

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

MINNESOTA Machine Id

YALE A390V060145

Propane Engine

{not provided} (--- GAL)

R	E	C	C	M	M	EN	V	D,	Α'	TI	0	N	

Resample at the next service interval to monitor.

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WEAR

All component wear rates are normal.

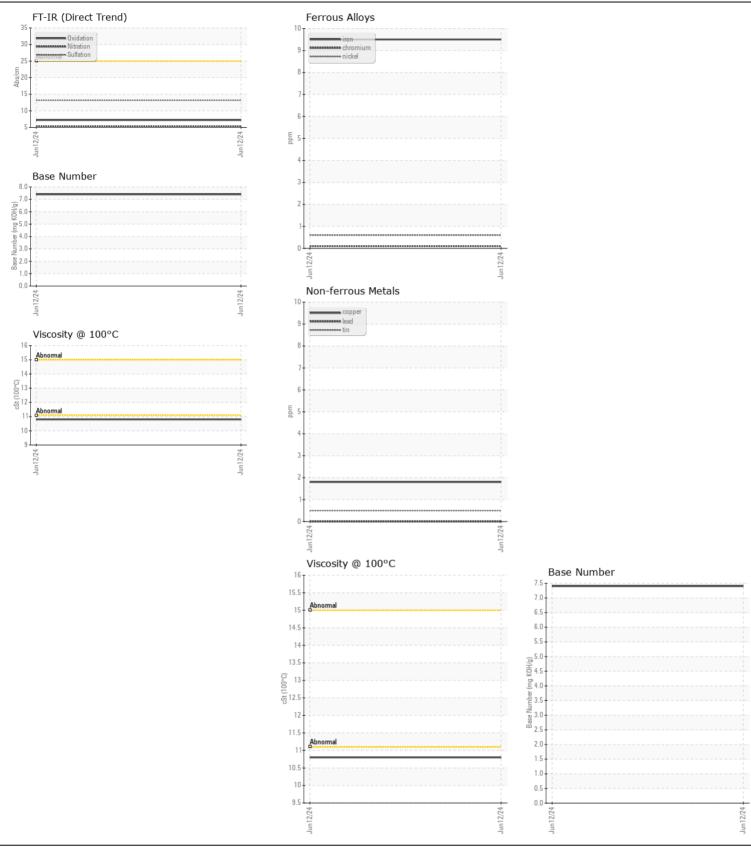
CONTAMINATION

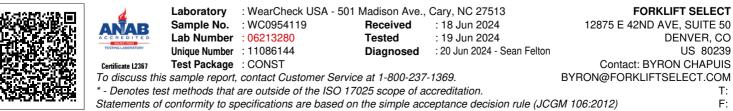
There is no indication of any contamination in the oil.

