

OIL ANALYSIS REPORT

Sample Rating Trend

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Component Front Differential

CHEVRON DELO SYNTHETIC GEAR 75W90 (--- 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

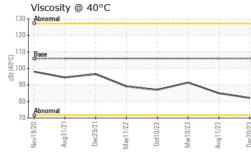
The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0110881	PCA0102194	PCA0092512
Sample Date		Client Info		20 Dec 2023	11 Aug 2023	10 Mar 2023
Machine Age	mls	Client Info		202048	202048	176965
Oil Age	mls	Client Info		202048	202048	0
Oil Changed		Client Info		Changed	N/A	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Water		WC Method	>.2	NEG	NEG	NEG
WEAR METALS	5	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	70	56	78
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	1	<1	1
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>100	3	<1	<1
Tin	ppm		>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		215	232	212
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		10	10	11
Manganese	ppm	ASTM D5185m		3	2	4
Magnesium	ppm	ASTM D5185m		100	118	77
0	ppm	ASTM D5185m		199	234	130
Calcium	ppm ppm	ASTM D5185m ASTM D5185m		199 1354	234 1349	130 1314
Calcium Phosphorus	ppm	ASTM D5185m			1349	
Calcium Phosphorus				1354		1314
Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base	1354 184	1349 207	1314 121
Calcium Phosphorus Zinc Sulfur CONTAMINAN ⁻	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	1354 184 21697	1349 207 23434	1314 121 25436
Calcium Phosphorus Zinc Sulfur CONTAMINAN ⁻ Silicon	ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m method		1354 184 21697 current	1349 207 23434 history1	1314 121 25436 history2
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>75	1354 184 21697 current 9	1349 207 23434 history1 8	1314 121 25436 history2 10
Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75	1354 184 21697 current 9 <1	1349 207 23434 history1 8 0	1314 121 25436 history2 10 2
Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium VISUAL	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 limit/base NONE	1354 184 21697 current 9 <1 0	1349 207 23434 history1 8 0 1	1314 121 25436 history2 10 2 0
Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 limit/base	1354 184 21697 current 9 <1 0 current	1349 207 23434 history1 8 0 1 1 history1	1314 121 25436 history2 10 2 0 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm TS ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	>75 >20 limit/base NONE	1354 184 21697 current 9 <1 0 current NONE	1349 207 23434 history1 8 0 1 1 history1 NONE	1314 121 25436 history2 10 2 0 history2 NONE
Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm TS ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	>75 >20 limit/base NONE NONE	1354 184 21697 current 9 <1 0 current NONE NONE	1349 207 23434 history1 8 0 1 1 history1 NONE NONE	1314 121 25436 history2 10 2 0 history2 NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm pm TS ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE	1354 184 21697 current 9 <1 0 current NONE NONE NONE	1349 207 23434 history1 8 0 1 1 history1 NONE NONE NONE	1314 121 25436 history2 10 2 0 history2 NONE NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE NONE	1354 184 21697 current 9 <1 0 current NONE NONE NONE NONE	1349 207 23434 history1 8 0 1 1 history1 NONE NONE NONE NONE NONE	1314 121 25436 history2 10 2 0 history2 NONE NONE NONE NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE NONE NONE	1354 184 21697 current 9 <1 0 current NONE NONE NONE NONE NONE NONE	1349 207 23434 history1 8 0 1 1 history1 NONE NONE NONE NONE NONE NONE	1314 121 25436 history2 10 2 0 history2 NONE NONE NONE NONE NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINAN ⁻ Silicon Sodium Potassium	ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 Iinit/base NONE NONE NONE NONE NONE NONE NONE	1354 184 21697 current 9 <1 0 current NONE NONE NONE NONE NONE NONE NONE	1349 207 23434 history1 8 0 1 1 history1 NONE NONE NONE NONE NONE NONE NONE NON	1314 121 25436 history2 10 2 0 history2 NONE NONE NONE NONE NONE NONE NONE NON
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m *Visual *Visual	>75 >20 limit/base NONE NONE NONE NONE NONE	1354 184 21697 current 9 <1 0 current NONE NONE NONE NONE NONE NONE NONE NON	1349 207 23434 history1 8 0 1 1 history1 NONE NONE NONE NONE NONE NONE NONE	1314 121 25436 history2 10 2 0 history2 NONE NONE NONE NONE NONE NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm rS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>75 20 Imit/base NONE NONE NONE NONE NONE NONE NONE NON	1354 184 21697 current 9 <1 0 current NONE NONE NONE NONE NONE NONE NONE NON	1349 207 23434 history1 8 0 1 history1 NONE NONE NONE NONE NONE NONE NONE NON	1314 121 25436 history2 10 2 0 history2 NONE NONE NONE NONE NONE NONE NONE NON



OIL ANALYSIS REPORT

FLUID PROPERTIES method limit/base



	FLUID PROPI		method	limit/base	current	history1	history2		
	Visc @ 40°C	cSt	ASTM D445	106	82.1	85.0	91.5		
	SAMPLE IMA	GES	method	limit/base	current	history1	history2		
	Color				no image	no image	no image		
May11/22 0ct10/22 Mar10/23 Aug11/23 Dec20/23	Bottom				no image	no image	no image		
	GRAPHS Ferrous Alloys	May11/22 0et10/22 0et10/22	Mar10/23 Mar	Dec20/23 De					
To discuss this sample report, of * - Denotes test methods that an	ple No. : PCA0110881 Recieved : 03 Jan 2024 Number : 06050276 Diagnosed : 04 Jan 2024 Number : 10816225 Diagnostician : Jonathan Hest					100 INDEPENDENCE BLVD COLUMBIA, SC er US 29210 Contact: GEORGE EDWARDS gedwards@nwwhite.com T:			