Z08-7
BLUE-MAR

Lubricant Analysis Report

North America: +1-866-341-0487

0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

Overall report severity based on comments.

Account Information	Component Information	Sample Information
Account Number: LUB307-0037-0000	Component ID: 5675 LFD	Tracking Number: 25062Y43912
Company Name: PIDHERNEY'S	Secondary ID: 1FF300GXALF731578	Lab Number: E-007584
Contact: CARLA MERKLIN	Component Type: FINAL DRIVE	Lab Location: Edmonton
Address: RANGE RD 70 PO BOX 940 ROCKY MOUNTAIN HOUSE, AB T4T 1A7 CA	Manufacturer: JOHN DEERE	Data Analyst: MAC
	Model: Information Requested	Sampled: 01-May-2025
	Application: CONSTRUCTION	Submitted: 07-May-2025
Phone Number: 403-845-3072	Sump Capacity:	Received: 09-May-2025
		Completed: 12-May-2025
Filter Information	**Miscellaneous Information**	**Product Information**
Filter Type: Information Requested	Wildcard 1: Your Rep.: Cary Maxwell	Product Manufacturer: CHEVRON
Micron Rating: 0	Wildcard 2: Ph:(403) 861-9957	Product Name: MULTIGEAR EP-5
		Viscosity Grade: SAE 80W90

Comments Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Calcium is slightly high for this lubricant. Please provide COMPONENT MODEL number to compare data to the correct standards for this component.

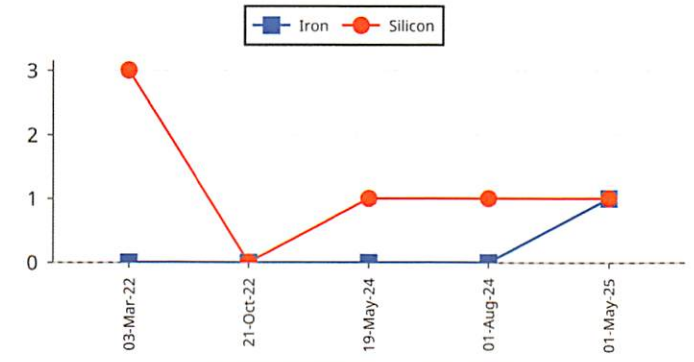
	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)						Additive Metals (ppm)				
Sample #	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
BL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	133	1	2	0	775	3
2	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	244	0	3	0	965	3
3	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	7	0	1	0	641	0
4	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	3	1	1	0	570	0
5	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	2	1	5	0	562	6
6	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	149	4	63	0	854	17

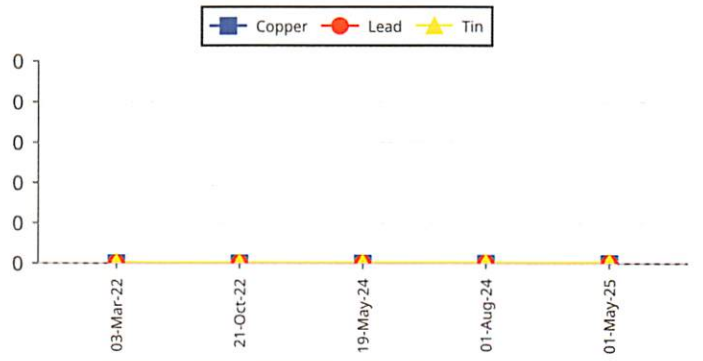
	Sample Information							Contaminants			Fluid Properties					
Sample #	Date Sampled	Date Received	Lube Time h	Unit Time h	Lube Change	Lube Added L	Filter Change	Fuel Dilution %	Soot %	Water %	Viscosity 40°C cSt	Viscosity 100 °C cSt	Acid Number mg KOH / g	Base Num. ASTM4739 mg KOH / g	Oxidation abs / cm	Nitration abs / 0.1mm
BL	N/A	18-Sep-2017	0	0	Unk	0	Unk			<.1 - FTIR		14.1	1.59		3	2
2	03-Mar-2022	18-Mar-2022	386	1566	Yes	0	No			<.1 - FTIR		14.5	1.16		4	4
3	21-Oct-2022	17-Jan-2023	421	1987	Yes	0	No			<.1 - FTIR		14.4	2.01		3	3
4	19-May-2024	04-Jun-2024	2080	4067	Yes	0	No			<.1 - FTIR		14.1	1.57		3	3
5	01-Aug-2024	27-Aug-2024	451	4518	No	0	No			<.1 - FTIR		14.0	1.65		3	3
6	01-May-2025	09-May-2025	1124	5191	No	0	No			<.1 - FTIR		14.2	1.59		3	3

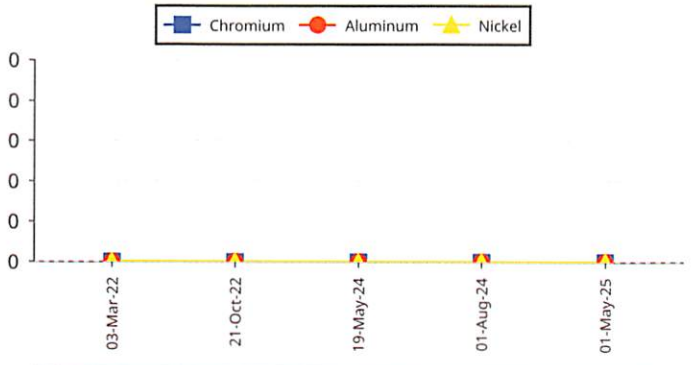
	Particle Count (particles/mL)										Additional Testing
Sample #	ISO Code Based On 4/6/14	> 4 particles / mL	> 6 particles / mL	> 10 particles / mL	> 14 particles / mL	> 21 particles / mL	> 38 particles / mL	> 70 particles / mL	> 100 particles / mL	Test Method	
BL	/ /										
2	/ /										
3	/ /										
4	/ /										
5	/ /										
6	/ /										

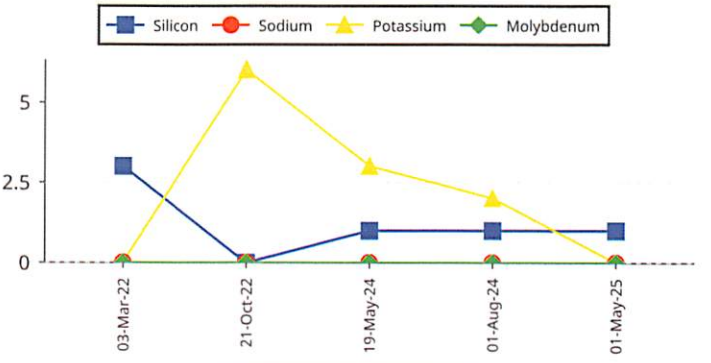
Comments are advisory only and are based on the sample information provided by the customer being valid. Results related only to the items tested. Missing fluid or component information limits the evaluation. No warranty is expressed or implied. Measurement uncertainty available upon request.

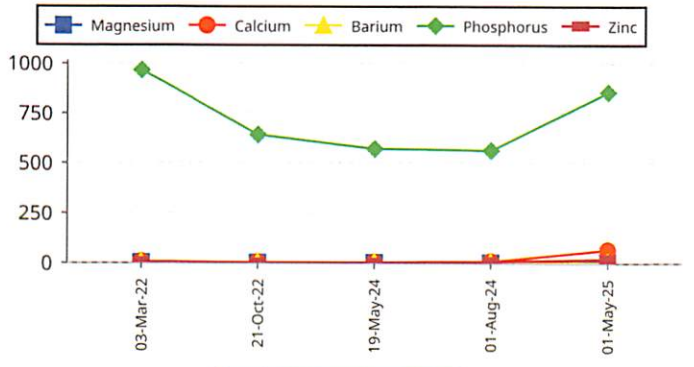
Historical Comments	2	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Boron is slightly high for this lubricant. Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Please provide this units sump capacity with next sample. Lubricant change acknowledged.
	3	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Acid Number is SLIGHTLY HIGH, which may be due to oxidation, contamination with an acidic product, extended drain interval, or lubricant mixing. Boron is slightly low for this lubricant. Boron levels may naturally decline with use so this is not a cause for concern. Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Lubricant change acknowledged.
	4	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Boron is slightly low for this lubricant. Boron levels may naturally decline with use so this is not a cause for concern. Please provide COMPONENT MODEL number to compare data to the correct standards for this component.
	5	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Boron is slightly low for this lubricant. Boron levels may naturally decline with use so this is not a cause for concern. Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Please provide this units sump capacity with next sample.

