

# **K5 CONSTRUCTION CORPORATION - HODGKINS IL**

# 2028

**Hydraulic System** 

### LEAHY WOLF LUBEMASTER HYDRAULIC OIL (50 GAL)

RECOMMENDATION
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Resample at the next service interval to monitor.

#### **WEAR**

All component wear rates are normal.

#### CONTAMINATION

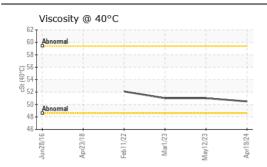
There is no indication of any contamination in the oil.

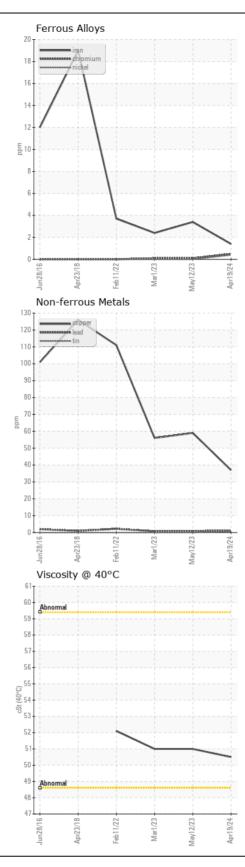
### FLUID CONDITION

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

TestUOMMethodLimitAbCurrentHistory1History2Sample NumberClient InfoIM0008850UM0008984LM0008840Sample DateClient Info19 Apr 202412 May 202301 Mar 2023Machine AgehrsClient Info627358475847Oil AgehrsClient Info4265818258Filter AgehrsClient InfoChangedChangedNot ChangedOil ChangedClient InfoChangedChangedNot ChangedFilter ChangedClient InfoChangedChangedNot ChangedFilter ChangedpmASTM D5185>20132ChromiumppmASTM D5185>10<1<1<1NickelpmASTM D5185>10<1<1<1<1SilverppmASTM D5185>102<1<1<1SilverppmASTM D5185>101<1<1<1<1LeadppmASTM D5185>101<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<	(50 GAL)						
Sample DateClient InfoIP 97 202412 May 202301 Mar 2023Machine AgehrsClient Info627358475847Oil AgehrsClient Info4265818258Filter AgehrsClient InfoChangedChangedNot ChangedOil ChangedClient InfoChangedChangedNot ChangedFilter ChangedClient InfoChangedChangedNot ChangedSample StatusClient InfoChangedChangedNot ChangedSample StatusStatusSave132ChromiumppmASTM D5185>20132ChromiumppmASTM D5185>10<1<1<1NickelppmASTM D5185>10<1<1<1SilverppmASTM D5185>102<1<1LeadppmASTM D5185>101<1<1CopperppmASTM D5185>101<1<1VanadiumppmASTM D5185>10<100VanadiumppmASTM D5185>10<1<1<1VanadiumppmASTM D5185>20<1487PotassiumppmASTM D5185>20<14<1<1VanadiumppmASTM D5185>20<14<1<1VanadiumppmASTM D5185>20<14<1<1Vanadium </th <th>Test</th> <th>UOM</th> <th>Method</th> <th>Limit/Abn</th> <th>Current</th> <th>History1</th> <th>History2</th>	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine AgehrsClient Info627358475847Oil AgehrsClient Info4265818258Filter AgehrsClient Info4265818258Oil ChangedClient InfoChangedChangedNot ChangedFilter ChangedClient InfoChangedChangedNot ChangedSample StatusClient InfoChangedChangedNot ChangedIronppmASTM D5185m>20132ChromiumppmASTM D5185m>10<1<1<1NickelppmASTM D5185m>10<1<1<1SilverppmASTM D5185m>10<1<1<1SilverppmASTM D5185m>101<1<1LeadppmASTM D5185m>10<100VanadumppmASTM D5185m>10<100VanadumppmASTM D5185m>201487PotassiumppmASTM D5185m>201487PotassiumppmASTM D5185m>201487PotassiumppmASTM D5185m>201487PotassiumppmASTM D5185mS201487PotassiumppmASTM D5185mS201487PotassiumppmASTM D5185mS201487Potassiumppm	Sample Number		Client Info		LW0008850	LW0006984	LW0006345
Oil AgehrsClient Info4265818258Filter AgehrsClient Info4265818258Oil ChangedClient InfoChangedChangedNot ChangedFilter ChangedMClient InfoChangedNot ChangedSample StatusSEVERABNORMALSEVEREABNORMALIronppmASTM D5185>20132ChromiumppmASTM D5185>10<1<1<1NickelppmASTM D518510<1<1<1NickelppmASTM D518510<1<1<1SilverppmASTM D5185>101<1<1LeadppmASTM D5185>101<1<1CopperppmASTM D5185>10<100ValuendumppmASTM D5185>10<100ValuendumppmASTM D5185>10<100ValuendumppmASTM D5185>10<100ValuendumppmASTM D5185>10<100ValuendumppmASTM D5185>10<100ValuendumppmASTM D5185>10<100ValuendumppmASTM D5185>20<11<1LeadppmASTM D5185>20<14<1<1SiltonppmASTM D5185>20<	Sample Date		Client Info		19 Apr 2024	12 May 2023	01 Mar 2023
