

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 236 Service Description: Replace RH door convex mirror

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval

Scheduled Date: 09/14/2016 Scheduled Odometer: 337
Completed Date: 09/28/2016 Completed Odometer: 357

Task:

Replace RH door convex mirror Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
09/14/2016	HOLM0001	1HREG	Labour	2.00	37.10000	21.000%	\$89.78
09/28/2016	HOLM0001	1HREG	Labour	0.50	37.10000	21.000%	\$22.45

Work Order Charges:

Labour:	\$112.23
Materials:	\$0.00
Fuel:	\$0.00
Other:	\$0.00
TOTAL:	=====
	\$112.23
	=====

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 292 Service Description: Hyd oil leak on hoist cyl

Asset: U53005 GRAVEL TRUCK

Last Odometer Reading 5572
Interval

Scheduled Date: 09/30/2016 Scheduled Odometer: 364
Completed Date: 09/30/2016 Completed Odometer: 364

Task:

Repair hyd oil leak	Complete
Repair cable on air tank drain	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
09/30/2016	SPEN0001	1HREG	Labour	0.50	37.10000	21.000%	\$22.45

Work Order Charges:

Labour:	\$22.45
Materials:	\$0.00
Fuel:	\$0.00
Other:	\$0.00
TOTAL:	=====
	\$22.45
	=====

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 398

Service Description: Service and inspection

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 10/24/2016 Scheduled Odometer: 412
 Completed Date: 10/25/2016 Completed Odometer: 412

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
10/24/2016	A4720900551	TOWER	Materials	1.00	5.93000	0.000%	\$711.60
10/24/2016	3W0696	TOWER	Materials	1.00	17.21000	0.000%	\$17.21
10/24/2016	MARFAK AP	WAREHOUSE	Materials	1.00	3.36000	0.000%	\$3.36
10/24/2016	RD-3-8777-0	WAREHOUSE	Materials	2.00	43.35000	0.000%	\$86.70
10/24/2016	2312337008	TOWER	Materials	2.00	1.43000	0.000%	\$2.86
10/24/2016	MARFAK AP	WAREHOUSE	Materials	1.00	3.36000	0.000%	\$3.36
10/24/2016	HOLM0001	1HREG	Labour	8.50	37.10000	21.000%	\$381.57
10/25/2016	HOLM0001	1HREG	Labour	4.00	37.10000	21.000%	\$179.56

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 627 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 12/20/2016 Scheduled Odometer: 21567
 Completed Date: 12/21/2016 Completed Odometer: 21567

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Complete
Engine oil Filter change every 600 hrs	Complete
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
12/21/2016	SPEN0001	1HREG	Labour	7.50	37.10000	21.000%	\$336.68
12/22/2016	SPEN0001	1HREG	Labour	1.00	37.10000	21.000%	\$44.89
12/21/2016	A4720900551	TOWER	Materials	1.00	75.14000	0.000%	\$75.14
12/21/2016	A4721800309	TOWER	Materials	1.00	38.65000	0.000%	\$38.65
12/21/2016	3W0696	TOWER	Materials	1.00	17.24000	0.000%	\$17.24
12/21/2016	1040	WAREHOUSE	Materials	36.00	6.01000	0.000%	\$216.36
12/21/2016	PHE07398	TOWER	Materials	3.00	2.50000	0.000%	\$7.50
12/21/2016	STEEHD10	WAREHOUSE	Materials	1.00	12.20000	0.000%	\$12.20

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 882 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 03/15/2017 Scheduled Odometer: 30697
 Completed Date: 03/16/2017 Completed Odometer: 30697

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Complete
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
03/16/2017	3W0696	TOWER	Materials	1.00	17.25000	0.000%	\$17.25
03/16/2017	77E0756	TOWER	Materials	1.00	48.48000	0.000%	\$48.48
03/16/2017	4411-1	TOWER	Materials	1.00	7.82000	0.000%	\$7.82
03/16/2017	MARFAK AP	WAREHOUSE	Materials	1.00	3.35000	0.000%	\$3.35
03/16/2017	PHE07398	TOWER	Materials	5.00	2.00000	0.000%	\$10.00
03/16/2017	SPEN0001	1HREG	Labour	5.00	37.47000	21.000%	\$226.69

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 363 Service Description: Correction for wo#1181

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval

Scheduled Date: 06/13/2017 Scheduled Odometer: 0
 Completed Date: 06/13/2017 Completed Odometer: 0

Task:

CHECKLIST IN CONJUNCTION W/MFG'S SERVICE MANL	Incomplete
Engine Oil & Filter change every 10,000 km	Incomplete
To correct for missing labour charge on wo# 1181	Complete
Engine Oil & Filter change at OLM interval	Incomplete
Engine Oil & Filter change annually	Incomplete
Diesel engine fuel filter change every 3rd service	Incomplete
Diesel fuel water separator purge every service	Incomplete
Engine Air Filter(s) clean or replace as required	Incomplete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
06/13/2017	HOLM0001	1HREG	Labour	2.00	37.47000	21.000%	\$90.68

Work Order Charges:

Labour:	\$90.68
Materials:	\$0.00
Fuel:	\$0.00
Other:	\$0.00
TOTAL:	\$90.68

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 1181 Service Description: CVIP

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval CVP CVIP - Alberta Transportation

Scheduled Date: 06/07/2017 Scheduled Odometer: 873
Completed Date: 06/13/2017 Completed Odometer: 873

Task: CVIP Commercial Vehicle Insp.

See attached link for Form Complete
<https://www.trans.gov.ab.ca/TravisWebLogin> Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
06/07/2017	75089	WAREHOUSE	Materials	1.00	5.06000	0.000%	\$5.06
06/07/2017	HOLM0001	1HREG	Labour	6.50	37.47000	21.000%	\$294.70
06/08/2017	HOLM0001	1HREG	Labour	6.00	37.47000	21.000%	\$272.03
06/09/2017	HOLM0001	1HREG	Labour	0.50	37.47000	21.000%	\$22.67
06/12/2017	HOLM0001	1HREG	Labour	1.00	37.47000	21.000%	\$45.34

Date: 02/13/2023

User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 908 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval YR Hours or 1 year maximum service

Scheduled Date: 12/18/2017 Scheduled Odometer: 1087
Completed Date: 12/19/2017 Completed Odometer: 1087

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
12/18/2017	ROSE0001	1HREG	Labour	6.00	37.47000	21.000%	\$272.03
12/18/2017	A4720900551	TOWER	Materials	1.00	73.58000	0.000%	\$73.58
12/18/2017	3W0696	TOWER	Materials	1.00	16.66000	0.000%	\$16.66
12/19/2017	16FFP75	TOWER	Materials	1.00	58.90000	0.000%	\$58.90
12/19/2017	16FFS75	TOWER	Materials	1.00	121.95000	0.000%	\$121.95
12/19/2017	ROSE0001	1HREG	Labour	4.00	37.47000	21.000%	\$181.35

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 1705 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 02/27/2018 Scheduled Odometer: 1303
 Completed Date: 02/28/2018 Completed Odometer: 1303

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Complete
Engine oil Filter change every 600 hrs	Complete
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
02/27/2018	SPEN0001	1HREG	Labour	6.00	37.92000	21.000%	\$275.30
02/27/2018	A4720900551	TOWER	Materials	1.00	71.92000	0.000%	\$71.92
02/27/2018	A4721800309	TOWER	Materials	1.00	39.65000	0.000%	\$39.65
02/27/2018	3W0696	TOWER	Materials	1.00	16.61000	0.000%	\$16.61
02/27/2018	1040	WAREHOUSE	Materials	36.00	6.10000	0.000%	\$219.60
02/28/2018	SPEN0001	1HREG	Labour	2.50	37.92000	21.000%	\$114.71

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 1214 Service Description: CVIP

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval CVP CVIP - Alberta Transportation

Scheduled Date: 06/06/2018 Scheduled Odometer: 49822
Completed Date: 06/13/2018 Completed Odometer: 49853

Task: CVIP Commercial Vehicle Insp.

See attached link for Form Complete
<https://www.trans.gov.ab.ca/TravisWebLogin> Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
06/06/2018	ROSE0001	1HREG	Labour	3.50	37.92000	21.000%	\$160.59
06/07/2018	ROSE0001	1HREG	Labour	5.00	37.92000	21.000%	\$229.42
06/07/2018	S777	TOWER	Materials	1.00	3.19000	0.000%	\$3.19
06/07/2018	MARFAK AP	WAREHOUSE	Materials	1.00	3.35000	0.000%	\$3.35
06/11/2018	SPEN0001	1HREG	Labour	2.00	37.92000	21.000%	\$91.77
06/13/2018	ROSE0001	1HREG	Labour	12.00	37.92000	21.000%	\$550.60
06/13/2018	SPEN0001	1HREG	Labour	1.00	37.92000	21.000%	\$45.88

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 1875 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 11/13/2018 Scheduled Odometer: 1518
 Completed Date: 11/15/2018 Completed Odometer: 1518

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
11/13/2018	ROSE0001	1HREG	Labour	2.00	37.92000	21.000%	\$91.77
11/14/2018	ROSE0001	1HREG	Labour	8.00	37.92000	21.000%	\$367.07
11/15/2018	ROSE0001	1HREG	Labour	3.00	37.92000	21.000%	\$137.65
11/14/2018	P616400	WAREHOUSE	Materials	-1.00	20.86000	0.000%	-\$20.86
11/14/2018	2312337008	TOWER	Materials	1.00	1.35000	0.000%	\$1.35
11/14/2018	PHE07398	TOWER	Materials	2.00	2.00000	0.000%	\$4.00
11/14/2018	A4720900551	TOWER	Materials	1.00	82.00000	0.000%	\$82.00
11/14/2018	3W0696	TOWER	Materials	1.00	11.29000	0.000%	\$11.29

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 2618 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 02/08/2019 Scheduled Odometer: 1725
 Completed Date: 02/08/2019 Completed Odometer: 1725

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
02/08/2019	HOLM0001	1HREG	Labour	4.50	38.78000	21.000%	\$211.16
02/08/2019	75W-90 OIL	WAREHOUSE	Materials	1.00	143.51000	0.000%	\$143.51
02/08/2019	PSC30	WAREHOUSE	Materials	1.00	4.71000	0.000%	\$4.71
02/08/2019	MARFAK AP	WAREHOUSE	Materials	1.00	7.59000	0.000%	\$7.59
02/08/2019	PSC30	WAREHOUSE	Materials	-1.00	4.71000	0.000%	-\$4.71
02/08/2019	3W0696	TOWER	Materials	1.00	14.91000	0.000%	\$14.91
02/08/2019	A4720900551	TOWER	Materials	1.00	81.41000	0.000%	\$81.41
02/08/2019	19914	WAREHOUSE	Materials	1.00	10.74000	0.000%	\$10.74

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 2801 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 05/06/2019 Scheduled Odometer: 1912
 Completed Date: 05/08/2019 Completed Odometer: 1912

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Complete
Engine oil Filter change every 600 hrs	Complete
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
05/06/2019	ROSE0001	1HREG	Labour	2.00	38.78000	21.000%	\$93.85
05/07/2019	ROSE0001	1HREG	Labour	8.00	38.78000	21.000%	\$375.39
05/08/2019	ROSE0001	1HREG	Labour	3.00	38.78000	21.000%	\$140.77
05/06/2019	A4720900551	WAREHOUSE	Materials	1.00	81.41000	0.000%	\$81.41
05/06/2019	A4721800309	WAREHOUSE	Materials	1.00	33.96000	0.000%	\$33.96
05/06/2019	3W0696	TOWER	Materials	1.00	22.05000	0.000%	\$22.05
05/06/2019	3W0696	TOWER	Materials	0.00	22.05000	0.000%	\$0.00
05/06/2019	1040	WAREHOUSE	Materials	36.00	6.17000	0.000%	\$222.12

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 2160 Service Description: CVIP

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval CVP CVIP - Alberta Transportation

Scheduled Date: 06/19/2019 Scheduled Odometer: 1915
Completed Date: 06/28/2019 Completed Odometer: 1915

Task: CVIP Commercial Vehicle Insp.

