

# **OIL ANALYSIS REPORT**

Sample Rating Trend

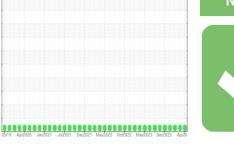




## Area Canton [Canton] Oil - Port Main Engine Port Main Engine Fluid

DIESEL ENGINE OIL SAE 15W40 (150 GAL)

SAMPLE INFORMATION method





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.

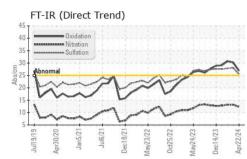
### Fluid Condition

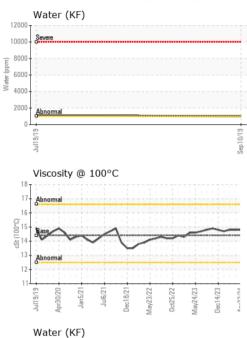
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

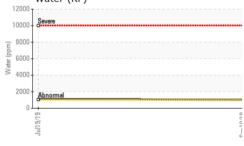
Sample Date         Client Info         22 Apr 2024         28 Mar 2024         27 Feb 2024           Machine Age         hrs         Client Info         16432         16432         0           Oil Age         hrs         Client Info         001855         10585         0           Oil Age         Client Info         0018 Ade         011 Added         N/A         N/A           Sample Status         method         imit/base         current         history!         history!           Fuel         WC Method         >4.0         <1.0         <1.0         <1.0           Glycol         WC Method         >4.1         <1         0         0           Nickel         ppm         ASTM 05185n         >2         <1         0         0           Titanium         ppm         ASTM 05185n         >2         <1         0         0           Silver         ppm         ASTM 05185n         >18         6         5         4         2         3           Copper         ppm         ASTM 05185n         >18         6         5         4         2           Vanadium         ppm         ASTM 05185n         18         6         5         4	Sample Number		Client Info		WC0874841	WC0805418	WC0805431
Oil Age         hrs         Client Info         10585         10585         0           Oil Adaged         Client Info         Oil Added         N/A         NA           Sample Status         Imil/base         current         history1         history2           Fuel         WC Method         >4.0         -1.0         <1.0           Glycol         WC Method         >4.0         NEG         NEG           WEAR METALS         method         imil/base         current         history1         history2           Iron         ppm         ASTM D5185m         >75         44         42         45           Chromium         ppm         ASTM D5185m         >2         <1         0         0           Nickel         ppm         ASTM D5185m         >2         <1         0         0           Silver         ppm         ASTM D5185m         >2         <1         0         0           Cadmium         ppm         ASTM D5185m         >80         5         2         3         1           Lead         ppm         ASTM D5185m         >16         5         4         0         0           Cadmium         ppm         ASTM D5185	Sample Date		Client Info		22 Apr 2024	28 Mar 2024	27 Feb 2024
Oil Changed Sample StatusClient InfoOil Added NORMALN/A NORMALCONTAMINATIONmethodImit/base imit/basecurrenthistory1history2FuelWC Method>4.0<1.0<1.0<1.0<1.0GlycolWC Method>4.0<1.0<1.0<1.0GlycolWC Method>4.0<1.0<1.0<1.0WEAR METALSmethodimit/basecurrenthistory1history2IronppmASTM D5185m>75444245OhromiumppmASTM D5185m>2<100NickelppmASTM D5185m>2<100AluminumppmASTM D5185m>15431LeadppmASTM D5185m>18654CopperppmASTM D5185m>18654CadmiumppmASTM D5185m>14100VanadiumppmASTM D5185m>14100AdminumppmASTM D5185m>10<100AdminumppmASTM D5185m10<100AdminumppmASTM D5185m100112112106ManageneseppmASTM D5185m100112112106MagneseppmASTM D5185m150837869828ZincuppmASTM D5185m150837<	Machine Age	hrs	Client Info		16432	16432	0
Sample Status         NORMAL         NORMAL         NORMAL         NORMAL         NORMAL         NORMAL           CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method         >4.0         <1.0         <1.0         <1.0         <1.0           Glycol         WC Method         NEG         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5165m         >75         44         42         45           Chromium         ppm         ASTM D5165m         >88         <1         <1         0         0           Nickel         ppm         ASTM D5165m         >3         <1         0         0         0           Silver         ppm         ASTM D5165m         >80         5         2         3         1           Lead         ppm         ASTM D5165m         >80         5         2         3         1           Cadmium         ppm         ASTM D5165m         >4         0         0         0           Vanadium         ppm	Oil Age	hrs	Client Info		10585	10585	0
CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method         >4.0         <1.0         <1.0         <1.0         <1.0           Glycol         WC Method         NEG         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m<>75         44         42         45           Chromium         ppm         ASTM D5185m<>2         <1         0         0           Nickel         ppm         ASTM D5185m<>2         <1         0         0           Silver         ppm         ASTM D5185m         >18         6         5         4           Copper         pm         ASTM D5185m         >18         6         5         2         3           Tin         ppm         ASTM D5185m         >14         1         1         0         0           Cadmium         ppm         ASTM D5185m         >14         1         0         0           Cadmium         ppm         ASTM D5185m         100         <1         0         0	Oil Changed		Client Info		Oil Added	Oil Added	N/A
Fuel         WC Method         >4.0         <1.0	Sample Status				NORMAL	NORMAL	NORMAL
Glycol         WC Method         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >75         44         42         45           Chromium         ppm         ASTM D5185m         >2         <1         0         0           Nickel         ppm         ASTM D5185m         >2         <1         0         0           Silver         ppm         ASTM D5185m         >3         <1         0         0           Aluminum         ppm         ASTM D5185m         >3         <1         0         0           Aluminum         ppm         ASTM D5185m         >15         4         3         1           Lead         ppm         ASTM D5185m         >14         1         1         0           Vanadium         ppm         ASTM D5185m         <4         0         0         0           Cadmium         ppm         ASTM D5185m         10         <1         0         0           Molybdenum         ppm         ASTM D5185m         100         11         11         0	CONTAMINATIO	N	method	limit/base	current	history1	history2
