

WEAR NORMAL CONTAMINATION SEVERE FLUID CONDITION ABNORMAL

**OIL ANALYSIS REPORT** 

## Machine Id FORD CHRIS PICK UP Component Diesel Engine Fluid TRC MOLY XL PROSPEC III 10W30 (--- GAL)

## RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

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All component wear rates are normal.

## CONTAMINATION

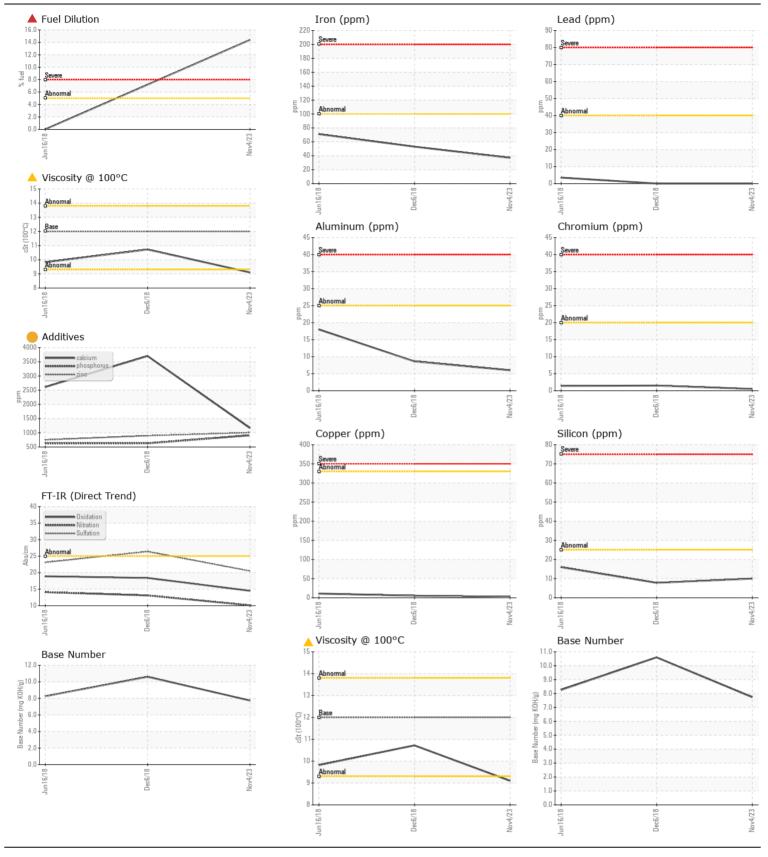
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There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

## **FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sample Date Client Info 04 Nov 2023 06 Dec 2018 16 Jun 2018   Machine Age mls Client Info 0 34927 25425   Oil Age mls Client Info 0 9502 6874   Filter Age mls Client Info 0 9502 6874   Oil Changed Client Info Changed N/A Changed   Filter Changed Client Info Changed N/A Changed   Sample Status Client Info Changed N/A Changed   Iron ppm ASTM D5185m<>100 37 53 71   Chromium ppm ASTM D5185m<>20 <1							
Sample Number Client Info TR0614536 CR0461834 TR04514766   Sample Date Client Info 0 34927 25425   Machine Age mls Client Info 0 9502 6874   Filter Age mls Client Info Changed N/A Changed   Gli Changed Client Info Changed N/A Changed   Filter Changed Client Info Changed N/A Changed   Sample Status Strops Strops N/A Changed   Chromium ppm ASTM D5185m >20 <1 2   Chromium ppm ASTM D5185m >22 0 0 <1   Nickel ppm ASTM D5185m >22 6 0 <1   Aluminum ppm ASTM D5185m >330 2 5 11   Tin ppm ASTM D5185m >330 2 14 2 27   Filder Metal scalar *Visual NON	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample DateClient InfoOf Nov 202366 Dec 201816 Jun 2016Machine AgemisClient Info03492725425Oil AgemisClient Info095026874Oil ChangedClient InfoChangedN/AChangedOil ChangedClient InfoChangedN/AChangedSample StatusClient InfoChangedN/AChangedIronppmASTM D5185n>20<121NickelppmASTM D5185n>20<121NickelppmASTM D5185n>260<1NickelppmASTM D5185n>2691SilverppmASTM D5185n>2691CopperppmASTM D5185n>40000VaadadumppmASTM D5185n>15000VandadumppmASTM D5185n>15000VaadadumppmASTM D5185n>20<122Fuel%ASTM D5185n>2010816PotassiumppmASTM D5185n>20<122Fuel%ASTM D5185n>20<122Fuel%ASTM D5185n>20<122SiliconppmASTM D5185n>20<122SiliconppmASTM D5185n>20<12	Sample Number		Client Info		TR06145366	-	TR04544766
Machine Age mls Client Info 0 34927 25425   Oil Age mls Client Info 0 9502 6874   Filter Age mls Client Info Changed N/A Changed   Oil Changed Client Info Changed N/A Changed   Sample Status Client Info Changed N/A Changed   Iron ppm ASTM D5185m >20 <1 2 1   Nickel ppm ASTM D5185m >20 <1 2 1   Silver ppm ASTM D5185m >2 0 0 1 3   Silver ppm ASTM D5185m >2 0 0 0 4   Copper ppm ASTM D5185m >30 2 11 1   Tin ppm ASTM D5185m >20 0 0 0   Vanadium ppm ASTM D5185m >20 1 2 27   Vel					04 Nov 2023	06 Dec 2018	16 Jun 2018