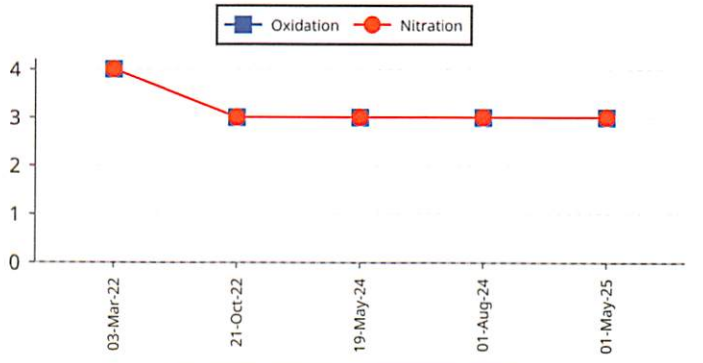

Iron
Silicon
3
2
1
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

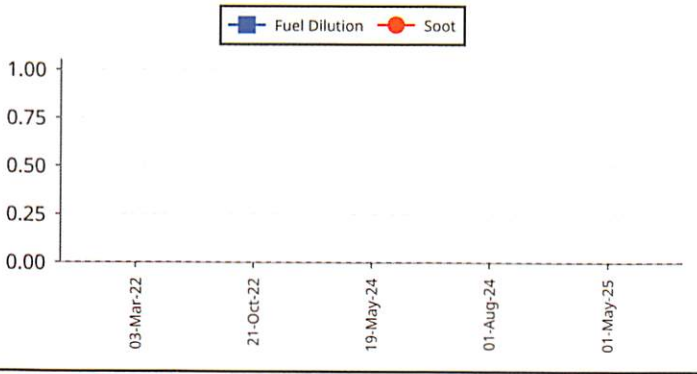

Copper
Lead
Tin
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

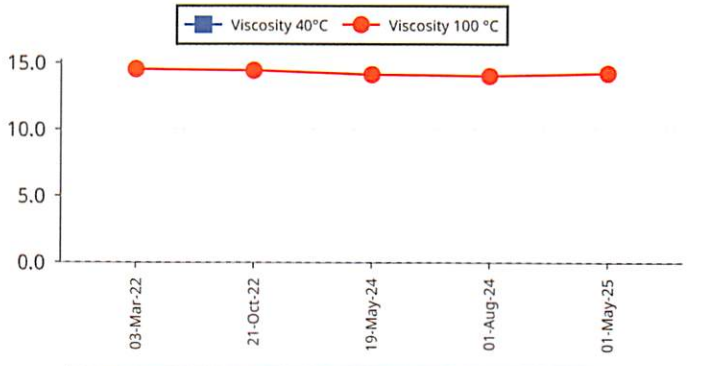

Chromium
Aluminum
Nickel
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

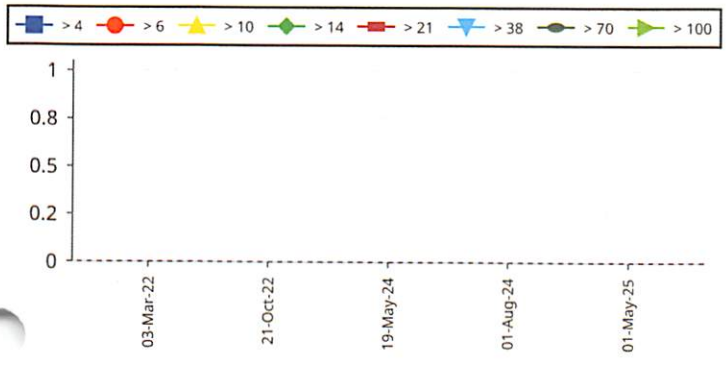

Silicon
Sodium
Potassium
Molybdenum
5
2.5
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

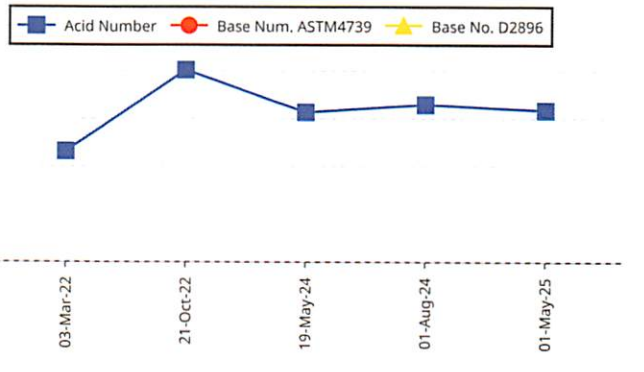

Magnesium
Calcium
Barium
Phosphorus
Zinc
1000
750
500
250
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Oxidation
Nitration
4
3
2
1
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Fuel Dilution
Soot
1.00
0.75
0.50
0.25
0.00
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Viscosity 40°C
Viscosity 100 °C
15.0
10.0
5.0
0.0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


> 4
> 6
> 10
> 14
> 21
> 38
> 70
> 100
1
0.8
0.5
0.2
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Acid Number
Base Num. ASTM4739
Base No. D2896
2
1.5
1
0.5
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

Lubricant Analysis Report

Chevron LubeWatch®

North America: +1-866-341-0487

0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

Overall report severity based on comments.

Account Information	Component Information	Sample Information
Account Number: LUB307-0037-0000	Component ID: 5675 RFD	Tracking Number: 25062Y43913
Company Name: PIDHERNEY'S	Secondary ID: 1FF300GXALF731578	Lab Number: E-007598
Contact: CARLA MERKLIN	Component Type: FINAL DRIVE	Lab Location: Edmonton
Address: RANGE RD 70 PO BOX 940 ROCKY MOUNTAIN HOUSE, AB T4T 1A7 CA	Manufacturer: JOHN DEERE	Data Analyst: MAC
	Model: Information Requested	Sampled: 01-May-2025
	Application: CONSTRUCTION	Submitted: 07-May-2025
Phone Number: 403-845-3072	Sump Capacity:	Received: 09-May-2025
		Completed: 12-May-2025
Filter Information	**Miscellaneous Information**	**Product Information**
Filter Type: Information Requested	Wildcard 1: Your Rep.: Cary Maxwell	Product Manufacturer: CHEVRON
Micron Rating: 0	Wildcard 2: Ph:(403) 861-9957	Product Name: MULTIGEAR EP-5
		Viscosity Grade: SAE 80W90

Comments Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Calcium is slightly high for this lubricant. Please provide COMPONENT MODEL number to compare data to the correct standards for this component.

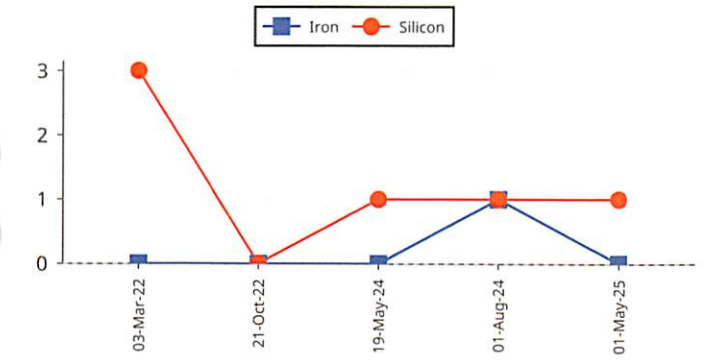
	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)						Additive Metals (ppm)				
Sample #	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
BL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	133	1	2	0	775	3
2	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	244	1	5	0	962	7
3	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	7	0	1	0	623	0
4	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	2	0	1	0	581	0
5	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3	1	5	0	582	0
6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	151	0	47	0	857	8