See attached link for Form Complete
<https://www.trans.gov.ab.ca/TravisWebLogin> Complete

COMMENTS

<u>Date</u>	<u>Resource</u>	<u>Subresource</u>	<u>Cost Type</u>	<u>Quantity</u>	<u>Cost Per Unit</u>	<u>O/H %</u>	<u>Extended Cost</u>
06/19/2019	SPEN0001	1HREG	Labour	1.50	38.78000	21.000%	\$70.39
06/20/2019	SPEN0001	1HREG	Labour	6.00	38.78000	21.000%	\$281.54
06/25/2019	4081055	WAREHOUSE	Materials	1.00	46.43000	0.000%	\$46.43
06/26/2019	HOLM0001	1HREG	Labour	1.00	38.78000	21.000%	\$46.92
06/28/2019	SPEN0001	1HREG	Labour	2.00	38.78000	21.000%	\$93.85

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 3066 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval YR Hours or 1 year maximum service

Scheduled Date: 11/05/2019 Scheduled Odometer: 2145
Completed Date: 11/07/2019 Completed Odometer: 2145

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
11/05/2019	SPEN0001	1HREG	Labour	3.00	38.78000	21.000%	\$140.77
11/05/2019	A4720900551	WAREHOUSE	Materials	1.00	82.65000	0.000%	\$82.65
11/05/2019	RD-3-8821-0	WAREHOUSE	Materials	1.00	110.80000	0.000%	\$110.80
11/06/2019	SPEN0001	1HREG	Labour	3.00	38.78000	21.000%	\$140.77
11/07/2019	SPEN0001	1HREG	Labour	2.00	38.78000	21.000%	\$93.85

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 3484 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 01/17/2020 Scheduled Odometer: 2377
 Completed Date: 01/21/2020 Completed Odometer: 2377

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
01/17/2020	SPEN0001	1HREG	Labour	1.00	38.78000	21.000%	\$46.92
01/17/2020	A4720900551	WAREHOUSE	Materials	1.00	82.69000	0.000%	\$82.69
01/20/2020	SPEN0001	1HREG	Labour	5.00	38.78000	21.000%	\$234.62
01/21/2020	SPEN0001	1HREG	Labour	1.50	38.78000	21.000%	\$70.39

Work Order Charges:

Labour:	\$351.93
Materials:	\$82.69
Fuel:	\$0.00
Other:	\$0.00

TOTAL:	\$434.62
=====	

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 3925

Service Description: Replace worn u-joint

Asset: U53005 GRAVEL TRUCK

Last Odometer Reading 5572
Interval

Scheduled Date: 05/26/2020 Scheduled Odometer: 2558
Completed Date: 05/27/2020 Completed Odometer: 2558

Task:

Replace worn u-joint

Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
05/26/2020	HOLM0001	1HREG	Labour	1.50	39.53000	21.000%	\$71.75
05/27/2020	HOLM0001	1HREG	Labour	1.50	39.53000	21.000%	\$71.75

Work Order Charges:

Labour:	\$143.50
Materials:	\$0.00
Fuel:	\$0.00
Other:	\$0.00
TOTAL:	=====
	\$143.50
	=====

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 3677

Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval YR Hours or 1 year maximum service

Scheduled Date: 06/16/2020 Scheduled Odometer: 2659
Completed Date: 06/19/2020 Completed Odometer: 2659

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Complete
Engine oil Filter change every 600 hrs	Complete
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
06/16/2020	SPEN0001	1HREG	Labour	1.00	39.53000	21.000%	\$47.83
06/16/2020	3W0696	TOWER	Materials	1.00	25.00000	0.000%	\$25.00
06/16/2020	1040	WAREHOUSE	Materials	36.00	5.70000	0.000%	\$205.20
06/16/2020	A4721800309	WAREHOUSE	Materials	1.00	38.03000	0.000%	\$38.03
06/16/2020	A4720900551	WAREHOUSE	Materials	1.00	92.65000	0.000%	\$92.65
06/17/2020	SPEN0001	1HREG	Labour	4.00	39.53000	21.000%	\$191.33
06/17/2020	RD-3-8821-0	WAREHOUSE	Materials	1.00	102.30000	0.000%	\$102.30
06/17/2020	4411-1	TOWER	Materials	1.00	8.32000	0.000%	\$8.32

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 3151 Service Description: CVIP

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval CVP CVIP - Alberta Transportation

Scheduled Date: 06/16/2020 Scheduled Odometer: 2659
Completed Date: 06/23/2020 Completed Odometer: 2659

Task: CVIP Commercial Vehicle Insp.

See attached link for Form Complete
<https://www.trans.gov.ab.ca/TravisWebLogin> Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
06/17/2020	SPEN0001	1HREG	Labour	4.00	39.53000	21.000%	\$191.33
06/18/2020	SPEN0001	1HREG	Labour	3.00	39.53000	21.000%	\$143.49
06/23/2020	SPEN0001	1HREG	Labour	3.00	39.53000	21.000%	\$143.49

Work Order Charges:

Labour: \$478.31
Materials: \$0.00
Fuel: \$0.00
Other: \$0.00

TOTAL: \$478.31

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 4005 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval YR Hours or 1 year maximum service

Scheduled Date: 08/04/2020 Scheduled Odometer: 2854
Completed Date: 08/05/2020 Completed Odometer: 2854

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
08/04/2020	HOLM0001	1HREG	Labour	4.00	39.53000	21.000%	\$191.33
08/04/2020	3W0696	TOWER	Materials	1.00	25.00000	0.000%	\$25.00
08/04/2020	60001	TOWER	Materials	1.00	6.70000	0.000%	\$6.70
08/05/2020	RD-3-8821-0	WAREHOUSE	Materials	1.00	105.90000	0.000%	\$105.90
08/05/2020	12053092	WAREHOUSE	Materials	1.00	8.19000	0.000%	\$8.19
08/05/2020	HOLM0001	1HREG	Labour	2.00	39.53000	21.000%	\$95.66

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 4150 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 09/23/2020 Scheduled Odometer: 3058
 Completed Date: 09/25/2020 Completed Odometer: 3058

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
09/23/2020	HOLM0001	1HREG	Labour	1.00	39.53000	21.000%	\$47.83
09/24/2020	HOLM0001	1HREG	Labour	3.00	39.53000	21.000%	\$143.49
09/25/2020	HOLM0001	1HREG	Labour	1.00	39.53000	21.000%	\$47.83
09/23/2020	3W0696	TOWER	Materials	1.00	24.44000	0.000%	\$24.44
09/24/2020	35	WAREHOUSE	Materials	1.00	3.04000	0.000%	\$3.04
09/24/2020	1012845	WAREHOUSE	Materials	2.00	5.46000	0.000%	\$10.92

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 4250 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 11/25/2020 Scheduled Odometer: 3249
 Completed Date: 11/30/2020 Completed Odometer: 3249

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Complete
Engine oil Filter change every 600 hrs	Complete
Engine Breather clean or replace every 2 yrs	Complete
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
11/25/2020	SPEN0001	1HREG	Labour	3.00	39.53000	21.000%	\$143.49
11/25/2020	3W0696	TOWER	Materials	1.00	24.47000	0.000%	\$24.47
11/25/2020	1040	WAREHOUSE	Materials	36.00	5.76000	0.000%	\$207.36
11/25/2020	P547520	WAREHOUSE	Materials	1.00	65.90000	0.000%	\$65.90
11/25/2020	P619498	WAREHOUSE	Materials	1.00	159.37000	0.000%	\$159.37
11/26/2020	SPEN0001	1HREG	Labour	6.50	39.53000	21.000%	\$310.90
11/26/2020	75W-90 OIL	WAREHOUSE	Materials	2.00	141.60000	0.000%	\$283.20
11/26/2020	27101-CTPPL	WAREHOUSE	Materials	2.00	305.99000	0.000%	\$611.98

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 4412 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 05/19/2021 Scheduled Odometer: 3442
 Completed Date: 05/28/2021 Completed Odometer: 3442

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
05/19/2021	A4720900551	WAREHOUSE	Materials	1.00	88.66000	0.000%	\$88.66
05/19/2021	3W0696	TOWER	Materials	1.00	24.92000	0.000%	\$24.92
05/19/2021	RD-3-8821-0	WAREHOUSE	Materials	1.00	101.59000	0.000%	\$101.59
05/19/2021	SPEN0001	1HREG	Labour	4.00	40.04000	21.000%	\$193.79
05/20/2021	SPEN0001	1HREG	Labour	3.00	40.04000	21.000%	\$145.35
05/21/2021	SPEN0001	1HREG	Labour	3.00	40.04000	21.000%	\$145.35
05/28/2021	SPEN0001	1HREG	Labour	1.00	40.04000	21.000%	\$48.45

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 4004 Service Description: CVIP

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval CVP CVIP - Alberta Transportation

Scheduled Date: 05/31/2021 Scheduled Odometer: 3442
Completed Date: 06/01/2021 Completed Odometer: 3442

Task: CVIP Commercial Vehicle Insp.