Filter Age mls Client Info 0 9502 6874   Oil Changed Client Info Changed N/A Changed   Filter Changed Client Info Changed N/A Changed   Sample Status SEVERE N/A Changed   Iron ppm ASTM D5185m >20 <1 2 1   Chromium ppm ASTM D5185m >20 <1 2 1   Nickel ppm ASTM D5185m >2 6 0 <1 1   Titanium ppm ASTM D5185m >2 6 9 18   Lead ppm ASTM D5185m >40 0 0 0   Vanadium ppm ASTM D5185m >40 0 0 0   Vanadium ppm ASTM D5185m >20 0 0 0   Vanadium ppm ASTM D5185m >225 10 8 16   Potassium ppm <t< th=""><th>Machine Age</th><th>mls</th><th>Client Info</th><th></th><th>0</th><th>34927</th><th>25425</th></t<>	Machine Age	mls	Client Info		0	34927	25425
Filter Age mls Client Info 0 9502 6874   Oil Changed Client Info Changed N/A Changed   Filter Changed Client Info Changed N/A Changed   Sample Status SEVERE N/A Changed   Iron ppm ASTM D5185m >20 <1 2 1   Chromium ppm ASTM D5185m >20 <1 2 1   Nickel ppm ASTM D5185m >2 6 0 <1 1   Titanium ppm ASTM D5185m >2 6 9 18   Lead ppm ASTM D5185m >40 0 0 0   Vanadium ppm ASTM D5185m >40 0 0 0   Vanadium ppm ASTM D5185m >20 0 0 0   Vanadium ppm ASTM D5185m >225 10 8 16   Potassium ppm <t< th=""><th>0</th><th>mls</th><th>Client Info</th><th></th><th>0</th><th>9502</th><th>6874</th></t<>	0	mls	Client Info		0	9502	6874
Oil ChangedClient InfoChangedN/AChangedFilter ChangedClient InfoChangedN/AChangedSample StatusClient InfoSEVERN/AAstmodedIronppmASTM D5185m>20375.37.1ChromiumppmASTM D5185m>20<121NickelppmASTM D5185m>20<1<1SilverppmASTM D5185m>2000AluminumppmASTM D5185m>26918LeadppmASTM D5185m>33025.111TinppmASTM D5185m>33021111TinppmASTM D5185m>330200VanadiumppmASTM D5185m>2510816Pellow Metalscalar"VisualNONENONENONENONEYellow Metalscalar"VisualNONE1.01.01.0VatardiumppmASTM D5185m>2510816PotassiumppmASTM D5185m>261.081.0SiliconppmASTM D5185m>20<1.11.01.0VatarwC Method>0.2NONENONENONENONESoliconppmASTM D5185m201.01.3.11.4.1SulfationAbs/cm"ASTM D5185m201.01.01.0	0	mls	Client Info		0	9502	6874
Filter Changed Sample Status Client Info Changed SEVERE N/A Changed ABNORMAL   Iron ppm ASTM D5185m<>100 37 53 71   Chromium ppm ASTM D5185m<>20 <1 2 1   Nickel ppm ASTM D5185m<>20 <1 2 1   Nickel ppm ASTM D5185m<>2 0 <1 <1   Silver ppm ASTM D5185m<>2 6 9 18   Lead ppm ASTM D5185m<>40 0 0 4   Copper ppm ASTM D5185m<>15 0 0 0   Vanadium ppm ASTM D5185m<>15 0 0 0   Vanadium ppm ASTM D5185m<>25 10 8 16   Potassium ppm ASTM D5185m<>25 10 8 16   Potassium ppm ASTM D5185m<>25 10 8 16   Potassium ppm ASTM D5185m<>25 10 8 16 <th>-</th> <th>_</th> <th></th> <th></th> <th>Changed</th> <th></th> <th></th>	-	_			Changed		