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >75         44         42         45           Chromium         ppm         ASTM D5185m         >2         <1         0         0           Nickel         ppm         ASTM D5185m         >2         <1         0         0           Silver         ppm         ASTM D5185m         >2         <1         0         0           Aluminum         ppm         ASTM D5185m         >2         <1         0         0           Lead         ppm         ASTM D5185m         >18         6         5         4           Copper         ppm         ASTM D5185m         >14         1         1         0           Vanadium         ppm         ASTM D5185m         14         1         0         0           Cadmium         ppm         ASTM D5185m         <4         0         0         0           Cadmium         ppm         ASTM D5185m         10         <1         0         0           Cadmium         ppm         ASTM D5185m         10         <1         1         <	Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Iron         ppm         ASTM D5185m         >75         44         42         45           Chromium         ppm         ASTM D5185m         >8         <1         <1         0           Nickel         ppm         ASTM D5185m         >2         <1         0         0           Silver         ppm         ASTM D5185m         >2         <1         0         0           Aluminum         ppm         ASTM D5185m         >15         4         3         1           Lead         ppm         ASTM D5185m         >18         6         5         4           Copper         ppm         ASTM D5185m         >14         1         1         0         0           Vanadium         ppm         ASTM D5185m         >14         1         0         0         0           Cadmium         ppm         ASTM D5185m         <41         0         0         0           ADDTIVES         method         Imit/base         current         history1         history2           Boron         ppm         ASTM D5185m         100         112         112         106           Magnesium         ppm         ASTM D5185m         100	Glycol		WC Method		NEG	NEG	NEG
Chromium         ppm         ASTM D5185m         >8         <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel         ppm         ASTM D5185m         >2         <1	Iron	ppm	ASTM D5185m	>75	44	42	45
Titanium         ppm         ASTM D5185m         >3         <1	Chromium	ppm	ASTM D5185m	>8	<1	<1	0
Silver         ppm         ASTM D5185m         >2         <1	Nickel	ppm	ASTM D5185m	>2	<1	0	0
Aluminum         ppm         ASTM D5185m         >15         4         3         1           Lead         ppm         ASTM D5185m         >18         6         5         4           Copper         ppm         ASTM D5185m         >80         5         2         3           Tin         ppm         ASTM D5185m         >14         1         1         0           Vanadium         ppm         ASTM D5185m         <1         0         0           Cadmium         ppm         ASTM D5185m         <1         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         250         96         99         90           Barium         ppm         ASTM D5185m         10         <1         0         0           Manganese         ppm         ASTM D5185m         100         112         112         106           Magnesium         ppm         ASTM D5185m         150         915         975         1093           Calcium         ppm         ASTM D5185m         150         837         869         828	Titanium	ppm	ASTM D5185m	>3	<1	0	0
Lead         ppm         ASTM D5185m         >18         6         5         4           Copper         ppm         ASTM D5185m         >80         5         2         3           Tin         ppm         ASTM D5185m         >14         1         0         0           Vanadium         ppm         ASTM D5185m         <41         0         0         0           Cadmium         ppm         ASTM D5185m         <50         96         99         90           Boron         ppm         ASTM D5185m         250         96         99         90           Barium         ppm         ASTM D5185m         100         112         112         106           Magnaese         ppm         ASTM D5185m         100         112         112         106           Magnesium         ppm         ASTM D5185m         100         112         112         106           Magnesium         ppm         ASTM D5185m         100         1431         1445         1588           Phosphorus         ppm         ASTM D5185m         150         837         869         828           Silicon         ppm         ASTM D5185m         158 <t< th=""><th>Silver</th><th>ppm</th><th></th><th></th><th>&lt;1</th><th>0</th><th>0</th></t<>	Silver	ppm			<1	0	0
Copper         ppm         ASTM D5188m         >80         5         2         3           Tin         ppm         ASTM D5185m         >14         1         1         0           Vanadium         ppm         ASTM D5185m         >14         1         0         0           Cadmium         ppm         ASTM D5185m         <1         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         250         96         99         90           Barium         ppm         ASTM D5185m         10         <1         0         0           Molybdenum         ppm         ASTM D5185m         100         112         112         106           Magnesium         ppm         ASTM D5185m         100         112         12         106           Magnesium         ppm         ASTM D5185m         100         1431         1485         1588           Phosphorus         ppm         ASTM D5185m         150         837         869         828           Zinc         ppm         ASTM D5185m         158         3         3 <th>Aluminum</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;15</th> <th>4</th> <th>3</th> <th>1</th>	Aluminum	ppm	ASTM D5185m	>15	4	3	1
