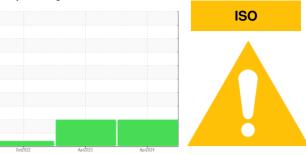


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

DVT 2 Component Hydraulic System

Fluid {not provided} (--- GAL)

DIAGNOSIS

A Recommendation

We recommend you service the filters on this component. 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

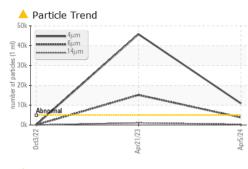
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

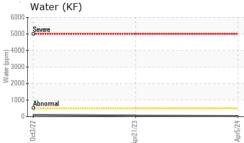
Sample Date Image Client Info 05 Apr 2024 21 Apr 2023 03 Oct 2022 Machine Age hrs Client Info 0 0 0 0 Oil Age hrs Client Info 0 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Client Info N/A N/A N/A N/A WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info N/A N/A N/A Sample Status Image Image N/A ABNORMAL ABNORMAL ATTENTION WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM 05185m >20 <1	Sample Number		Client Info		USP0007883	USP248563	USP242705
Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Image Client Info N/A ABNORMAL ATTENTION WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1	Sample Date		Client Info		05 Apr 2024	21 Apr 2023	03 Oct 2022
Oil Changed Client Info N/A N/A N/A ATTENTION Sample Status Client Info N/A ABNORMAL ATTENTION 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 Silver ppm ASTM D5185m >20 4 0 3 Lead ppm ASTM D5185m >20 4 0 3 Cadmium ppm ASTM D5185m >20 <1 0 0 Cadmium ppm ASTM D5185m >20 <1 0 0 ADDTTVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0	Machine Age	hrs	Client Info		0	0	0
Sample Status method Imit/base current history1 ATTENTION WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1	Oil Age	hrs	Client Info		0	0	0
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1	Oil Changed		Client Info		N/A	N/A	N/A
Iron ppm ASTM D5185m >20 <1	Sample Status				ABNORMAL	ABNORMAL	ATTENTION
Ppm ASTM D5185m >20 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >20 0 0 0 Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m >20 4 0 3 Lead ppm ASTM D5185m >20 0 0 0 Copper ppm ASTM D5185m >20 <1	Iron	ppm	ASTM D5185m	>20	<1	0	<1
Titanium ppm ASTM D5185m <1 0 0 Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >20 4 0 3 Lead ppm ASTM D5185m >20 0 0 0 Copper ppm ASTM D5185m >20 <1	Chromium	ppm	ASTM D5185m	>20	<1	0	0
Titanium ppm ASTM D5185m <1 0 0 Silver ppm ASTM D5185m >20 4 0 3 Lead ppm ASTM D5185m >20 0 0 0 Copper ppm ASTM D5185m >20 <1	Nickel		ASTM D5185m	>20	0	0	0
Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >20 4 0 3 Lead ppm ASTM D5185m >20 0 0 0 Copper ppm ASTM D5185m >20 <1	Titanium		ASTM D5185m		<1	0	0
Aluminum ppm ASTM D5185m >20 4 0 3 Lead ppm ASTM D5185m >20 0 0 0 Copper ppm ASTM D5185m >20 <1	Silver		ASTM D5185m		0	0	0
Lead ppm ASTM D5185m >20 0 0 0 Copper ppm ASTM D5185m >20 <1	Aluminum		ASTM D5185m	>20		0	3
Copper ppm ASTM D5185m >20 <1 <1 <1 Tin ppm ASTM D5185m >20 <1							
Tin ppm ASTM D5185m >20 <1 0 <1 Vanadium ppm ASTM D5185m <1					-		
Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m <1							
Cadmium ppm ASTM D5185m <1 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 Manganese ppm ASTM D5185m 0 <1 0 0 Galcium ppm ASTM D5185m <1 0 <1 9 Phosphorus ppm ASTM D5185m <51 106 288 216 Sulfur ppm ASTM D5185m 51 0 <1 9 Phosphorus ppm ASTM D5185m 20 0 <1 106 Sulfur ppm ASTM D5185m 20 0 <1 105 Solicon ppm ASTM D5185m 20 0 <1 105<							
Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 -1 0 Magnesse ppm ASTM D5185m 0 -1 0 Magnesium ppm ASTM D5185m 0 -1 9 Calcium ppm ASTM D5185m 0 -1 9 Phosphorus ppm ASTM D5185m 51 106 288 Zinc ppm ASTM D5185m 51 106 288 Silicon ppm ASTM D5185m 51 106 2 Solium ppm ASTM D5185m 13 2 3 Potassium ppm ASTM D5185m 13 2 3 Potassium ppm ASTM D5185m 20 3 0 -1 Water % ASTM D5185m 20 3 0 0.103.0.05 P	Cadmium						
Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 <1 0 Magnesium ppm ASTM D5185m <1 2 0 Calcium ppm ASTM D5185m <0 <1 9 Phosphorus ppm ASTM D5185m <0 <1 9 Zinc ppm ASTM D5185m <0 2 6 Sulfur ppm ASTM D5185m <0 2 6 Sulfur ppm ASTM D5185m <1 3 2 3 Sodium ppm ASTM D5185m >15 0 0 <1 Sodium ppm ASTM D5185m >20 3 0 <1 Water % ASTM D5185m >20 3 0 <1 Particles >4µm ASTM D6304 >500 32 57.8	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 <1	Barium	ppm	ASTM D5185m		0	0	0
Magnesium ppm ASTM D5185m <1 2 0 Calcium ppm ASTM D5185m 0 <1	Molybdenum	ppm	ASTM D5185m		0	0	0
Calcium ppm ASTM D5185m 0 <1 9 Phosphorus ppm ASTM D5185m 51 106 288 Zinc ppm ASTM D5185m 0 2 6 Sulfur ppm ASTM D5185m 4 57 1406 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 0 <1	Manganese	ppm	ASTM D5185m		0	<1	0
Phosphorus ppm ASTM D5185m 51 106 288 Zinc ppm ASTM D5185m 0 2 6 Sulfur ppm ASTM D5185m 4 57 1406 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 0 <1 Sodium ppm ASTM D5185m >15 0 0 <1 Sodium ppm ASTM D5185m >20 3 0 <1 Sodium ppm ASTM D5185m >20 3 0 <1 Water % ASTM D5185m >20 3 0 <10 ppm Water ppm ASTM D5185m >20 3 0 <103 Particles >4µm ASTM D7647 >500 32 57.8 103.6 FLUID CLEANLINESS method limit/base current history1 history2 <t< td=""><td>Magnesium</td><td>ppm</td><td>ASTM D5185m</td><td></td><th><1</th><td>2</td><td>0</td></t<>	Magnesium	ppm	ASTM D5185m		<1	2	0
