT

Area STEEL & PIPE SUPPLY HOUSTON TX Machine Id STRETCHER

Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (500 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

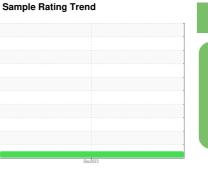
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

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





NORMAL

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PH0001744		
Sample Date		Client Info		07 Dec 2023		
Machine Age	yrs	Client Info		2		
Oil Age	yrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATIO	٧	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	0		
Chromium	ppm	ASTM D5185m	>20	0		
Nickel	ppm	ASTM D5185m	>20	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>20	0		
Lead	ppm	ASTM D5185m	>20	0		
Copper	ppm	ASTM D5185m	>20	10		
Tin	ppm	ASTM D5185m	>20	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0		
Barium	ppm	ASTM D5185m	5	0		
Molybdenum	ppm	ASTM D5185m	5	0		
Manganese	ppm	ASTM D5185m		0		
Magnesium	ppm	ASTM D5185m	25	<1		
Calcium						
Calcium	ppm	ASTM D5185m	200	45		
Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	200 300	45 306		
				-		
Phosphorus	ppm	ASTM D5185m	300	306		
Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m	300 370	306 423		
Phosphorus Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	300 370 2500 limit/base	306 423 666		
Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	300 370 2500 limit/base >15	306 423 666 current		
Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	300 370 2500 limit/base >15	306 423 666 current 0		
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	300 370 2500 limit/base >15	306 423 666 current 0 <1		
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	300 370 2500 limit/base >15 >20	306 423 666 current 0 <1 0	 history1 	 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	300 370 2500 limit/base >15 >20 limit/base	306 423 666 current 0 <1 0 current	 history1 history1	 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	300 370 2500 limit/base >15 >20 limit/base >10000	306 423 666 current 0 <1 0 current 2730	 history1 history1 	 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D7647 ASTM D7647	300 370 2500 limit/base >15 >20 limit/base >10000 >2500	306 423 666 current 0 <1 0 current 2730 169	 history1 history1 	 history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D7647 ASTM D7647 ASTM D7647	300 370 2500 limit/base >15 >20 limit/base >200 >10000 >2500 >320	306 423 666 current 0 <1 0 current 2730 169 10	 history1 history1 	 history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	300 370 2500 limit/base >15 >20 limit/base >10000 >2500 >320 >320 >80 >20	306 423 666 current 0 <1 0 current 2730 169 10 2	 history1 history1 	 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	300 370 2500 limit/base >15 >20 limit/base >10000 >2500 >320 >320 >80 >20	306 423 666 current 0 <1 0 current 2730 169 10 2 0	 history1 history1 history1 	 history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ESS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	300 370 2500 limit/base >15 >20 limit/base >10000 >2500 >320 >320 >80 >20 >4	306 423 666 current 0 <1 0 current 2730 169 10 2 0 0 0	 history1 history1 history1 	 history2 history2 history2

Report Id: PARMET [WUSCAR] 06055364 (Generated: 01/15/2024 20:24:48) Rev: 1

Contact/Location: JAY GRONBACH - PARMET



OIL ANALYSIS REPORT

scalar

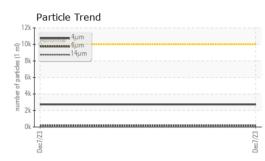
*Visual

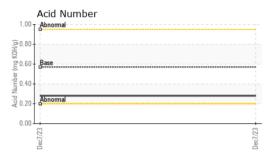
scalar *Visual

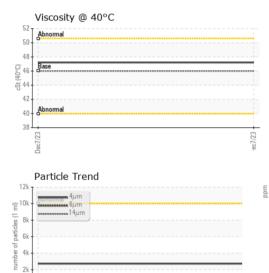
VISUAL

White Metal

Yellow Metal







21 0k Dec7/23

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ellow ivietal	scalar	visual	NONE	NONE		
recipitate	scalar	*Visual	NONE	NONE		
ilt	scalar	*Visual	NONE	NONE		
ebris	scalar	*Visual	NONE	NONE		
and/Dirt	scalar	*Visual	NONE	NONE		
ppearance	scalar	*Visual	NORML	NORML		
dor	scalar	*Visual	NORML	NORML		
mulsified Water	scalar	*Visual	>0.05	NEG		
ree Water	scalar	*Visual		NEG		
FLUID PROPERT	IES	method	limit/base	current	history1	history2
isc @ 40°C	cSt	ASTM D445	46	47.2		
SAMPLE IMAGES	6	method	limit/base	current	history1	history2
olor				•	no image	no image
ottom					no image	no image
rtFilter					no image	no image
GRAPHS						
Ferrous Alloys			000000	Particle Coun	t	1.22
iron			491,520			T ²⁶
chromium			122,880	Severe		-24
			30,72			-22
2			ST = 7,68	Abnormal		-20
Dec7/23			060,7 Dec7/23.			-20 -18 -16 -14 -12
			Sa	1		10
Non-ferrous Metal	s		ited 480			-10
copper			120 120			-14
assasses lead			III 31		\	-12
				3-		-10
/23			/23	2		-8
Dec7			ecl			
Viscosity @ 40°C				0 4μ 6μ	14µ 21µ	38µ 71µ
• _			Ê ¥1.00	Acid Number		
Abnormal Base			d KO	Race		
Base O			b 0.50	Base		
Abnormal			10.0 (mg K0H/g)	Abnormal		
			Acid Acid	23		C C C
Dec7/23			Dec7/23 A	Dec7/23		
6055364	i01 Madii Recieved Diagnos Diagnosi	d :09. ed :15.	ry, NC 27513 Jan 2024 Jan 2024 Ig Bogart	3 PARKEF	R Hannifin Corp 501 MAD	DRATION-OIL LA ISON AVENUI CARY, NO US 2751

NONE

NONE

NONE

NONE

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

ppm

cSt (40°C)

Laboratory

Sample No.

Lab Number **Unique Number**

* - 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)

Certificate L2367

Contact/Location: JAY GRONBACH - PARMET

T:

F:

jay.gronbach@parker.com