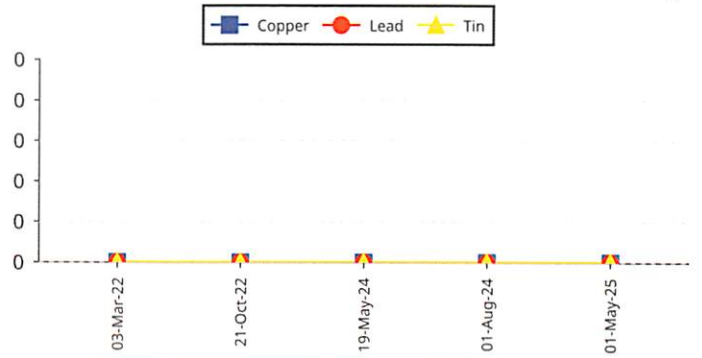
	Sample Information							Contaminants			Fluid Properties					
Sample #	Date Sampled	Date Received	Lube Time h	Unit Time h	Lube Change	Lube Added L	Filter Change	Fuel Dilution %	Soot %	Water %	Viscosity 40°C cSt	Viscosity 100 °C cSt	Acid Number mg KOH / g	Base Num. ASTM4739 mg KOH / g	Oxidation abs / cm	Nitration abs / 0.1mm
BL	N/A	18-Sep-2017	0	0	Unk	0	Unk			<.1 - FTIR		14.1	1.59		3	2
2	03-Mar-2022	18-Mar-2022	386	1566	Yes	0	No			<.1 - FTIR		14.7	1.21		4	4
3	21-Oct-2022	17-Jan-2023	421	1987	Yes	0	No			<.1 - FTIR		14.2	1.99		3	3
4	19-May-2024	04-Jun-2024	2080	4067	Yes	0	No			<.1 - FTIR		14.0	1.65		3	3
5	01-Aug-2024	27-Aug-2024	451	4518	No	0	No			<.1 - FTIR		13.9	1.43		3	3
6	01-May-2025	09-May-2025	1124	5191	No	0	No			<.1 - FTIR		14.2	1.06		3	3

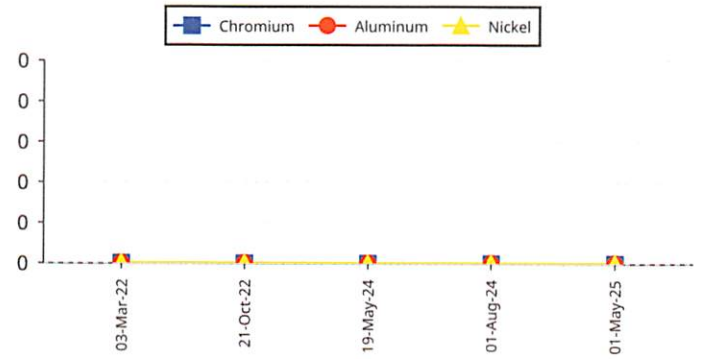
	Particle Count (particles/mL)										Additional Testing
Sample #	ISO Code Based On 4/6/14	> 4 particles / mL	> 6 particles / mL	> 10 particles / mL	> 14 particles / mL	> 21 particles / mL	> 38 particles / mL	> 70 particles / mL	> 100 particles / mL	Test Method	
BL	/ /										
2	/ /										
3	/ /										
4	/ /										
5	/ /										
6	/ /										

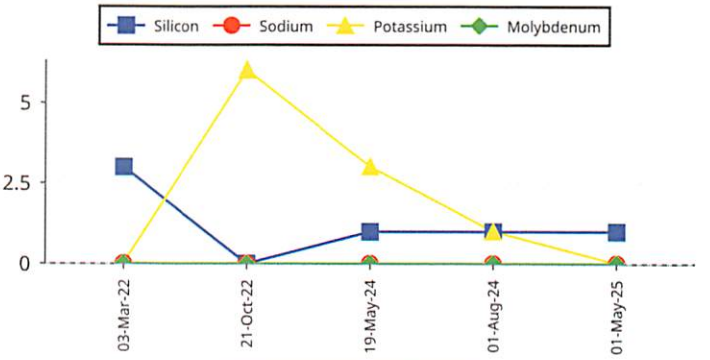
Comments are advisory only and are based on the sample information provided by the customer being valid. Results related only to the items tested. Missing fluid or component information limits the evaluation. No warranty is expressed or implied. Measurement uncertainty available upon request.

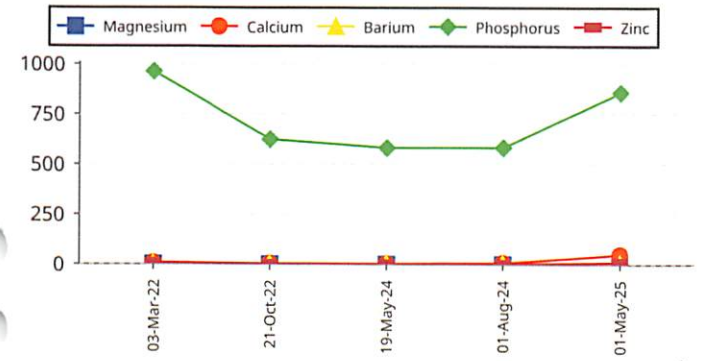
Historical Comments	2	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Boron is slightly high for this lubricant. Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Please provide this units sump capacity with next sample. Lubricant change acknowledged.
	3	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Boron is slightly low for this lubricant. Boron levels may naturally decline with use so this is not a cause for concern. Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Lubricant change acknowledged.
	4	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Boron is slightly low for this lubricant. Boron levels may naturally decline with use so this is not a cause for concern. Please provide COMPONENT MODEL number to compare data to the correct standards for this component.
	5	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Boron is slightly low for this lubricant. Boron levels may naturally decline with use so this is not a cause for concern. Please provide COMPONENT MODEL number to compare data to the correct standards for this component.

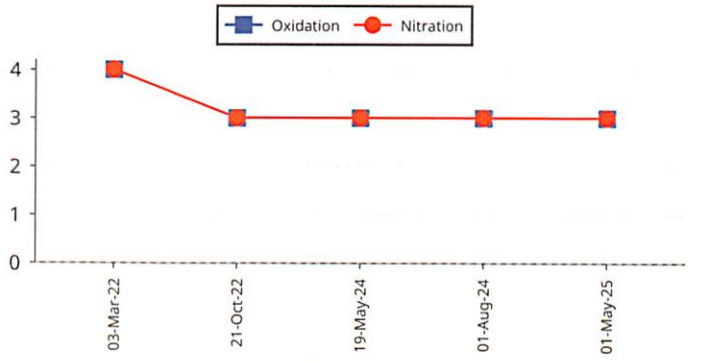

Iron
Silicon
3
2
1
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

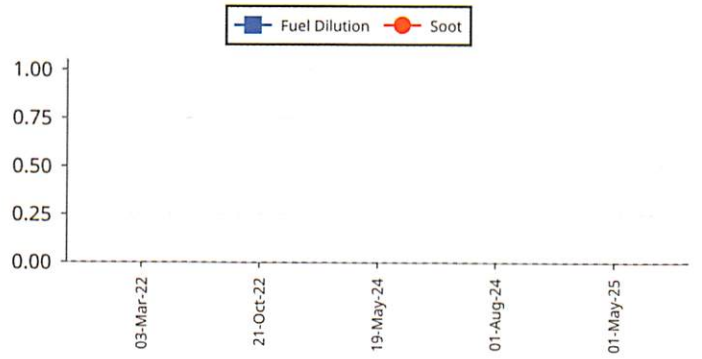

Copper
Lead
Tin
0
0
0
0
0
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

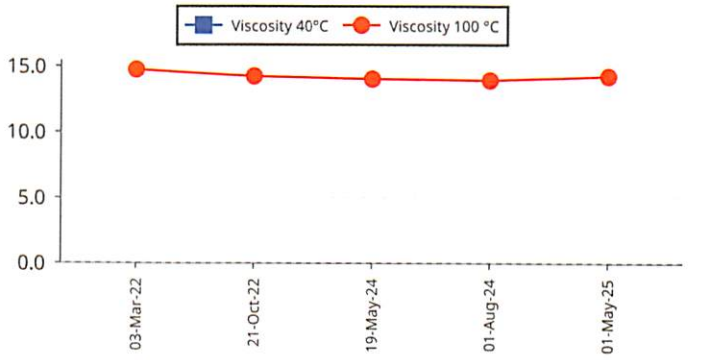

Chromium
Aluminum
Nickel
0
0
0
0
0
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

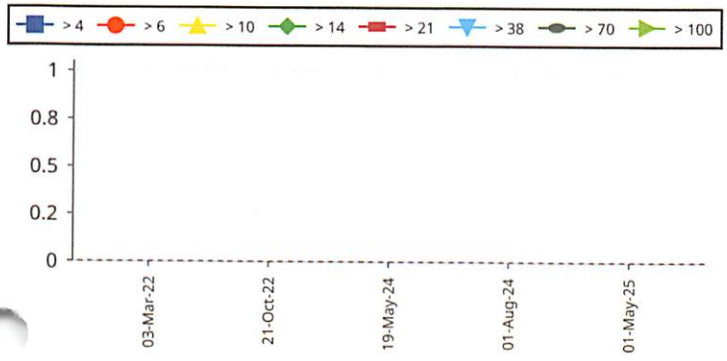

Silicon
Sodium
Potassium
Molybdenum
5
2.5
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

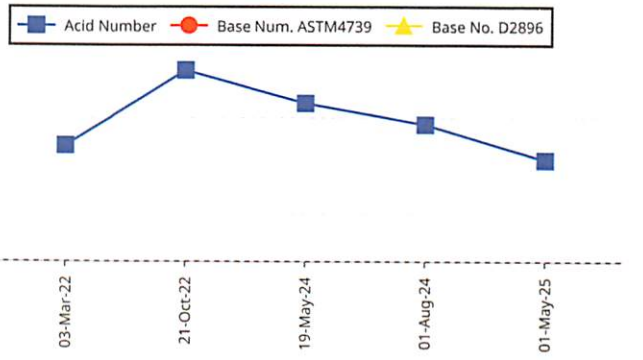

Magnesium
Calcium
Barium
Phosphorus
Zinc
1000
750
500
250
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Oxidation
Nitration
4
3
2
1
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Fuel Dilution
Soot
1.00
0.75
0.50
0.25
0.00
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Viscosity 40°C
Viscosity 100 °C
15.0
10.0
5.0
0.0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


> 4
> 6
> 10
> 14
> 21
> 38
> 70
> 100
1
0.8
0.5
0.2
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Acid Number
Base Num. ASTM4739
Base No. D2896
2
1.5
1
0.5
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

Lubricant Analysis Report

Chevron LubeWatch®

North America: +1-866-341-0487

0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

Overall report severity based on comments.