Zinc ppm ASTM D5185m 0 2 6 Sulfur ppm ASTM D5185m 4 57 1406 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 0 <1	Calcium	ppm	ASTM D5185m		0	<1	9
Sulfur ppm ASTM D5185m 4 57 1406 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 0 <1	Phosphorus	ppm	ASTM D5185m		51	106	288
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 0 <1	Zinc	ppm	ASTM D5185m		0	2	6
Silicon ppm ASTM D5185m >15 0 0 <1 Sodium ppm ASTM D5185m >13 2 3 Potassium ppm ASTM D5185m >20 3 0 <1	Sulfur	ppm	ASTM D5185m		4	57	1406
Sodium ppm ASTM D5185m 13 2 3 Potassium ppm ASTM D5185m >20 3 0 <1 Water % ASTM D6304 >0.05 0.003 0.005 0.010 ppm Water ppm ASTM D6304 >500 32 57.8 103.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 ▲ 10849 ▲ 45823 105 Particles >6µm ASTM D7647 >1300 ▲ 3797 ▲ 15156 30 Particles >6µm ASTM D7647 >160 ▲ 332 1059 3 Particles >14µm ASTM D7647 >160 ▲ 332 ▲ 1059 3 Particles >38µm ASTM D7647 >10 2 3 0 Particles >71µm ASTM D7647 >3 0 0 0 OIl Cleanliness ISO 4406 (c) >19/17/14 21/19/16 23/21/17 14/12/9	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 0 <1 Water % ASTM D6304 >0.05 0.003 0.005 0.010 ppm ASTM D6304 >500 32 57.8 103.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 A 10849 45823 105 Particles >6µm ASTM D7647 >1300 A 3797 A 15156 30 Particles >14µm ASTM D7647 >160 A 332 A 1059 3 Particles >21µm ASTM D7647 >10 2 3 0 Particles >38µm ASTM D7647 >10 2 3 0 Particles >71µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >19/17/14 21/19/16 23/21/17 14/12/9 FLUID DEGRADATION method limit/base current history1 history2 <td>Silicon</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>15</td> <th>0</th> <td>0</td> <td><1</td>	Silicon	ppm	ASTM D5185m	>15	0	0	<1
Water % ASTM D6304 >0.05 0.003 0.005 0.010 ppm Water ppm ASTM D6304 >500 32 57.8 103.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 10849 45823 105 Particles >6µm ASTM D7647 >1300 3797 15156 30 Particles >14µm ASTM D7647 >160 332 1059 3 Particles >21µm ASTM D7647 >10 3 229 1 Particles >38µm ASTM D7647 >10 2 3 0 Particles >71µm ASTM D7647 >3 0 0 0 Ol Cleanliness ISO 4406 (c) >19/17/14 21/19/16 23/21/17 14/12/9 FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		13	2	3
ppm Water ppm ASTM D6304 >500 32 57.8 103.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 10849 45823 105 Particles >6µm ASTM D7647 >1300 3797 15156 30 Particles >6µm ASTM D7647 >160 332 1059 3 Particles >14µm ASTM D7647 >160 332 1059 3 Particles >21µm ASTM D7647 >40 82 229 1 Particles >38µm ASTM D7647 >10 2 3 0 Particles >71µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) 19/17/14 21/19/16 23/21/17 14/12/9 FLUID DEGRADATION method limit/base current history1 history2	Potassium	ppm	ASTM D5185m	>20	3	0	<1
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 ▲ 10849 ▲ 45823 105 Particles >6µm ASTM D7647 >1300 ▲ 3797 ▲ 15156 30 Particles >6µm ASTM D7647 >160 ▲ 332 ▲ 1059 3 Particles >14µm ASTM D7647 >160 ▲ 332 ▲ 1059 3 Particles >21µm ASTM D7647 >40 ▲ 82 ▲ 229 1 Particles >38µm ASTM D7647 >10 2 3 0 Particles >71µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >19/17/14 21/19/16 ▲ 23/21/17 14/12/9 FLUID DEGRADATION method limit/base current history1 history2	Water	%	ASTM D6304	>0.05	0.003	0.005	0.010
Particles >4μm ASTM D7647 >5000 ▲ 10849 ▲ 45823 105 Particles >6μm ASTM D7647 >1300 ▲ 3797 ▲ 15156 30 Particles >14μm ASTM D7647 >160 ▲ 332 ▲ 1059 3 Particles >14μm ASTM D7647 >40 ▲ 82 ▲ 229 1 Particles >21μm ASTM D7647 >40 ▲ 82 ▲ 229 1 Particles >38μm ASTM D7647 >10 2 3 0 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >19/17/14 21/19/16 ▲ 23/21/17 14/12/9 FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	32	57.8	103.6
Particles >6μm ASTM D7647 >1300 A 3797 A 15156 30 Particles >14μm ASTM D7647 >160 A 332 A 1059 3 Particles >21μm ASTM D7647 >40 A 82 229 1 Particles >38μm ASTM D7647 >10 2 3 0 Particles >38μm ASTM D7647 >3 0 0 0 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >19/17/14 21/19/16 23/21/17 14/12/9 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >160 ▲ 332 ▲ 1059 3 Particles >21μm ASTM D7647 >40 ▲ 82 ▲ 229 1 Particles >38μm ASTM D7647 >10 2 3 0 Particles >38μm ASTM D7647 >10 2 3 0 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >19/17/14 21/19/16 ▲ 23/21/17 14/12/9 FLUID DEGRADATION method limit/base current history1 history2							
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Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >19/17/14 21/19/16 23/21/17 14/12/9 FLUID DEGRADATION method limit/base current history1 history2	Particles >21µm		ASTM D7647	>40	<u> </u>	<u> </u>	1
Oil Cleanliness ISO 4406 (c) >19/17/14 21/19/16 23/21/17 14/12/9 FLUID DEGRADATION method limit/base current history1 history2			ASTM D7647	>10	2	3	0
FLUID DEGRADATION method limit/base current history1 history2	Particles >71µm		ASTM D7647	>3	0		0
	Oil Cleanliness		ISO 4406 (c)	>19/17/14	A 21/19/16	▲ 23/21/17	14/12/9
Acid Number (AN) mg KOH/g ASTM D8045 0.41 0.39 0.45	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045		0.41	0.39	0.45