Tin         ppm         ASTM D5185m         >14         1         1         0           Vanadium         ppm         ASTM D5185m         <11	Lead	ppm	ASTM D5185m	>18	6	5	
Vanadium         ppm         ASTM D5185m         <1	Copper	ppm	ASTM D5185m	>80	5	2	3
Cadmium         ppm         ASTM D5185m         <1	Tin	ppm	ASTM D5185m	>14	1	1	0
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         250         96         99         90           Barium         ppm         ASTM D5185m         10         <1         0         0           Molybdenum         ppm         ASTM D5185m         100         112         112         106           Manganese         ppm         ASTM D5185m         <1         <1         0         0           Magnesium         ppm         ASTM D5185m         100         112         112         106           Magnesium         ppm         ASTM D5185m         450         915         975         1093           Calcium         ppm         ASTM D5185m         3000         1431         1485         1588           Phosphorus         ppm         ASTM D5185m         150         1048         1073         1107           Sulfur         ppm         ASTM D5185m         >20         2775         3099         3225           CONTAMINANTS         method         limit/base         current         history1         history2           Solium         ppm         ASTM D5185m	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron         ppm         ASTM D5185m         250         96         99         90           Barium         ppm         ASTM D5185m         10         <1         0         0           Molybdenum         ppm         ASTM D5185m         100         112         112         106           Manganese         ppm         ASTM D5185m         <1         <1         0         0           Magnesium         ppm         ASTM D5185m         450         915         975         1093           Calcium         ppm         ASTM D5185m         3000         1431         1485         1588           Phosphorus         ppm         ASTM D5185m         1350         1048         1073         1107           Sulfur         ppm         ASTM D5185m         1350         1048         1073         1107           Sulfur         ppm         ASTM D5185m         220         2775         3099         3225           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         2         1         0           Water         %         ASTM D6304	Cadmium	ppm	ASTM D5185m		<1	0	0
Barium         ppm         ASTM D5185m         10         <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         100         112         112         106           Manganese         ppm         ASTM D5185m         <1         <1         0           Magnesium         ppm         ASTM D5185m         450         915         975         1093           Calcium         ppm         ASTM D5185m         3000         1431         1485         1588           Phosphorus         ppm         ASTM D5185m         1150         837         869         828           Zinc         ppm         ASTM D5185m         1350         1048         1073         1107           Sulfur         ppm         ASTM D5185m         1350         1048         1073         1107           Sulfur         ppm         ASTM D5185m         14250         2775         3099         3225           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5         7         5           Sodium         ppm         ASTM D6304         >0.1         NEG         NEG         NEG           NFRA-RED         method         limit/base	Boron	ppm	ASTM D5185m	250		99	
Manganese         ppm         ASTM D5185m         <1	Barium	ppm	ASTM D5185m	10	<1	0	0
Magnesium         ppm         ASTM D5185m         450         915         975         1093           Calcium         ppm         ASTM D5185m         3000         1431         1485         1588           Phosphorus         ppm         ASTM D5185m         1150         837         869         828           Zinc         ppm         ASTM D5185m         1350         1048         1073         1107           Sulfur         ppm         ASTM D5185m         4250         2775         3099         3225           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5         7         5           Sodium         ppm         ASTM D5185m         >20         2         1         0           Water         %         ASTM D5185m         >20         2         1         0           Water         %         ASTM D6304         >0.1         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.4	Molybdenum	ppm	ASTM D5185m	100	112	112	
Calcium         ppm         ASTM D5185m         3000         1431         1485         1588           Phosphorus         ppm         ASTM D5185m         1150         837         869         828           Zinc         ppm         ASTM D5185m         1350         1048         1073         1107           Sulfur         ppm         ASTM D5185m         1350         1048         1073         1107           Sulfur         ppm         ASTM D5185m         4250         2775         3099         3225           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5         7         5           Sodium         ppm         ASTM D5185m         >20         2         1         0           Water         %         ASTM D5185m         >20         2         1         0           Water         %         ASTM D6304         >0.1         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20	Manganese	ppm	ASTM D5185m		<1		
