

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Temper Mill

[Temper Mill] 215040-A-COIL PREP S

Gearbox

PETRO CANADA ENDURATEX EP 220 (--- GA

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

Fluid Condition

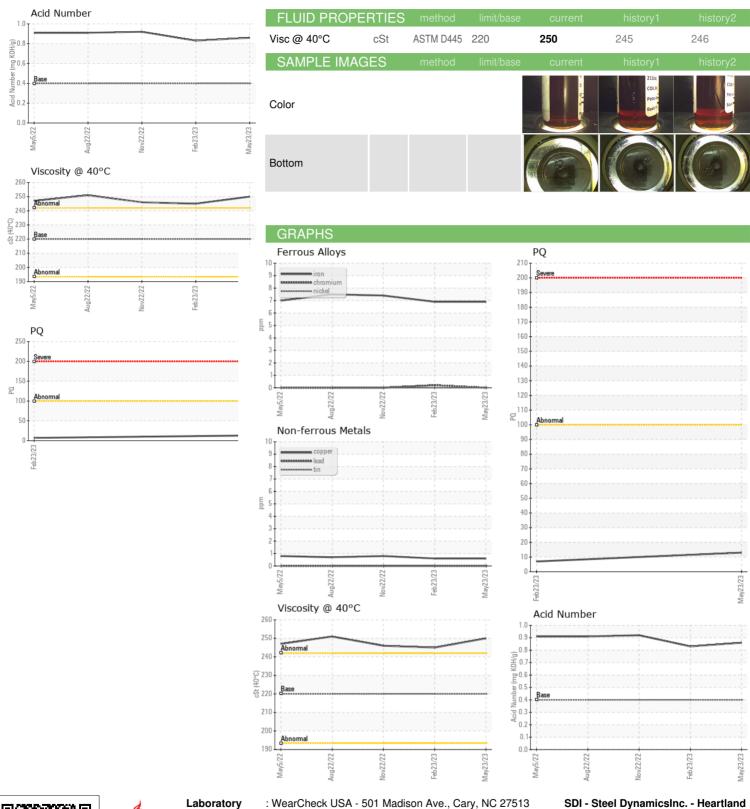
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

mple Number	Client Info		PC	A 0095459	PCA	300
SAMPLE INFORMATION	method	limit/base		current		hist
L)	May2022	Aug ² 022	Nov2022	Feb2023	May2023	
SHEAR FLTTNR						