Filter Age Oil ChangedhrsClient Info4265818258Oil ChangedClient InfoChangedChangedNot ChangedFilter ChangedQClient InfoChangedChangedNot ChangedSample StatusVNORMALSEVEREABNORMALIronppmASTM D5185m>20132ChromiumppmASTM D5185m>10<100NickelppmASTM D5185m>10<1<1<1NickelppmASTM D5185m<10<1<1<1SilverppmASTM D5185m>10<1<1<1LeadppmASTM D5185m>101<1<1LeadppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>20<100VanadiumppmASTM D5185m>20<1487PotassiumppmASTM D5185m>20<14<1<1SiliconppmASTM D5185m>20<14<1<1VaterVisualNONENONENONENONENONESiliconppmASTM D5185m>20<1<1<1< <td< th=""><th>Machine Age</th><th>hrs</th><th>Client Info</th><th></th><th>6273</th><th>5847</th><th>5847</th></td<>	Machine Age	hrs	Client Info		6273	5847	5847
Oil ChangedClient InfoKhangedChangedNot ChangedFilter ChangedClient InfoChangedNot ChangedNot ChangedSample StatusNormanNORMALSEVEREABNORMALIronppmASTM D5185>20132ChromiumppmASTM D5185>10<1<1<1NickelppmASTM D5185>10<1<1<1NickelppmASTM D5185>10<1<1<1SilverppmASTM D5185>10<1<1<1LeadppmASTM D5185>101<1<1CopperppmASTM D5185>10<1<1<1VanadiumppmASTM D5185>10<100VanadiumppmASTM D5185>10<100Vellow Metalscalar'VisualNONENONENONENONESiliconppmASTM D5185>20<14<1<1Vellow Metalscalar'VisualNONENONENONENONESiliconppmASTM D5185>20<14<1<1Vellow Metalscalar'VisualNONENONENONENONESiliconppmASTM D5185>20<14<1<1PotassiumppmASTM D5185>20<14<1<<1SiliconppmASTM D5185>20<14<1<<	Oil Age	hrs	Client Info		426	5818	258
Filter Changed Sample StatusClient InfoChanged NoRIMALNot Changed Severe NORIMALNot Changed Severe Severe ABNORMALIronppmASTM D5185m>20132ChromiumppmASTM D5185m>10<1<1<1NickelppmASTM D5185m>10<100TitaniumppmASTM D5185mI<1<1<1SilverppmASTM D5185m510<1<1<1LeadppmASTM D5185m>101<1<1LeadppmASTM D5185m>101<1<1LeadppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>20<1487PotassiumppmASTM D5185m>20<1487PotassiumppmASTM D5185m>20<1487PotassiumppmASTM D5185m>20<1487PotassiumppmASTM D5185m>20<14<1<1ASTM D5185m>20<1487<1<1PotassiumppmASTM D5185mNONENONENONENONESand/Dirt <t< th=""><th>Filter Age</th><th>hrs</th><th>Client Info</th><th></th><th>426</th><th>5818</th><th>258</th></t<>	Filter Age	hrs	Client Info		426	5818	258
Sample StatusNORMALSEVEREABNORMALIronppmASTM D5185>20013.32ChromiumppmASTM D5185>100<1<1<1NickelppmASTM D5185>100<10.00TitaniumppmASTM D5185>10<1<1<1SilverppmASTM D5185>102<1<1LeadppmASTM D5185>101<1<1LeadppmASTM D5185>101<1<1CopperppmASTM D5185>10<100VanadiumppmASTM D5185>10<100VanadiumppmASTM D5185>10<100VanadiumppmASTM D5185>10<100VanadiumppmASTM D5185>20<1487Vellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185>20<1487PotassiumppmASTM D5185>20<1487PotassiumppmASTM D5185>20<14<1<1<GotoppmASTM D5185>20<14<1<1<GotoppmASTM D5185>20<14<1<1<GotoppmASTM D5185>20<14<1<1<GotoppmASTM D5185<	Oil Changed		Client Info		Changed	Changed	Not Changd
IronppmASTM D5185>20132ChromiumppmASTM D5185>10<1<1<1<1NickelppmASTM D5185>10<100TitaniumppmASTM D5185<0<1<1<1<1SilverppmASTM D5185<00000AluminumppmASTM D5185>101<1<1<1LeadppmASTM D5185>101<1<1<1CopperppmASTM D5185>10<1000VanadiumppmASTM D5185>10<1000VanadiumppmASTM D5185>10<1000VanadiumppmASTM D5185>10<1000VanadiumppmASTM D5185>10<1000VanadiumppmASTM D5185>201487Yellow Metalscalar'VisualNONENONENONENONESiliconppmASTM D5185>20<14<3<1<<1VaterWC Method>.10NCRNONENONENONENONESiliconppmASTM D5185>20<1<1<1<<1<Qata'VisualNONENONENONENONENONENONESoliconscalar'VisualNONENON	Filter Changed		Client Info		Changed	Changed	Not Changd
ChromiumppmASTM D5185m>10<1	Sample Status				NORMAL	SEVERE	ABNORMAL
ChromiumppmASTM D5185m>10<1				00	_		0
NickelppmASTM D5185m>10<1	-			-		-	
Titanium         ppm         ASTM D5185m         <1							
SilverppmASTM D5185m>10000AluminumppmASTM D5185m>102<11LeadppmASTM D5185m>101<1<1CopperppmASTM D5185m>75375956TinppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>20<14887PotassiumppmASTM D5185m>20<14887PotassiumppmASTM D5185m>20<14887Silitscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORNONENONENONESand/Dirtscalar*VisualNORMNORMLNORMLNORMLAppearancescalar*VisualNORNORMLNORMLNORMLGorscalar*VisualNORNORMNORMLNORMLGorscalar*VisualNORMNORMLNORMLNORMLAppearancescalar*VisualNORNORMLNORMLNORMLGorscalar*VisualNORMNORMLNORMLNORMLMultified Watersca				>10		-	