See attached link for Form Complete
<https://www.trans.gov.ab.ca/TravisWebLogin> Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
05/31/2021	SPEN0001	1HREG	Labour	8.00	40.04000	21.000%	\$387.59
06/01/2021	SPEN0001	1HREG	Labour	5.00	40.04000	21.000%	\$242.24

Work Order Charges:

Labour: \$629.83
Materials: \$0.00
Fuel: \$0.00
Other: \$0.00
TOTAL: \$629.83

Date: 02/13/2023

User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 4844

Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK

Last Odometer Reading 5572
Interval YR Hours or 1 year maximum service

Scheduled Date: 07/02/2021 Scheduled Odometer: 3630
Completed Date: 07/02/2021 Completed Odometer: 3630

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Not Required
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
07/02/2021	A4720900551	WAREHOUSE	Materials	1.00	86.74000	0.000%	\$86.74
07/02/2021	3W0696	TOWER	Materials	1.00	24.92000	0.000%	\$24.92
07/02/2021	2312337008	TOWER	Materials	2.00	1.29000	0.000%	\$2.58
07/02/2021	HOLM0001	1HREG	Labour	4.00	40.04000	21.000%	\$193.79

Work Order Charges:

Labour:	\$193.79
Materials:	\$114.24
Fuel:	\$0.00
Other:	\$0.00
TOTAL:	<u>\$308.03</u>

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 4932 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 08/24/2021 Scheduled Odometer: 3832
 Completed Date: 08/24/2021 Completed Odometer: 3832

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Complete
Engine oil Filter change every 600 hrs	Complete
Engine Breather clean or replace every 2 yrs	Complete
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
07/12/2021	RD-3-8821-0	WAREHOUSE	Materials	1.00	98.00000	0.000%	\$98.00
08/24/2021	1040	WAREHOUSE	Materials	36.00	5.83000	0.000%	\$209.88
08/24/2021	RD-3-8821-0	WAREHOUSE	Materials	1.00	91.35000	0.000%	\$91.35
08/24/2021	A4721800309	WAREHOUSE	Materials	1.00	37.11000	0.000%	\$37.11
08/24/2021	SPEN0001	1HREG	Labour	5.00	40.04000	21.000%	\$242.24

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 5026 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 10/06/2021 Scheduled Odometer: 4041
 Completed Date: 10/06/2021 Completed Odometer: 4041

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
10/06/2021	HOLM0001	1HREG	Labour	8.00	40.04000	21.000%	\$387.59
10/06/2021	A4720900551	WAREHOUSE	Materials	1.00	84.63000	0.000%	\$84.63
10/06/2021	3W0696	TOWER	Materials	1.00	24.92000	0.000%	\$24.92
10/06/2021	6054	TOWER	Materials	1.00	13.64000	0.000%	\$13.64
10/06/2021	2312337008	TOWER	Materials	1.00	1.24000	0.000%	\$1.24

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 5105 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 01/19/2022 Scheduled Odometer: 4269
 Completed Date: 01/27/2022 Completed Odometer: 4269

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
12/04/2021	WPR BLD WNTR 2	WAREHOUSE	Materials	1.00	7.52000	0.000%	\$7.52
01/19/2022	HOLM0001	1HREG	Labour	4.00	40.89000	21.000%	\$197.91
01/20/2022	HOLM0001	1HREG	Labour	7.50	40.89000	21.000%	\$371.08
01/26/2022	HOLM0001	1HREG	Labour	4.00	40.89000	21.000%	\$197.91
01/26/2022	SPEN0001	1HREG	Labour	1.00	40.89000	21.000%	\$49.48
01/27/2022	HOLM0001	1HREG	Labour	2.00	40.89000	21.000%	\$98.95
01/19/2022	A4720900551	WAREHOUSE	Materials	1.00	84.28000	0.000%	\$84.28
01/26/2022	932630Q	WAREHOUSE	Materials	1.00	81.42000	0.000%	\$81.42

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 5355 Service Description: Replace leaking brake pod

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval

Scheduled Date: 03/04/2022 Scheduled Odometer: 4335
Completed Date: 03/04/2022 Completed Odometer: 4335

Task:

Replace leaking brake pod Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
03/04/2022	HOLM0001	1HREG	Labour	3.00	40.89000	21.000%	\$148.43
03/04/2022	3030	TOWER	Materials	1.00	55.86000	0.000%	\$55.86
03/04/2022	1245P1030	TOWER	Materials	1.00	14.39000	0.000%	\$14.39

Work Order Charges:

Labour: \$148.43
Materials: \$70.25
Fuel: \$0.00
Other: \$0.00

TOTAL: \$218.68

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 5325 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 05/25/2022 Scheduled Odometer: 4477
 Completed Date: 05/27/2022 Completed Odometer: 4477

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Complete
Engine oil Filter change every 600 hrs	Complete
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
05/25/2022	HOLM0001	1HREG	Labour	4.00	40.89000	21.000%	\$197.91
05/26/2022	HOLM0001	1HREG	Labour	8.00	40.89000	21.000%	\$395.82
05/25/2022	3W0696	TOWER	Materials	1.00	25.00000	0.000%	\$25.00
05/26/2022	6054	TOWER	Materials	1.00	10.89000	0.000%	\$10.89
05/26/2022	RD-3-8821-0	WAREHOUSE	Materials	1.00	37.15000	0.000%	\$37.15
05/26/2022	1040	WAREHOUSE	Materials	36.00	5.78000	0.000%	\$208.08
05/27/2022	27101-CTPPL	WAREHOUSE	Materials	1.00	318.24000	0.000%	\$318.24
05/27/2022	HOLM0001	1HREG	Labour	3.50	40.89000	21.000%	\$173.17

Date: 02/13/2023

User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 5517

Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK

Last Odometer Reading 5572
Interval YR Hours or 1 year maximum service

Scheduled Date: 07/11/2022 Scheduled Odometer: 4734
Completed Date: 07/11/2022 Completed Odometer: 4734

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
07/11/2022	HOLM0001	1HREG	Labour	6.00	40.89000	21.000%	\$296.86
07/11/2022	A4720900551	WAREHOUSE	Materials	1.00	85.48000	0.000%	\$85.48
07/11/2022	RD-3-8821-0	WAREHOUSE	Materials	1.00	33.46000	0.000%	\$33.46

Work Order Charges:

Labour:	\$296.86
Materials:	\$118.94
Fuel:	\$0.00
Other:	\$0.00

TOTAL:	<u>\$415.80</u>
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Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 5612 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 08/22/2022 Scheduled Odometer: 5015
 Completed Date: 08/23/2022 Completed Odometer: 5015

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Complete
Engine oil Filter change every 600 hrs	Complete
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
08/22/2022	1040	WAREHOUSE	Materials	36.00	5.78000	0.000%	\$208.08
08/22/2022	A4721800309	WAREHOUSE	Materials	1.00	34.55000	0.000%	\$34.55
08/22/2022	A4720900551	WAREHOUSE	Materials	1.00	86.13000	0.000%	\$86.13
08/22/2022	3W0696	TOWER	Materials	1.00	25.99000	0.000%	\$25.99
08/22/2022	SPEN0001	1HREG	Labour	4.00	40.89000	21.000%	\$197.91
08/23/2022	SPEN0001	1HREG	Labour	2.50	40.89000	21.000%	\$123.69
08/22/2022	RD-3-8821-0	WAREHOUSE	Materials	2.00	35.96000	0.000%	\$71.92

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 5694 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
Last Odometer Reading 5572
Interval YR Hours or 1 year maximum service

Scheduled Date: 10/06/2022 Scheduled Odometer: 5320
Completed Date: 10/06/2022 Completed Odometer: 5320

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

<u>Date</u>	<u>Resource</u>	<u>Subresource</u>	<u>Cost Type</u>	<u>Quantity</u>	<u>Cost Per Unit</u>	<u>O/H %</u>	<u>Extended Cost</u>
10/06/2022	HOLM0001	1HREG	Labour	6.00	40.89000	21.000%	\$296.86
10/06/2022	A4720900551	WAREHOUSE	Materials	1.00	87.05000	0.000%	\$87.05
10/06/2022	3W0696	TOWER	Materials	1.00	25.99000	0.000%	\$25.99
10/06/2022	RD-3-8821-0	WAREHOUSE	Materials	1.00	35.96000	0.000%	\$35.96
10/07/2022	WPR BLD WNTR 2	WAREHOUSE	Materials	2.00	9.49000	0.000%	\$18.98

Date: 02/13/2023
 User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 5802 Service Description: Serv/insp U53005

Asset: U53005 GRAVEL TRUCK
 Last Odometer Reading 5572
 Interval YR Hours or 1 year maximum service

Scheduled Date: 11/30/2022 Scheduled Odometer: 5530
 Completed Date: 12/09/2022 Completed Odometer: 5530

Task: MHDTK Medium/Heavy Duty Truck

CHECKLIST IN CONJUNCTION W/ MFG'S SERVICE MANI	Complete
Engine oil sample every 200 hrs	Complete
Coolant Level 1 sample every 2 years or 2000 hrs	Not Required
Engine oil change every 600 hrs	Not Required
Engine oil Filter change every 600 hrs	Not Required
Engine Breather clean or replace every 2 yrs	Not Required
Fuel Filter(s) change every 200 hrs	Complete
Fuel / Water Separator change every service	Complete

COMMENTS

Date	Resource	Subresource	Cost Type	Quantity	Cost Per Unit	O/H %	Extended Cost
11/30/2022	HOLM0001	1HREG	Labour	8.00	40.89000	21.000%	\$395.82
12/01/2022	HOLM0001	1HREG	Labour	3.00	40.89000	21.000%	\$148.43
11/30/2022	RD-3-8821-0	WAREHOUSE	Materials	1.00	35.46000	0.000%	\$35.46
12/01/2022	4411-1	TOWER	Materials	2.00	11.88000	0.000%	\$23.76
12/01/2022	PHE07398	TOWER	Materials	4.00	2.00000	0.000%	\$8.00
12/09/2022	PHE07398	TOWER	Materials	1.00	2.00000	0.000%	\$2.00
11/30/2022	27101-CTPPL	WAREHOUSE	Materials	1.00	318.24000	0.000%	\$318.24

Date: 02/13/2023
User: Trevor

Cypress County ASSET WORK ORDER

Work Order No: 4596 Service Description: Check engine noise

Asset: U53005 GRAVEL TRUCK

Last Odometer Reading 5572
Interval

Scheduled Date: 12/13/2022 Scheduled Odometer: 5540
Completed Date: 12/13/2022 Completed Odometer: 5540

Task:

CHECKLIST IN CONJUNCTION W/MFG'S SERVICE MANL	Incomplete
Engine Oil & Filter change every 10,000 km	Incomplete
Check engine noise	Complete
Engine Oil & Filter change at OLM interval	Incomplete
Engine Oil & Filter change annually	Incomplete
Diesel engine fuel filter change every 3rd service	Incomplete
Diesel fuel water separator purge every service	Incomplete
Engine Air Filter(s) clean or replace as required	Incomplete

COMMENTS

<u>Date</u>	<u>Resource</u>	<u>Subresource</u>	<u>Cost Type</u>	<u>Quantity</u>	<u>Cost Per Unit</u>	<u>O/H %</u>	<u>Extended Cost</u>
12/13/2022	SPEN0001	1HREG	Labour	5.00	40.89000	21.000%	\$247.38

Work Order Charges:

Labour: \$247.38
Materials: \$0.00
Fuel: \$0.00
Other: \$0.00

TOTAL: \$247.38
=====

ENGINE

N030-52343-0196
 LABEL#: 201112970
 SHOP JOB NUM : 5802
 SAMPLE SHIP TIME (days) : 8
CYPRESS COUNTY
 RECEIVED DATE: 09-Dec-22

EQUIP NUM: U53005
WESTERN W4700SB
 **No Action Required**

SERIAL NUMBER: DV9GLG52010
COMP SERIAL NUM: 750332698

Interp By: Greg Eyre
Interpreted On: 12-Dec-22

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

SAMPLE INFORMATION

	01-Dec-22	06-Oct-22	23-Aug-22	11-Jul-22
Sampled Date	01-Dec-22	06-Oct-22	23-Aug-22	11-Jul-22
Sample Id	N030-52343-0196	N030-52291-0326	N030-52242-0206	N030-52200-0334
Lab Date	09-Dec-22	18-Oct-22	30-Aug-22	19-Jul-22
Meter [Hr]	5530	5319	5015	4734
Meter On Fluid	515	304	538	257
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	NULL	NULL	10W-40	10W-40
Fluid Type	DURON UHP E6	DURON UHP E6	DURON UHP	DURON UHP
Fluid Change	N	N	Y	N
Filter Change	N	N	Y	N
Make Up Fluid []	0	0		0

CONDITION / CONTAMINATION

		01-Dec-22	06-Oct-22	23-Aug-22	11-Jul-22
VISCOSITY (Centistokes)					
V100	Viscosity at 100 C	14.60	14.60	14.30	14.40
VISCOSITY (Centistokes)					
V40	Viscosity at 40 C	101.8	101.5	98.40	99.10
VISCOSITY INDEX					
VI	Viscosity Index	148	149	149	150

WEAR LEVELS / ADDITIVES

	01-Dec-22	06-Oct-22	23-Aug-22	11-Jul-22	
ELEMENTAL ANALYSIS (ppm)					
Na	Sodium	0	2	2	0
K	Potassium	5	5	10	8
Si	Silicon	7	4	5	3
Al	Aluminum	8	6	13	10
Fe	Iron	22	15	26	17
Cr	Chromium	2	2	2	2
Pb	Lead	0	0	0	0
Cu	Copper	3	3	5	4
Sn	Tin	0	0	0	0
Ni	Nickel	2	1	1	0
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Zn	Zinc	1227	1207	1248	1235
Ca	Calcium	1126	1106	1116	1063
Mg	Magnesium	1018	960	1080	816
Ba	Barium	0	0	0	0
B	Boron	1	1	3	0
Mo	Molybdenum	62	60	59	53
P	Phosphorus	984	961	1012	1022

INFRARED (UFM)

		01-Dec-22	06-Oct-22	23-Aug-22	11-Jul-22
ST	Soot	41	31	38	22
OXI	Oxidation	19	16	18	15
SUL	Sulfur Products	24	21	23	21
NIT	Nitration	10	9	10	8

ANTIFREEZE

		01-Dec-22	06-Oct-22	23-Aug-22	11-Jul-22
A	Antifreeze	N	N	N	N

FUEL

		01-Dec-22	06-Oct-22	23-Aug-22	11-Jul-22
F	Fuel	N	N	N	N

WATER

		01-Dec-22	06-Oct-22	23-Aug-22	11-Jul-22
W	Water	N	N	N	N

ENGINE

N030-52159-0255
 LABEL#: 200957890
 SHOP JOB NUM : 5325
 SAMPLE SHIP TIME (days) : 13
CYPRESS COUNTY
 RECEIVED DATE: 08-Jun-22

EQUIP NUM: U53005
WESTERN W4700SB

No Action Required

SERIAL NUMBER: DV9GLG52010
COMP SERIAL NUM: 750332698

Interp By: Greg Eyre
Interpreted On: 10-Jun-22

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

SAMPLE INFORMATION

	26-May-22	20-Jan-22	07-Oct-21	24-Aug-21
Sampled Date	26-May-22	20-Jan-22	07-Oct-21	24-Aug-21
Sample Id	N030-52159-0255	N030-52024-0941	N030-51287-0564	N030-51245-0110
Lab Date	08-Jun-22	24-Jan-22	14-Oct-21	02-Sep-21
Meter [Hr]	4477	4268	4041	3832
Meter On Fluid	645	436	209	583
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	10W-40	10W-40	10W-40	10W-40
Fluid Type	DURON UHP			
Fluid Change	Y	N	N	Y
Filter Change	Y	N	N	Y
Make Up Fluid [l]	0	0	0	

PREVIOUS SAMPLE

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

CONDITION / CONTAMINATION

		26-May-22	20-Jan-22	07-Oct-21	24-Aug-21
VISCOSITY (Centistokes)					
V100	Viscosity at 100 C	14.20	14.10	14.5	14.3

VISCOSITY (Centistokes)

V40	Viscosity at 40 C	98.40	97.60	96.8	98.1
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VISCOSITY INDEX

VI	Viscosity Index	148	148	155	150
----	-----------------	-----	-----	-----	-----

INFRARED (UFM)

ST	Soot	34	28	18	28
OXI	Oxidation	18	16	15	18
SUL	Sulfur Products	22	20	21	22
NIT	Nitration	10	9	7	9

ANTIFREEZE

A	Antifreeze	N	N	N	N
---	------------	---	---	---	---

GLYCOL CONTENT (%)

PGC	Percent Glycol Con	0.0027
-----	--------------------	--------

FUEL

F	Fuel	N	N	N	N
---	------	---	---	---	---

WATER

W	Water	N	N	N	N
---	-------	---	---	---	---

WEAR LEVELS / ADDITIVES

26-May-22 20-Jan-22 07-Oct-21 24-Aug-21

ELEMENTAL ANALYSIS (ppm)

	26-May-22	20-Jan-22	07-Oct-21	24-Aug-21	
Na	Sodium	3	0	2	1
K	Potassium	27	14	5	15
Si	Silicon	4	3	2	4
Al	Aluminum	30	16	7	23
Fe	Iron	37	23	17	44
Cr	Chromium	3	2	2	3
Pb	Lead	0	0	0	0
Cu	Copper	7	5	5	13
Sn	Tin	0	0	0	0
Ni	Nickel	1	1	0	2
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Zn	Zinc	1253	1268	1261	1255
Ca	Calcium	1075	1080	1102	1118
Mg	Magnesium	943	885	1126	964
Ba	Barium	0	0	0	0
B	Boron	1	1	3	2
Mo	Molybdenum	59	55	61	56
P	Phosphorus	1139	997	1062	970

ENGINE

EQUIP NUM: U53005

SERIAL NUMBER: DV9GLG52010

WESTERN W4700SB

COMP SERIAL NUM: 750332698

No Action Required

Interp By: Greg Eyre

Interpreted On: 20-Oct-22

N030-52291-0328

LABEL#: 200957244

SHOP JOB NUM : 5694

SAMPLE SHIP TIME (days) : 12

CYPRESS COUNTY

RECEIVED DATE: 18-Oct-22

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

SAMPLE INFORMATION

	06-Oct-22	23-Aug-22	11-Jul-22	26-May-22
Sampled Date	06-Oct-22	23-Aug-22	11-Jul-22	26-May-22
Sample Id	N030-52291-0326	N030-52242-0206	N030-52200-0334	N030-52159-0255
Lab Date	18-Oct-22	30-Aug-22	19-Jul-22	08-Jun-22
Meter [Hr]	5319	5015	4734	4477
Meter On Fluid	304	538	257	645
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	NULL	10W-40	10W-40	10W-40
Fluid Type	DURON UHP E6	DURON UHP	DURON UHP	DURON UHP
Fluid Change	N	Y	N	Y
Filter Change	N	Y	N	Y
Make Up Fluid []	0		0	0

CONDITION / CONTAMINATION

	06-Oct-22	23-Aug-22	11-Jul-22	26-May-22
VISCOSITY (Centistokes)				
V100 Viscosity at 100 C	14.60	14.30	14.40	14.20
VISCOSITY (Centistokes)				
V40 Viscosity at 40 C	101.5	98.40	99.10	98.40
VISCOSITY INDEX				
VI Viscosity Index	149	149	150	148

WEAR LEVELS / ADDITIVES

	06-Oct-22	23-Aug-22	11-Jul-22	26-May-22
ELEMENTAL ANALYSIS (ppm)				
Na Sodium	2	2	0	3
K Potassium	5	10	8	27
Si Silicon	4	5	3	4
Al Aluminum	6	13	10	30
Fe Iron	15	26	17	37
Cr Chromium	2	2	2	3
Pb Lead	0	0	0	0
Cu Copper	3	5	4	7
Sn Tin	0	0	0	0
Ni Nickel	1	1	0	1
Ag Silver	0	0	0	0
Ti Titanium	0	0	0	0
V Vanadium	0	0	0	0
Zn Zinc	1207	1248	1235	1253
Ca Calcium	1106	1116	1063	1075
Mg Magnesium	960	1080	816	943
Ba Barium	0	0	0	0
B Boron	1	3	0	1
Mo Molybdenum	60	59	53	59
P Phosphorus	961	1012	1022	1139

INFRARED (UFM)

	06-Oct-22	23-Aug-22	11-Jul-22	26-May-22
ST Soot	31	38	22	34
OXI Oxidation	16	18	15	18
SUL Sulfur Products	21	23	21	22
NIT Nitration	9	10	8	10

ANTIFREEZE

	06-Oct-22	23-Aug-22	11-Jul-22	26-May-22
A Antifreeze	N	N	N	N

GLYCOL CONTENT (%)

	06-Oct-22	23-Aug-22	11-Jul-22	26-May-22
PGC Percent Glycol Con				0.0027

FUEL

	06-Oct-22	23-Aug-22	11-Jul-22	26-May-22
F Fuel	N	N	N	N

WATER

	06-Oct-22	23-Aug-22	11-Jul-22	26-May-22
W Water	N	N	N	N

ENGINE

N030-52242-0206
 LABEL#: 200957722
 SAMPLE SHIP TIME (days) : 7
CYPRESS COUNTY
 RECEIVED DATE: 30-Aug-22

EQUIP NUM: U53005
WESTERN W4700SB



No Action Required

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

SERIAL NUMBER: DV9GLG52010
COMP SERIAL NUM: 750332698

Interp By: Gregory Scribner
Interpreted On: 31-Aug-22

SAMPLE INFORMATION

	23-Aug-22	11-Jul-22	26-May-22	20-Jan-22
Sampled Date	23-Aug-22	11-Jul-22	26-May-22	20-Jan-22
Sample Id	N030-52242-0206	N030-52200-0334	N030-52159-0255	N030-52024-0941
Lab Date	30-Aug-22	19-Jul-22	08-Jun-22	24-Jan-22
Meter [Hr]	5015	4734	4477	4268
Meter On Fluid	538	257	645	436
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	10W-40	10W-40	10W-40	10W-40
Fluid Type	DURON UHP	DURON UHP	DURON UHP	
Fluid Change	Y	N	Y	N
Filter Change	Y	N	Y	N
Make Up Fluid []		0	0	0

