

Area



## [W49606] Machine Id JOHN DEERE 160GLC 1FF160GXANF058834

Component Hydraulic System

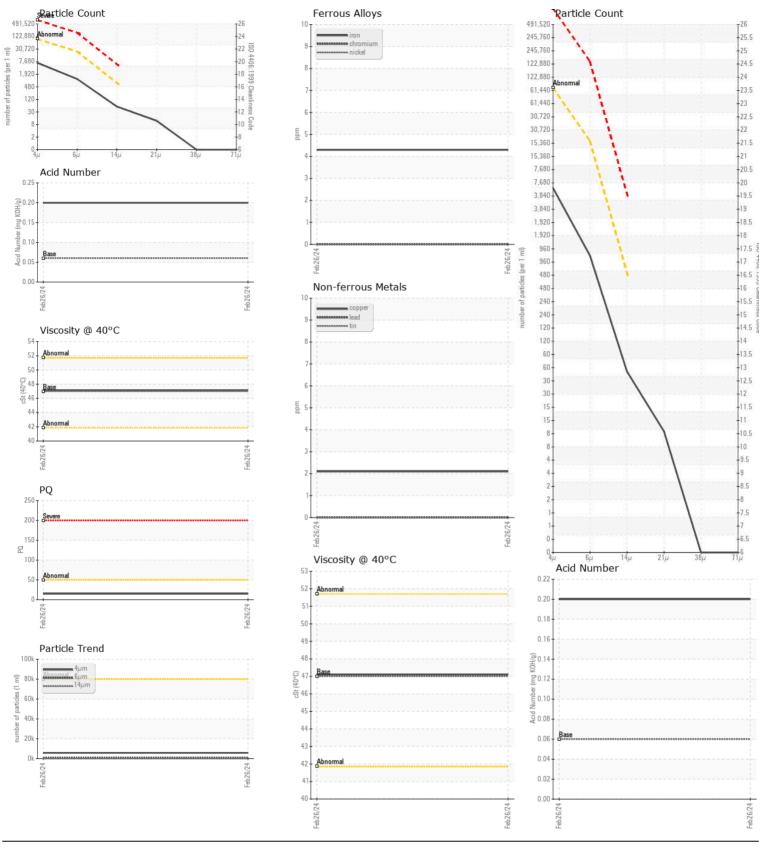
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION	Test
	Sample Number
Resample at the next service interval to monitor.	Sample Date
	Machine Age
	Oil Age
	Filter Age
	Oil Changed
	Filter Changed
	Sample Status
	Filter Changed Sample Status PQ Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Vanadium
WEAR	
All component wear rates are normal.	-
Al component wear rates are normal.	
	Lead
	White Metal
	Yellow Metal
CONTAMINATION	Silicon
	Potassium
The amount and size of particulates present in the system are	Water
acceptable. There is no indication of any contamination in the oil.	Particles >4µm
	Particles >6µm
	Particles >14µm
	Particles >21µm
	Particles >38µm
	Particles >71µm
	Oil Cleanliness
	0.11

FLUID CONDITION

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

Test     UOM     Method     LimitAbn     Current     History1     History1       Sample Number     Client Info     28 Feb 2024         Machine Age     hrs     Client Info     0         Oil Age     hrs     Client Info     0         Oil Changed     Client Info     0          Oil Changed     Client Info     Not Changd          Sample Status      Not Changd          Sample Status      Not Changd          Sample Status     ppm     ASTM D8184     >50     15         Iron     ppm     ASTM D8184     >50     0         Silver     ppm     ASTM D5185     >0          Silver     ppm     ASTM D5185     >0          Qoppe	»»»						
Sample Date     Client Info     26 Feb 2024         Machine Age     hrs     Client Info     0         Oil Age     hrs     Client Info     0         Oil Changed     Client Info     Not Changd         Filter Changed     Client Info     Not Changd         Sample Status      NORMAL         PQ     ASTM D818M     >50     15         Iron     ppm     ASTM D5185m     >9     0         Nickel     ppm     ASTM D5185m     >9     0         Silver     ppm     ASTM D5185m     >28     0         Lead     ppm     ASTM D5185m     >28     0         Vanadium     ppm     ASTM D5185m     >20          Silicon     ppm     ASTM D5185m		MOU		Limit/Abn		,	History2
Machine Age     hrs     Client Info     483         Oil Age     hrs     Client Info     0         Filter Age     hrs     Client Info     Not Changd         Filter Changed     Client Info     Not Changd          Sample Status     Voltangd           PQ     ASTM D5185m     >22     4         Chromium     ppm     ASTM D5185m     9     0         Nickel     ppm     ASTM D5185m     9     <-1         Aluminum     ppm     ASTM D5185m     >9     <-1         Lead     ppm     ASTM D5185m     >5     0         Vanadium     ppm     ASTM D5185m     >5     0         Velaed     scalar     *Visual     NONE     NONE         Vana							
Oil Age     hrs     Client Info     0         Filter Age     hrs     Client Info     Not Changd         Oil Changed     Client Info     Not Changd         Sample Status     Not Changd          PQ     ASTM D5185m     >32     4         Iron     ppm     ASTM D5185m     >9     0         Nickel     ppm     ASTM D5185m     >9     0         Silver     ppm     ASTM D5185m     >9     <1         Copper     ppm     ASTM D5185m     >9     <1         Vanadium     ppm     ASTM D5185m     >5     0         Velicow Metal     scalar     *Visual     NONE         Yellow Metal     scalar     *Visual     NONE         Yellow Metal     scalar     *Visual		la un					
Filter Age     hrs     Client Info     0         Oil Changed     Client Info     Not Changd         Sample Status     Client Info     Not Changd         Sample Status     NORMAL          PQ     ASTM D8184     >50     15         Iron     ppm     ASTM D5185m     >2     0         Nickel     ppm     ASTM D5185m     >9     0         Aluminum     ppm     ASTM D5185m     >9     <1         Silver     ppm     ASTM D5185m     >9     <1         Aluminum     ppm     ASTM D5185m     >10          Vanadium     ppm     ASTM D5185m     >10          Value     scalar     *Visual     NONE          Value     ppm     ASTM D	0	-					