Account Information	Component Information	Sample Information
Account Number: LUB307-0037-0000	Component ID: 5675 SWING	Tracking Number: 25062Y43914
Company Name: PIDHERNEY'S	Secondary ID: 1FF300GXALF731578	Lab Number: E-007594
Contact: CARLA MERKLIN	Component Type: SWING GEAR BOX	Lab Location: Edmonton
Address: RANGE RD 70 PO BOX 940 ROCKY MOUNTAIN HOUSE, AB T4T 1A7 CA	Manufacturer: JOHN DEERE	Data Analyst: MAC
	Model: Information Requested	Sampled: 01-May-2025
	Application: CONSTRUCTION	Submitted: 07-May-2025
Phone Number: 403-845-3072	Sump Capacity:	Received: 09-May-2025
		Completed: 12-May-2025
Filter Information	**Miscellaneous Information**	**Product Information**
Filter Type: Information Requested	Wildcard 1: Your Rep.: Cary Maxwell	Product Manufacturer: CHEVRON
Micron Rating: 0	Wildcard 2: Ph:(403) 861-9957	Product Name: MULTIGEAR EP-5
		Viscosity Grade: SAE 80W90

Comments Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Calcium is slightly high for this lubricant. Please provide COMPONENT MODEL number to compare data to the correct standards for this component.

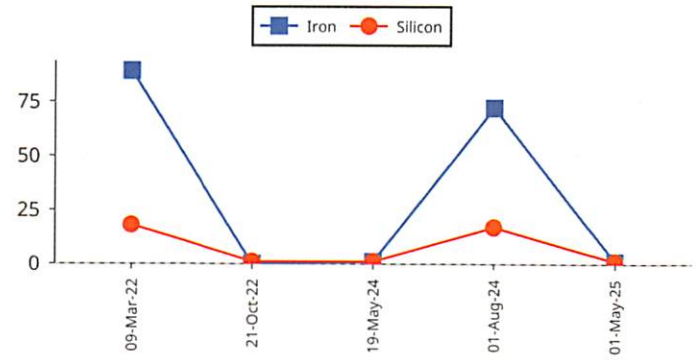
	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)						Additive Metals (ppm)				
Sample #	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
BL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	133	1	2	0	775	3
2	89	2	0	1	1	0	0	0	0	0	18	2	1	0	0	0	2	1	65	1	16	2	495	8
3	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0	6	0	2	0	633	1
4	1	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	2	1	23	0	596	5
5	72	1	0	1	0	1	0	0	0	0	17	1	0	0	0	0	2	0	67	2	70	3	502	13
6	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	154	0	11	0	886	4

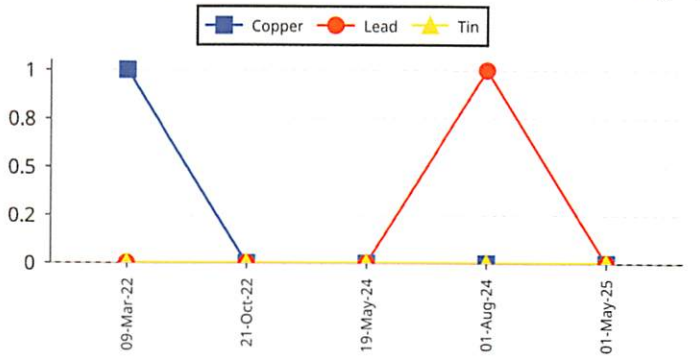
	Sample Information							Contaminants			Fluid Properties					
Sample #	Date Sampled	Date Received	Lube Time h	Unit Time h	Lube Change	Lube Added L	Filter Change	Fuel Dilution %	Soot %	Water %	Viscosity 40°C cSt	Viscosity 100 °C cSt	Acid Number mg KOH / g	Base Num. ASTM4739 mg KOH / g	Oxidation abs / cm	Nitration abs / 0.1mm
BL	N/A	18-Sep-2017	0	0	Unk	0	Unk			<.1 - FTIR		14.1	1.59		3	2
2	09-Mar-2022	18-Mar-2022	386	1566	No	0	No			<.1 - FTIR		16.6	0.55		3	4
3	21-Oct-2022	17-Jan-2023	807	1987	Yes	0	No			<.1 - FTIR		14.5	1.51		3	3
4	19-May-2024	04-Jun-2024	2080	4067	Yes	0	No			<.1 - FTIR		14.0	1.29		3	3
5	01-Aug-2024	27-Aug-2024	451	4518	No	0	No			<.1 - FTIR		17.0	1.20		3	4
6	01-May-2025	09-May-2025	1124	5191	No	0	No			<.1 - FTIR		14.1	1.08		3	3

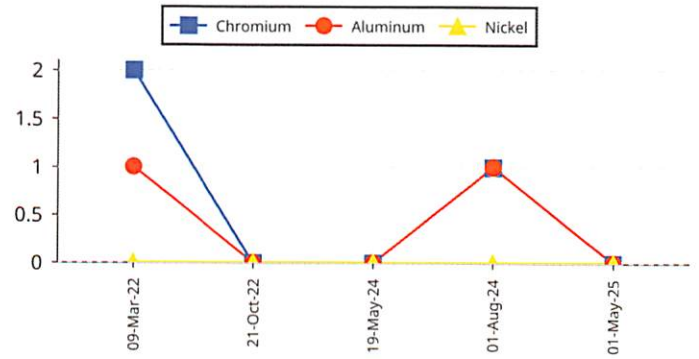
	Particle Count (particles/mL)										Additional Testing
Sample #	ISO Code Based On 4/6/14	> 4 particles / mL	> 6 particles / mL	> 10 particles / mL	> 14 particles / mL	> 21 particles / mL	> 38 particles / mL	> 70 particles / mL	> 100 particles / mL	Test Method	
BL	/ /										
2	/ /										
3	/ /										
4	/ /										
5	/ /										
6	/ /										

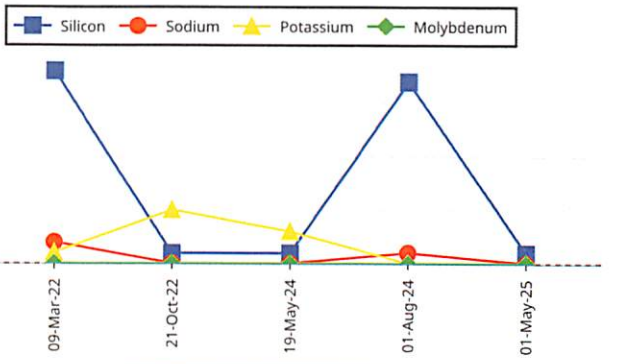
Comments are advisory only and are based on the sample information provided by the customer being valid. Results related only to the items tested. Missing fluid or component information limits the evaluation. No warranty is expressed or implied. Measurement uncertainty available upon request.