Sample Status SEVERE NORMAL ABNORMAL   Iron ppm ASTM D5185m<>100 37 53 71   Chromium ppm ASTM D5185m<>20 <1 2 1   Nickel ppm ASTM D5185m<>2 0 <1 <1   Titanium ppm ASTM D5185m<>2 0 0 0 0   Silver ppm ASTM D5185m<>2 0 0 0 0   Aluminum ppm ASTM D5185m<>330 2 5 11 1   Tin ppm ASTM D5185m<>330 2 5 11 1   Tin ppm ASTM D5185m<>330 2 5 11 1   Tin ppm ASTM D5185m<>15 0 0 0 0   Vanadium ppm ASTM D5185m<>25 10 8 16 10   Petassium ppm ASTM D5185m<>22 10 13.1 1.0 1.0 1.0   Silicon <th>-</th> <th></th> <th>Client Info</th> <th></th> <th>•</th> <th></th> <th>0</th>	-		Client Info		•		0
Iron ppm ASTM D5185m >100 37 53 71   Chromium ppm ASTM D5185m >20 <1 2 1   Nickel ppm ASTM D5185m >2 0 <1 <1   Titanium ppm ASTM D5185m >2 6 0 <1   Silver ppm ASTM D5185m >2 6 9 18   Lead ppm ASTM D5185m >20 0 0 4   Copper ppm ASTM D5185m >40 0 0 0 0   Vanadium ppm ASTM D5185m >15 0 0 0 0   Vanadium ppm ASTM D5185m >10 8 16 0 <	-						0
Chromium ppm ASTM D5185m >20 <1							
Nickel ppm ASTM D5185m >2 0 <1	Iron	ppm	ASTM D5185m	>100	37	53	71
Titanium ppm ASTM D5185m >2 6 0 <1	Chromium	ppm	ASTM D5185m	>20	<1	2	1
Silver ppm ASTM D5185m >2 0 0 0   Aluminum ppm ASTM D5185m >25 6 9 18   Lead ppm ASTM D5185m >40 0 0 4   Copper ppm ASTM D5185m >330 2 5 11   Tin ppm ASTM D5185m >15 0 0 0   Vanadium ppm ASTM D5185m >15 0 0 0   White Metal scalar *Visual NONE NONE NONE NONE   Silicon ppm ASTM D5185m >20 <1 2 27.0   Fuel % ASTM D5185m >20 <14.4 <1.0	Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum ppm ASTM D5185m >25 6 9 18   Lead ppm ASTM D5185m >40 0 0 4   Copper ppm ASTM D5185m >330 2 5 11   Tin ppm ASTM D5185m >15 0 0 0   Vanadium ppm ASTM D5185m >15 0 0 0   Wite Metal scalar *Visual NONE NONE NONE NONE   Yellow Metal scalar *Visual NONE NONE NONE NONE NONE   Silicon ppm ASTM D5185m<>20 <10 8 16   Potassium ppm ASTM D5185m<>20 <11 2 27   Fuel % ASTM D5185m<>20 <10.1 8 16   Potassium ppm ASTM D5185m<>20 <10.1 13.1 14.1   Sulfation Abs/1mm YASTM D7624<>20 10.1 13.1 14.1	Titanium	ppm	ASTM D5185m	>2	6	0	<1