Oil Changed Filter Changed Sample Status     Client Info Client Info     Not Changd NORMAL        PQ     ASTM D8184     >50     15        PQ     ASTM D8184     >50     15        PQ     ASTM D5185m     >32     4        Chromium     ppm     ASTM D5185m     >9     0        Nickel     ppm     ASTM D5185m     >9     0        Nickel     ppm     ASTM D5185m     >9         ASTM D5185m     >9     <1         ASTM D5185m     >9     <1         ASTM D5185m     >9     <1         Copper     ppm     ASTM D5185m     >0         Vanadium     ppm     ASTM D5185m     >1     <1         Vanadium     ppm     ASTM D5185m     >20     1         Vallow Metal     scalar     */isual <t< th=""><th>- U</th><th></th><th></th><th></th><th>-</th><th></th><th></th></t<>	- U				-		
Filter Changed Sample Status     Client Info     Not Changd NORMAL         PQ     ASTM D8184     >50     15         Iron     ppm     ASTM D5185m     >32     4         Nickel     ppm     ASTM D5185m     >9     0         Silver     ppm     ASTM D5185m     50     0         Silver     ppm     ASTM D5185m     >9     <1         Silver     ppm     ASTM D5185m     >9     <1         Copper     pm     ASTM D5185m     >0          Vanadium     ppm     ASTM D5185m     >5     0         Vellow Metal     scalar     *Visual     NONE     NONE         Vellow Metal     scalar     *Visual     NONE     NOR         Silicon     ppm     ASTM D5185m     >20     1	0	hrs			-		
Sample Status     NORMAL	Ū				•		
PQ     ASTM D8184     >50     15         Iron     ppm     ASTM D5185m     >32     4         Chromium     ppm     ASTM D5185m     >9     0         Nickel     ppm     ASTM D5185m     >0         Silver     ppm     ASTM D5185m     >0         Lead     ppm     ASTM D5185m     >28     0         Lead     ppm     ASTM D5185m     >28     0         Vanadium     ppm     ASTM D5185m     >50     2         Vanadium     ppm     ASTM D5185m     >50     0         Vanadium     ppm     ASTM D5185m     >20     1         Vellow Metal     scalar     *Visual     NONE     NONE         Silicon     ppm     ASTM D5185m     >20     1	0		Client Info		-		
Iron     ppm     ASTM D5185m     >32     4         Chromium     ppm     ASTM D5185m     >9     0         Nickel     ppm     ASTM D5185m     >0         Silver     ppm     ASTM D5185m     0         Aluminum     ppm     ASTM D5185m     >9     <1         Lead     ppm     ASTM D5185m     >0          Vanadium     ppm     ASTM D5185m     >50     0         Vanadium     ppm     ASTM D5185m     >50     0         Vanadium     ppm     ASTM D5185m     >0          Vanadium     ppm     ASTM D5185m     >11     <1         Vallow Metal     scalar     *Visual     NONE     NONE         Silicon     ppm     ASTM D7647     >600 <td< th=""><th>Sample Status</th><th></th><th></th><th></th><th>NORMAL</th><th></th><th></th></td<>	Sample Status				NORMAL		
Iron     ppm     ASTM D5185m     >32     4         Chromium     ppm     ASTM D5185m     >9     0         Nickel     ppm     ASTM D5185m     >0         Silver     ppm     ASTM D5185m     0         Aluminum     ppm     ASTM D5185m     >9     <1         Lead     ppm     ASTM D5185m     >0          Vanadium     ppm     ASTM D5185m     >50     0         Vanadium     ppm     ASTM D5185m     >50     0         Vanadium     ppm     ASTM D5185m     >0          Vanadium     ppm     ASTM D5185m     >11     <1         Vallow Metal     scalar     *Visual     NONE     NONE         Silicon     ppm     ASTM D7647     >600 <td< th=""><th>PO</th><th></th><th></th><th><b>&gt;</b>50</th><th>15</th><th></th><th></th></td<>	PO			<b>&gt;</b> 50	15		