FLUID CONDITION

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

TestUOMMethodLimit/AbnCurrentHistory1History1History2Sample DateClient Info12 Jun 2024Machine AgehrsClient Info6208Oil AgehrsClient Info0Filter AgehrsClient InfoN/AOil ChangedClient InfoN/AFilter ChangedClient InfoN/ASample StatusVNORMALIronppmASTM D5185m>10010ChromiumppmASTM D5185m>5<1NickelppmASTM D5185m>204AluminumppmASTM D5185m>204AluminumppmASTM D5185m>22VanadiumppmASTM D5185m>352VanadiumppmASTM D5185m>204VanadiumppmASTM D5185m>205VanadiumppmASTM D5185m>205VanadiumppmASTM D5185m>205VanadiumppmASTM D5185m>205VanadiumppmASTM D5185m>205SiliconppmASTM D5185m>205 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
Sample Date Client Info 12 Jun 2024 Machine Age hrs Client Info 6208 Oil Age hrs Client Info 0 Filter Age hrs Client Info N/A Oil Changed Client Info N/A Filter Changed Client Info N/A Sample Status Viant Iron ppm ASTM D5185m >100 10 Chromium ppm ASTM D5185m >25 <1 Nickel ppm ASTM D5185m >5 <1 Silver ppm ASTM D5185m >20 4 Auminum ppm ASTM D5185m >20 5 Silver ppm ASTM D5185m >	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age hrs Client Info 6208 Oil Age hrs Client Info 0 Filter Age hrs Client Info 0 Oil Changed Client Info N/A Filter Changed Client Info N/A Sample Status Viant Iron ppm ASTM D5185m >100 10 Chromium ppm ASTM D5185m >25 <1 Nickel ppm ASTM D5185m >5 <1 Silver ppm ASTM D5185m >20 4 Lead ppm ASTM D5185m >20 4 Vanadium ppm ASTM D5185m >5 2 Vanadium ppm ASTM D5185m >	Sample Number		Client Info		WC0954119		
Oil AgehrsClient Info0Filter AgehrsClient Info0Oil ChangedClient InfoN/AFilter ChangedClient InfoN/ASample StatusNORMALIronppmASTM D5185m<>10010ChromiumppmASTM D5185m<>5<1NickelppmASTM D5185m<>5<1SilverppmASTM D5185m<>5<1AluminumppmASTM D5185m<>5<1LeadppmASTM D5185m<>204CopperppmASTM D5185m<>352VanadiumppmASTM D5185m<>8<1VanadiumppmASTM D5185m<>8<1Yellow Metalscalar*VisualNONENONESiliconppmASTM D5185m<>507Yellow Metalscalar*VisualNONENONESoot %%*ASTM D5185m<>205.2SulfationAbs/rm*ASTM D5185m<>205.2SulfationAbs/rm*ASTM D7415<>3013.2SulfationAbs/rm*ASTM D7415<>3013.2Soot %%<	Sample Date		Client Info		12 Jun 2024		
Filter Age Oil ChangedhrsClient Info0Oil ChangedClient InfoN/AFilter ChangedClient InfoN/ASample StatusNORMALIronppmASTM D5185m<>25<1ChromiumppmASTM D5185m<>25<1NickelppmASTM D5185m<>5<1TitaniumppmASTM D5185m<>5<1AluminumppmASTM D5185m<>204LeadppmASTM D5185m<>250CopperppmASTM D5185m<>352VanadiumppmASTM D5185m<>8<1VanadiumppmASTM D5185m<>8<1Yellow Metalscalar*VisualNONENONESiliconppmASTM D5185m<>507Yellow Metalscalar*VisualNONENONESoot %%*ASTM D7624>205.2SulfationAbs/rm*ASTM D7624>205.2SulfationAbs/rm*ASTM D7624>0SulfationAbs/rm*VisualNONENORE <trr>Debrisscalar*Visual<th>Machine Age</th><th>hrs</th><th>Client Info</th><th></th><th>6208</th><th></th><th></th></trr>	Machine Age	hrs	Client Info		6208		
Oil Changed Client Info N/A Filter Changed Client Info N/A Sample Status NORMAL Iron ppm ASTM D5185m<>100 10 Chromium ppm ASTM D5185m<>25 <1 Nickel ppm ASTM D5185m<>5 <1 Nickel ppm ASTM D5185m<>5 <1 Silver ppm ASTM D5185m<>20 4 Lead ppm ASTM D5185m<>20 4 Copper ppm ASTM D5185m<>20 4 Vanadium ppm ASTM D5185m<>8 <1 Yellow Metal scalar *Visual NONE Yellow Metal scalar *Visual NONE Yellow Metal </th <th>Oil Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>0</th> <th></th> <th></th>	Oil Age	hrs	Client Info		0		
