

OIL ANALYSIS REPORT

Sample Rating Trend



VOLVO VNL630 SLEEPER 26462

Diesel Engine

PETRO CANADA DURON SHP 10W30 (40 QTS)

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.

Fluid Condition

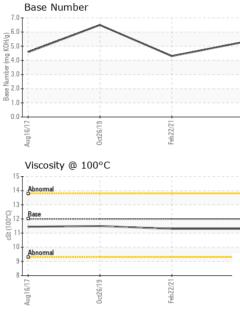
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Aug2017 Oct2019 Feb2021 Jun2023										
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2				
Sample Number		Client Info		PCA0100718	PCA0044110	PCA0010528				
Sample Date		Client Info		21 Jun 2023	22 Feb 2021	26 Oct 2019				
Machine Age	mls	Client Info		234403	0	234403				
Oil Age	mls	Client Info		234403	0	0				
Oil Changed		Client Info		N/A	N/A	Changed				
Sample Status				NORMAL	NORMAL	NORMAL				
CONTAMINAT	ION	method	limit/base	current	history1	history2				
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0				
Glycol		WC Method		NEG	NEG	NEG				
WEAR METAL	S	method	limit/base	current	history1	history2				
Iron	ppm	ASTM D5185m	>100	34	69	25				
Chromium	ppm	ASTM D5185m	>20	<1	1	<1				
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1				
Titanium	ppm	ASTM D5185m		0	0	<1				
Silver	ppm	ASTM D5185m	>2	0	0	0				
Aluminum	ppm	ASTM D5185m	>25	10	7	4				
Lead	ppm	ASTM D5185m	>40	11	13	5				
Copper	ppm	ASTM D5185m	>330	12	10	7				
Tin	ppm		>15	3	3	0				
Antimony	ppm	ASTM D5185m			0	0				
Vanadium	ppm	ASTM D5185m		<1	0	0				
Cadmium	ppm	ASTM D5185m		0	0	<1				
0441114111	0.00			-	0					
ADDITIVES	b h	method	limit/base	current	history1	history2				
		method	limit/base 2	current						
ADDITIVES	ppm	method ASTM D5185m			history1	history2				
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	2	current 3	history1 3 0	history2 2 0				
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0	current 3 0 60	history1 3 0 58	history2 2				
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 3 0	history1 3 0	history2 2 0 55				
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 3 0 60 3	history1 3 0 58 <1	history2 2 0 55 <1				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	current 3 0 60 3 1028	history1 3 0 58 <1 892	history2 2 0 55 <1 915				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	current 3 0 60 3 1028 1179	history1 3 0 58 <1 892 1108	history2 2 0 55 <1 915 1073				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	Current 3 0 60 3 1028 1179 1082	history1 3 0 58 <1 892 1108 961	history2 2 0 55 <1 915 1073 882				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	current 3 0 60 3 1028 1179 1082 1406	history1 3 0 58 <1 892 1108 961 1193	history2 2 0 55 <1 915 1073 882 1137				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	Current 3 0 60 3 1028 1179 1082 1406 3213 current	history1 3 0 58 <1 892 1108 961 1193 2086 history1	history2 2 0 55 <1 915 1073 882 1137 2056 history2				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185m	2 0 50 0 950 1050 995 1180 2600	current 3 0 60 3 1028 1179 1082 1406 3213 current 8	history1 3 0 58 <1 892 1108 961 1193 2086 history1 6	history2 2 0 55 <1 915 1073 882 1137 2056				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Chosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	Current 3 0 60 3 1028 1179 1082 1406 3213 current	history1 3 0 58 <1 892 1108 961 1193 2086 history1	history2 2 0 55 <1 915 1073 882 1137 2056 history2 5				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	current 3 0 60 3 1028 1179 1082 1406 3213 current 8 8 8	history1 3 0 58 <1 892 1108 961 1193 2086 history1 6 11	history2 2 0 55 <1 915 1073 882 1137 2056 history2 5 9				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 -20 limit/base	current 3 0 60 3 1028 1179 1082 1406 3213 current 8 9 current	history1 3 0 58 <1 892 1108 961 1193 2086 history1 6 11 7 history1	history2 2 0 55 <1 915 1073 882 1137 2056 history2 5 9 7 history2				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	current 3 0 60 3 1028 1179 1082 1406 3213 current 8 9 current 0.9	history1 3 0 58 <1 892 1108 961 1193 2086 history1 6 11 7 history1 1.4	history2 2 0 55 <1 915 1073 882 1137 2056 history2 5 9 7 history2 1.3				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 -20 limit/base	current 3 0 60 3 1028 1179 1082 1406 3213 current 8 9 current	history1 3 0 58 <1 892 1108 961 1193 2086 history1 6 11 7 history1	history2 2 0 55 <1 915 1073 882 1137 2056 history2 5 9 7 history2				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm t t t t	method ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 imit/base >3 >20 >30	current 3 0 60 3 1028 1179 1082 1406 3213 current 8 9 current 0.9 10.5 23.4	history1 3 0 58 <1 892 1108 961 1193 2086 history1 6 11 7 history1 1.4 12.6 27.5	history2 2 0 55 <1 915 1073 882 1137 2056 history2 5 9 7 history2 1.3 10.4 22.8				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 method	2 0 0 50 0 950 1050 995 1180 2600 imit/base >25 >20 >20 >30 >30 imit/base	Current 3 0 60 3 1028 1179 1082 1406 3213 current 8 8 9 current 0.9 10.5 23.4 current	history1 3 0 58 <1 892 1108 961 1193 2086 history1 6 11 7 history1 1.4 12.6 27.5 history1	history2 2 0 55 <1 915 1073 882 1137 2056 history2 5 9 7 history2 1.3 10.4 22.8 history2				
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm t t t t	method ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 imit/base >3 >20 >30	current 3 0 60 3 1028 1179 1082 1406 3213 current 8 9 current 0.9 10.5 23.4	history1 3 0 58 <1 892 1108 961 1193 2086 history1 6 11 7 history1 1.4 12.6 27.5	history2 2 0 55 <1 915 1073 882 1137 2056 history2 5 9 7 history2 1.3 10.4 22.8				