Chromium     ppm     ASTM D5185m     >9     0         Nickel     ppm     ASTM D5185m     >5     0         Silver     ppm     ASTM D5185m     0         Aluminum     ppm     ASTM D5185m     >0         Lead     ppm     ASTM D5185m     >28     0         Copper     ppm     ASTM D5185m     >50     2         Vanadium     ppm     ASTM D5185m     >0          Vanadium     ppm     ASTM D5185m     >1     <-1         Vanadium     ppm     ASTM D5185m     >1     <-1         Yellow Metal     scalar     *Visual     NONE     NONE         Paticles >4µm     ASTM D7647     >8000     5847          Paticles >4µm     ASTM D7647     2000     995 </th <th></th> <th>nnm</th> <th></th> <th></th> <th>-</th> <th></th> <th></th>		nnm			-		
Nickel     ppm     ASTM D5185m     >5     0         Titanium     ppm     ASTM D5185m     0          Silver     ppm     ASTM D5185m     >9     <1         Aluminum     ppm     ASTM D5185m     >9     <1         Lead     ppm     ASTM D5185m     >9     <1         Copper     ppm     ASTM D5185m     >50     2         Vanadium     ppm     ASTM D5185m     >50     0         Vanadium     ppm     ASTM D5185m     >11     <1         Vellow Metal     scalar     "Visual     NONE     NONE         Silicon     ppm     ASTM D7647     >200     NEG         Particles >4µm     ASTM D7647     >640     48         Particles >14µm     ASTM D7647     10     0 <th>-</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	-						
Titanium     ppm     ASTM D5185m     0         Silver     ppm     ASTM D5185m     >9     <1         Aluminum     ppm     ASTM D5185m     >9     <1         Lead     ppm     ASTM D5185m     >50     2         Copper     ppm     ASTM D5185m     >50     0         Vanadium     ppm     ASTM D5185m     0          Vanadium     ppm     ASTM D5185m     NONE          Vanadium     ppm     ASTM D5185m     NONE          Vanadium     ppm     ASTM D5185m     >11     <-1         Vellow Metal     scalar     'Visual     NONE     NONE         Silicon     ppm     ASTM D7647     >640     48         Particles >14µm     ASTM D7647     >10<					-		
Silver     ppm     ASTM D5185m     0         Aluminum     ppm     ASTM D5185m     >9     <1         Lead     ppm     ASTM D5185m     >28     0         Copper     ppm     ASTM D5185m     >50     2         Vanadium     ppm     ASTM D5185m     >50     0         Vanadium     ppm     ASTM D5185m     >50     0         Vanadium     ppm     ASTM D5185m     >50     0         Vanadium     ppm     ASTM D5185m     >0     1         Yellow Metal     scalar     *Visual     NONE     NONE         Silicon     ppm     ASTM D7617     80000     5847         Particles >4µm     ASTM D7647     >10     0         Particles >4µm     ASTM D7647     >10     0				20	-		
Aluminum     ppm     ASTM D5185m     >9     <1					-		
Lead     ppm     ASTM D5185m     >28     0         Copper     ppm     ASTM D5185m     >50     2         Tin     ppm     ASTM D5185m     >5     0         Vanadium     ppm     ASTM D5185m     >5     0         White Metal     scalar     *Visual     NONE     NONE         Yellow Metal     scalar     *Visual     NONE     NONE         Silicon     ppm     ASTM D5185m     >11     <1         Vater     WC Method     >0.075     NEG         Particles >4µm     ASTM D7647     >80000     5847         Particles >4µm     ASTM D7647     >100         Particles >1µm     ASTM D7647     >40     0         Particles >1µm     ASTM D7647     >10     0 <th></th> <th></th> <th></th> <th><u>_9</u></th> <th>-</th> <th></th> <th></th>				<u>_9</u>	-		