CONDITION / CONTAMINATION

		23-Aug-22	11-Jul-22	26-May-22	20-Jan-22
VISCOSITY (Centistokes)					
V100	Viscosity at 100 C	14.30	14.40	14.20	14.10
VISCOSITY (Centistokes)					
V40	Viscosity at 40 C	98.40	99.10	98.40	97.60
VISCOSITY INDEX					
VI	Viscosity Index	149	150	148	148

WEAR LEVELS / ADDITIVES

		23-Aug-22	11-Jul-22	26-May-22	20-Jan-22
ELEMENTAL ANALYSIS (ppm)					
Na	Sodium	2	0	3	0
K	Potassium	10	8	27	14
Si	Silicon	5	3	4	3
Al	Aluminum	13	10	30	16
Fe	Iron	26	17	37	23
Cr	Chromium	2	2	3	2
Pb	Lead	0	0	0	0
Cu	Copper	5	4	7	5
Sn	Tin	0	0	0	0
Ni	Nickel	1	0	1	1
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Zn	Zinc	1248	1235	1253	1268
Ca	Calcium	1116	1063	1075	1080
Mg	Magnesium	1080	816	943	885
Ba	Barium	0	0	0	0
B	Boron	3	0	1	1
Mo	Molybdenum	59	53	59	55
P	Phosphorus	1012	1022	1139	997

INFRARED (UFM)

		23-Aug-22	11-Jul-22	26-May-22	20-Jan-22
ST	Soot	38	22	34	28
OXI	Oxidation	18	15	18	16
SUL	Sulfur Products	23	21	22	20
NIT	Nitration	10	8	10	9

ANTIFREEZE

		23-Aug-22	11-Jul-22	26-May-22	20-Jan-22
A	Antifreeze	N	N	N	N

GLYCOL CONTENT (%)

		23-Aug-22	11-Jul-22	26-May-22	20-Jan-22
PGC	Percent Glycol Con			0.0027	

FUEL

		23-Aug-22	11-Jul-22	26-May-22	20-Jan-22
F	Fuel	N	N	N	N

WATER

		23-Aug-22	11-Jul-22	26-May-22	20-Jan-22
W	Water	N	N	N	N



PROACTIVE FLUID ANALYSIS

Coolant Analysis - Level 2

UNIT INFORMATION			QUICK EVALUATION			P.M. SERVICE INFORMATION			
Unit Number: U53005	Equipment Make: WESTERN STAR	Engine Make:	Overall Evaluation:			Lab Processing Date: 22-Mar-2017			
Jobsite: Default Site	Equipment Model: 4700	Engine Model:	Monitor			Service Interval:			
Compartment: RADIATOR	Equipment Serial: 2GLGS2012	Engine Serial:	Continue to Use:			Control Number:			
Label Number: 102146	Sampled Site:		Maintenance Needed:			WO Number:			
N030-47081-2127						Target Nitrite	Target Glycol	%	
						Current Nitrite	164	Current Glycol	53 %

SAMPLE INFORMATION				MAINTENANCE & ADDITIVES												CORROSION & HARDNESS												Coolant Type:	
Date Taken	Hours/Miles/KM On Unit	CH Glycol	PH	CON Conductivity	FP Freezing Point	BP Boiling Point	NO2 Nitrite	NO3 Nitrate	MoO4 Molybdate	SiO3 Silicate	BO3 Borate	PO4 Phosphate	SAC Sulfate Ash	TT Total Hardness	K Potassium	Na Sodium	Al Aluminum	Cu Copper	Fe Iron	Pb Lead	Sn Tin	Zn Zinc	CaC Calcium	MgC Magnesium	TH Total Hardness	Gallon	Quart	Litres	
16/03/17	860	860	53	7.5	4302	-42	108	164	154	1192	34	124	8	1549	1055	6148	1116	1	14	0	0	0	1	5	0	5			

METAL PITTING					SOLIDS - PRECIPITATE			
Date Taken	SO4 Sulfate	GLO Glycolate	CO3 Carbonate	CL Chloride	Precipitate Amount	Precipitate Appearance	Precipitate Color/Contaminant	Precipitate Properties
16/03/17	58	1170		16	none	NONE	NONE	NONE

APPEARANCE							
Date Taken	Precipitate Color	Color	Appearance	Odor	Foam	Oil	
16/03/17		red/light	clear	norm	norm	none	

EVALUATION/RECOMMENDATION

HIGH COPPER. INHIBITOR LEVEL IS TOO LOW TO PROVIDE CORROSION/EROSION PROTECTION. VERIFY FLUID LIFE AND CONSIDER COOLANT CHANGE. IF CONTINUE TO USE THIS COOLANT THEN ADD 1% CAPACITY OF ELC EXTENDER (CAT P/N 119-5152) TO BOOST INHIBITOR. SAMPLE AGAIN AT HALF THE REGULAR INTERVAL TO MONITOR INHIBITORS LEVELS....

CATERPILLAR COOLANT SCA NEEDED:
Quantity and Part No. to Order: 1/2 3P2044(1

Warning! these calculations are based on a svste capacity of 1.0 gallons or 3.79 liters. if your svste capacity is different these values will need to be adjusted. Be sure to test this coolant after making adjustments.

CYPRESS COUNTY
GREG SJOLIE
BOX 108
DUNMORE AB T0J 1A0

N030-47081-2127



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Inter By: Dana Franklin

EQUIPMENT

CUSTOMER EQUIP NUM : U53005
 SERIAL NUMBER : 750332698
 MODEL : DD13
 MANUFACTURER : DETROIT_DS
 COMPANY NAME : CYPRESS COUNTY
 JOB SITE :
 AREA:
 REGION:

SAMPLE INFORMATION

COMPARTMENT NAME : RADIATOR
 COMP SERIAL NUM :
 COMPARTMENT MODEL :
 LABEL#: 102208
 SHOP JOB NUM :
 SAMPLE TYPE: COOLANT
 SAMPLE SHIP TIME (days) : 7
 SAMPLE LOCATION :

Monitor Compartment

NITRITE LEVEL (INHIBITOR) IS TOO LOW TO PROVIDE CORROSION/EROSION PROTECTION. COPPER CORROSION LEVEL IS ELEVATED. CHECK FOR AIR ENTRY AS A PRECAUTION. ALL OTHER LEVEL 2 TESTS APPEAR NORMAL FOR ELC. ADD 1% CAPACITY ELC EXTENDER (CAT P/N 119-5152) TO BOOST NITRITE. RESAMPLE AT NEXT PM TO MONITOR COOLING SYSTEM.

LAB #
 N030-47129-2109
 PROCESS DATE 09-May-17

CORROSION ELEMENTS - COOLANT FORMULATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	TYPE	OVERALL EVAL	NO2	NO3	MoO4	SiO3	BO3	PO4	SAC	TT	K	Na	Al	Cu	Fe	Pb	Sn	Zn	Ca	Mg
02-May-17	N030-47129-2109				108	147	1159	26	112	10	1995	1152	5806	1123	1	13	0	0	1	1	3	0

FREEZE/OIL PROTECTION - CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	TYPE	FLUID CHANGE	OVERALL EVAL	GL	FP	BP	pH	CON	CL	GLO	SO4	TH	Foam
02-May-17	N030-47129-2109	870	870			U		52	-41	108	7.8	5716	19	1059	78	6	norm

COOLANT PHYSICALS

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	TYPE	OVERALL EVAL	Color	App	Odor	Oil	PAmt
02-May-17	N030-47129-2109	870	870				red/light	clear	norm	none	none

Al = Aluminum, App = Appearance, BO3 = Borate, BP = Boil Point(°C), CL = Chloride, CON = Conductivity, Ca = Calcium, Cu = Copper, FP = Freeze Point(°C), Fe = Iron, GL = Glycol, GLO = Glycolate, K = Potassium, Mg = Magnesium, MoO4 = Molybdate, NO2 = Nitrite, NO3 = Nitrate, Na = Sodium, PAmt = Precipitate Amount, PO4 = Phosphate, Pb = Lead, SAC = Sebacic Acid, SO4 = Sulfate, SiO3 = Silicate, Sn = Tin, TH = Total Hardness, TT = Total Totaol, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.



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Interp By: Gregory Scribner

EQUIPMENT

EQUIP NUM: U53005
 SERIAL NUMBER: DV9GLG52010
 MODEL : W4700SB
 MANUFACTURER : WESTERN
 COMPANY NAME : CYPRESS COUNTY
 JOB SITE :
 AREA:
 REGION:

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM: 750332698
 COMPARTMENT MODEL :
 LABEL#: 200469953
 SHOP JOB NUM : 4005
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 6
 SAMPLE LOCATION :

**No Action
 Required**

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #

N030-50224-0173

PROCESS 11-Aug-20
 DATE

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
05-Aug-20	N030-50224-0173	2854	195	N	N	1	11	2	10	21	2	0	13	1	1	0	0	0	1335	1091	1083	0	1	64	1187
17-Jun-20	N030-50182-0544	2659	747	Y	Y	2	28	3	29	53	4	0	31	0	1	0	0	0	1133	1058	866	0	3	55	886
21-Jan-20	N030-50023-0257	2377	465	N	N	1	29	2	30	46	4	1	48	1	1	0	0	0	1263	1105	882	0	4	58	1017
07-Nov-19	N030-49322-0313	2145	233	N	N	1	23	2	24	41	4	0	41	1	0	0	0	0	1257	1101	980	0	6	81	950

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	PGC	F
05-Aug-20	N030-50224-0173	2854	195	PETRO-CAN	10W-40	N	N	N	13.7	97.0	143	15	15	20	7	N		N
17-Jun-20	N030-50182-0544	2659	747	PETRO-CAN	10W-40	Y	Y	Y	13.8	96.3	145	32	18	23	10	N	0	N
21-Jan-20	N030-50023-0257	2377	465	PETRO-CAN	10W-40	N	N	N	13.9	98.7	146	21	16	20	8	N	0	N
07-Nov-19	N030-49322-0313	2145	233	PETRO-CAN	10W-40	N	N	N	14.6	97.6	155	12	15	20	7	N		N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
05-Aug-20	N030-50224-0173	N	N	N
17-Jun-20	N030-50182-0544	Y	Y	N
21-Jan-20	N030-50023-0257	N	N	N
07-Nov-19	N030-49322-0313	N	N	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitrate, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.



