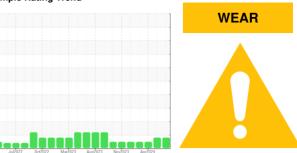


OIL ANALYSIS REPORT

Sample Rating Trend



{UNASSIGNED} P-5220-E (S/N GP 37001)

Component Pump

ROYAL PURPLE SYNDRAULIC 68 (1 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

The copper level is abnormal. All other component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

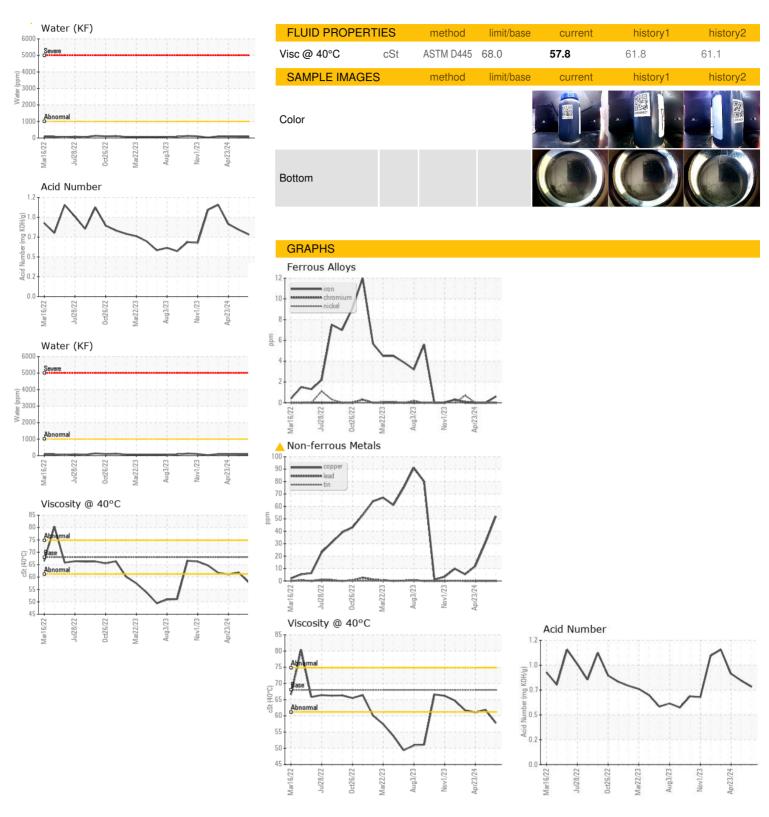
Fluid Condition

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

Sample Number Client Info RP0045860 RP0044427 RP0043923 Sample Date Client Info 10 Jul 2024 30 May 2024 23 Apr 2024			lar2022 Ju	12022 Oct2022 Mar2	023 Aug ² 023 Nov ² 023	Apr2024	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 18026 17969 17912	Sample Number		Client Info		RP0045860	RP0044427	RP0043923
Oil Age hrs Client Info 1648 1591 7534 Oil Changed Client Info N/A Not Changd	Sample Date		Client Info		10 Jul 2024	30 May 2024	23 Apr 2024
Cilic Nanged Cilient Info N/A ABNORMAL ABNOR	Machine Age	hrs	Client Info		18026	17969	17912
MEAR METALS	Oil Age	hrs	Client Info		1648	1591	7534
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >90 <1	Oil Changed		Client Info		N/A	Not Changd	Not Changd
Iron	Sample Status				ABNORMAL	ABNORMAL	NORMAL
Chromium ppm ASTM D5185m >5 0 0 0 Nickel ppm ASTM D5185m >5 0 0 0 Titanium ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >3 0 0 <1 Aluminum ppm ASTM D5185m >7 0 0 0 Lead ppm ASTM D5185m >12 0 0 0 Copper ppm ASTM D5185m >9 0 <1 0 Vanadium ppm ASTM D5185m 9 0 <1 0 Vanadium ppm ASTM D5185m 0 0 <1 0 Cadmium ppm ASTM D5185m 0 0 0 0 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 <	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Iron	ppm	ASTM D5185m	>90	<1	0	0
Titanium ppm ASTM D5185m >3 0 0 0 <1 ASTM D5185m >3 0 0 <1 ASTM D5185m >7 0 0 <1 ASTM D5185m >7 0 0 0 <1 0	Chromium	ppm	ASTM D5185m	>5	0	0	0
Silver	Nickel	ppm	ASTM D5185m	>5	0	0	0
Aluminum ppm ASTM D5185m >77 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Titanium	ppm	ASTM D5185m	>3	0	0	0
Lead ppm ASTM D5185m >12 0 0 0 Copper ppm ASTM D5185m >30 ▲ 52 ▲ 31 12 Tin ppm ASTM D5185m >9 0 <1 0 Vanadium ppm ASTM D5185m 0 0 <1 0 ADITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Boron ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 <1 0 0 Magnesium ppm ASTM D5185m 76 93 106 0 Phosphorus ppm ASTM D5185m 76 93 106 0 Zinc ppm ASTM D5185m 720 728 706	Silver	ppm	ASTM D5185m	>3	0	0	<1
Copper ppm ASTM D5185m >30 ▲ 52 ▲ 31 12 Tin ppm ASTM D5185m >9 0 <1	Aluminum	ppm	ASTM D5185m	>7	0	0	0
Tin	Lead	ppm	ASTM D5185m	>12	0	0	0
Name	Copper	ppm	ASTM D5185m	>30	<u>^</u> 52	△ 31	12
Vanadium ppm ASTM D5185m 0 0 <1 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 1 0 0 Magnesium ppm ASTM D5185m 76 93 106 0 Phosphorus ppm ASTM D5185m 728 706 783 106 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >60 <1 <1 <1 <2 Potassium ppm ASTM D5185m >20 <1 0	• •		ASTM D5185m	>9	0	<1	0
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 1 0 0 Magnesium ppm ASTM D5185m 0 1 0 0 Magnesium ppm ASTM D5185m 0 1 0 1 0 Calcium ppm ASTM D5185m 76 93 106 1 0 Phosphorus ppm ASTM D5185m 728 706 783 706 783 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >60 <1 <1 <1 2 Potassium ppm ASTM D518	Vanadium		ASTM D5185m		0	0	<1
Boron	Cadmium		ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m		0	0	0
Manganese ppm ASTM D5185m 0 <1 0 Magnesium ppm ASTM D5185m 76 93 106 Phosphorus ppm ASTM D5185m 575 570 604 Zinc ppm ASTM D5185m 5728 706 783 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >60 <1	Barium	ppm	ASTM D5185m		0	0	0
Magnesium ppm ASTM D5185m 0 1 0 Calcium ppm ASTM D5185m 76 93 106 Phosphorus ppm ASTM D5185m 575 570 604 Zinc ppm ASTM D5185m 728 706 783 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >60 <1	Molybdenum	ppm	ASTM D5185m		0	0	0