Copper     ppm     ASTM D5185m     >50     2         Tin     ppm     ASTM D5185m     0          Vanadium     ppm     ASTM D5185m     0          White Metal     scalar     *Visual     NONE     NONE         Yellow Metal     scalar     *Visual     NONE     NONE         Silicon     ppm     ASTM D5185m     >11     <-1         Potassium     ppm     ASTM D5185m     >20     1         Water     WC Method     >0.075     NEG         Particles >4µm     ASTM D7647     >80000     5847         Particles >1µm     ASTM D7647     >40     0         Particles >21µm     ASTM D7647     >10     0         Silt     scalar     *Visual     NONE <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
Tin     ppm     ASTM D5185m     >5     0         Vanadium     ppm     ASTM D5185m     0         White Metal     scalar     *Visual     NONE     NONE        Yellow Metal     scalar     *Visual     NONE     NONE        Silicon     ppm     ASTM D5185m     >11     <1         Potassium     ppm     ASTM D5185m     >20     1         Paticles >4µm     ASTM D7647     >80000     5847         Particles >6µm     ASTM D7647     >2000     995         Particles >6µm     ASTM D7647     >160     10         Particles >38µm     ASTM D7647     >10     0         Particles >71µm     ASTM D7647     >10     0         Silt     scalar     *Visual     NONE         Debris <t< th=""><th></th><th></th><th></th><th></th><th>-</th><th></th><th></th></t<>					-		
Vanadium     ppm     ASTM D5185m     0         White Metal     scalar     *Visual     NONE     NONE         Yellow Metal     scalar     *Visual     NONE     NONE         Silicon     ppm     ASTM D5185m     >11     <1         Potassium     ppm     ASTM D5185m     >20     1         Patticles >4µm     ASTM D7647     >80000     5847         Particles >6µm     ASTM D7647     >2000     995         Particles >6µm     ASTM D7647     >160     10         Particles >38µm     ASTM D7647     >10     0         Particles >38µm     ASTM D7647     >10     0         Particles >38µm     ASTM D7647     >10     0         Silt     scalar     *Visual     NONE <tr< th=""><th></th><th></th><th></th><th></th><th>_</th><th></th><th></th></tr<>					_		
White Metal     scalar     *Visual     NONE     NONE         Yellow Metal     scalar     *Visual     NONE     NONE         Silicon     ppm     ASTM D5185m     >11          Potassium     ppm     ASTM D5185m     >20     1         Water     WC Method     >0.075     NEG         Particles >4µm     ASTM D7647     >80000     5847         Particles >6µm     ASTM D7647     >640     48         Particles >14µm     ASTM D7647     >10     0         Particles >38µm     ASTM D7647     >10     0         Particles >38µm     ASTM D7647     >10     0         Oil Cleanliness     Scalar     *Visual     NONE     NONE         Silt     scalar     *Visual     NONE     NONE				20	-		
Yellow Metal     scalar     *Visual     NONE     NONE         Silicon     ppm     ASTM D5185m     >11     <1         Potassium     ppm     ASTM D5185m     >20     1         Water     WC Method     >0.075     NEG         Particles >4µm     ASTM D7647     >80000     5847         Particles >6µm     ASTM D7647     >2000     995         Particles >1µm     ASTM D7647     >640     48         Particles >38µm     ASTM D7647     >40     0         Particles >71µm     ASTM D7647     >10     0         Oil Cleanliness     scalar     *Visual     NONE     NONE         Solt     scalar     *Visual     NONE     NONE         Sodium     scalar     *Visual     NORML     NORML    <				NONE	-		
Silicon     ppm     ASTM D5185m     >11     <1				-	_		
Potassium     ppm     ASTM D5185m     >20     1         Water     WC Method     >0.075     NEG         Particles >4µm     ASTM D7647     >80000     5847         Particles >6µm     ASTM D7647     >640     48         Particles >14µm     ASTM D7647     >640     48         Particles >21µm     ASTM D7647     >100         Particles >38µm     ASTM D7647     >10     0         Particles >71µm     ASTM D7647     >10     0         Oil Cleanliness     ISO 4406 (c)     >23/21/16     20/17/13         Silt     scalar     *Visual     NONE          Debris     scalar     *Visual     NORM     NORME         Appearance     scalar     *Visual     NORM     NORM			v isuai				