Sample Date	Sample Number		Client Info		PCA0095459	PCA0089418	PCA0081722
Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info Not Changd Not Changd Not Changd Not Changd NoRMAL	· .		Client Info		23 May 2023	23 Feb 2023	22 Nov 2022
Dil Age	•	hrs	Client Info		-	0	0
NORMAL NORMAL	Oil Age	hrs	Client Info		0	0	0
NORMAL NORMAL NORMAL	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
PO	Sample Status				NORMAL	NORMAL	NORMAL
Note Property ASTM D5185m >200 7 7 7 7 7 7 7 7 7	WEAR METALS	S	method	limit/base	current	history1	history2
Chromium	PQ		ASTM D8184		13	7	
Nickel	Iron	ppm	ASTM D5185m	>200	7	7	7
Silver	Chromium	ppm	ASTM D5185m	>15	0	<1	0
Aluminum	Nickel	ppm	ASTM D5185m	>15	0	0	0
Aluminum	Titanium	ppm	ASTM D5185m		<1	0	0
Lead	Silver	ppm	ASTM D5185m		0	0	<1
Copper	Aluminum	ppm	ASTM D5185m	>25	<1	0	0
Name	Lead	ppm	ASTM D5185m	>100	0	0	0
Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>200	<1	<1	<1
ADDITIVES	Tin	ppm	ASTM D5185m	>25	0	0	0
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron ppm ASTM D5185m 60 6 2 4	Cadmium	ppm	ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m	60	6	2	4
Manganese ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m	0	0	0	1
Magnesium ppm ASTM D5185m 0 2 <1	Molybdenum	ppm	ASTM D5185m	0	<1	<1	<1
Calcium ppm ASTM D5185m 0 2 3 2 Phosphorus ppm ASTM D5185m 270 333 319 303 Zinc ppm ASTM D5185m 0 8 12 11 Sulfur ppm ASTM D5185m 11200 15726 15653 15065 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 6 6 6 Sodium ppm ASTM D5185m >50 6 6 6 Sodium ppm ASTM D5185m >20 3 <1 <1 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOHg ASTM D8045 0.40 0.86 0.83 0.92 VISUAL method limit/base current history1 history2 Acid Number (AN)	Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Phosphorus ppm ASTM D5185m 270 333 319 303 Zinc ppm ASTM D5185m 0 8 12 11 Sulfur ppm ASTM D5185m 1 1200 15726 15653 15065 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 6 6 6 Sodium ppm ASTM D5185m 1 0 0 Potassium ppm ASTM D5185m >20 3 <1 <1 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOHlg ASTM D8045 0.40 0.86 0.83 0.92 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual	Magnesium	ppm	ASTM D5185m	0	2	<1	<1
Zinc	Calcium	ppm	ASTM D5185m	0	2	3	2
Sulfur ppm ASTM D5185m 11200 15726 15653 15065 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 6 6 6 Sodium ppm ASTM D5185m >20 3 <1 <1 Potassium ppm ASTM D5185m >20 3 <1 <1 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.86 0.83 0.92 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Vellow Metal scalar *Visual NONE NONE NONE NONE Vellow Metal scalar *Visual NONE NONE NONE NONE Vellow Metal scalar	Phosphorus	ppm	ASTM D5185m	270	333	319	303
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 6 6 6 Sodium ppm ASTM D5185m >50 6 6 6 Sodium ppm ASTM D5185m >20 3 <1 <1 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.86 0.83 0.92 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 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 Emulsified Water scalar *Visual NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML	Zinc	ppm	ASTM D5185m	0	8	12	11
Silicon	Sulfur	ppm	ASTM D5185m	11200	15726	15653	15065
Sodium	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 <1 <1 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.86 0.83 0.92 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 NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG	Silicon	ppm	ASTM D5185m	>50	6	6	6
FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.86 0.83 0.92 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 >0.2 NEG NEG	Sodium	ppm	ASTM D5185m		1	0	0
Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.86 0.83 0.92 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 Emulsified Water scalar *Visual >0.2 NEG NEG	Potassium	ppm	ASTM D5185m	>20	3	<1	<1
White Metal scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	FLUID DEGRAD	ATION	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 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 >0.2 NEG NEG NEG	Acid Number (AN)	mg KOH/g	ASTM D8045	0.40	0.86	0.83	0.92
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	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 >0.2 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 >0.2 NEG NEG NEG	Yellow Metal	scalar	*Visual	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 NORML Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Odor scalar *Visual NORML NORML NORML NORML NORML NORML Scalar *Visual >0.2 NEG NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >0.2 NEG NEG NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG ocation GBRAD ELLISIE SDITER	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG	ocative@BRAD E	ELLISIESDITER



OIL ANALYSIS REPORT





Certificate L2367

Report Id: SDITER [WUSCAR] 05894563 (Generated: 07/14/2023 15:23:31) Rev: 1

Laboratory Sample No. Lab Number **Unique Number** Test Package : PLANT

: PCA0095459 : 05894563

: 10550373

Received : 10 Jul 2023 : 14 Jul 2023 Diagnosed Diagnostician : Jonathan Hester SDI - Steel DynamicsInc. - Heartland 455 West Industrial Drive Terre Haute, IN

US 47802 Contact: BRAD ELLIS

brad.ellis@steeldynamics.com T:

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)

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