Lead ppm ASTM D5185m >40 0 0 4   Copper ppm ASTM D5185m >330 2 5 11   Tin ppm ASTM D5185m >15 0 0 0   Vanadium ppm ASTM D5185m >15 0 0 0   White Metal scalar 'Visual NONE NONE NONE NONE NONE   Yellow Metal scalar 'Visual NONE NONE NONE NONE NONE   Silicon ppm ASTM D5185m<>20 <10 8 16   Potassium ppm ASTM D5185m<>20 <1 2 27   Fuel % ASTM D5185m<>20 <14.4 <1.0	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper ppm ASTM D5185m >330 2 5 11   Tin ppm ASTM D5185m >15 0 0 0   Vanadium ppm ASTM D5185m 0 0 0 0   White Metal scalar *Visual NONE NONE NONE NONE   Yellow Metal scalar *Visual NONE NONE NONE NONE   Silicon ppm ASTM D5185m<>20 <1 2 27   Fuel % ASTM D5185m<>20 <14.4 <1.0 <1.0   Water WC Method >0.2 NEG NEG NEG   Glycol WC Method >0.2 NEG NEG NEG   Sott % % "ASTM D7624<>20 10.1 13.1 14.1   Sulfation Abs/(mm "ASTM D7624<>20 10.1 NONE NONE   Debris scalar *Visual NONE NONE NONE NORE	Aluminum	ppm	ASTM D5185m	>25	6	9	18
Copper ppm ASTM D5185m >330 2 5 11   Tin ppm ASTM D5185m >15 0 0 0   Vanadium ppm ASTM D5185m 0 0 0 0   White Metal scalar *Visual NONE NONE NONE NONE NONE   Yellow Metal scalar *Visual NONE NONE NONE NONE NONE   Silicon ppm ASTM D5185m<>20 <10 8 16   Potassium ppm ASTM D5185m<>20 <11 2 27   Fuel % ASTM D5185m<>20 <14.4 <1.0 <1.0   Water WC Method >0.2 NEG NEG NEG   Glycol WC Method >0.2 NEG NEG NEG   Sott % % "ASTM D7624 >20 10.1 13.1 14.1   Sulfation Abs/.1mm "ASTM D7624 >20 10.1 NONE<	Lead	ppm	ASTM D5185m	>40	0	0	4
Tin ppm ASTM D5185m >15 0 0 0   Vanadium ppm ASTM D5185m 0 0 0 0   White Metal scalar *Visual NONE NONE NONE NONE NONE   Yellow Metal scalar *Visual NONE NONE NONE NONE NONE   Silicon ppm ASTM D5185m<>20 <1 2 27   Fuel % ASTM D5185m<>20 <1 2 27   Fuel % ASTM D5185m<>20 <1 2 27   Water WC Method >0.2 NEG NEG NEG   Glycol WC Method >0.2 NEG NEG NEG   Sott % % *ASTM D7624<>20 10.1 13.1 14.1   Sulfation Abs/:mm *ASTM D7624<>20 10.1 NONE NONE   Debris scalar *Visual NONE NONE NONE NONE	Copper		ASTM D5185m	>330	2	5	11
Vanadium ppm ASTM D5185m 0 0 0 0   White Metal scalar *Visual NONE NONE NONE NONE NONE   Yellow Metal scalar *Visual NONE NONE NONE NONE NONE   Silicon ppm ASTM D5185m< >25 10 8 16   Potassium ppm ASTM D5185m >20 <1 2 27   Fuel % ASTM D5185m >20 <1 2 27   Fuel % ASTM D7624 >5 ▲ 14.4 <1.0 <1.0   Water WC Method >0.2 NEG NEG NEG NEG   Soot % % *ASTM D7624 >20 10.1 13.1 14.1   Sulfation Abs/tmm *ASTM 07624 >20 10.1 13.1 14.1   Sulfation Abs/tmm *ASTM 07415 >30 20.5 26.4 23.1   Silt scalar *	Tin		ASTM D5185m	>15	0	0	0
White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONESiliconppmASTM D5185m>20<1227Fuel%ASTM D5185m>20<1227Fuel%ASTM D5185m>20<1227Fuel%ASTM D5185m>20<14227GlycolWC Method>0.2NEGNEGNEGSoot %%*ASTM D7844>30.71.70.7NitrationAbs/cm*ASTM D7844>2010.113.114.1SulfationAbs/fm*ASTM D7844>320.526.423.1Siltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORENONENONENORMLAppearancescalar*VisualNORLNORMLNORMLNORMLOdorscalar*VisualNORENORMLNORMLNORMLMolybdenumppmASTM D5185m110<1BariumppmASTM D5185m11243ManganeseppmASTM D5185m112ManganeseppmASTM D5185m11007897752SulfurppmASTM D5185m1007897 <t< th=""><th>Vanadium</th><th></th><th>ASTM D5185m</th><th></th><th>0</th><th>0</th><th>0</th></t<>	Vanadium		ASTM D5185m		0	0	0