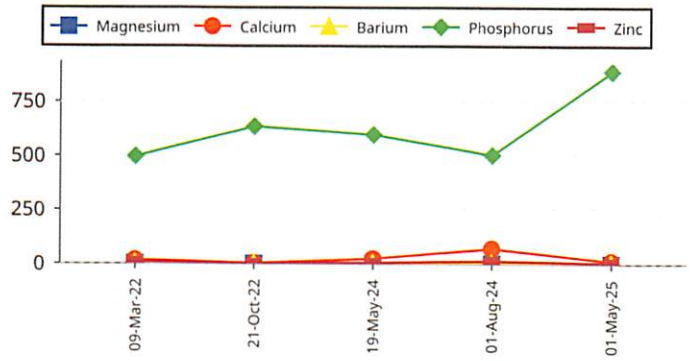
Historical Comments		
	2	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Gear and/or bearing metal is at a MINOR LEVEL; Flagged additives do not match current baseline reference for the specified product (this does not imply the lubricant does not meet proper API, SAE, or ISO classifications). Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Please provide this units sump capacity with next sample.
	3	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Boron is slightly low for this lubricant. Boron levels may naturally decline with use so this is not a cause for concern. Please provide COMPONENT MODEL number to compare data to the correct standards for this component.
	4	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Flagged additive levels are different than what should be present for the identified lubricant. This may have been topped off with a different lubricant, the fluid may be misidentified, or a different lubricant or formulation may have been in use prior to a recent change. Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Lubricant change acknowledged.
	5	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Gear and/or bearing metal is at a MINOR LEVEL; Flagged additive levels are different than what should be present for the identified lubricant. This may have been topped off with a different lubricant, the fluid may be misidentified, or a different lubricant or formulation may have been in use prior to a recent change. Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Please provide this units sump capacity with next sample.

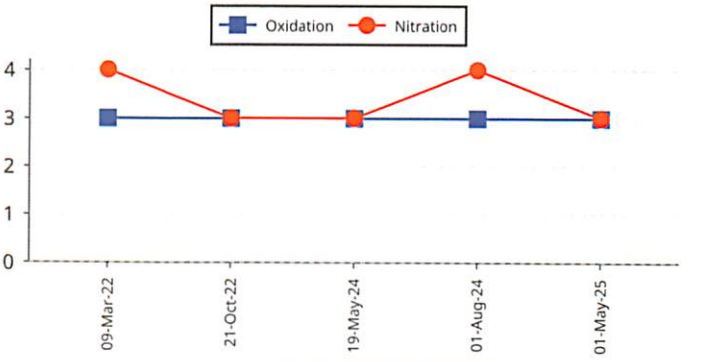

Iron
Silicon
75
50
25
0
09-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

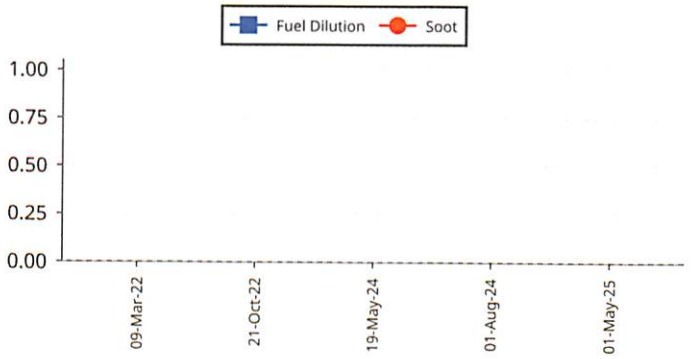

Copper
Lead
Tin
1
0.8
0.5
0.2
0
09-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

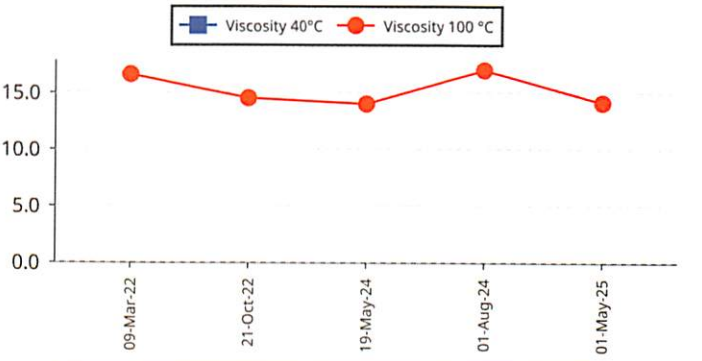

Chromium
Aluminum
Nickel
2
1.5
1
0.5
0
09-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

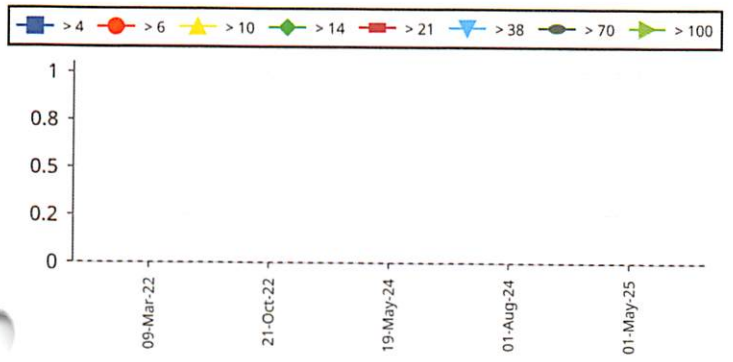

Silicon
Sodium
Potassium
Molybdenum
15
10
5
0
09-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

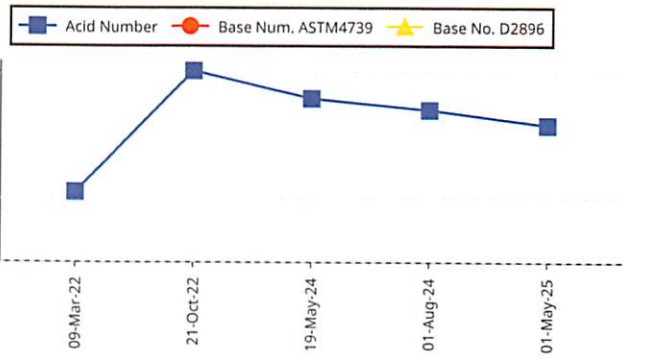

Magnesium
Calcium
Barium
Phosphorus
Zinc
750
500
250
0
09-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Oxidation
Nitration
4
3
2
1
0
09-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Fuel Dilution
Soot
1.00
0.75
0.50
0.25
0.00
09-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Viscosity 40°C
Viscosity 100 °C
15.0
10.0
5.0
0.0
09-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


> 4
> 6
> 10
> 14
> 21
> 38
> 70
> 100
1
0.8
0.5
0.2
0
09-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Acid Number
Base Num. ASTM4739
Base No. D2896
1.5
1
0.5
0
09-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

Lubricant Analysis Report

Chevron LubeWatch®

North America: +1-866-341-0487

0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

Overall report severity based on comments.

Account Information	Component Information	Sample Information
Account Number: LUB307-0037-0000	Component ID: 5675 E	Tracking Number: 25062Y43910
Company Name: PIDHERNEY'S	Secondary ID: 1FF300GXALF731578	Lab Number: E-007628
Contact: CARLA MERKLIN	Component Type: DIESEL ENGINE	Lab Location: Edmonton
Address: RANGE RD 70 PO BOX 940 ROCKY MOUNTAIN HOUSE, AB T4T 1A7 CA	Manufacturer: JOHN DEERE	Data Analyst: FLG
	Model: Information Requested	Sampled: 01-May-2025
	Application: CONSTRUCTION	Submitted: 07-May-2025
Phone Number: 403-845-3072	Sump Capacity:	Received: 09-May-2025
		Completed: 12-May-2025
Filter Information	**Miscellaneous Information**	**Product Information**
Filter Type: Information Requested	Wildcard 1: Your Rep.: Cary Maxwell	Product Manufacturer: CHEVRON
Micron Rating: 0	Wildcard 2: Ph:(403) 861-9957	Product Name: DELO 400 XSP
		Viscosity Grade: SAE 5W40

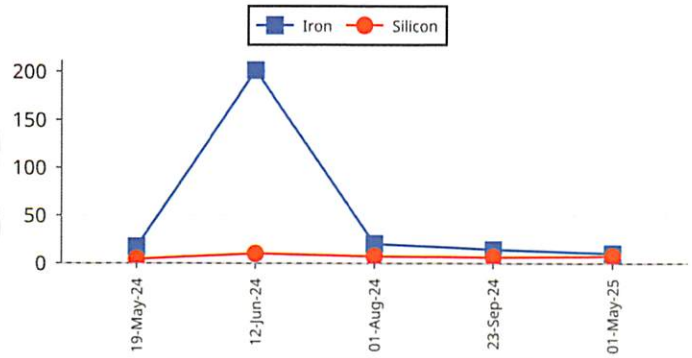
Comments	Data indicates no abnormal findings. Resample at normal interval. Lubricant and filter change acknowledged. Please provide COMPONENT MODEL number to compare data to the correct standards for this component.