Potassium     ppm     ASTM D5185m     >20     1         Water     WC Method     >0.075     NEG         Particles >4µm     ASTM D7647     >80000     5847         Particles >6µm     ASTM D7647     >640     48         Particles >14µm     ASTM D7647     >640     48         Particles >21µm     ASTM D7647     >160     10         Particles >38µm     ASTM D7647     >10     0         Particles >71µm     ASTM D7647     >10     0         Oil Cleanliness     ISO 4406 (c)     >23/21/16     20/17/13         Silt     scalar     *Visual     NONE          Debris     scalar     *Visual     NORM     NORME         Agpearance     scalar     *Visual     NORM    C	Silicon	ppm	ASTM D5185m	>11	<1		
Water     WC Method     >0.075     NEG        Particles >4µm     ASTM D7647     >80000     5847        Particles >6µm     ASTM D7647     >20000     995         Particles >14µm     ASTM D7647     >640     48         Particles >21µm     ASTM D7647     >100         Particles >38µm     ASTM D7647     >400     0         Particles >31µm     ASTM D7647     >10     0         Particles >71µm     ASTM D7647     >10     0         Oil Cleanliness     ISO 4406 (c)     \$2321/16     20/17/13         Silt     scalar     *Visual     NONE     NONE         Sand/Dirt     scalar     *Visual     NORM     NORML         Appearance     scalar     *Visual     NORM     NORML         Boron     ppm <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>							
Particles >4μm     ASTM D7647     >80000     5847         Particles >6μm     ASTM D7647     >20000     995         Particles >14μm     ASTM D7647     >640     48         Particles >21μm     ASTM D7647     >100         Particles >38µm     ASTM D7647     >40     0         Particles >31µm     ASTM D7647     >10     0         Particles >71µm     ASTM D7647     >10     0         Oil Cleanliness     ISO 4406 (c)     \$2921/16     20/17/13         Silt     scalar     *Visual     NONE     NONE         Sand/Dirt     scalar     *Visual     NORM     NORML         Appearance     scalar     *Visual     NORM     NORML         Sodium     ppm     ASTM D5185m     >21     1	Water			-	NEG		
Particles >6μm     ASTM D7647     >20000     995         Particles >14μm     ASTM D7647     >640     48         Particles >21μm     ASTM D7647     >160     10         Particles >38μm     ASTM D7647     >10     0         Particles >71μm     ASTM D7647     >10     0         Oil Cleanliness     ISO 4406 (c)     >23/21/16     20/17/13         Silt     scalar     *Visual     NONE     NONE         Sold/Dirt     scalar     *Visual     NONE     NONE         Appearance     scalar     *Visual     NORM     NORML         Odor     scalar     *Visual     NORM     NORML         Sodium     ppm     ASTM D5185m     >21     1         Boron     ppm     ASTM D5185m     0 <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>							
Particles >14µm     ASTM D7647     >640     48         Particles >21µm     ASTM D7647     >160     10         Particles >38µm     ASTM D7647     >40     0         Particles >71µm     ASTM D7647     >10     0         Oil Cleanliness     ISO 4406 (c)     >23/21/16     20/17/13         Silt     scalar     *Visual     NONE     NONE         Debris     scalar     *Visual     NONE     NONE         Sand/Dirt     scalar     *Visual     NORE     NONE         Appearance     scalar     *Visual     NORM     NORML         Godr     scalar     *Visual     NORM     NORML         Boron     ppm     ASTM D5185m     >21     1         Barium     ppm     ASTM D5185m     0							