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Email: oilsupport@finning.com Web: www.finning.com

CONTACT INFORMATION	EQUIPMENT	SAMPLE INFORMATION
GREG SJOLIE CYPRESS COUNTY BOX 108 DUNMORE, AB CA T0J 1A0 PHONE: 4035262888 FAX: 4035268958 Email: TIGER@CYPRESS.AB.CA	CUSTOMER EQUIP NUM : U53005 SERIAL NUMBER : 2GLGS2012 MODEL : 4700 MANUFACTURER : WESTERN_ST COMPANY NAME : CYPRESS COUNTY JOB SITE : AREA: REGION:	COMPARTMENT NAME : ENGINE COMP SERIAL NUM : 47192750332698 COMPARTMENT MODEL : LABEL#: 4705649 SHOP JOB NUM : SAMPLE TYPE: OIL SAMPLE SHIP TIME (days) : 31 SAMPLE LOCATION :

Interp By: Dallas Livingston

No Action Required: ELEVATED COPPER LEVEL MAY BE DUE TO INCREASED OIL COOLER CORE LEACHING; NOT WEAR. OIL CHANGE OR NEW FORMULATION CAN RESTART COOLER CORE LEACHING. ELEVATED POTASSIUM AND ALUMINUM IS COMMON IN NEW ENGINES DUE TO SOLDER USED IN ASSEMBLY OF INTERCOOLER SYSTEM.

LAB #
N030-48018-0018
PROCESS 18-Jan-18
DATE

WEAR/CONTAMINATION - ADDITIVES/FORMULATION																									
SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
18-Dec-17	N030-48018-0018	1087	465	N	N	4	75	4	51	58	8	0	218	0	1	1	0	0	1106	2025	211	0	37	12	894
16-Mar-17	N030-47081-0842	860	238	N	N	5	41	3	28	30	4	1	190	<0	1	1	0	<0	1119	2032	208	0	73	11	929
21-Dec-16	N030-47010-0435	622	622	Y	Y	7	24	5	13	44	2	1	328	<0	1	1	0	<0	1090	1353	785	0	35	42	866
24-Oct-16	N030-46309-0450	412	412	N	N	7	18	4	10	45	2	0	393	3	1	1	<0	<0	1136	1472	886	<0	36	47	930

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION																		
SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	PGC	F
18-Dec-17	N030-48018-0018	1087	465	PETRO-CAN	UNKNOWN	10W-40	N	N	14.9	104.3	149	18	16	20	7	N	0.0085	N
16-Mar-17	N030-47081-0842	860	238	PETRO-CAN	DURON-E	10W-40	N	N	14.8	101.8		10	14	18	6	N		NT
21-Dec-16	N030-47010-0435	622	622	FACTORYFIL	UNKNOWN		Y	Y	14.8	107.5		15	17	20	8	N		NT
24-Oct-16	N030-46309-0450	412	412	FACTORYFIL	UNKNOWN		N	N	14.5	106.3		9	15	18	7	N		NT

OIL CLEANLINESS				
SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
18-Dec-17	N030-48018-0018	N	N	N
16-Mar-17	N030-47081-0842	N	N	N
21-Dec-16	N030-47010-0435	Y	Y	N
24-Oct-16	N030-46309-0450	N	N	N

A = Antifreeze Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PGC = Percent Glycol Content, Pb = Lead, ST = Sulfate, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity @ 100C, V40 = Viscosity @ 40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.



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PHONE: 1-888 FINNING (346-6464)

Email: oilsupport@finning.com Web: www.finning.com

CONTACT INFORMATION	EQUIPMENT	SAMPLE INFORMATION
GREG SJOLIE CYPRESS COUNTY BOX 108 DUNMORE, AB CA T0J 1A0 PHONE: 4035262888 FAX: 4035268958 Email: TIGER@CYPRESS.AB.CA	CUSTOMER EQUIP NUM : U53005 SERIAL NUMBER : 2GLGS2012 MODEL : 4700 MANUFACTURER : WESTERN_ST COMPANY NAME : CYPRESS COUNTY JOB SITE : AREA: REGION:	COMPARTMENT NAME : ENGINE COMP SERIAL NUM : 47192750332698 COMPARTMENT MODEL : LABEL#: 005019600 SHOP JOB NUM : 2618 SAMPLE TYPE: OIL SAMPLE SHIP TIME (days) : 6 SAMPLE LOCATION :

Interp By: Peter Leggo

No Action Required

ELEVATED POTASSIUM AND ALUMINUM IS COMMON IN NEW 'C' CLASS ENGINES DUE TO SOLDER USED IN ASSEMBLY OF INTERCOOLER SYSTEM. ELEVATED COPPER LEVEL MAY BE DUE TO INCREASED OIL COOLER CORE LEACHING; NOT WEAR. OIL CHANGE OR NEW FORMULATION CAN RESTART COOLER CORE LEACHING. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #
 N030-49045-0018
 PROCESS DATE 14-Feb-19

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
08-Feb-19	N030-49045-0018	1725	422	N	N	8	73	3	55	62	7	0	113	0	1	1	0	1	1217	1214	789	0	9	51	955
13-Nov-18	N030-48326-0004	1518	215	N	N	5	54	3	41	50	6	0	94	0	1	1	0	1	1206	1276	788	0	11	50	949
27-Feb-18	N030-48065-0142	1309	684	Y	Y	6	131	5	85	82	11	0	228	2	1	1	0	0	1170	2112	202	0	30	12	880
18-Dec-17	N030-48018-0018	1087	465	N	N	4	75	4	51	58	8	0	218	0	1	1	0	0	1106	2025	211	0	37	12	894

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	PGC	F
08-Feb-19	N030-49045-0018	1725	422	PETRO-CAN	DURON UHP	10W-40	N	N	14.5	102.1	146	19	16	20	8	N	0	N
13-Nov-18	N030-48326-0004	1518	215	PETRO-CAN	DURON UHP	10W-40	N	N	15.0	103.6	151	12	15	20	7	N	0.0006	N
27-Feb-18	N030-48065-0142	1309	684	PETRO-CAN	UNKNOWN	10W-40	Y	Y	14.8	102.5	150	28	18	22	9	N	0	N
18-Dec-17	N030-48018-0018	1087	465	PETRO-CAN	UNKNOWN	10W-40	N	N	14.9	104.3	149	18	16	20	7	N	0.0085	N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
08-Feb-19	N030-49045-0018	N	N	N
13-Nov-18	N030-48326-0004	N	N	N
27-Feb-18	N030-48065-0142	Y	Y	N
18-Dec-17	N030-48018-0018	N	N	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PGC = Percent Glycol Content, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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ENGINE

N030-50364-0213
 LABEL#: 200567765
 SHOP JOB NUM : 4250
 SAMPLE SHIP TIME (days) : 28
CYPRESS COUNTY

EQUIP NUM: U53005
WESTERN W4700SB



No Action Required

SERIAL NUMBER: DV9GLG52010
COMP SERIAL NUM: 750332698

Interp By: Gregory Scribner
Interpreted On: 30-Dec-20

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

SAMPLE INFORMATION

	01-Dec-20	25-Sep-20	05-Aug-20	17-Jun-20
Sampled Date	01-Dec-20	25-Sep-20	05-Aug-20	17-Jun-20
Sample Id	N030-50364-0213	N030-50279-0415	N030-50224-0173	N030-50182-0544
Lab Date	29-Dec-20	05-Oct-20	11-Aug-20	30-Jun-20
Meter [Hr]	3249	3058	2854	2659
Meter On Fluid	590	399	195	747
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	10W-40	10W-40	10W-40	10W-40
Fluid Type				
Fluid Change	Y	N	N	Y
Filter Change	Y	N	N	Y
Make Up Fluid []		0	0	

PREVIOUS SAMPLE

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

CONDITION / CONTAMINATION

	01-Dec-20	25-Sep-20	05-Aug-20	17-Jun-20
VISCOSITY (Centistokes)				
V100 Viscosity at 100 C	13.8	13.5	13.7	13.8

GLYCOL CONTENT (%)

PGC Percent Glycol Con	0
------------------------	---

WATER

W Water	N	N	N	N
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VISCOSITY (Centistokes)

V40 Viscosity at 40 C	98.9	96.5	97.0	96.3
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VISCOSITY INDEX

VI Viscosity Index	141	140	143	145
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INFRARED (UFM)

ST Soot	27	23	15	32
OXI Oxidation	17	16	15	18
SUL Sulfur Products	21	20	20	23
NIT Nitration	9	8	7	10

FUEL

F Fuel	N	N	N	N
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ANTIFREEZE

A Antifreeze	N	N	N	N
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WEAR LEVELS / ADDITIVES

01-Dec-20 25-Sep-20 05-Aug-20 17-Jun-20

ELEMENTAL ANALYSIS (ppm)

Na Sodium	3	2	1	2
K Potassium	13	11	11	28
Si Silicon	4	3	2	3
Al Aluminum	14	12	10	29
Fe Iron	27	24	21	53
Cr Chromium	3	2	2	4
Pb Lead	0	0	0	0
Cu Copper	15	16	13	31
Sn Tin	0	0	1	0
Ni Nickel	1	2	1	1
Ag Silver	0	0	0	0
Ti Titanium	0	0	0	0
V Vanadium	0	0	0	0
Zn Zinc	1210	1291	1335	1133
Ca Calcium	1092	1093	1091	1058
Mg Magnesium	939	958	1083	866
Ba Barium	0	0	0	0
B Boron	11	1	1	3
Mo Molybdenum	53	58	64	55
P Phosphorus	967	1017	1187	886

ENGINE

N030-52024-0941
 LABEL#: 200797154
 SHOP JOB NUM : 5105
 SAMPLE SHIP TIME (days) : 4
CYPRESS COUNTY
 RECEIVED DATE: 24-Jan-22

EQUIP NUM: U53005
WESTERN W4700SB



No Action Required

SERIAL NUMBER: DV9GLG52010
COMP SERIAL NUM: 750332698

Interp By: Greg Eyre
Interpreted On: 26-Jan-22

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

SAMPLE INFORMATION

	20-Jan-22	07-Oct-21	24-Aug-21	05-Jul-21
Sampled Date	20-Jan-22	07-Oct-21	24-Aug-21	05-Jul-21
Sample Id	N030-52024-0941	N030-51287-0564	N030-51245-0110	N030-51193-0230
Lab Date	24-Jan-22	14-Oct-21	02-Sep-21	12-Jul-21
Meter [Hr]	4268	4041	3832	3630
Meter On Fluid	436	209	583	188
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	10W-40	10W-40	10W-40	10W-40
Fluid Type				
Fluid Change	N	N	Y	N
Filter Change	N	N	Y	N
Make Up Fluid []	0	0		0

PREVIOUS SAMPLE

WEAR METAL ANALYSIS INDICATES ACCEPTABLE WEAR RATE. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

CONDITION / CONTAMINATION

	20-Jan-22	07-Oct-21	24-Aug-21	05-Jul-21
VISCOSITY (Centistokes)				
V100 Viscosity at 100 C	14.10	14.5	14.3	14.2