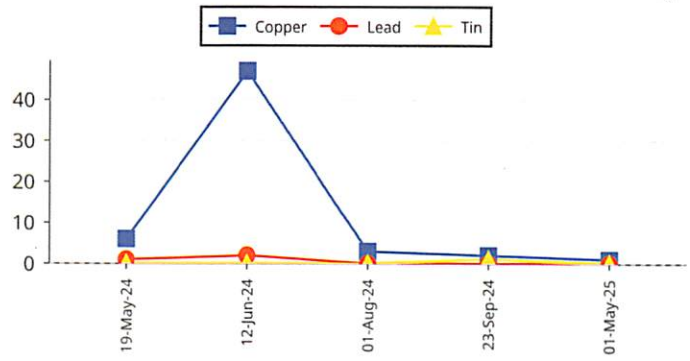
	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)						Additive Metals (ppm)				
Sample #	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
BL	3	0	0	1	0	1	0	0	0	0	6	3	3	1	0	0	0	1	98	775	1323	0	768	869
9	17	0	0	0	6	1	0	0	0	0	4	3	0	0	61	0	0	0	3	977	1027	0	1058	1193
10	201	0	1	5	47	2	0	0	0	0	10	6	0	1	13	0	3	0	61	736	4093	8	1650	2009
11	20	0	1	1	3	0	0	0	0	0	7	4	0	0	13	0	0	0	20	754	1201	0	742	824
12	14	0	1	1	2	0	1	0	0	0	6	3	2	1	4	0	0	0	34	724	1299	0	694	774
13	10	1	0	0	1	0	0	0	0	0	7	2	1	0	2	0	0	0	65	696	1333	0	681	764

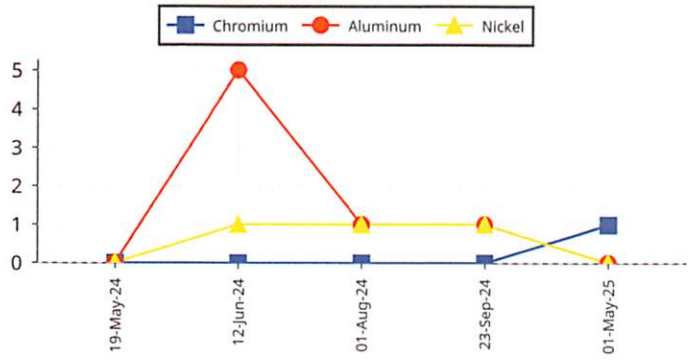
	Sample Information							Contaminants			Fluid Properties					
Sample #	Date Sampled	Date Received	Lube Time h	Unit Time h	Lube Change	Lube Added L	Filter Change	Fuel Dilution %	Soot %	Water %	Viscosity 40°C cSt	Viscosity 100 °C cSt	Acid Number mg KOH / g	Base Num. ASTM4739 mg KOH / g	Oxidation abs / cm	Nitration abs / 0.1mm
BL	01-Jan-2023	18-Sep-2023	0	0	Unk	0	Unk			<.1 - FTIR		15.3		6.21	10	7
9	19-May-2024	04-Jun-2024	333	4067	Yes	0	Yes	<2 - Estimate	0.1 - E2412	<.1 - FTIR		14.4	2.64		11	7
10	12-Jun-2024	08-Jul-2024	173	4240	No	0	No	<2 - Estimate	0.1 - E2412	<.1 - FTIR		15.0	2.96		10	8
11	01-Aug-2024	27-Aug-2024	451	4518	Yes	0	Yes	<2 - Estimate	0.4 - E2412	<.1 - FTIR		14.3	4.55		12	10
12	23-Sep-2024	03-Oct-2024	284	4802	No	0	No	<2 - Estimate	0.3 - E2412	<.1 - FTIR		15.0	4.26		11	10
13	01-May-2025	09-May-2025	673	5191	Yes	0	Yes	<2 - Estimate	0.1 - E2412	<.1 - FTIR		14.9	2.45		10	8

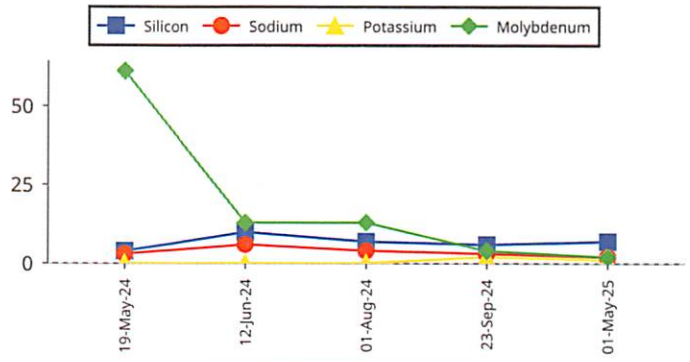
	Particle Count (particles/mL)										Additional Testing
Sample #	ISO Code Based On 4/6/14	> 4 particles / mL	> 6 particles / mL	> 10 particles / mL	> 14 particles / mL	> 21 particles / mL	> 38 particles / mL	> 70 particles / mL	> 100 particles / mL	Test Method	
BL	/ /										
9	/ /										
10	/ /										
11	/ /										
12	/ /										
13	/ /										

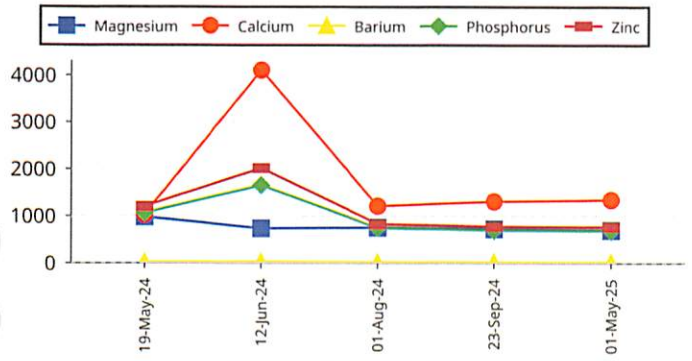
Historical Comments	9	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Flagged additive levels are different than what should be present for the identified lubricant. This may have been topped off with a different lubricant, the fluid may be misidentified, or a different lubricant or formulation may have been in use prior to a recent change. Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Lubricant and filter change acknowledged.
	10	Suggest checking compression and for engine breather passing oil (blow-by) or similar diagnostics and monitoring engine fault codes. Cylinder region metals (pistons, rings, liners etc.) are at a SIGNIFICANT LEVEL; Copper is at a MINOR LEVEL; COPPER is most likely LEACHING into the oil via the OIL COOLER core tubing. This typically DOES NOT REQUIRE MAINTENANCE ACTION unless there is evidence of COOLANT in the oil. Flagged additive levels are different than what should be present for the identified lubricant. This may have been topped off with a different lubricant, the fluid may be misidentified, or a different lubricant or formulation may have been in use prior to a recent change. Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Please provide this units sump capacity with next sample. Resample at half interval.
	11	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Flagged additive levels are different than what should be present for the identified lubricant. This may have been topped off with a different lubricant, the fluid may be misidentified, or a different lubricant or formulation may have been in use prior to a recent change. Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Lubricant and filter change acknowledged.
	12	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Boron is slightly low for this lubricant. Boron levels may naturally decline with use so this is not a cause for concern. Please provide COMPONENT MODEL number to compare data to the correct standards for this component.