Phosphorus         ppm         ASTM D5185m         1150         837         869         828           Zinc         ppm         ASTM D5185m         1350         1048         1073         1107           Sulfur         ppm         ASTM D5185m         1350         1048         1073         1107           Sulfur         ppm         ASTM D5185m         4250         2775         3099         3225           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5         7         5           Sodium         ppm         ASTM D5185m         >158         3         3         <1	Magnesium	ppm	ASTM D5185m		915		
Zinc         ppm         ASTM D5185m         1350         1048         1073         1107           Sulfur         ppm         ASTM D5185m         4250         2775         3099         3225           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5         7         5           Sodium         ppm         ASTM D5185m         >158         3         3         <1           Potassium         ppm         ASTM D5185m         >20         2         1         0           Water         %         ASTM D5185m         >20         2         1         0           NEG         NEG         NEG         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.4         0.5         0.5         13.2           Sulfation         Abs/.mm         *ASTM D7415         >30         25.5         28.0         27.9           FLUID DEGRADATION         method         limit/base         current         his	Calcium	ppm	ASTM D5185m	3000	1431		
SulfurppmASTM D5185m4250277530993225CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>20575SodiumppmASTM D5185m>15833<1PotassiumppmASTM D5185m>20210Water%ASTM D6304>0.1NEGNEGNEGINFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D78440.40.50.5NitrationAbs/cm*ASTM D7624>2012.313.213.2SulfationAbs/lmm*ASTM D7415>3025.528.027.9FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/lmm*ASTM D7414>2526.930.230.7	Phosphorus	ppm		1150	837	869	828
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5         7         5           Sodium         ppm         ASTM D5185m         >158         3         3         <1           Potassium         ppm         ASTM D5185m         >20         2         1         0           Water         %         ASTM D6304         >0.1         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         12.3         13.2         13.2           Sulfation         Abs/.mm         *ASTM D7415         >30         25.5         28.0         27.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.9         30.2         30.7	Zinc		ASTM D5185m	1350	1048	1073	
Silicon         ppm         ASTM D5185m         >20         5         7         5           Sodium         ppm         ASTM D5185m         >158         3         3         <1           Potassium         ppm         ASTM D5185m         >20         2         1         0           Water         %         ASTM D6304         >0.1         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.4         0.5         0.5           Nitration         Abs/cm         *ASTM D7624         >20         12.3         13.2         13.2           Sulfation         Abs/.tmm         *ASTM D7415         >30         25.5         28.0         27.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.tmm         *ASTM D7414         >25         26.9         30.2         30.7	Sulfur	ppm	ASTM D5185m	4250	2775	3099	3225
Sodium         ppm         ASTM D5185m         >158         3         3         <1	CONTAMINANTS	5	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         2         1         0           Water         %         ASTM D6304         >0.1         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.4         0.5         0.5           Nitration         Abs/cm         *ASTM D7624         >20         12.3         13.2         13.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         25.5         28.0         27.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.9         30.2         30.7	Silicon	ppm	ASTM D5185m	>20	-	7	5
Water         %         ASTM D6304         >0.1         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.4         0.5         0.5           Nitration         Abs/cm         *ASTM D7624         >20         12.3         13.2         13.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         25.5         28.0         27.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.9         30.2         30.7	Sodium	ppm	ASTM D5185m	>158	3	3	<1
INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.4         0.5         0.5           Nitration         Abs/cm         *ASTM D7624         >20         12.3         13.2         13.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         25.5         28.0         27.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.9         30.2         30.7	Potassium	ppm	ASTM D5185m	>20	2	1	0
Soot %         %         *ASTM D7844         0.4         0.5         0.5           Nitration         Abs/cm         *ASTM D7624         >20         12.3         13.2         13.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         25.5         28.0         27.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.9         30.2         30.7	Water	%	ASTM D6304	>0.1	NEG	NEG	NEG
Nitration         Abs/cm         *ASTM D7624         >20         12.3         13.2         13.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         25.5         28.0         27.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.9         30.2         30.7	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         25.5         28.0         27.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.9         30.2         30.7	Soot %	%	*ASTM D7844		0.4	0.5	0.5
FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     26.9     30.2     30.7	Nitration	Abs/cm	*ASTM D7624	>20	12.3	13.2	13.2
Oxidation         Abs/.1mm         *ASTM D7414         >25         26.9         30.2         30.7	Sulfation	Abs/.1mm	*ASTM D7415	>30	25.5	28.0	27.9
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Base Number (BN)         mg KOH/g         ASTM D2896         8.5         7.71         7.14         6.47	Oxidation	Abs/.1mm	*ASTM D7414	>25	26.9	30.2	30.7
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.71	7.14	6.47