AluminumppmASTM D5185m>102<1							
Lead         ppm         ASTM D5185m         >10         1         <1				10			
Copper         ppm         ASTM D5185m         >75         37         59         56           Tin         ppm         ASTM D5185m         >10         <1         0         0           Vanadium         ppm         ASTM D5185m         >10         <1         0         0           White Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE         NONE           Silicon         ppm         ASTM D5185m         >20         14         8         7           Potassium         ppm         ASTM D5185m         >20         <1         <1         <1           Water         WC Method         >0.1         NEG         NEG         NEG           Silt         scalar         *Visual         NONE         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE         NORE           Appearance         scalar         *Visual         NORML         NORML         NORML         NORML           Odor         scalar         *Visual							
TinppmASTM D5185m>10<1							
VanadiumppmASTM D5185m<1							
White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONESiliconppmASTM D5185m>201487PotassiumppmASTM D5185m>20<1<1<1WaterWC Method>0.1NEGNEGNEGSilitscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLMGMLMARMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLBariumppmASTM D5185m335BariumppmASTM D5185m000MolybdenumppmASTM D5185m<110<1MagnesiumppmASTM D5185m3336973CalciumppmASTM D5185m265827842763PhosphorusppmASTM D5185m11048935932ZincppmASTM D5185m123112061178SulfurppmASTM D5185m336530393323				>10			
Yellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>201487PotassiumppmASTM D5185m>20<1<1<1WaterWC Method>0.1NEGNEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLMORMLHAZYNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLDdorscalar*VisualNORMLNORMLNORMLNORMLSodiumppmASTM D5185m335BariumppmASTM D5185m6668993BariumppmASTM D5185m555ManganeseppmASTM D5185m<10<1MagnesiumppmASTM D5185m3336973CalciumppmASTM D5185m265827842763PhosphorusppmASTM D5185m11048935932ZincppmASTM D5185m123112061178SulfurppmASTM D5185m336530393323				NONE		-	
SiliconppmASTM D5185m>201487PotassiumppmASTM D5185m>20<1				_			
PotassiumppmASTM D5185m>20<1	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
WaterWC Method>0.1NEGNEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLHAZYNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG0.2%0.2%SodiumppmASTM D5185m335BoronppmASTM D5185m6668993BariumppmASTM D5185m555MagnesiumppmASTM D5185m140<11MagnesiumppmASTM D5185m265827842763PhosphorusppmASTM D5185m11048935932ZincppmASTM D5185m123112061178SulfurppmASTM D5185m3336530393323	Silicon	ppm	ASTM D5185m	>20	14	8	7
Siltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLHAZYNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG0.2%0.2%SodiumppmASTM D5185m335BoronppmASTM D5185m668993BariumppmASTM D5185m000MolybdenumppmASTM D5185m555ManganeseppmASTM D5185m4336973CalciumppmASTM D5185m265827842763PhosphorusppmASTM D5185m11048935932ZincppmASTM D5185m3336530393323	Potassium	ppm	ASTM D5185m	>20	<1	<1	<1
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLHAZYNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG0.2%0.2%SodiumppmASTM D5185mS668993BoronppmASTM D5185mG000MolybdenumppmASTM D5185mS55ManganeseppmASTM D5185mS6973CalciumppmASTM D5185m265827842763PhosphorusppmASTM D5185m1048935932ZincppmASTM D5185m123112061178SulfurppmASTM D5185m3336530393323	Water		WC Method	>0.1	NEG	NEG	NEG