VISCOSITY (Centistokes)

V40 Viscosity at 40 C	97.60	96.8	98.1	97.5
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VISCOSITY INDEX

VI Viscosity Index	148	155	150	149
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INFRARED (UFM)

ST Soot	28	18	28	19
OXI Oxidation	16	15	18	16
SUL Sulfur Products	20	21	22	21
NIT Nitration	9	7	9	8

ANTIFREEZE

A Antifreeze	N	N	N	N
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FUEL

F Fuel	N	N	N	N
--------	---	---	---	---

WATER

W Water	N	N	N	N
---------	---	---	---	---

WEAR LEVELS / ADDITIVES

20-Jan-22 07-Oct-21 24-Aug-21 05-Jul-21

ELEMENTAL ANALYSIS (ppm)

	20-Jan-22	07-Oct-21	24-Aug-21	05-Jul-21
Na Sodium	0	2	1	4
K Potassium	14	5	15	9
Si Silicon	3	2	4	4
Al Aluminum	16	7	23	20
Fe Iron	23	17	44	36
Cr Chromium	2	2	3	2
Pb Lead	0	0	0	0
Cu Copper	5	5	13	12
Sn Tin	0	0	0	0
Ni Nickel	1	0	2	1
Ag Silver	0	0	0	0
Ti Titanium	0	0	0	0
V Vanadium	0	0	0	0
Zn Zinc	1268	1261	1255	1228
Ca Calcium	1080	1102	1118	1094
Mg Magnesium	885	1126	964	848
Ba Barium	0	0	0	0
B Boron	1	3	2	2
Mo Molybdenum	55	61	56	55
P Phosphorus	997	1062	970	1058



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CONTACT INFORMATION
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 T0J 1A0
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 FAX: 4035268958
 Email: GREG.SJOLIE@CYPRESS.AB.

EQUIPMENT
 CUSTOMER EQUIP NUM : U53005
 SERIAL NUMBER : DV9GLG52010
 MODEL : W4700SB
 MANUFACTURER : WESTERN
 COMPANY NAME : CYPRESS COUNTY
 JOB SITE :
 AREA :
 REGION :

SAMPLE INFORMATION
 COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM : 750332698
 COMPARTMENT MODEL :
 LABEL#: 200382211
 SHOP JOB NUM : 3484
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 2
 SAMPLE LOCATION :

Interp By: Peter Leggo

**No Action
 Required**

ELEVATED POTASSIUM AND ALUMINUM IS COMMON IN NEW 'C' CLASS ENGINES DUE TO SOLDER USED IN ASSEMBLY OF INTERCOOLER SYSTEM. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #
 N030-50023-0257
 PROCESS 23-Jan-20
 DATE

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	SI	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
21-Jan-20	N030-50023-0257	2377	465	N	N	1	29	2	30	46	4	1	48	1	1	0	0	0	1263	1105	882	0	4	58	1017
07-Nov-19	N030-49322-0313	2145	233	N	N	1	23	2	24	41	4	0	41	1	0	0	0	0	1257	1101	980	0	6	61	950
06-May-19	N030-49136-0022	1912	609	Y	Y	3	98	4	70	74	8	0	97	0	1	1	0	0	1226	1287	768	0	7	51	916
01-Nov-18	N030-48312-0240	2372	597	Y	Y	3	30	7	21	32	6	1	29	1	1	0	0	0	1099	1044	792	0	5	45	868

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	PGC	F
21-Jan-20	N030-50023-0257	2377	465	PETRO-CAN	10W-40	N	N	N	13.9	96.7	146	21	16	20	8	N	0	N
07-Nov-19	N030-49322-0313	2145	233	PETRO-CAN	10W-40	N	N	N	14.6	97.6	155	12	15	20	7	N	0	N
06-May-19	N030-49136-0022	1912	609	PETRO-CAN	DURON UHP	10W-40	Y	Y	14.2	99.6	146	27	17	21	9	N	0.0061	N
01-Nov-18	N030-48312-0240	2372	597	PETRO-CAN	DURON	10W-40	Y	Y	14.3	102.5	143	34	17	21	9	N	0	N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
21-Jan-20	N030-50023-0257	N	N	N
07-Nov-19	N030-49322-0313	N	N	N
06-May-19	N030-49136-0022	Y	Y	N
01-Nov-18	N030-48312-0240	Y	Y	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PGC = Percent Glycol Content, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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ENGINE

EQUIP NUM: U53005

SERIAL NUMBER: DV9GLG52010

WESTERN W4700SB

COMP SERIAL NUM: 750332698

N030-51193-0230

LABEL#: 200487333

SHOP JOB NUM : 4844

SAMPLE SHIP TIME (days) : 7

CYPRESS COUNTY

No Action Required

Interp By: Greg Eyre

Interpreted On: 13-Jul-21

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

SAMPLE INFORMATION

	05-Jul-21	21-May-21	01-Dec-20	25-Sep-20
Sampled Date	05-Jul-21	21-May-21	01-Dec-20	25-Sep-20
Sample Id	N030-51193-0230	N030-51152-0102	N030-50364-0213	N030-50279-0415
Lab Date	12-Jul-21	01-Jun-21	29-Dec-20	05-Oct-20
Meter [Hr]	3630	3442	3249	3058
Meter On Fluid	188	193	590	399
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	10W-40	10W-40	10W-40	10W-40
Fluid Type				
Fluid Change	N	N	Y	N
Filter Change	N	N	Y	N
Make Up Fluid []	0			0

PREVIOUS SAMPLE

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

CONDITION / CONTAMINATION

		05-Jul-21	21-May-21	01-Dec-20	25-Sep-20
VISCOSITY (Centistokes)					
V100	Viscosity at 100 C	14.2	14.6	13.8	13.5

		05-Jul-21	21-May-21	01-Dec-20	25-Sep-20
VISCOSITY (Centistokes)					
V40	Viscosity at 40 C	97.5	99.1	98.9	96.5

VISCOSITY INDEX

		05-Jul-21	21-May-21	01-Dec-20	25-Sep-20
VI	Viscosity Index	149	153	141	140

WEAR LEVELS / ADDITIVES

		05-Jul-21	21-May-21	01-Dec-20	25-Sep-20
ELEMENTAL ANALYSIS (ppm)					
Na	Sodium	4	1	3	2
K	Potassium	9	8	13	11
Si	Silicon	4	3	4	3
Al	Aluminum	20	15	14	12
Fe	Iron	36	30	27	24
Cr	Chromium	2	2	3	2
Pb	Lead	0	0	0	0
Cu	Copper	12	10	15	16
Sn	Tin	0	0	0	0
Ni	Nickel	1	1	1	2
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Zn	Zinc	1228	1200	1210	1291
Ca	Calcium	1094	1092	1092	1093
Mg	Magnesium	848	1043	939	958
Ba	Barium	0	0	0	0
B	Boron	2	3	11	1
Mo	Molybdenum	55	62	53	58
P	Phosphorus	1058	1053	967	1017

INFRARED (UFM)

		05-Jul-21	21-May-21	01-Dec-20	25-Sep-20
ST	Soot	19	10	27	23
OXI	Oxidation	16	15	17	16
SUL	Sulfur Products	21	19	21	20
NIT	Nitration	8	7	9	8

ANTIFREEZE

		05-Jul-21	21-May-21	01-Dec-20	25-Sep-20
A	Antifreeze	N	N	N	N

FUEL

		05-Jul-21	21-May-21	01-Dec-20	25-Sep-20
F	Fuel	N	N	N	N

WATER

		05-Jul-21	21-May-21	01-Dec-20	25-Sep-20
W	Water	N	N	N	N



ENGINE

N030-51152-0102

LABEL#: 200485687

SHOP JOB NUM : 4412

SAMPLE SHIP TIME (days) : 11

CYPRESS COUNTY

EQUIP NUM: U53005

WESTERN W4700SB

No Action Required

SERIAL NUMBER: DV9GLG52010

COMP SERIAL NUM: 750332698

Interp By: Peter Leggo

Interpreted On: 01-Jun-21

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

SAMPLE INFORMATION

	21-May-21	01-Dec-20	25-Sep-20	05-Aug-20
Sampled Date	21-May-21	01-Dec-20	25-Sep-20	05-Aug-20
Sample Id	N030-51152-0102	N030-50364-0213	N030-50279-0415	N030-50224-0173
Lab Date	01-Jun-21	29-Dec-20	05-Oct-20	11-Aug-20
Meter [Hr]	3442	3249	3058	2854
Meter On Fluid	193	590	399	195
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	10W-40	10W-40	10W-40	10W-40
Fluid Type				
Fluid Change	N	Y	N	N
Filter Change	N	Y	N	N
Make Up Fluid []			0	0

PREVIOUS SAMPLE

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

CONDITION / CONTAMINATION

		21-May-21	01-Dec-20	25-Sep-20	05-Aug-20
VISCOSITY (Centistokes)					
V100	Viscosity at 100 C	14.6	13.8	13.5	13.7

VISCOSITY (Centistokes)

V40	Viscosity at 40 C	99.1	98.9	96.5	97.0
-----	-------------------	------	------	------	------

VISCOSITY INDEX

VI	Viscosity Index	153	141	140	143
----	-----------------	-----	-----	-----	-----

INFRARED (UFM)

ST	Soot	10	27	23	15
OXI	Oxidation	15	17	16	15
SUL	Sulfur Products	19	21	20	20
NIT	Nitration	7	9	8	7

ANTIFREEZE

A	Antifreeze	N	N	N	N
---	------------	---	---	---	---

FUEL

F	Fuel	N	N	N	N
---	------	---	---	---	---

WATER

W	Water	N	N	N	N
---	-------	---	---	---	---

WEAR LEVELS / ADDITIVES

21-May-21 01-Dec-20 25-Sep-20 05-Aug-20

ELEMENTAL ANALYSIS (ppm)

	21-May-21	01-Dec-20	25-Sep-20	05-Aug-20
Na Sodium	1	3	2	1
K Potassium	8	13	11	11
Si Silicon	3	4	3	2
Al Aluminum	15	14	12	10
Fe Iron	30	27	24	21
Cr Chromium	2	3	2	2
Pb Lead	0	0	0	0
Cu Copper	10	15	16	13
Sn Tin	0	0	0	1
Ni Nickel	1	1	2	1
Ag Silver	0	0	0	0
Ti Titanium	0	0	0	0
V Vanadium	0	0	0	0
Zn Zinc	1200	1210	1291	1335
Ca Calcium	1092	1092	1093	1091
Mg Magnesium	1043	939	958	1083
Ba Barium	0	0	0	0
B Boron	3	11	1	1
Mo Molybdenum	62	53	58	64
P Phosphorus	1053	967	1017	1187



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 FAX: 4035268958
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EQUIPMENT