Silicon ppm ASTM D5185m< >25 10 8 16   Potassium ppm ASTM D5185m >20 <1 2 27   Fuel % ASTM D5185m >20 <1 2 27   Fuel % ASTM D5185m >20 <1 2 27   Fuel % ASTM D5185m >20 <14 <1.0 <1.0   Water WC Method >0.2 NEG NEG NEG NEG   Soot % % 'ASTM D7844 >3 0.7 1.7 0.7   Nitration Abs/cm< 'ASTM D7624 >20 10.1 13.1 14.1   Sulfation Abs/imm 'ASTM D715 >30 20.5 26.4 23.1   Silt scalar 'Visual NONE NONE NONE NONE   Debris scalar 'Visual NORM NORM NORML NORML NORML   Adpearance scalar 'Visual NORM NORML	White Metal			NONE	NONE	NONE	NONE
Silicon ppm ASTM D5185m< >25 10 8 16   Potassium ppm ASTM D5185m >20 <1 2 27   Fuel % ASTM D5185m >20 <1 2 27   Fuel % ASTM D5185m >20 <1 2 27   Fuel % ASTM D5185m >20 <14 <1.0 <1.0   Water WC Method >0.2 NEG NEG NEG NEG   Soot % % 'ASTM D7844 >3 0.7 1.7 0.7   Nitration Abs/cm< 'ASTM D7624 >20 10.1 13.1 14.1   Sulfation Abs/imm 'ASTM D715 >30 20.5 26.4 23.1   Silt scalar 'Visual NONE NONE NONE NONE   Debris scalar 'Visual NORM NORM NORML NORML NORML   Adpearance scalar 'Visual NORM NORML	Yellow Metal	scalar		NONE	-	NONE	
Potassium ppm ASTM D5185m >20 <1							
Fuel % ASTM D3524 >5 ▲ 14.4 <1.0	Silicon	ppm	ASTM D5185m	>25	10	8	16
Water WC Method >0.2 NEG NEG NEG NEG   Glycol WC Method NEG NEG NEG NEG NEG   Soot % % *ASTM D7844 >3 0.7 1.7 0.7   Nitration Abs/cm *ASTM D7624 >20 10.1 13.1 14.1   Sulfation Abs/tmm *ASTM D7624 >20 10.1 13.1 14.1   Sulfation scalar *Visual NONE NONE NONE NONE NONE   Sand/Dirt scalar *Visual NORM NORML NORML NORML NORML   Odor scalar *Visual NORM NORML NORML NORML	Potassium	ppm	ASTM D5185m	>20	<1	2	27
Glycol WC Method NEG NEG NEG   Soot % % *ASTM D7844 >3 0.7 1.7 0.7   Nitration Abs/cm *ASTM D7624 >20 10.1 13.1 14.1   Sulfation Abs/tm *ASTM D7624 >20 20.5 26.4 23.1   Silt scalar *Visual NONE NONE NONE NONE   Debris scalar *Visual NONE NONE NONE NONE   Sand/Dirt scalar *Visual NOR NORML NORML NORML NORML   Appearance scalar *Visual NORM NORML NORML NORML NORML   Odor scalar *Visual NORM NORML NORML NORML NORML   Boron ppm ASTM D5185m 4 5 40   Boron ppm ASTM D5185m 11 0 <1   Malganesium ppm ASTM D5185m </th <th></th> <th>%</th> <th>ASTM D3524</th> <th>&gt;5</th> <th><b>1</b>4.4</th> <th>&lt;1.0</th> <th>&lt;1.0</th>		%	ASTM D3524	>5	<b>1</b> 4.4	<1.0	<1.0