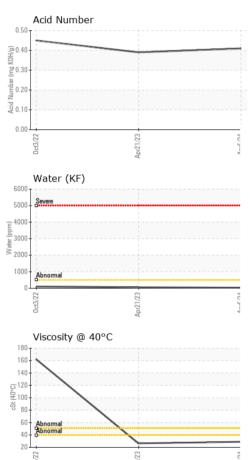
Contact/Location: Service Manager - HILDAL Page 1 of 2



OIL ANALYSIS REPORT

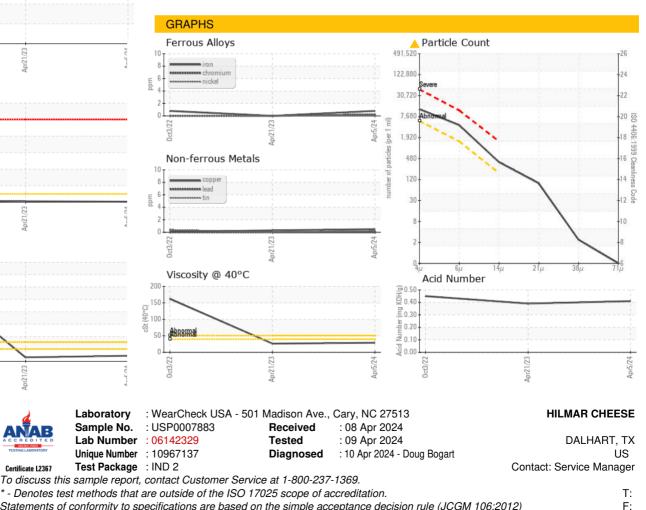












Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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