

COOLANT REPORT

Sample Rating Trend





OKLAHOMA/102/EG - SKID STEER 53.137L [OKLAHOMA^102^EG - SKID STEER] Coolant

SAMPLE INFORMATION method

EXTENDED LIFE COOLANT (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The fluid is suitable for further service.

Area

Corrosion

All metal levels are normal indicating no corrosion in the cooling system.

Contaminants

There is no indication of any contamination in the coolant.

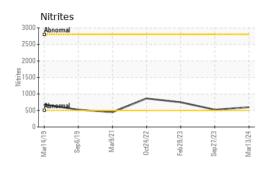
Coolant Condition

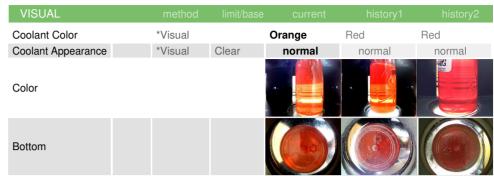
Carboxylate test failed. The pH level of this fluid is within the acceptable limits. Glycol and nitrite levels are acceptable.

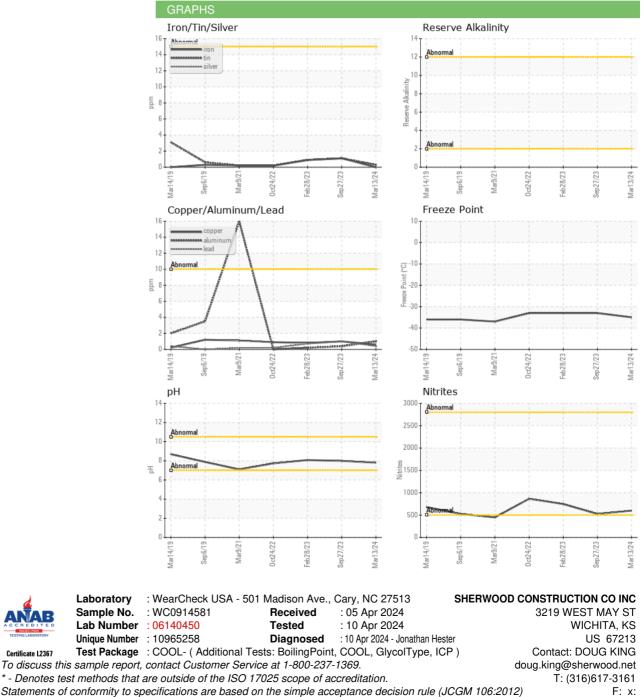
| Sample Number Client Info WC0914581 WC0834101 WC0792511 Sample Date Client Info 13 Mar 2024 27 Sep 2023 28 Feb 2023 Machine Age hrs Client Info 6545 5651 4770 Oil Age hrs Client Info 6545 4770 3334 Oil Changed Client Info 6545 4770 334 Oil Changed Client Info Not Changd Not Changd Not Changd Sample Status Imit Nos Current History1 history2 Glycol Type FT-IR Specific Gravity YASIM D1287 7.80 7.99 8.08 Nitrites ppm AP.053:2009 600 524 748 Reserve Alkalinity Scie 0:4 ASTM D1287 -35 -33 -33 Total Dissolved Solids Freezing Point *F ASTM D1332 50.7 49.4 9.4 | | | | | | , | |
|--|------------------------|------------|-------------|------------|-------------|-------------|-------------|
| Machine Age hrs Client Info 6545 5651 4770 Oil Age hrs Client Info Not Changd Not Changd Not Changd Sample Status Image Client Info Not Changd Not Changd Nor Changd PHYSICAL TEST RESULTS method imit/base current history1 NorRMAL Specific Gravity YASTM D128 1.066 1.067 1.067 pHYSICAL TEST RESULTS Math D1287 7.80 7.99 8.08 Nitrites ppm AP-053:2009 600 524 7.48 Reserve Alkalinity Sale0:21 ASTM D1231 Percentage Glycol % ASTM D3321 50.7 49.4 49.4 Freezing Point °F ASTM D3321 Carboxylate real ASTM D6130 600 347.5 325.0 Carboxylate ppm ASTM D6130 0 12 4 Phosphorus < | Sample Number | | Client Info | | WC0914581 | WC0834101 | WC0792531 |
| Oil Age hrs Client Info 6545 4770 3334 Oil Changed Client Info Not Changd Not Changd Not Changd Sample Status Imit/base current history1 Not Changd PHYSICAL TEST RESULTS method imit/base current history1 Not Changd Glycol Type FT-IR Specific Gravity YaSTM D1287 7.80 1.068 1.067 1.067 pH Scale014 ASTM D1287 7.80 7.99 8.08 Nitrites ppm AP0632009 600 524 748 Reserve Alkalinity Scale020 'ASTM D3221 Percentage Glycol % ASTM D3221 -35 -33 -33 -33 Total Dissolved Solids 1mit/base current history1 history2 Silicon ppm ASTM D6130 4 2 0 Boron <td< th=""><th>Sample Date</th><th></th><th>Client Info</th><th></th><th>13 Mar 2024</th><th>27 Sep 2023</th><th>28 Feb 2023</th></td<> | Sample Date | | Client Info | | 13 Mar 2024 | 27 Sep 2023 | 28 Feb 2023 |
| Oil Changed Sample Status Client Info Not Changd NORMAL Not Changd NORMAL Not Changd NORMAL Not Changd NORMAL PHYSICAL TEST RESULTS method imit/base current history1 history2 Glycol Type FT-IR Specific Gravity 'ASTM D1288 1.068 1.067 1.067 pH Scale 014 ASTM D1287 7.80 7.99 8.08 Nitrites ppm AP 053:2009 600 524 748 Reserve Alkalinity Scale 020 'ASTM D1281 Percentage Glycol % ASTM D3321 Percentage Glycol % ASTM D3321 Carboxylate 'F ASTM D3321 Silicon ppm ASTM D6130 8 11 14 Phosphorus ppm ASTM D6130 0 12 4 Molyddenum ppm ASTM D6130 10 1 -1 CoRROSION method imit/base current history1 history2 Iron ppm | Machine Age | hrs | Client Info | | 6545 | 5651 | 4770 |