OIL ANALYSIS REPORT

VISUAL



	VISUAL		(
<	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
2/21-		scalar	*Visual	NORML	NORML	NORML	NORML
Feb22/21 Jun21/23	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
,	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual	20.2	NEG	NEG	NEG
	FLUID PROPE			limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	11.3	11.3	11.5
	GRAPHS						
	Ferrous Alloys		~				
2/21-	60 - iron	/					
Feb 22/21	50 - inickel						
	₫ ₃₀						
	20						
	10-						
	ja		2	123			
	Aug 16/17 0ct26/19		Feb 22/21	Jun21/23			
	⊲ Non-ferrous Meta	ls		7			
	⁵⁰ T						
	copper						
	40 - energy tin						
	30						
	20						
	10	ALC: NO. OF THE OWNER.	State of the other				
	The local design of the design of the design of the	Man-					
	0 <u> </u>		721	/23			
	Aug16/17 0ct26/19		Feb22/21	Jun21/23			
	Viscosity @ 100°C	2		-	Baco Number		
	¹⁵			7.0	Base Number		
	14 - Abnormal			6.0			
	13 -			(^B) _H 5.0			
	0 12 - Base			2 4 A	-		
	C 12 - Base			(0, 5.0 HOX but as a 3.0 egg 2.0			
	10-			N N N N N N N N N N N N N N N N N N N			
	Abnormal						
	3			1.0			
	19		2/21-	0.0	117	6	6
	Aug16/17 0ct26/19		Feb22/21	Jun21/23	Aug16/17	Eah22/21	c () c
Laboratory Sample No. Lab Number Unique Number	: PCA0100718 : <mark>05895941</mark>	Received Diagnos	1 Madison Ave., Cary, NC 27513			PERDUE FARMS - DILLO 2047 HWY 9 WES DILLON, S US 295 Contact: KEVIN HOOP kevin.hooks@perdue.cc T: (843)841-80	

1

Page 2 of 2