## **OIL ANALYSIS REPORT**

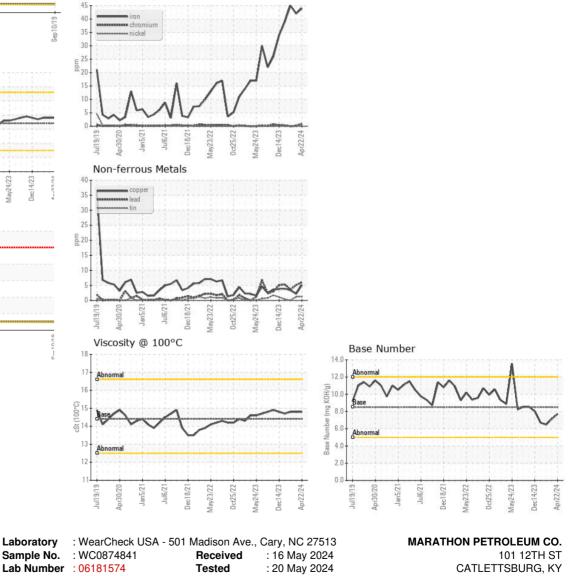






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	14.8	14.8	14.8
GRAPHS						

Ferrous Alloys





 Unique Number
 : 11032900
 Diagnosed
 : 20 May 2024 - Sean Felton

 Certificate 12367
 Test Package
 : IND 2 (Additional Tests: KF)
 mvcanton@r

 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 mvcanton@r

 \* - 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)

US 41169 Contact: M/V CANTON mvcanton@marathonpetroleum.com T:

1: F:

Submitted By: M/V CANTON Page 2 of 2