| Sample StatusImage: statusImage: statusNORMALNORMALNORMALNORMALPHYSICAL TEST RESULTSmethodlimit/basecurrenthistory1history2Glycol TypeFT-IRSpecific GravityYASTM D12881.0681.0671.067pHScale014ASTM D12877.807.998.08NitritesppmAP-0532009600524748Reserve AlkalinityScale029ASTM D1231Percentage Glycol%ASTM D332150.749.4449.4Freezing Point°FASTM D3321-35-33-33Total Dissolved SolidsfailfailpassCORROSION INHEITORSmethod10mit/basecurrenthistory1history2SiliconppmASTM D613081114PhosphorusppmASTM D61306825321058CORROSIONppmASTM D61301-1-1MolybdenumppmASTM D6130511-1PronppmASTM D6130101-1-1CopperppmASTM D613010-1-1-1LuminumppmASTM D613010-1-1-1LuminumppmASTM D613010-1-1-1LuminumppmASTM D613010-1-1-1Lu | Oil Age | hrs | Client Info | | 6545 | 4770 | 3334 |
| PHYSICAL TEST RESULTS method limit/base current history1 history2 Glycol Type FT-IR Specific Gravity 'ASTM D128 1.068 1.067 1.067 pH Scale 0.14 ASTM D1287 7.80 7.99 8.08 Nitrites ppm AP-053-2009 600 524 748 Reserve Alkalinity Scale 0.20 'ASTM D1287 Percentage Glycol % ASTM D1321 35 -33 -33 Total Dissolved Solids fail fail pass CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 4 2 0 0 Boron ppm ASTM D6130 10 1 <1 4 Nolybdenum ppm ASTM D6130 >10 1 <1 1 Ion ppm </th <th>Oil Changed</th> <th></th> <th>Client Info</th> <th></th> <th>Not Changd</th> <th>Not Changd</th> <th>Not Changd</th> | Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Glycol Type FT-IR Specific Gravity 'ASTM D1298 1.068 1.067 1.067 pH Scale 0-14 ASTM D1287 7.80 7.99 8.08 Nitrites ppm AP-053:2009 600 524 748 Reserve Alkalinity Scale 0-20 'ASTM D121 Percentage Glycol % ASTM D3321 50.7 49.4 49.4 Freezing Point °F ASTM D3321 50.7 49.4 49.4 Percentage Glycol % ASTM D3321 -35 -33 -33 Total Dissolved Solids Imit/base current history1 history2 Corbaxylate Frail fail fail pass CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 10 1 <1 4 Phosphorus ppm ASTM D6130 10 1 | Sample Status | | | | NORMAL | NORMAL | NORMAL |
| Specific Gravity 'ASTM D1298 1.068 1.067 1.067 pH Scale 0.14 ASTM D1287 7.80 7.99 8.08 Nitrites ppm AP-0532009 600 524 748 Reserve Alkalinity Scale 0.20 'ASTM D121 Percentage Glycol % ASTM D3321 50.7 49.4 49.4 Freezing Point °F ASTM D3321 -35 -33 -33 Total Dissolved Solids 776.0 347.5 325.0 Carboxylate fail fail fail pass CORROSION INHUSTORS method limit/base current history1 history2 Silicon ppm ASTM D6130 8 11 14 Phosphorus ppm ASTM D6130 8 11 14 Molybdenum pm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 10 1 <1 | PHYSICAL TEST R | ESULTS | method | limit/base | current | history1 | history2 |
| pH Stale 0-14 ASTM D1287 7.80 7.99 8.08 Nitrites ppm AP-053:2009 600 524 748 Reserve Alkalinity Stale 0.20 'ASTM D1121 Percentage Glycol % ASTM D3321 50.7 49.4 49.4 Freezing Point °F ASTM D3321 -35 -33 -33 Total Dissolved Solids °F ASTM D3321 -35 -33 -33 CORROSION INH/BITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 8 11 14 Phosphorus ppm ASTM D6130 4 2 0 Boron ppm ASTM D6130 0 1 <1 | Glycol Type | | FT-IR | | | | |
| Nitrites ppm AP-053:2009 600 524 748 Reserve Alkalinity Scale 0:20 *ASTM D1121 Percentage Glycol % ASTM D3321 50.7 49.4 49.4 Freezing Point °F ASTM D3321 -35 -33 -33 Total Dissolved Solids 376.0 347.5 325.0 Carboxylate fail fail pass CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 8 11 14 Phosphorus ppm ASTM D6130 4 2 0 Boron ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 1 <1 1 Iron ppm ASTM D6130 >10 1 <1 <1 Aluminum ppm ASTM D6130 >10 1 <1< | Specific Gravity | | *ASTM D1298 | | 1.068 | 1.067 | 1.067 |