Soot % % *ASTM D7844 >3 0.7 1.7 0.7   Nitration Abs/cm *ASTM D7624 >20 10.1 13.1 14.1   Sulfation Abs/cm *ASTM D7624 >30 20.5 26.4 23.1   Silt scalar *Visual NONE NONE NONE NONE NONE   Debris scalar *Visual NORML NORML NORML NORML NORML NORML   Appearance scalar *Visual >0.2 NEG NEG NEG NEG   Boron ppm ASTM D5185m 4 5	Water		WC Method	>0.2	NEG	NEG	NEG
Nitration Abs/cm *ASTM D7624 >20 10.1 13.1 14.1   Sulfation Abs/1mm *ASTM D7415 >30 20.5 26.4 23.1   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 NORM NORML NORML NORML NORML   Odor scalar *Visual NOR NORML NORML NORML   Emulsified Water scalar *Visual >0.2 NEG NEG NEG   Sodium ppm ASTM D5185m 4 5 40   Boron ppm ASTM D5185m 11 0 <1   Marganese ppm ASTM D5185m 11 1 2   Magnesium<	Glycol		WC Method		NEG	NEG	NEG
SulfationAbs/.tmm*ASTM D7415>3020.526.423.1Siltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGSodiumppmASTM D5185m4540BoronppmASTM D5185m7011791BariumppmASTM D5185m110<1MolybdenumppmASTM D5185m112MagnesiumppmASTM D5185m116837022609PhosphorusppmASTM D5185m1007897752SulfurppmASTM D5185m1007897752SulfurppmASTM D5185m14.518.418.9Base Number (BN)mg KOHgASTM D28967.7410.68.26	Soot %	%	*ASTM D7844	>3	0.7	1.7	0.7
Siltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMNORMLNORMLNORMLNORMLOdorscalar*VisualNORMNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGSodiumppmASTM D5185m4540BoronppmASTM D5185m7011791BariumppmASTM D5185m110<1MolybdenumppmASTM D5185m112MagnesiumppmASTM D5185m539413256CalciumppmASTM D5185m910631627PhosphorusppmASTM D5185m1007897752SulfurppmASTM D5185m14.518.418.9Base Number (BN)mg KOHgASTM D28967.7410.68.26	Nitration	Abs/cm	*ASTM D7624	>20	10.1	13.1	14.1
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGSodiumppmASTM D5185m4540BoronppmASTM D5185m110<1MalganeseppmASTM D5185m110<1MagnesiumppmASTM D5185m539413256CalciumppmASTM D5185m910631627PhosphorusppmASTM D5185m1007897752SulfurppmASTM D5185m414228202356OxidationAbs.1mm*ASTM D5185m14.518.418.9Base Number (BN)mg KOHgASTM D28967.7410.68.26	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	26.4	23.1
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGSodiumppmASTM D5185m4540BoronppmASTM D5185m7011791BariumppmASTM D5185m110<1MolybdenumppmASTM D5185m77198124MagneseppmASTM D5185m1112MagnesiumppmASTM D5185m539413256CalciumppmASTM D5185m910631627ZincppmASTM D5185m1007897752SulfurppmASTM D5185m414228202356OxidationAbs.1mm*ASTM D5185m14.518.418.9Base Number (BN)mg KOHgASTM D28967.7410.68.26	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGSodiumppmASTM D5185m4540BoronppmASTM D5185m7011791BariumppmASTM D5185m110<1MolybdenumppmASTM