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLHAZYNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG0.2%0.2%SodiumppmASTM D5185m335BoronppmASTM D5185m66689993BariumppmASTM D5185m000MolybdenumppmASTM D5185m555ManganeseppmASTM D5185m410<1MagnesiumppmASTM D5185m265827842763PhosphorusppmASTM D5185m11048935932ZincppmASTM D5185m123112061178SulfurppmASTM D5185m3336530393323	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG0.2%0.2%SodiumppmASTM D5185m335BoronppmASTM D5185m668993BariumppmASTM D5185m000MolybdenumppmASTM D5185m55ManganeseppmASTM D5185m<100<1MagnesiumppmASTM D5185m265827842763PhosphorusppmASTM D5185m1048935932ZincppmASTM D5185m123112061178SulfurppmASTM D5185m3336530393323	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Odor         scalar         *Visual         NORML         NORML         NORML         NORML           Emulsified Water         scalar         *Visual         >0.1         NEG         0.2%         0.2%           Sodium         ppm         ASTM D5185m         3         3         5           Boron         ppm         ASTM D5185m         66         89         93           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         5         5         5           Magnesium         ppm         ASTM D5185m         <41         0         <1           Magnesium         ppm         ASTM D5185m         2658         2784         2763           Phosphorus         ppm         ASTM D5185m         1048         935         932           Zinc         ppm         ASTM D5185m         1231         1206         1178           Sulfur         ppm         ASTM D5185m         3365         3039         3323	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water         scalar         *Visual         >0.1         NEG         0.2%         0.2%           Sodium         ppm         ASTM D5185m         3         3         5           Boron         ppm         ASTM D5185m         66         89         93           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         5         5         5           Manganese         ppm         ASTM D5185m         <         41         0         <1           Magnesium         ppm         ASTM D5185m          83         69         73           Calcium         ppm         ASTM D5185m         2658         2784         2763           Phosphorus         ppm         ASTM D5185m         1048         935         932           Zinc         ppm         ASTM D5185m         1231         1206         1178           Sulfur         ppm         ASTM D5185m         3365         3039         3323	Appearance	scalar	*Visual	NORML	NORML	HAZY	NORML
Sodium         ppm         ASTM D5185m         3         3         5           Boron         ppm         ASTM D5185m         66         89         93           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         0         0         0           Manganese         ppm         ASTM D5185m         <1         0         <1           Magnesium         ppm         ASTM D5185m         83         69         73           Calcium         ppm         ASTM D5185m         2658         2784         2763           Phosphorus         ppm         ASTM D5185m         1048         935         932           Zinc         ppm         ASTM D5185m         1231         1206         1178           Sulfur         ppm         ASTM D5185m         33365         3039         3323	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Boron         ppm         ASTM D5185m         66         89         93           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         5         5           Manganese         ppm         ASTM D5185m         <1         0         <1           Magnesium         ppm         ASTM D5185m         83         69         73           Calcium         ppm         ASTM D5185m         2658         2784         2763           Phosphorus         ppm         ASTM D5185m         1048         935         932           Zinc         ppm         ASTM D5185m         1231         1206         1178           Sulfur         ppm         ASTM D5185m         33365         3039         3323	Emulsified Water	scalar	*Visual	>0.1	NEG	0.2%	0.2%
Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         5         5           Manganese         ppm         ASTM D5185m         <1         0         <1           Magnesium         ppm         ASTM D5185m         <383         69         73           Calcium         ppm         ASTM D5185m         2658         2784         2763           Phosphorus         ppm         ASTM D5185m         1048         935         932           Zinc         ppm         ASTM D5185m         1231         1206         1178           Sulfur         ppm         ASTM D5185m         3365         3039         3323	Sodium	ppm	ASTM D5185m		3	3	5
Molybdenum         ppm         ASTM D5185m         5         5           Manganese         ppm         ASTM D5185m         <1         0         <1           Magnesium         ppm         ASTM D5185m         83         69         73           Calcium         ppm         ASTM D5185m         2658         2784         2763           Phosphorus         ppm         ASTM D5185m         1048         935         932           Zinc         ppm         ASTM D5185m         1231         1206         1178           Sulfur         ppm         ASTM D5185m         3365         3039         3323	Boron	ppm	ASTM D5185m		66	89	93
Manganese         ppm         ASTM D5185m         <1	Barium	ppm	ASTM D5185m		0	0	0
Magnesium         ppm         ASTM D5185m         83         69         73           Calcium         ppm         ASTM D5185m         2658         2784         2763           Phosphorus         ppm         ASTM D5185m         1048         935         932           Zinc         ppm         ASTM D5185m         1231         1206         1178           Sulfur         ppm         ASTM D5185m         3365         3039         3323	Molybdenum	ppm	ASTM D5185m		5	5	5
Calcium         ppm         ASTM D5185m         2658         2784         2763           Phosphorus         ppm         ASTM D5185m         1048         935         932           Zinc         ppm         ASTM D5185m         1231         1206         1178           Sulfur         ppm         ASTM D5185m         3365         3039         3323	Manganese	ppm	ASTM D5185m		<1	0	<1
Phosphorus         ppm         ASTM D5185m         1048         935         932           Zinc         ppm         ASTM D5185m         1231         1206         1178           Sulfur         ppm         ASTM D5185m         3365         3039         3323	Magnesium	ppm	ASTM D5185m		83	69	73
Zinc         ppm         ASTM D5185m         1231         1206         1178           Sulfur         ppm         ASTM D5185m         3365         3039         3323	Calcium	ppm	ASTM D5185m		2658	2784	2763
Sulfur         ppm         ASTM D5185m         3365         3039         3323	Phosphorus	ppm	ASTM D5185m		1048	935	932
	Zinc	ppm	ASTM D5185m		1231	1206	1178
Visc @ 40°C cSt ASTM D445 50.5 51.0 51.0	Sulfur	ppm	ASTM D5185m		3365	3039	3323

Submitted By: NOELLE TERRAULT





**K5 CONSTRUCTION CORPORATION** : WearCheck USA - 501 Madison Ave., Cary, NC 27513 : LW0008850 Received : 24 Apr 2024 6301 S EAST AVENUE Lab Number : 06159963 Tested : 25 Apr 2024 HODGKINS, IL Unique Number : 10995386 Diagnosed : 25 Apr 2024 - Wes Davis US 60525 Contact: FRANCISCO MUNOZ To discuss this sample report, contact Customer Service at 1-800-237-1369. franciscom@k-five.net \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Certificate L2367

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Laboratory

Sample No.

Test Package : FLEET

Submitted By: NOELLE TERRAULT Page 2 of 2