| Reserve Alkalinity Sade 0-20 *ASTM D1121 Percentage Glycol % ASTM D3321 50.7 49.4 49.4 Freezing Point °F ASTM D3321 -35 -33 -33 Total Dissolved Solids 376.0 347.5 325.0 Carboxylate Freezing Point °F ASTM D6130 8 11 14 Phosphorus ppm ASTM D6130 8 11 14 Phosphorus ppm ASTM D6130 4 2 0 Boron ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 1 <1 1 Iron ppm ASTM D6130 >10 1 <1 1 Lead ppm ASTM D6130 10 1 <1 | рН | Scale 0-14 | ASTM D1287 | | 7.80 | 7.99 | 8.08 |
| Percentage Glycol % ASTM D3321 50.7 49.4 49.4 Freezing Point °F ASTM D3321 -35 -33 -33 Total Dissolved Solids 376.0 347.5 325.0 Carboxylate fail fail fail pass CORROSION INHBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 8 11 14 Phosphorus ppm ASTM D6130 0 12 4 Boron ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 1 <1 1 Iron ppm ASTM D6130 >15 0 1 <1 Iron ppm ASTM D6130 >10 <1 <1 <1 Lead ppm ASTM D6130 >10 <1 <1 <1 Zinc ppm ASTM D6130 >10 <1 | Nitrites | ppm | AP-053:2009 | | 600 | 524 | 748 |
| Freezing Point °F ASTM D3321 -35 -33 -33 Total Dissolved Solids 376.0 347.5 325.0 Carboxylate fail fail pass CORROSION INH/BITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 8 11 14 Phosphorus ppm ASTM D6130 4 2 0 Boron ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 1 <1 1058 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130<>10 1 <1 <1 Aluminum ppm ASTM D6130<>10 <1 1 <1 Copper ppm ASTM D6130<>10 <1 1 <1 Lead | Reserve Alkalinity | Scale 0-20 | *ASTM D1121 | | | | |
| Total Dissolved SolidsImage and the second sec | Percentage Glycol | % | ASTM D3321 | | 50.7 | 49.4 | 49.4 |
| CarboxylatefailfailpassCORROSION INHIBITORSmethodlimit/basecurrenthistory1history2SiliconppmASTM D613081114PhosphorusppmASTM D6130420BoronppmASTM D61300124MolybdenumppmASTM D61306825321058CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>1501<1AluminumppmASTM D6130>101<1<1CopperppmASTM D6130>10<11<1LeadppmASTM D6130>10<11<1ZincppmASTM D6130>10<11<1ZincppmASTM D613010<11<1CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130191531CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130253714SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D61305413 | Freezing Point | °F | ASTM D3321 | | -35 | -33 | -33 |
| CORROSION INHIBITORSmethodlimit/basecurrenthistory1history2SiliconppmASTM D613081114PhosphorusppmASTM D61300124BoronppmASTM D61300124MolybdenumppmASTM D61306825321058CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>1501<1AluminumppmASTM D6130>101<1<1CopperppmASTM D6130>10<11<1LeadppmASTM D6130>10<11<1IronppmASTM D6130>10<11<1LeadppmASTM D6130>10<11<1ZincppmASTM D6130>10<11<1ZincppmASTM D6130>10<11<1CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D613019153131CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130253714SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D61305413 | Total Dissolved Solids | | | | 376.0 | 347.5 | 325.0 |
| Silicon ppm ASTM D6130 8 11 14 Phosphorus ppm ASTM D6130 4 2 0 Boron ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 682 532 1058 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 0 1 <1 Aluminum ppm ASTM D6130 >10 1 <1 <1 Copper ppm ASTM D6130 >10 <1 1 <1 Lead ppm ASTM D6130 >10 <1 | Carboxylate | | | | fail | fail | pass |