D5185m112124ManganeseppmASTM D5185m112CalciumppmASTM D5185m6116837022609PhosphorusppmASTM D5185m910631627ZincppmASTM D5185m1007897752SulfurppmASTM D5185m414228202356OxidationAbs.1mm*ASTM D5185m14.518.418.9Base Number (BN)mg KOHgASTM D28967.7410.68.26	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Odor scalar *Visual NORML NOR   Sodium ppm ASTM D5185m 4 4 5 40 11 2 124 10 124 10 124 124 124 124 124 124 124 124 124 124 124<	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >0.2 NEG NEG NEG   Sodium ppm ASTM D5185m 4 5 40   Boron ppm ASTM D5185m 70 117 91   Barium ppm ASTM D5185m 11 0 <1   Molybdenum ppm ASTM D5185m 77 198 124   Manganese ppm ASTM D5185m 77 198 124   Magnesium ppm ASTM D5185m 539 413 256   Calcium ppm ASTM D5185m 539 413 2609   Phosphorus ppm ASTM D5185m 1168 3702 2609   Phosphorus ppm ASTM D5185m 910 631 627   Zinc ppm ASTM D5185m 1007 897 752   Sulfur ppm ASTM D5185m 14142 2820 2356   Oxidation Abs.1mm<*ASTM D7414 >25 14.5 1	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Sodium ppm ASTM D5185m 4 5 40   Boron ppm ASTM D5185m 70 117 91   Barium ppm ASTM D5185m 11 0 <1   Molybdenum ppm ASTM D5185m 11 0 <1   Manganese ppm ASTM D5185m 7 198 124   Magnesium ppm ASTM D5185m 539 413 256   Calcium ppm ASTM D5185m 539 413 2609   Phosphorus ppm ASTM D5185m 910 631 627   Zinc ppm ASTM D5185m 910 631 627   Sulfur ppm ASTM D5185m 910 631 627   Zinc ppm ASTM D5185m 910 631 627   Sulfur ppm ASTM D5185m 1007 897 752   Sulfur ppm ASTM D5185m 4142 2820 2356   <	Odor	scalar		NORML	NORML	NORML	NORML
Boron ppm ASTM D5185m 70 117 91   Barium ppm ASTM D5185m 11 0 <1   Molybdenum ppm ASTM D5185m 7 198 124   Manganese ppm ASTM D5185m 7 198 124   Magnesium ppm ASTM D5185m 1 1 2   Calcium ppm ASTM D5185m 539 413 256   Calcium ppm ASTM D5185m 1168 3702 2609   Phosphorus ppm ASTM D5185m 910 631 627   Zinc ppm ASTM D5185m 1007 897 752   Sulfur ppm ASTM D5185m 4142 2820 2356   Oxidation Abs.1mm *ASTM D7414<>25 14.5 18.4 18.9   Base Number (BN) mg KOH/g ASTM D2896 7.74 10.6 8.26	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Boron ppm ASTM D5185m 70 117 91   Barium ppm ASTM D5185m 11 0 <1   Molybdenum ppm ASTM D5185m 7 198 124   Manganese ppm ASTM D5185m 7 198 124   Magnesium ppm ASTM D5185m 1 1 2   Calcium ppm ASTM D5185m 539 413 256   Calcium ppm ASTM D5185m 1168 3702 2609   Phosphorus ppm ASTM D5185m 910 631 627   Zinc ppm ASTM D5185m 1007 897 752   Sulfur ppm ASTM D5185m 4142 2820 2356   Oxidation Abs.1mm *ASTM D7414<>25 14.5 18.4 18.9   Base Number (BN) mg KOH/g ASTM D2896 7.74 10.6 8.26	0					_	4.0