Particles >38µm     ASTM D7647     >40     0         Particles >71µm     ASTM D7647     >10     0         Oil Cleanliness     ISO 4406 (c)     >23/21/16     20/17/13         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     >0.075     NEG         Boron     ppm     ASTM D5185m     >21     1         Barium     ppm     ASTM D5185m     >21     1         Magnese     ppm     ASTM D5185m			ASTM D7647	>640	48		
Particles >71µm     ASTM D7647     >10     0         Oil Cleanliness     ISO 4406 (c)     >23/21/16     20/17/13         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     >0.075     NEG         Sodium     ppm     ASTM D5185m     >21     1         Boron     ppm     ASTM D5185m     >21     1         Malganese     ppm     ASTM D5185m     0          Magnesium     ppm <td< th=""><th>Particles &gt;21µm</th><th></th><th>ASTM D7647</th><th>&gt;160</th><th>10</th><th></th><th></th></td<>	Particles >21µm		ASTM D7647	>160	10		
Oil Cleanliness     ISO 4406 (c)     \$23/21/16     20/17/13         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         Godor     scalar     *Visual     NORML     NORML         Boron     scalar     *Visual     >0.075     NEG         Boron     ppm     ASTM D5185m     >21     1         Boron     ppm     ASTM D5185m     0          Molybdenum     ppm     ASTM D5185m     0          Magnesium     ppm	Particles >38µm		ASTM D7647	>40	0		
Oil Cleanliness     ISO 4406 (c)     \$23/21/16     20/17/13         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         Godor     scalar     *Visual     NORML     NORML         Boron     scalar     *Visual     >0.075     NEG         Boron     ppm     ASTM D5185m     >21     1         Boron     ppm     ASTM D5185m     0          Molybdenum     ppm     ASTM D5185m     0          Magnesium     ppm	Particles >71µm		ASTM D7647	>10	0		
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.075NEGSodiumppmASTM D5185m>211BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagnesiumppmASTM D5185m21PhosphorusppmASTM D5185m6PhosphorusppmASTM D5185m035ZincppmASTM D5185m13101Acid Number (AN)mg KOH/gASTM D50850.060.20			ISO 4406 (c)	>23/21/16	20/17/13		
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.075NEGSodiumppmASTM D5185m>211BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagneseppmASTM D5185m2MagnesiumppmASTM D5185m2PhosphorusppmASTM D5185m6ZincppmASTM D5185m035SulfurppmASTM D5185m13101Acid Number (AN)mg KOH/gASTM D80450.060.20	Silt	scalar	( )				
Appearance     scalar     *Visual     NORML     NORML         Odor     scalar     *Visual     NORML     NORML         Emulsified Water     scalar     *Visual     >0.075     NEG         Sodium     ppm     ASTM D5185m     >21     1         Boron     ppm     ASTM D5185m     0          Barium     ppm     ASTM D5185m     0          Molybdenum     ppm     ASTM D5185m     0          Magnesium     ppm     ASTM D5185m     2          Phosphorus     ppm     ASTM D5185m     2          Phosphorus     ppm     ASTM D5185m     82.7     485         Zinc     ppm     ASTM D5185m     0     35         Sulfur     ppm <th>Debris</th> <th>scalar</th> <th>*Visual</th> <th>NONE</th> <th>NONE</th> <th></th> <th></th>	Debris	scalar	*Visual	NONE	NONE		
Odorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.075NEGSodiumppmASTM D5185m>211BoronppmASTM D5185m211BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MaganeseppmASTM D5185m<	Sand/Dirt	scalar	*Visual	NONE	NONE		
Odorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.075NEGSodiumppmASTM D5185m>211BoronppmASTM D5185m211BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MaganeseppmASTM D5185m<	Appearance	scalar	*Visual	NORML	NORML		
Sodium     ppm     ASTM D5185m     >21     1         Boron     ppm     ASTM D5185m     0         Barium     ppm     ASTM D5185m     0         Molybdenum     ppm     ASTM D5185m     0         Magnese     ppm     ASTM D5185m     0         Magnesium     ppm     ASTM D5185m     2         Calcium     ppm     ASTM D5185m     6         Phosphorus     ppm     ASTM D5185m     82.7     485         Zinc     ppm     ASTM D5185m     0     35         Sulfur     ppm     ASTM D5185m     13     101         Acid Number (AN)     mg KOH/g     ASTM D5185m     0.06     0.20		scalar	*Visual	NORML	NORML		