| Phosphorus ppm ASTM D6130 4 2 0 Boron ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 682 532 1058 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130<>15 0 1 <1 <1 Aluminum ppm ASTM D6130<>10 1 <1 <1 <1 Copper ppm ASTM D6130<>10 <1 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 | CORROSION INH | IBITORS | method | limit/base | current | history1 | history2 |
| Boron ppm ASTM D6130 0 12 4 Molybdenum ppm ASTM D6130 682 532 1058 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 0 1 <1 | Silicon | ppm | ASTM D6130 | | 8 | 11 | 14 |
| MolybdenumppmASTM D61306825321058CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>1501<1AluminumppmASTM D6130>101<1<1CopperppmASTM D6130>10<11<1LeadppmASTM D6130>10<11<1LeadppmASTM D6130>10<11<1ZincppmASTM D6130>10<11<1ZincppmASTM D6130>10<11<1CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130191531CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130253714SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D61305413 | Phosphorus | ppm | ASTM D6130 | | 4 | 2 | 0 |
| CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>1501<1AluminumppmASTM D6130>101<1<1CopperppmASTM D6130>10<11<1LeadppmASTM D6130>10<11<1TinppmASTM D6130>10<11<1ZincppmASTM D6130>10<11<1ZincppmASTM D6130>10<11<1CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130191531CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130253714SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D61305413 | | ppm | ASTM D6130 | | 0 | 12 | 4 |
| Iron ppm ASTM D6130<>15 0 1 <1 | Molybdenum | ppm | ASTM D6130 | | 682 | 532 | 1058 |
| Aluminum ppm ASTM D6130 >10 1 <1 | CORROSION | | method | limit/base | current | history1 | history2 |
| Copper ppm ASTM D6130 >10 <1 | Iron | ppm | ASTM D6130 | >15 | 0 | 1 | <1 |
| Lead ppm ASTM D6130 >10 <1 | Aluminum | ppm | ASTM D6130 | >10 | 1 | <1 | <1 |
| TimppmASTM D6130>10<1 | Copper | ppm | ASTM D6130 | >10 | <1 | 1 | <1 |
| ZincppmASTM D613002<1 | Lead | ppm | ASTM D6130 | >10 | <1 | 1 | <1 |
| CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130191531CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130419633944939PotassiumppmASTM D6130253714SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D61305413 | Tin | ppm | ASTM D6130 | >10 | <1 | 1 | <1 |
| ChlorineppmASTM D6130191531CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130419633944939PotassiumppmASTM D6130253714SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D61305413 | Zinc | ppm | ASTM D6130 | | 0 | 2 | <1 |
| CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130419633944939PotassiumppmASTM D6130253714SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D61305413 | CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Sodium ppm ASTM D6130 4196 3394 4939 Potassium ppm ASTM D6130 25 37 14 SCALE POTENTIAL method limit/base current history1 history2 Calcium ppm ASTM D6130 5 4 13 | Chlorine | ppm | ASTM D6130 | | 19 | 15 | 31 |
| PotassiumppmASTM D6130253714SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D61305413 | CARRIER SALTS | | method | limit/base | current | history1 | history2 |
| SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D61305413 | Sodium | ppm | ASTM D6130 | | 4196 | 3394 | 4939 |
| Calcium ppm ASTM D6130 5 4 13 | Potassium | | ASTM D6130 | | 25 | 37 | 14 |
| | SCALE POTENTI | AL | method | limit/base | current | history1 | history2 |
| | Calcium | ppm | ASTM D6130 | | 5 | | 13 |
| | | | | | - | | |



COOLANT REPORT







Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Certificate 12367

Submitted By: GARRETT ADAMS

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