Barium ppm ASTM D5185m 11 0 <1	-						0.4
Molybdenum ppm ASTM D5185m 7 198 124   Manganese ppm ASTM D5185m 1 1 2   Magnesium ppm ASTM D5185m 1 1 2   Calcium ppm ASTM D5185m 539 413 256   Calcium ppm ASTM D5185m 910 631 627   Phosphorus ppm ASTM D5185m 910 631 627   Zinc ppm ASTM D5185m 1007 897 752   Sulfur ppm ASTM D5185m 4142 2820 2356   Oxidation Abs.1mm<*ASTM D7414<>25 14.5 18.4 18.9   Base Number (BN) mg KOH/g ASTM D2896 7.74 10.6 8.26							
Manganese ppm ASTM D5185m 1 1 2   Magnesium ppm ASTM D5185m 539 413 256   Calcium ppm ASTM D5185m 1168 3702 2609   Phosphorus ppm ASTM D5185m 910 631 627   Zinc ppm ASTM D5185m 1007 897 752   Sulfur ppm ASTM D5185m 4142 2820 2356   Oxidation Abs/.1mm<*ASTM D7414							
Magnesium ppm ASTM D5185m 539 413 256   Calcium ppm ASTM D5185m 1168 3702 2609   Phosphorus ppm ASTM D5185m 910 631 627   Zinc ppm ASTM D5185m 1007 897 752   Sulfur ppm ASTM D5185m 4142 2820 2356   Oxidation Abs/.1mm<*ASTM D7414 >25 14.5 18.4 18.9   Base Number (BN) mg KOH/g ASTM D2896 7.74 10.6 8.26	-						
Calcium ppm ASTM D5185m 1168 3702 2609   Phosphorus ppm ASTM D5185m 910 631 627   Zinc ppm ASTM D5185m 1007 897 752   Sulfur ppm ASTM D5185m 4142 2820 2356   Oxidation Abs/1mm<*ASTM D7144	•						
Phosphorus ppm ASTM D5185m 910 631 627   Zinc ppm ASTM D5185m 1007 897 752   Sulfur ppm ASTM D5185m 4142 2820 2356   Oxidation Abs.1mm *ASTM D7414 >25 14.5 18.4 18.9   Base Number (BN) mg KOH/g ASTM D2896 7.74 10.6 8.26	•				-		
Zinc ppm ASTM D5185m 1007 897 752   Sulfur ppm ASTM D5185m 4142 2820 2356   Oxidation Abs.1mm *ASTM D7414 >25 14.5 18.4 18.9   Base Number (BN) mg KOH/g ASTM D2896 7.74 10.6 8.26					-		
Sulfur ppm ASTM D5185m 4142 2820 2356   Oxidation Abs/.1mm *ASTM D7414 >25 14.5 18.4 18.9   Base Number (BN) mg KOH/g ASTM D2896 7.74 10.6 8.26							
Oxidation Abs/.1mm *ASTM D7414 >25 14.5 18.4 18.9   Base Number (BN) mg KOH/g ASTM D2896 7.74 10.6 8.26							
Base Number (BN) mg KOH/g ASTM D2896 7.74 10.6 8.26							
				>25			
Visc @ 100°C cSt ASTM D445 12.0 49.1 10.72 9.82							
	Visc @ 100°C	cSt	ASTM D445	12.0	9.1	10.72	9.82



DEPENDABLE TREE SERVICE Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Received 10705 S 300 E : TR06145366 : 10 Apr 2024 ñ Lab Number : 06145366 Tested MARKLEVILLE, IN : 16 Apr 2024 Unique Number : 10970174 US 46056 Diagnosed : 16 Apr 2024 - Wes Davis Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel) Contact: MARC DEMOTT Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-827-0711. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: MARC DEMOTT - DEPMAR Page 2 of 2