Calcium ppm ASTM D5185m 76 93 106 Phosphorus ppm ASTM D5185m 575 570 604 Zinc ppm ASTM D5185m 728 706 783 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >60 <1	Manganese	ppm	ASTM D5185m		0	<1	0
Phosphorus ppm ASTM D5185m 575 570 604 Zinc ppm ASTM D5185m 728 706 783 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >60 <1 <1 <1 2 Sodium ppm ASTM D5185m 1 1 1 2 2 Potassium ppm ASTM D5185m >20 <1 0 0 0 Water % ASTM D6304 >.1 0.007 0.008 0.009 ppm Water ppm ASTM D6304 >.1 0.007 0.008 0.009 ppm Water ppm ASTM D6304 >.1000 77 81 92 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOHlg ASTM D8045 0.75 0.81 0.877 VISUAL method	Magnesium	ppm	ASTM D5185m		0	1	0
Phosphorus	Calcium		ASTM D5185m		76	93	106
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >60 <1	Phosphorus	ppm	ASTM D5185m		575	570	604
Silicon	Zinc	ppm	ASTM D5185m		728	706	783
Sodium	CONTAMINANTS	5	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 0 0 Water % ASTM D6304 >.1 0.007 0.008 0.009 ppm ASTM D6304 >.1000 77 81 92 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.75 0.81 0.877 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NORML NORML NORML NORML NORML Appearance scalar *Visual NORML	Silicon	ppm	ASTM D5185m	>60	<1	<1	<1
Water % ASTM D6304 >.1 0.007 0.008 0.009 ppm Water ppm ASTM D6304 >1000 77 81 92 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.75 0.81 0.877 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >.1 NEG NEG NEG	Sodium	ppm	ASTM D5185m		1	1	2
ppm Water ppm ASTM D6304 >1000 77 81 92 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.75 0.81 0.877 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NORM NORML NORML NORML Appearance scalar *Visual NORML NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water <	Potassium	ppm	ASTM D5185m	>20	<1	0	0
FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.75 0.81 0.877 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >.1 NEG NEG NEG	Water	%	ASTM D6304	>.1	0.007	0.008	0.009
Acid Number (AN) mg KOH/g ASTM D8045 0.75 0.81 0.877 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >.1 NEG NEG NEG	ppm Water	ppm	ASTM D6304	>1000	77	81	92
VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >.1 NEG NEG NEG	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >.1 NONE NORE NORML NORML NORML NORML NORML NORML NORML	Acid Number (AN)	mg KOH/g	ASTM D8045		0.75	0.81	0.877
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>.1NEGNEGNEG	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >.1 NEG NEG NEG	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >.1 NEG NEG NEG	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >.1 NEG NEG NEG	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>.1NEGNEGNEG	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>.1NEGNEGNEG	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Odor scalar *Visual NORML NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >.1 NEG NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >.1 NEG NEG NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
······································	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG /Locquege: Team SurnEEABO	Emulsified Water	scalar	*Visual	>.1	NEG		
	Free Water	scalar	*Visual		NEG	/Location: Team	SurNEEABO



OIL ANALYSIS REPORT







Certificate 12367

Laboratory

Sample No. Lab Number : 06236117 Unique Number : 11124951

: RP0045860 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

Diagnosed

: 16 Jul 2024 : 17 Jul 2024 - Jonathan Hester

: 15 Jul 2024

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)

TEAM SUR S.A.S.

BOGOTA, CO

Contact: Team Sur jconde@teamsur.com T: (300)740-0654

Contact/Location: Team Sur - TEABOG

F: