

#### Machine Id **JOHN DEERE 948L 1DW948LBPPF716904**

# Component Hydraulic System

## JOHN DEERE HYDRAU (--- GAL)

	RECO	MMEN	<b>JDATION</b>	
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Resample at the next service interval to monitor.

#### WEAR

All component wear rates are normal.

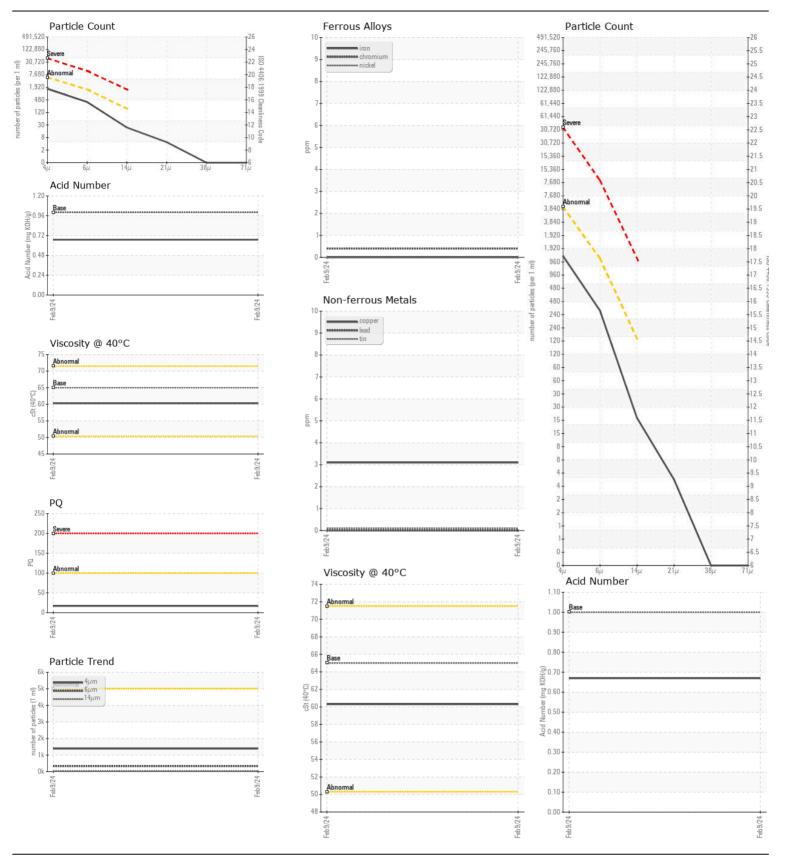
### CONTAMINATION

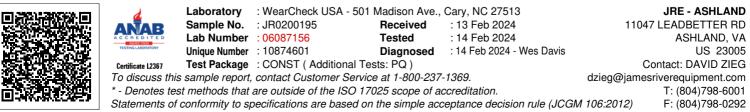
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

### FLUID CONDITION

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

Test         UOM         Method         Limit/bit         Current         History1         History2           Sample Dumber         Cilent Info         09 Feb 2024             Machine Age         hrs         Cilent Info         496             Machine Age         hrs         Cilent Info         496             Oil Age         hrs         Cilent Info         Not Changd             Oil Changed         Cilent Info         Not Changd             Sample Data         Cilent Info         Not Changd             Sample Status         Visital         17             PQ         ASTM D8185         >10              Nickel         ppm         ASTM D8185         0             Nickel         ppm         ASTM D8185         0             Nickel         ppm         ASTM D8185         0             Silver         ppm         ASTM D8185         >10         0            <							
Sample Date         Client Info         09 Feb 2024             Machine Age         hrs         Client Info         496             Oil Age         hrs         Client Info         496             Oil Changed         Client Info         496              Oil Changed         Client Info         Not Changd              Sample Status          NORMAL              PQ         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >20         2             Vanadium         ppm	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age         hrs         Client Info         496             Oil Age         hrs         Client Info         496             Oil Changed         Client Info         496             Oil Changed         Client Info         Not Changd             Sample Staus          NORMAL             PQ         ASTM D5185m         >20         0             Nickel         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >20         2             Vanadium         ppm	Sample Number		Client Info		JR0200195		
Machine Age         hrs         Client Info         496             Oil Age         hrs         Client Info         496             Oil Changed         Client Info         496             Oil Changed         Client Info         Not Changd             Sample Staus          NORMAL             PQ         ASTM D5185m         >20         0             Nickel         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >20         2             Vanadium         ppm	Sample Date		Client Info		09 Feb 2024		
Filter Age         hrs         Client Info         496             Oil Changed         Client Info         Not Changd             Sample Status         Client Info         Not Changd             Sample Status         Client Info         Not Changd             Sample Status         Nor Changd              Iron         ppm         ASTM D5185m         >20         0             Chromium         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >10         <1             Vale         Scalar         *Visual         NONE         NONE             Vellow Metal         scalar         *Visual         NONE         NONE             Vellow Metal         scalar<		hrs	Client Info		496		
Oil Changed         Client Info         Not Changd             Filter Changed         Client Info         Not Changd             Sample Status         NORMAL             PQ         ASTM D8184         17             PQ         ASTM D6185m         >20         0             Nickel         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >10         0             Vanadum ppm         ASTM D5185m         >20         2             Vanadum ppm         ASTM D5185m         >20         2             Yellow Metal         scalar         'Visual         NONE         NORE	Oil Age	hrs	Client Info		496		
Filter Changed Sample Status         Client Info         Not Changd             PQ         ASTM D8184         17             Iron         ppm         ASTM D5185m         >20         0            Nickel         ppm         ASTM D5185m         >10         <1            Nickel         ppm         ASTM D5185m         10         0            Nickel         ppm         ASTM D5185m         10         0            Nikel         ppm         ASTM D5185m         10         0            Aluminum         ppm         ASTM D5185m         >10         0            Copper         ppm         ASTM D5185m         >10         0            Vanadium         ppm         ASTM D5185m         >10         <1            Vanadium         ppm         ASTM D5185m         >20         2            Vellow Metal         scalar         "Visual         NONE         NONE            Vellow Metal         scalar         "Visual         NONE         NONE            Particles >4µm </th <th>Filter Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>496</th> <th></th> <th></th>	Filter Age	hrs	Client Info		496		
Sample Status         NORMA1	Oil Changed		Client Info		Not Changd		
PQ         ASTM D8184         17             Iron         ppm         ASTM D5185m         >20         0             Chromium         ppm         ASTM D5185m         >10         <1             Nickel         ppm         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >10         <1             Vanadium         ppm         ASTM D5185m         >20         2             Vanadium         ppm         ASTM D5185m         >20         2             Vellow Metal         scalar         'Visual         NONE             Vanadium         ppm         ASTM D5185m         >20         2      <	Filter Changed		Client Info		Not Changd		
Iron         ppm         ASTM D5185m         >20         0             Nickel         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >10         <-1             Vanadium         ppm         ASTM D5185m         0              Vanadium         ppm         ASTM D5185m         >20         2             Yellow Metal         scalar         *Visual         NONE             Silicon         ppm         ASTM D7647         >100         331             Particles >4µm         ASTM D7647         >100 </th <th>Sample Status</th> <th></th> <th></th> <th></th> <th>NORMAL</th> <th></th> <th></th>	Sample Status				NORMAL		
Iron         ppm         ASTM D5185m         >20         0             Nickel         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >10         <-1             Vanadium         ppm         ASTM D5185m         0              Vanadium         ppm         ASTM D5185m         >20         2             Yellow Metal         scalar         *Visual         NONE             Silicon         ppm         ASTM D7647         >100         331             Particles >4µm         ASTM D7647         >100 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
Chromium         ppm         ASTM D5185m         >10         <1							
Nickel         ppm         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         <1             Copper         ppm         ASTM D5185m         >10         <1             Vanadium         ppm         ASTM D5185m         >10         <1             Vanadium         ppm         ASTM D5185m         >20         2             Vellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D7647         >20         2             Particles >4µm         ASTM D7647         >100              Particles >21µm         ASTM D7647         >30         0 <th></th> <th>ppm</th> <th></th> <th>-</th> <th>-</th> <th></th> <th></th>		ppm		-	-		
Titanium         ppm         ASTM D5185m         0            Silver         ppm         ASTM D5185m         >10         0            Aluminum         ppm         ASTM D5185m         >10         0            Lead         ppm         ASTM D5185m         >75         3            Copper         ppm         ASTM D5185m         >75         3            Vanadium         ppm         ASTM D5185m         >10         <1            Vanadium         ppm         ASTM D5185m         >0             Vanadium         ppm         ASTM D5185m         >20         2             Vanadium         ppm         ASTM D5185m         >20         2             Vellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D7647         >160         1389             Particles >4µm         ASTM D7647         >10         0             Particles >4µm         ASTM D7647							
Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >10         <1             Vanadium         ppm         ASTM D5185m         >10         <1             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Potassium         ppm         ASTM D5185m         >20         2             Water         WC Method         >0.1         NEG             Particles >4µm         ASTM D7647         >100         0             Particles >4µm         ASTM D7647         >10         0             Particles >38µm         ASTM D7647         >3         0		ppm		>10	-		
Aluminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >75         3             Vanadium         ppm         ASTM D5185m         0              White Metal         scalar         *Visual         NONE         0             White Metal         scalar         *Visual         NONE              Silicon         ppm         ASTM D5185m         >20         2             Patiseles >4µm         ASTM D7647         >5000         1389             Particles >4µm         ASTM D7647         >100         0             Particles >4µm         ASTM D7647         >40         4             Particles >4µm         ASTM D7647         >10         0             Particles >71µm         ASTM D7647         >3         0		ppm			-		
Lead         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >75         3             Tin         ppm         ASTM D5185m         >10         <1             Vanadium         ppm         ASTM D5185m         0             White Metal         scalar         *Visual         NONE             Yellow Metal         scalar         *Visual         NONE             Silicon         ppm         ASTM D5185m         >20         2             Vater         WC Method         >0.1         NEG             Particles >4µm         ASTM D7647         >5000         1389             Particles >14µm         ASTM D7647         >100              Particles >14µm         ASTM D7647         >100              Particles >14µm         ASTM D7647         >10         0             Solices >		ppm			-		
Copper         ppm         ASTM D5185m         >75         3             Tin         ppm         ASTM D5185m         >10         <1             Vanadium         ppm         ASTM D5185m         0              White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Solicon         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D5185m         >20         2             Particles >4µm         ASTM D7647         >5000         1389             Particles >21µm         ASTM D7647         >10         0             Particles >38µm         ASTM D7647         >3         0             Particles >21µm         ASTM D7647         >3         0             Soli Cleanliness         ISO 4406 (c)         >19/17/14         18/16/11 <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th>					-		
Tin         ppm         ASTM D5185m         >10         <1					-		
Vanadium         ppm         ASTM D5185m         0             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D5185m         >20         2             Paticles >4µm         ASTM D5185m         >20         2             Particles >4µm         ASTM D7647         >5000         1389             Particles >6µm         ASTM D7647         >160         20             Particles >4µm         ASTM D7647         >10         0             Particles >38µm         ASTM D7647         >10         0             Particles >71µm         ASTM D7647         >3         0             Sold Oci         1917/14         18/16/11         S					-		
White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D5185m         >20         2             Paticles >4µm         ASTM D7647         >5000         1389             Particles >6µm         ASTM 07647         >160         20             Particles >14µm         ASTM 07647         >40         4             Particles >38µm         ASTM 07647         >10         0             Particles >14µm         ASTM 07647         >3         0             Particles >38µm         ASTM 07647         >3         0             Particles >21µm         ASTM 07647         >3         0             Solit         scalar         *Visual         NONE         NONE        S				>10			
Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D5185m         >20         2             Paticles >4µm         ASTM D7647         >5000         1389             Particles >6µm         ASTM D7647         >1300         331             Particles >14µm         ASTM D7647         >160         20             Particles >21µm         ASTM D7647         >10         0             Particles >21µm         ASTM D7647         >3         0             Particles >38µm         ASTM D7647         >3         0             Particles >31µm         ASTM D7647         >3         0             Particles >21µm         ASTM D7647         >3         0             Solit         scalar         *Visual         NONE         NONE             Solit					-		
Silicon         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D5185m         >20         2             Water         WC Method         >0.1         NEG             Particles >4µm         ASTM D7647         >5000         1389             Particles >6µm         ASTM D7647         >1300         331             Particles >6µm         ASTM D7647         >100         20             Particles >21µm         ASTM D7647         >10         0             Particles >38µm         ASTM D7647         >10         0             Particles >38µm         ASTM D7647         >10         0             Particles >71µm         ASTM D7647         >10         0             Silt         scalar         *Visual         NONE             Debris         scalar         *Visual         NORML         NORML             Appearance		scalar		-			
Potassium         ppm         ASTM D5185m         >20         2             Water         WC Method         >0.1         NEG             Particles >4µm         ASTM D7647         >5000         1389             Particles >6µm         ASTM D7647         >1300         331             Particles >6µm         ASTM D7647         >160         20             Particles >1µm         ASTM D7647         >10         0             Particles >3µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         18/16/11             Silt         scalar         *Visual         NONE             Debris         scalar         *Visual         NORM         NORML             Agpearance	Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium         ppm         ASTM D5185m         >20         2             Water         WC Method         >0.1         NEG             Particles >4µm         ASTM D7647         >5000         1389             Particles >6µm         ASTM D7647         >1300         331             Particles >6µm         ASTM D7647         >160         20             Particles >1µm         ASTM D7647         >10         0             Particles >3µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         18/16/11             Silt         scalar         *Visual         NONE             Debris         scalar         *Visual         NORM         NORML             Agpearance	Cilline			00	•		
Water         WC Method         >0.1         NEG            Particles >4µm         ASTM D7647         >5000         1389             Particles >6µm         ASTM D7647         >1300         331             Particles >14µm         ASTM D7647         >160         20             Particles >21µm         ASTM D7647         >40         4             Particles >38µm         ASTM D7647         >40         4             Particles >38µm         ASTM D7647         >3         0             Particles >31µm         ASTM D7647         >3         0             Particles >38µm         ASTM D7647         >3         0             Particles >38µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         19/17/14         18/16/11             Salt         scalar         *Usual         NORE         Appearance         scalar         *Usual <th></th> <th></th> <th></th> <th></th> <th>_</th> <th></th> <th></th>					_		
Particles >4µm         ASTM D7647         >5000         1389             Particles >6µm         ASTM D7647         >1300         331             Particles >14µm         ASTM D7647         >160         20             Particles >21µm         ASTM D7647         >40         4             Particles >21µm         ASTM D7647         >10         0             Particles >38µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         18/16/11             Silt         scalar         *Visual         NONE              Sand/Dirt         scalar         *Visual         NORML         NORML             Appearance         scalar         *Visual         NORML         NORML </th <th></th> <th>ppm</th> <th></th> <th></th> <th>_</th> <th></th> <th></th>		ppm			_		
Particles >6μm         ASTM D7647         >1300         331             Particles >14μm         ASTM D7647         >160         20             Particles >21μm         ASTM D7647         >40         4             Particles >38µm         ASTM D7647         >10         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         18/16/11             Silt         scalar         *Visual         NONE              Sad/Dirt         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NORM         NORM             Appearance         scalar         *Visual         NORM         NORML             Odor         scalar         *Visual         NORM         NORML             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         >160         20             Particles >21µm         ASTM D7647         >40         4             Particles >38µm         ASTM D7647         >10         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19171/4         18/16/11             Silt         scalar         *Visual         NONE             Sand/Dirt         scalar         *Visual         NONE             Appearance         scalar         *Visual         NORM         NORML             Odor         scalar         *Visual         NORM         NORML             Godor         scalar         *Visual         NORM         NORML             Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Magnesium							
Particles >21µm         ASTM D7647         >40         4             Particles >38µm         ASTM D7647         >10         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         18/16/11             Silt         scalar         *Visual         NONE              Debris         scalar         *Visual         NONE              Sand/Dirt         scalar         *Visual         NORE              Appearance         scalar         *Visual         NORM         NORML             Ador         scalar         *Visual         NORM         NORML             Gor         scalar         *Visual         NORM         NORML             Boron         ppm         ASTM D5185m         0              Barium         ppm         ASTM D5185m         0	·						
Particles >38µm         ASTM D7647         >10         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         18/16/11             Silt         scalar         *Visual         NONE             Debris         scalar         *Visual         NONE             Sand/Dirt         scalar         *Visual         NORE             Appearance         scalar         *Visual         NORM         NORML             Odor         scalar         *Visual         NORM         NORML             Emulsified Water         scalar         *Visual         NORM         NORML             Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         0             Magnesium					-		
Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         18/16/11             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NONE         NONE             Appearance         scalar         *Visual         NORM         NORML             Odor         scalar         *Visual         NORM         NORML             Emulsified Water         scalar         *Visual         NORM         NORML             Sodium         ppm         ASTM D5185m         0              Boron         ppm         ASTM D5185m         0              Malganese         ppm         ASTM D5185m         0              Magnesium         ppm         A					-		
Oil Cleanliness         ISO 4406 (c)         >19/17/14         18/16/11             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         NORML         NORML             Sodium         ppm         ASTM D5185m         NOR              Boron         ppm         ASTM D5185m         0              Barium         ppm         ASTM D5185m         0              Manganese         ppm         ASTM D5185m         727         654             Phosphorus         <				-	-		
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m0BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagnesiumppmASTM D5185m0CalciumppmASTM D5185m727654PhosphorusppmASTM D5185m900851ZincppmASTM D5185m15001524Acid Number (AN)mg KOHgASTM D80451.00.67					-		
Debrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m0BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagnesiumppmASTM D5185m0MagnesiumppmASTM D5185m727654ZincppmASTM D5185m900851SulfurppmASTM D5185m1.00.67		coalar					
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m1BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MaganeseppmASTM D5185m0MagnesiumppmASTM D5185m727654PhosphorusppmASTM D5185m900851ZincppmASTM D5185m15001524Acid Number (AN)mg KOHgASTM D80451.00.67							
Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.1         NEG             Sodium         ppm         ASTM D5185m         NEG             Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         0             Phosphorus         ppm         ASTM D5185m         727         654             Zinc         ppm         ASTM D5185m         900         851             Sulfur         ppm         ASTM D5185m         1500         1524				-			
Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.1         NEG             Sodium         ppm         ASTM D5185m         1             Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         0             Calcium         ppm         ASTM D5185m         87         106             Phosphorus         ppm         ASTM D5185m         727         654             Zinc         ppm         ASTM D5185m         900         851             Sulfur         ppm         ASTM D5185m         1500         1524					-		
Emulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m1BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagneseeppmASTM D5185m0MagnesiumppmASTM D5185m0CalciumppmASTM D5185m727654PhosphorusppmASTM D5185m900851ZincppmASTM D5185m15001524Acid Number (AN)mg KOHgASTM D80451.00.67					-		
Sodium         ppm         ASTM D5185m         1             Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         0             Calcium         ppm         ASTM D5185m         87         106             Phosphorus         ppm         ASTM D5185m         727         654             Zinc         ppm         ASTM D5185m         900         851             Sulfur         ppm         ASTM D5185m         1500         1524             Acid Number (AN)         mg KOHg         ASTM D8045         1.0         0.67					-		
Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         0             Calcium         ppm         ASTM D5185m         0             Phosphorus         ppm         ASTM D5185m         727         654             Zinc         ppm         ASTM D5185m         900         851             Sulfur         ppm         ASTM D5185m         1500         1524             Acid Number (AN)         mg KOH/g         ASTM D8045         1.0         0.67							
Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m          0             Magnesium         ppm         ASTM D5185m          <1	Sodium	ppm	ASTM D5185m		1		
Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         0             Calcium         ppm         ASTM D5185m         87         106             Phosphorus         ppm         ASTM D5185m         727         654             Zinc         ppm         ASTM D5185m         900         851             Sulfur         ppm         ASTM D5185m         1500         1524             Acid Number (AN)         mg KOH/g         ASTM D8045         1.0         0.67	Boron	ppm	ASTM D5185m		0		
Manganese         ppm         ASTM D5185m         <1	Barium	ppm	ASTM D5185m		0		
Magnesium         ppm         ASTM D5185m         0             Calcium         ppm         ASTM D5185m         87         106             Phosphorus         ppm         ASTM D5185m         727         654             Zinc         ppm         ASTM D5185m         900         851             Sulfur         ppm         ASTM D5185m         1500         1524             Acid Number (AN)         mg KOHg         ASTM D8045         1.0         0.67	Molybdenum	ppm	ASTM D5185m		0		
Calcium         ppm         ASTM D5185m         87         106             Phosphorus         ppm         ASTM D5185m         727         654             Zinc         ppm         ASTM D5185m         900         851             Sulfur         ppm         ASTM D5185m         1500         1524             Acid Number (AN)         mg KOH/g         ASTM D8045         1.0         0.67	Manganese	ppm	ASTM D5185m		<1		
Phosphorus         ppm         ASTM D5185m         727         654             Zinc         ppm         ASTM D5185m         900         851             Sulfur         ppm         ASTM D5185m         1500         1524             Acid Number (AN)         mg KOH/g         ASTM D8045         1.0         0.67	Magnesium	ppm	ASTM D5185m		0		
Zinc         ppm         ASTM D5185m         900         851             Sulfur         ppm         ASTM D5185m         1500         1524             Acid Number (AN)         mg KOH/g         ASTM D8045         1.0         0.67	Calcium	ppm	ASTM D5185m	87	106		
Sulfur         ppm         ASTM D5185m         1500         1524             Acid Number (AN)         mg KOH/g         ASTM D8045         1.0         0.67	Phosphorus	ppm	ASTM D5185m	727	654		
Acid Number (AN) mg KOH/g ASTM D8045 1.0 0.67	Zinc	ppm	ASTM D5185m	900	851		
	Sulfur	ppm	ASTM D5185m	1500	1524		
Visc @ 40°C cSt ASTM D445 65 60.3	Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.67		
	Visc @ 40°C	cSt	ASTM D445	65	60.3		





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