Filter Changed Client Info N/A Sample Status NORMAL Iron ppm ASTM D5185m >100 10 Chromium ppm ASTM D5185m >25 <1 Nickel ppm ASTM D5185m >5 <1 Silver ppm ASTM D5185m >5 <1 Aluminum ppm ASTM D5185m >20 4 Lead ppm ASTM D5185m >25 0 Vanadium ppm ASTM D5185m >25 0 Vanadium ppm ASTM D5185m >35 2 Vanadium ppm ASTM D5185m >50 7 Yellow Metal scalar<*/td> *Visual NONE NONE	Filter Age	hrs	Client Info		0		
Sample Status NORMAL Iron ppm ASTM D5185m >100 10 Chromium ppm ASTM D5185m >25 <1 Nickel ppm ASTM D5185m >5 <1 Titanium ppm ASTM D5185m >5 <1 Silver ppm ASTM D5185m >5 <1 Aluminum ppm ASTM D5185m >20 4 Lead ppm ASTM D5185m >25 0 Copper ppm ASTM D5185m >35 2 Vanadium ppm ASTM D5185m >8 <1 Vanadium ppm ASTM D5185m >50 7 Yellow Metal scalar *Visual NONE NONE <	Oil Changed		Client Info		N/A		
Iron ppm ASTM D5185m >100 10 Chromium ppm ASTM D5185m >25 <1 Nickel ppm ASTM D5185m >5 <1 Titanium ppm ASTM D5185m >5 <1 Silver ppm ASTM D5185m >5 <1 Aluminum ppm ASTM D5185m >20 4 Lead ppm ASTM D5185m >25 0 Copper ppm ASTM D5185m >25 0 Vanadium ppm ASTM D5185m >8 <1 Vanadium ppm ASTM D5185m >8 <1 Yellow Metal scalar *Visual NONE NONE Yellow Metal scalar *Vis	Filter Changed		Client Info		N/A		
Chromium ppm ASTM D5185m >25 <1	Sample Status				NORMAL		
Chromium ppm ASTM D5185m >25 <1					40		
Nickel ppm ASTM D5185m >5 <1							
Titanium ppm ASTM D5185m 0 Silver ppm ASTM D5185m >5 <1 Aluminum ppm ASTM D5185m >20 4 Lead ppm ASTM D5185m >20 4 Lead ppm ASTM D5185m >20 4 Lead ppm ASTM D5185m >20 4 Copper ppm ASTM D5185m >20 5 Vanadium ppm ASTM D5185m >8 <1 Vanadium ppm ASTM D5185m >8 <1 Vanadium ppm ASTM D5185m >50 7 Yellow Metal scalar *Visual NONE Silicon ppm ASTM D7618 >30							
Silver ppm ASTM D5185m >5 <1				>5			
Aluminum ppm ASTM D5185m >20 4 Lead ppm ASTM D5185m >25 0 Copper ppm ASTM D5185m >35 2 Tin ppm ASTM D5185m >8 <1 Vanadium ppm ASTM D5185m >8 <1 Vanadium ppm ASTM D5185m >8 <1 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m<>20 5 Vater WC Method >0.1 NEG Soot % % *ASTM D7624<>20 5.2 Sulfation Abs/rm< *ASTM D7115<>30 13.2				. 5			
LeadppmASTM D5185m>250CopperppmASTM D5185m>352TinppmASTM D5185m>8<1VanadiumppmASTM D5185m>8<1White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>507PotassiumppmASTM D5185m>205WaterWC Method>0.1NEGSoot %%*ASTM D78440SulfationAbs/cm*ASTM D7624>205.2SulfationAbs/imm*ASTM D7624>205.2SulfationAbs/imm*ASTM D715>3013.2Siltscalar*VisualNONENONEDebrisscalar*VisualNONENOREAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLSodiumppmASTM D5185m3BoronppmASTM D5185m78							
CopperppmASTM D5185m>352TinppmASTM D5185m>8<1VanadiumppmASTM D5185m<1White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>507PotassiumppmASTM D5185m>205WaterWC Method>0.1NEGSoot %%*ASTM D78440NitrationAbs/cm*ASTM D7624>205.2SulfationAbs/imm*ASTM D7415>3013.2Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLQorscalar*VisualNORMLNORMLSodiumppmASTM D5185m3SodiumppmASTM D5185m78SodiumppmASTM D5185m78							
TinppmASTM D5185m>8<1					-		
VanadiumppmASTM D5185m<1	••				_		
White Metal Yellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>507PotassiumppmASTM D5185m>205WaterWC Method>0.1NEGSoot %%*ASTM D78440NitrationAbs/cm*ASTM D7624>205.2SulfationAbs/.1mm*ASTM D7624>205.2Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLSodiumppmASTM D5185m3SodiumppmASTM D5185m78				>0			
Yellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>507PotassiumppmASTM D5185m>205WaterWC Method>0.1NEGSoot %%*ASTM D78440NitrationAbs/cm*ASTM D7624>205.2SulfationAbs/.1mm*ASTM D7415>3013.2Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLSodiumppmASTM D5185m3BoronppmASTM D5185m78				NONE			
Silicon ppm ASTM D5185m >50 7 Potassium ppm ASTM D5185m >20 5 Water WC Method >0.1 NEG Soot % % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 5.2 Sulfation Abs/.1mm *ASTM D7415 >30 13.2 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Sodium ppm ASTM D5185m 3 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
Potassium ppm ASTM D5185m >20 5 Water WC Method >0.1 NEG Soot % % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 5.2 Sulfation Abs/.tmm *ASTM D7624 >30 13.2 Sulfation scalar *Visual NONE NONE Debris scalar *Visual NORML NORML Appearance scalar		Scala	visuai				
Water WC Method >0.1 NEG Soot % % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 5.2 Sulfation Abs/.1mm *ASTM D7624 >20 5.2 Sulfation Abs/.1mm *ASTM D7415 >30 13.2 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m<	Silicon	ppm	ASTM D5185m	>50	7		
Soot %%*ASTM D78440NitrationAbs/cm*ASTM D7624>205.2SulfationAbs/imm*ASTM D7415>3013.2Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m3BoronppmASTM D5185m78	Potassium	ppm	ASTM D5185m	>20	5		
NitrationAbs/cm*ASTM D7624>205.2SulfationAbs/.1mm*ASTM D7415>3013.2Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m3BoronppmASTM D5185m78	Water		WC Method	>0.1	NEG		
SulfationAbs/.1mm*ASTM D7415>3013.2Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m3BoronppmASTM D5185m78	Soot %	%	*ASTM D7844		0		
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m3BoronppmASTM D5185m78	Nitration	Abs/cm	*ASTM D7624	>20	5.2		
Debrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m3BoronppmASTM D5185m78	Sulfation	Abs/.1mm	*ASTM D7415	>30	13.2		
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m3BoronppmASTM D5185m78		scalar	*Visual	NONE	NONE		
Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m 3 Boron ppm ASTM D5185m 78		scalar	*Visual		-		
Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m 3 Boron ppm ASTM D5185m 78		scalar					
Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m 3 Boron ppm ASTM D5185m 78	••						
Sodium ppm ASTM D5185m 3 Boron ppm ASTM D5185m 78							
Boron ppm ASTM D5185m 78	Emulsified Water	scalar	*Visual	>0.1	NEG		
Boron ppm ASTM D5185m 78	Sodium	ppm	ASTM D5185m		3		
Molybdenum ppm ASTM D5185m 140							
Manganese ppm ASTM D5185m <1					<1		
Magnesium ppm ASTM D5185m 440	Magnesium		ASTM D5185m		440		
Calcium ppm ASTM D5185m 1194	Calcium		ASTM D5185m		1194		
Phosphorus ppm ASTM D5185m 684	Phosphorus	ppm	ASTM D5185m		684		
Zinc ppm ASTM D5185m 799	Zinc	ppm	ASTM D5185m		799		
Sulfur ppm ASTM D5185m 2296	Sulfur	ppm	ASTM D5185m		2296		
Oxidation Abs/.1mm *ASTM D7414 >25 7.2	Oxidation	Abs/.1mm	*ASTM D7414	>25	7.2		
Base Number (BN) mg KOH/g ASTM D2896 7.4	Base Number (BN)	mg KOH/g	ASTM D2896		7.4		
Visc @ 100°C cSt ASTM D445 10.8	Visc @ 100°C	cSt	ASTM D445		10.8		





Contact/Location: BYRON CHAPUIS - FORDEN Page 2 of 2