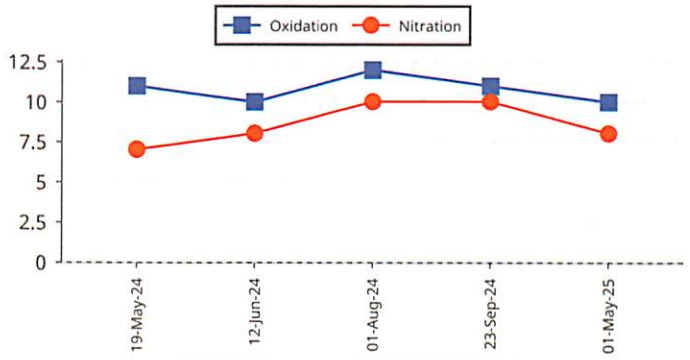

Iron
Silicon
200
150
100
50
0
19-May-24
12-Jun-24
01-Aug-24
23-Sep-24
01-May-25

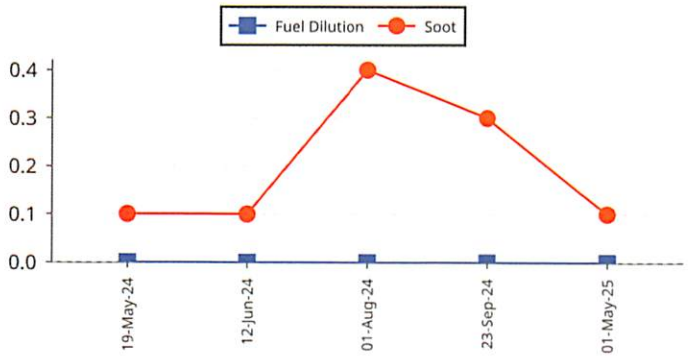

Copper
Lead
Tin
40
30
20
10
0
19-May-24
12-Jun-24
01-Aug-24
23-Sep-24
01-May-25

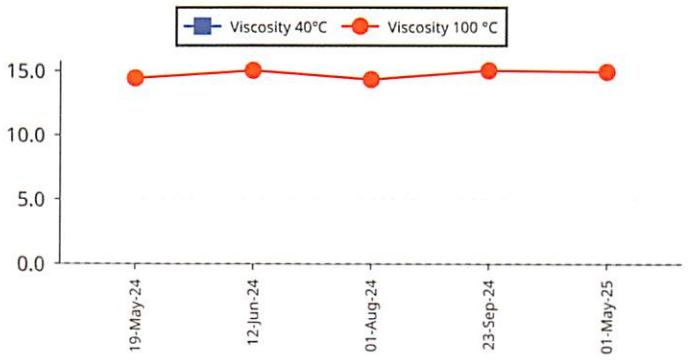

Chromium
Aluminum
Nickel
5
4
3
2
1
0
19-May-24
12-Jun-24
01-Aug-24
23-Sep-24
01-May-25

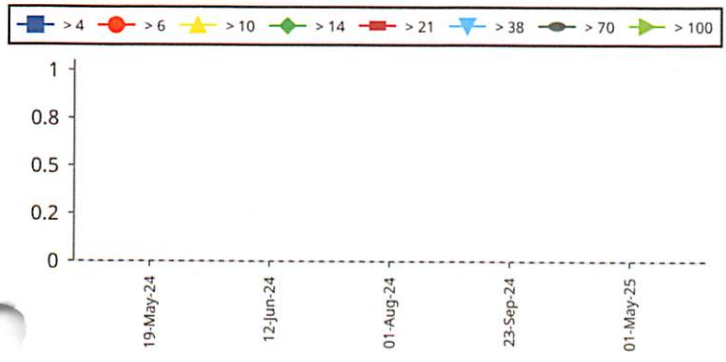

Silicon
Sodium
Potassium
Molybdenum
50
25
0
19-May-24
12-Jun-24
01-Aug-24
23-Sep-24
01-May-25

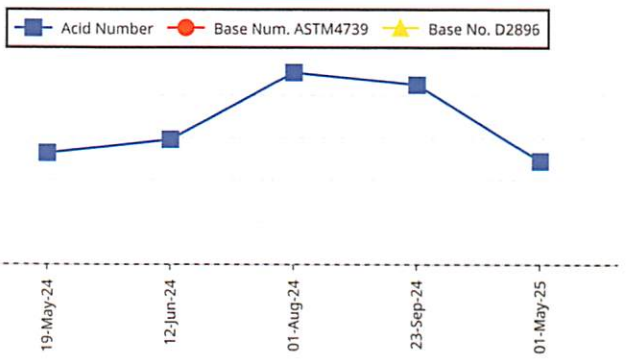

Magnesium
Calcium
Barium
Phosphorus
Zinc
4000
3000
2000
1000
0
19-May-24
12-Jun-24
01-Aug-24
23-Sep-24
01-May-25


Oxidation
Nitration
12.5
10
7.5
5
2.5
0
19-May-24
12-Jun-24
01-Aug-24
23-Sep-24
01-May-25


Fuel Dilution
Soot
0.4
0.3
0.2
0.1
0.0
19-May-24
12-Jun-24
01-Aug-24
23-Sep-24
01-May-25


Viscosity 40°C
Viscosity 100 °C
15.0
10.0
5.0
0.0
19-May-24
12-Jun-24
01-Aug-24
23-Sep-24
01-May-25


> 4
> 6
> 10
> 14
> 21
> 38
> 70
> 100
1
0.8
0.5
0.2
0
19-May-24
12-Jun-24
01-Aug-24
23-Sep-24
01-May-25


Acid Number
Base Num. ASTM4739
Base No. D2896
4
3
2
1
0
19-May-24
12-Jun-24
01-Aug-24
23-Sep-24
01-May-25

Lubricant Analysis Report

Chevron LubeWatch®

North America: +1-866-341-0487

0	1	2	3	4
NORMAL	ABNORMAL			CRITICAL

Overall report severity based on comments.

Account Information	Component Information	Sample Information
Account Number: LUB307-0037-0000	Component ID: 5675 H	Tracking Number: 25062Y43911
Company Name: PIDHERNEY'S	Secondary ID: 1FF300GXALF731578	Lab Number: E-007586
Contact: CARLA MERKLIN	Component Type: HYDRAULIC	Lab Location: Edmonton
Address: RANGE RD 70 PO BOX 940 ROCKY MOUNTAIN HOUSE, AB T4T 1A7 CA	Manufacturer: JOHN DEERE	Data Analyst: MAC
	Model: Information Requested	Sampled: 01-May-2025
	Application: CONSTRUCTION	Submitted: 07-May-2025
Phone Number: 403-845-3072	Sump Capacity: 156 L	Received: 09-May-2025
		Completed: 12-May-2025
Filter Information	**Miscellaneous Information**	**Product Information**
Filter Type: Information Requested	Wildcard 1: Your Rep.: Cary Maxwell	Product Manufacturer: JOHN DEERE
Micron Rating: 0	Wildcard 2: Ph:(403) 861-9957	Product Name: SUPER EX
		Viscosity Grade: ISO 46

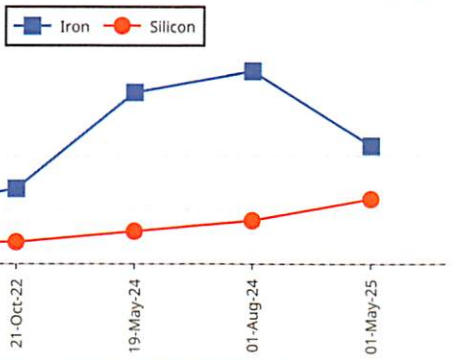
Comments: Data indicates no abnormal findings. Resample at normal interval. Please provide COMPONENT MODEL number to compare data to the correct standards for this component. LUBRICANT TIME was not provided for this sample.

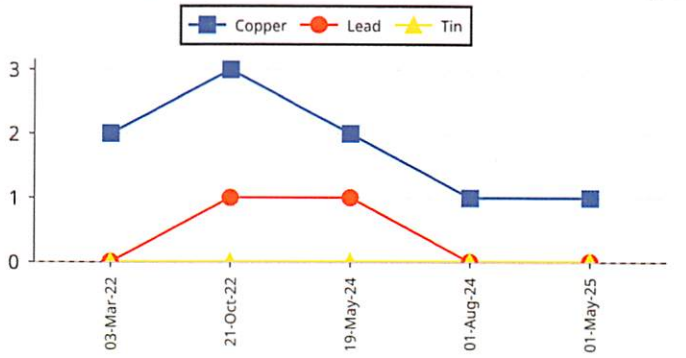
	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)						Additive Metals (ppm)				
Sample #	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
BL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	11	0	448	4
2	5	0	0	0	2	0	0	0	0	0	2	1	1	0	4	0	0	0	5	53	113	0	538	160
3	7	0	0	1	3	1	0	0	0	0	2	1	0	0	4	0	0	0	3	53	110	0	505	151
4	16	0	0	1	2	1	0	0	0	0	3	2	1	0	3	0	0	0	2	47	110	0	487	152
5	18	0	0	2	1	0	0	0	0	0	4	1	1	0	3	0	0	0	2	49	119	0	475	150
6	11	0	0	1	1	0	0	0	0	0	6	0	0	0	2	0	0	0	2	21	52	0	374	69

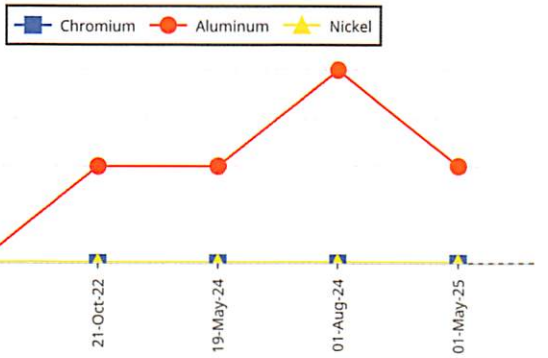
	Sample Information							Contaminants			Fluid Properties					
Sample #	Date Sampled	Date Received	Lube Time h	Unit Time h	Lube Change	Lube Added L	Filter Change	Fuel Dilution %	Soot %	Water %	Viscosity 40°C cSt	Viscosity 100 °C cSt	Acid Number mg KOH / g	Base Num. ASTM4739 mg KOH / g	Oxidation abs / cm	Nitration abs / 0.1mm
BL	10-Jan-2024	12-Jan-2024	0	1	No	0	No			<.1 - FTIR	45.3		0.56		12	2
2	03-Mar-2022	18-Mar-2022	1566	1566	No	0	No			<.1 - FTIR	45.2		0.27		8	3
3	21-Oct-2022	17-Jan-2023	0	1987	No	0	Yes			<.1 - FTIR	44.8		0.26		9	3
4	19-May-2024	04-Jun-2024	0	4067	No	0	Yes			<.1 - FTIR	43.2		0.68		10	4
5	01-Aug-2024	27-Aug-2024	0	4518	No	0	No			<.1 - FTIR	43.1		0.57		10	4
6	01-May-2025	09-May-2025	0	5191	No	0	No			<.1 - FTIR	43.5		0.40		16	3

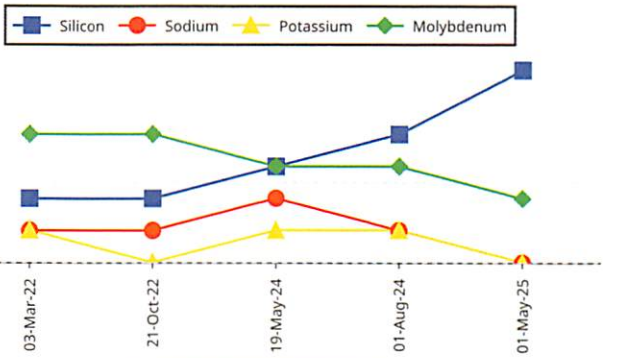
	Particle Count (particles/mL)									Additional Testing
Sample #	ISO Code Based On 4/6/14	> 4 particles / mL	> 6 particles / mL	> 10 particles / mL	> 14 particles / mL	> 21 particles / mL	> 38 particles / mL	> 70 particles / mL	> 100 particles / mL	Test Method
BL	/ /									
2	/ /									
3	/ /									
4	/ /									
5	/ /									
6	/ /									

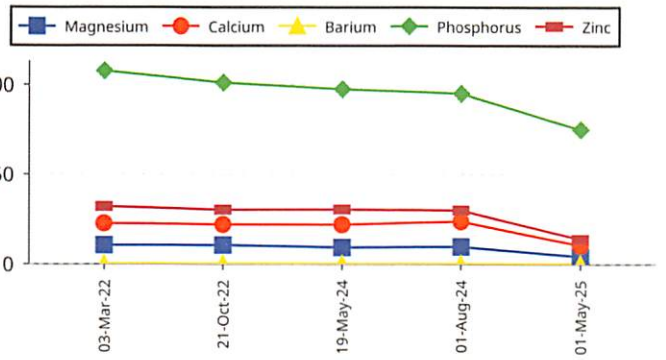
Historical Comments	2	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Flagged additives do not match current baseline reference for the specified product (this does not imply the lubricant does not meet proper API, SAE, or ISO classifications). Please provide COMPONENT MODEL number to compare data to the correct standards for this component. Your note was taken into consideration.
	3	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Flagged additives do not match current baseline reference for the specified product (this does not imply the lubricant does not meet proper API, SAE, or ISO classifications). Please provide COMPONENT MODEL number to compare data to the correct standards for this component. LUBRICANT TIME was not provided for this sample.
	4	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Flagged additives do not match current baseline reference for the specified product (this does not imply the lubricant does not meet proper API, SAE, or ISO classifications). Please provide COMPONENT MODEL number to compare data to the correct standards for this component. LUBRICANT TIME was not provided for this sample.
	5	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Flagged additives do not match current baseline reference for the specified product (this does not imply the lubricant does not meet proper API, SAE, or ISO classifications). Please provide COMPONENT MODEL number to compare data to the correct standards for this component. LUBRICANT TIME was not provided for this sample.

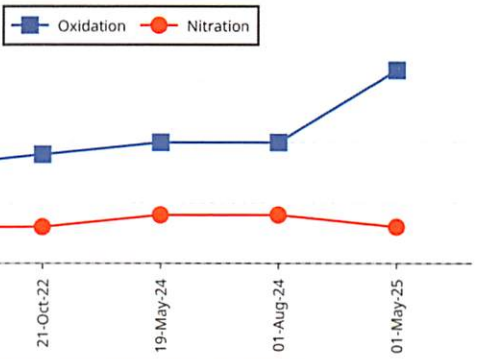

Iron
Silicon
15
10
5
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

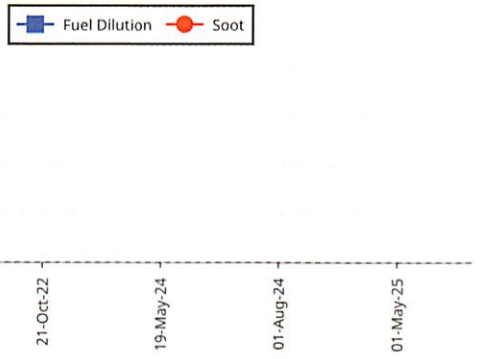

Copper
Lead
Tin
3
2
1
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

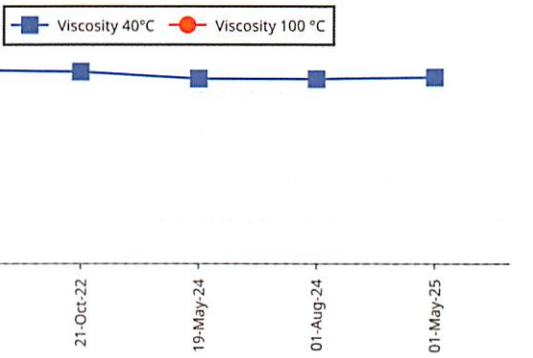

Chromium
Aluminum
Nickel
2
1.5
1
0.5
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

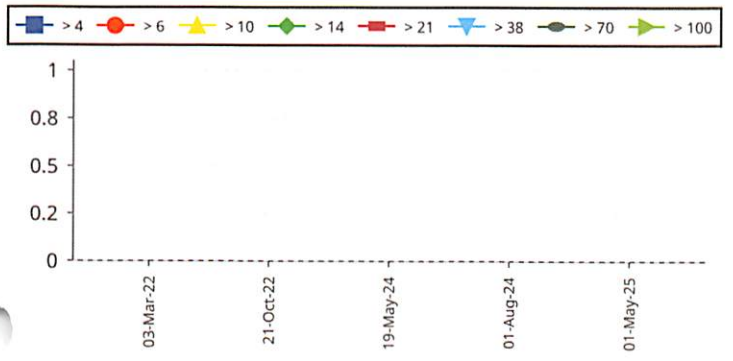

Silicon
Sodium
Potassium
Molybdenum
5
2.5
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25

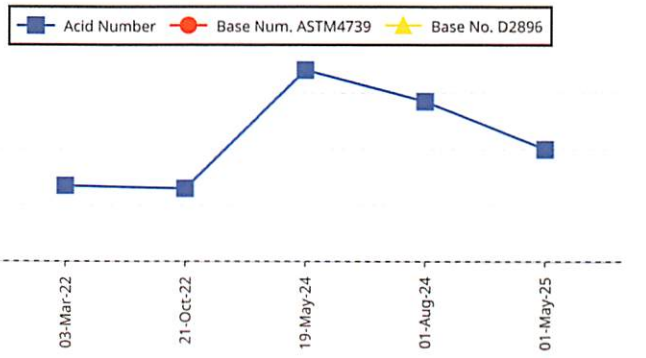

Magnesium
Calcium
Barium
Phosphorus
Zinc
500
250
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Oxidation
Nitration
15
10
5
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Fuel Dilution
Soot
1.00
0.75
0.50
0.25
0.00
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Viscosity 40°C
Viscosity 100 °C
40.0
30.0
20.0
10.0
0.0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


> 4
> 6
> 10
> 14
> 21
> 38
> 70
> 100
1
0.8
0.5
0.2
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25


Acid Number
Base Num. ASTM4739
Base No. D2896
0.6
0.4
0.2
0
03-Mar-22
21-Oct-22
19-May-24
01-Aug-24
01-May-25