

OIL ANALYSIS REPORT





DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

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

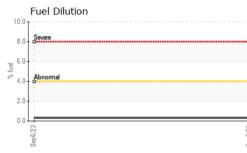
Fluid Condition

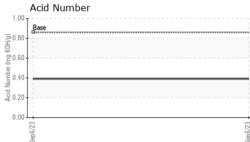
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

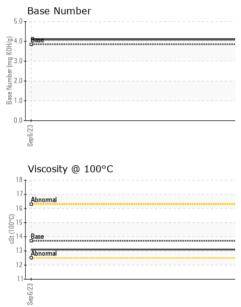
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0103469		
Sample Date		Client Info		06 Sep 2023		
Machine Age	hrs	Client Info		98554		
Oil Age	hrs	Client Info		936		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	3		
Chromium	ppm	ASTM D5185m	>4	<1		
Nickel	ppm	ASTM D5185m	>2	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>9	1		
Lead	ppm	ASTM D5185m	>30	<1		
Copper	ppm	ASTM D5185m	>35	5		
Tin	ppm	ASTM D5185m	>4	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	1	0		
Molybdenum	ppm	ASTM D5185m	2	0		
Manganese	ppm	ASTM D5185m	1	<1		
Magnesium	ppm	ASTM D5185m	5	8		
Calcium	ppm	ASTM D5185m	1220	1459		
Phosphorus	ppm	ASTM D5185m	298	319		
Zinc	ppm	ASTM D5185m	350	387		
Sulfur	ppm	ASTM D5185m	1995	3112		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	2		
Sodium	ppm	ASTM D5185m		2		
Potassium	ppm	ASTM D5185m	>20	<1		
Fuel	%	ASTM D3524	>4.0	0.3		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0		
Nitration	Abs/cm	*ASTM D7624	>20	3.7		
Sulfation	Abs/.1mm	*ASTM D7415	>30	14.3		
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	7.8		
Acid Number (AN)	mg KOH/g	ASTM D8045	0.86	0.391		
Base Number (BN)	mg KOH/g	ASTM D2896	3.85	4.09		



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	VIS			method	limit/base	current	history1	history2
	White		scalar	*Visual	NONE	NONE		
	Yellow		scalar	*Visual	NONE	NONE		
	Precipi	itate	scalar	*Visual	NONE	NONE		
	Silt		scalar	*Visual	NONE	NONE		
	Debris		scalar	*Visual	NONE	NONE		
	Sand/[scalar	*Visual	NONE	NONE		
	Appea	rance	scalar	*Visual	NORML	NORML		
	Ouor		scalar	*Visual	NORML	NORML		
		fied Water	scalar	*Visual	>0.1	NEG		
	Free W	Vater	scalar	*Visual		NEG		
	FLU	IID PROPE	RTIES	method	limit/base	current	history1	history2
	Visc @	0 100°C	cSt	ASTM D445	13.7	13.1		
	GRA	APHS						
		(ppm)				Lead (ppm)		
	100 Severe				6	0		
	00 - 00 - 00 - 00 - 00 - 00 - 00 - 00				4			
	60 Abnom	nal			ud 3	Abnormal		
	20				2	1		
	20				1			
****	53				Sep6/23 -	Sep6/23		
	Sep				Sep	Sep		
		ninum (ppm)				Chromium (p	pm)	
	20					1		
	15 - Severe				-	T. C.		
	a 10 - Abnom	nal			L L L L L L L L L L L L L L L L L L L	Abnormal		
	5					2		
	0)		
	Sep6/23				Sep6/23	Sep6/23		
					8			
	80 -	per (ppm)			20	Silicon (ppm)		
	Severe							
	60				15			
	E 40 - Abnom	nal			튭 10) - Abnormal		
	20-				5)-		
	0) 		
	Sep6/23				Sep6/23	Sep6/23		
					Se			
	Visco	osity @ 100°C	:		5.	Base Number	•	
	Abnom	nal			(B)/HOX Bu),2	Base		
	16				Dy Bu			
	(0.00 14 - Base 43 Abnom					, ,		
	12				Base Number 1.) -		
	10					,		
	16/23				16/23	16/23		
	Sep6/23				Sep6/23	Sep6/23		
Laborat Sample Lab Nur Unique N	No. : PCA0 mber : 05952	241	Received Diagnos Diagnost	d : 14 : ed : 18 : tician : We	ry, NC 27513 Sep 2023 Sep 2023 s Davis	D ENERVE	ST OPERATING - 1705 BREAK	
ertificate L2367 Test Pa		2 (Additional)					<u> </u>	ervice Manag

* - 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)

Contact/Location: Service Manager - ENEHAYBOO