Boron     ppm     ASTM D5185m     0         Barium     ppm     ASTM D5185m     0         Molybdenum     ppm     ASTM D5185m     0         Manganese     ppm     ASTM D5185m     0         Magnesium     ppm     ASTM D5185m      <1         Calcium     ppm     ASTM D5185m     2          Phosphorus     ppm     ASTM D5185m     6          Zinc     ppm     ASTM D5185m     0     35         Sulfur     ppm     ASTM D5185m     13     101         Acid Number (AN)     mg KOH/g     ASTM D5185m     0.06     0.20	Emulsified Water	scalar	*Visual	>0.075	NEG		
Boron     ppm     ASTM D5185m     0         Barium     ppm     ASTM D5185m     0         Molybdenum     ppm     ASTM D5185m     0         Manganese     ppm     ASTM D5185m     0         Magnesium     ppm     ASTM D5185m      <1         Calcium     ppm     ASTM D5185m     2          Phosphorus     ppm     ASTM D5185m     6          Zinc     ppm     ASTM D5185m     0     35         Sulfur     ppm     ASTM D5185m     13     101         Acid Number (AN)     mg KOH/g     ASTM D5185m     0.06     0.20							
Barium     ppm     ASTM D5185m     0         Molybdenum     ppm     ASTM D5185m     0         Manganese     ppm     ASTM D5185m      0         Magnesium     ppm     ASTM D5185m       <1         Magnesium     ppm     ASTM D5185m      2         Calcium     ppm     ASTM D5185m     6         Phosphorus     ppm     ASTM D5185m     827     485         Zinc     ppm     ASTM D5185m     0     35         Sulfur     ppm     ASTM D5185m     13     101         Acid Number (AN)     mg KOH/g     ASTM D8045     0.06     0.20	Sodium	ppm	ASTM D5185m	>21	1		
Molybdenum     ppm     ASTM D5185m     0         Manganese     ppm     ASTM D5185m     <1         Magnesium     ppm     ASTM D5185m     2         Calcium     ppm     ASTM D5185m     6         Phosphorus     ppm     ASTM D5185m     827     485         Zinc     ppm     ASTM D5185m     0     35         Sulfur     ppm     ASTM D5185m     13     101         Acid Number (AN)     mg KOH/g     ASTM D8045     0.06     0.20		ppm			0		
Manganese     ppm     ASTM D5185m     <1		ppm					
Magnesium     ppm     ASTM D5185m     2         Calcium     ppm     ASTM D5185m     6         Phosphorus     ppm     ASTM D5185m     827     485         Zinc     ppm     ASTM D5185m     0     35         Sulfur     ppm     ASTM D5185m     13     101         Acid Number (AN)     mg KOH/g     ASTM D8045     0.06     0.20	-	ppm	ASTM D5185m		0		
Calcium     ppm     ASTM D5185m     6         Phosphorus     ppm     ASTM D5185m     827     485         Zinc     ppm     ASTM D5185m     0     35         Sulfur     ppm     ASTM D5185m     13     101         Acid Number (AN)     mg KOH/g     ASTM D8045     0.06     0.20	•	ppm					
Phosphorus     ppm     ASTM D5185m     827     485         Zinc     ppm     ASTM D5185m     0     35         Sulfur     ppm     ASTM D5185m     13     101         Acid Number (AN)     mg KOH/g     ASTM D8045     0.06     0.20	U U	ppm					
Zinc     ppm     ASTM D5185m     0     35         Sulfur     ppm     ASTM D5185m     13     101         Acid Number (AN)     mg KOH/g     ASTM D8045     0.06     0.20	Calcium	ppm	ASTM D5185m		6		
Sulfur     ppm     ASTM D5185m     13     101         Acid Number (AN)     mg KOH/g     ASTM D8045     0.06     0.20	Phosphorus	ppm	ASTM D5185m	827	485		
Acid Number (AN) mg KOH/g ASTM D8045 0.06 0.20	Zinc	ppm					
		ppm	ASTM D5185m	13	101		
Visc @ 40°C cSt ASTM D445 47 47.1	( )			0.06			
	Visc @ 40°C	cSt	ASTM D445	47	47.1		



Contact/Location: DAVID ZIEG - JAMASH