EQUIP NUM: U53005
 SERIAL NUMBER: DV9GLG52010
 MODEL : W4700SB
 MANUFACTURER : WESTERN
 COMPANY NAME : CYPRESS COUNTY
 JOB SITE :
 AREA:
 REGION:

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM: 750332698
 COMPARTMENT MODEL :
 LABEL#: 200434284
 SHOP JOB NUM : 3677
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 13
 SAMPLE LOCATION :

Interp By: Greg Eyre

**No Action
 Required**

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #
 N030-50182-0544
 PROCESS DATE 6/30/2020

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
17-Jun-20	N030-50182-0544	2659	747	Y	Y	2	28	3	29	53	4	0	31	0	1	0	0	0	1133	1058	866	0	3	55	886
21-Jan-20	N030-50023-0257	2377	465	N	N	1	29	2	30	46	4	1	48	1	1	0	0	0	1263	1105	882	0	4	58	1017
07-Nov-19	N030-49322-0313	2145	233	N	N	1	23	2	24	41	4	0	41	1	0	0	0	0	1257	1101	980	0	6	61	950
06-May-19	N030-49136-0022	1912	609	Y	Y	3	98	4	70	74	6	0	97	0	1	1	0	0	1226	1287	788	0	7	51	916

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	PGC	F
17-Jun-20	N030-50182-0544	2659	747	PETRO-CAN		10W-40	Y	Y	13.8	96.3	145	32	18	23	10	N	0	N
21-Jan-20	N030-50023-0257	2377	465	PETRO-CAN		10W-40	N	N	13.9	96.7	146	21	16	20	8	N	0	N
07-Nov-19	N030-49322-0313	2145	233	PETRO-CAN		10W-40	N	N	14.6	97.6	155	12	15	20	7	N		N
06-May-19	N030-49136-0022	1912	609	PETRO-CAN	DURON UHP	10W-40	Y	Y	14.2	99.6	146	27	17	21	9	N	0.0081	N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
17-Jun-20	N030-50182-0544	Y	Y	N
21-Jan-20	N030-50023-0257	N	N	N
07-Nov-19	N030-49322-0313	N	N	N
06-May-19	N030-49136-0022	Y	Y	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PGC = Percent Glycol Content, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.



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EQUIPMENT

CUSTOMER EQUIP NUM : U53005
 SERIAL NUMBER : DV9GLG52010
 MODEL : W4700SB
 MANUFACTURER : WESTERN
 COMPANY NAME : CYPRESS COUNTY
 JOB SITE :
 AREA :
 REGION :

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM : 750332698
 COMPARTMENT MODEL :
 LABEL#: 005036935
 SHOP JOB NUM : 2801
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 10
 SAMPLE LOCATION :

Interp By: Peter Lewandowski

**No Action
 Required**

ELEVATED POTASSIUM AND ALUMINUM IS COMMON IN NEW CLASS ENGINES DUE TO SOLDER USED IN ASSEMBLY OF INTERCOOLER SYSTEM. WEAR METAL ANALYSIS INDICATES ACCEPTABLE WEAR RATE. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #

N030-49136-0022

PROCESS 16-May-19
 DATE

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	SI	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
06-May-19	N030-49136-0022	1912	609	Y	Y	3	98	4	70	74	8	0	97	0	1	1	0	0	1226	1287	768	0	7	51	916
01-Nov-18	N030-48312-0240	2372	597	Y	Y	3	30	7	21	32	6	1	29	1	1	0	0	0	1099	1044	792	0	5	45	868
31-Jan-18	N030-48040-0160	1775	582	Y	Y	3	40	3	24	35	6	0	66	0	1	0	0	0	1156	1364	666	0	8	39	933

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	PGC	F
06-May-19	N030-49136-0022	1912	609	PETRO-CAN	DURON UHP	10W-40	Y	Y	14.2	99.6	146	27	17	21	9	N	0.0081	N
01-Nov-18	N030-48312-0240	2372	597	PETRO-CAN	DURON	10W-40	Y	Y	14.3	102.5	143	34	17	21	9	N	0	N
31-Jan-18	N030-48040-0160	1775	582	PETRO-CAN	DURON	10W-40	Y	Y	15.4	106.8	152	32	17	22	9	N	0	N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
06-May-19	N030-49136-0022	Y	Y	N
01-Nov-18	N030-48312-0240	Y	Y	N
31-Jan-18	N030-48040-0160	Y	Y	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PGC = Percent Glycol Content, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.

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Unit Information

Service Information

NIT: U53005
 Equip Make: WESTERN STAR
 Equip Model: 4700
 Equip Serial: 2GLGS2012
 Component: ENGINE

Warranty Expiry Date:
 Comp Make: DETROIT_DS
 Comp Model: DD13
 Comp Serial: 47192750332698

Service Interval:
 Work Order No:
 Job Site: Default Site
 Branch:
 Sampled Site: Default Site

Customer Comments:

Evaluation Code	Recommendation	Normal	16/03/17	Lab Number	N030-47081-0842
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Elevated potassium and aluminum is common in new engines due to solder used in assembly of inter cooler system. Copper alone usually indicates cooler core leaching and is not normally wear of bronze/brass parts. Wear metal analysis indicates acceptable wear rate. Oil condition analysis is acceptable. Resample at the next service interval.

Days to reach Lab	6	Interpreted By	Dallas Livingston	Analyzed By	gkscribner	Label Number	4633082
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Evaluation Code	Recommendation	Normal	Date	21/12/16	Lab Number	N030-47010-0435
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Elevated copper level may be due to increased oil cooler core leaching, not wear. Oil change or new formulation can restart cooler core leaching. Wear metal analysis indicates acceptable wear rate. Oil condition analysis is acceptable. Other readings appear to be normal. Resample at the next service interval.

Days to reach Lab	20	Interpreted By	Peter Lewandowski	Analyzed By	gkscribner	Label Number	4618299
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Sample Information										Sample Reading																
Evaluation	SMU	CMU	Oil Hours	Oil Chg	Filter Chg	Sample Date	Received Date	Oil Brand	Oil Grade	Na Sodium	K Potassium	Si Silicon	Al Aluminum	Fe Iron	Cr Chromium	Pb Lead	Cu Copper	Sn Tin	Ni Nickel	Ag Silver	Ti Titanium	V Vanadium	ST Soot	OXI Oxidation	SUL Sulfation	
Baseline																										
A	860	860	238	N	N	16/03/17	22/03/17	PCDURONE	10W-40	5	41	3	28	30	4	1	190	<0	1	1	0	<0	10	14	18	
A	622	622	622	Y	Y	21/12/16	10/01/17	FACTORY		7	24	5	13	44	2	1	328	<0	1	1	0	<0	15	17	20	
A	412	412	412	N	N	24/10/16	04/11/16	FACTORY		7	18	4	10	45	2	0	393	3	1	1	<0	<0	9	15	18	
A	211	211	211	N	N	21/04/16	27/04/16	FACTORY		6	12	4	6	33	1	<0	45	<0	1	1	0	<0	3	14	17	

Sample Reading														
NIT Nitration	Zn Zinc	Ca Calcium	Mg Magnesium	Ba Barium	B Boron	Mo Molybdenum	P Phosphorus	V100 Viscosity	V40 Viscosity	F Fuel	W Water	% Water Percent W	% Fuel Percent F	GLY GLY
6	1119	2032	208	0	73	11	929	14.8	101.8	NT	N	0.00	0.0	N
8	1090	1353	785	0	35	42	866	14.8	107.5	NT	N	0.00	0.0	NT
7	1136	1472	886	<0	36	47	930	14.5	106.3	NT	N	0.00	0.0	NT
	1134	1382	837	0	29	42	936	14.5	105.5	NT	N	0.00	0.0	NT

CYPRESS COUNTY
 Attn: GREG SJOLIE
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P - Positive	T - Trace	N - Negative	NR - Not Required	NT - Not Tested
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A No Action Required	B Monitor	C Action Required	X Urgent Action Required
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ENGINE

N030-51138-0028
 LABEL#: 200485240
 SHOP JOB NUM : 4743
 SAMPLE SHIP TIME (days) : 14
CYPRESS COUNTY

EQUIP NUM: U53006
WESTERN_ST 4700SB
 **No Action Required**

SERIAL NUMBER: 4GLGS2013
COMP SERIAL NUM: 47192750336485

Interp By: Peter Leggo
Interpreted On: 19-May-21

FOR OIL SERVICE INDICATED: DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

SAMPLE INFORMATION

	04-May-21	24-Nov-20	15-Sep-20	29-Jul-20
Sampled Date	04-May-21	24-Nov-20	15-Sep-20	29-Jul-20
Sample Id	N030-51138-0028	N030-50336-0432	N030-50268-0254	N030-50224-0174
Lab Date	18-May-21	01-Dec-20	24-Sep-20	11-Aug-20
Meter [Hr]	4460	4274	3990	3785
Meter On Fluid	470	284	646	441
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	10W-40	10W-40	10W-40	10W-40
Fluid Type				
Fluid Change	N	N	Y	N
Filter Change	N	N	Y	N
Make Up Fluid []	3	0	2	0

PREVIOUS SAMPLE

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

CONDITION / CONTAMINATION

		04-May-21	24-Nov-20	15-Sep-20	29-Jul-20
VISCOSITY (Centistokes)					
V100	Viscosity at 100 C	13.9	14.3	13.7	13.5
VISCOSITY (Centistokes)					
V40	Viscosity at 40 C	97.3	98.2	96.3	96.3

WEAR LEVELS / ADDITIVES

04-May-21 24-Nov-20 15-Sep-20 29-Jul-20

ELEMENTAL ANALYSIS (ppm)

	04-May-21	24-Nov-20	15-Sep-20	29-Jul-20	
Na	Sodium	1	2	2	2
K	Potassium	47	31	62	48
Si	Silicon	3	3	5	4
Al	Aluminum	30	18	37	31
Fe	Iron	68	37	108	96
Cr	Chromium	4	2	4	4
Pb	Lead	0	0	0	0
Cu	Copper	7	5	13	11
Sn	Tin	0	0	0	0
Ni	Nickel	1	0	1	1
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Zn	Zinc	1256	1243	1240	1300
Ca	Calcium	1085	1021	1056	1066
Mg	Magnesium	1005	977	1032	1098
Ba	Barium	0	0	0	0
B	Boron	0	1	1	0
Mo	Molybdenum	63	60	62	65
P	Phosphorus	987	938	1000	1131

VISCOSITY INDEX

VI	Viscosity Index	145	150	144	141
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INFRARED (UFM)

ST	Soot	28	21	41	32
OXI	Oxidation	18	16	19	17
SUL	Sulfur Products	21	20	23	21
NIT	Nitration	10	8	10	9

ANTIFREEZE

A	Antifreeze	N	N	N	N
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GLYCOL CONTENT (%)

PGC	Percent Glycol Con	0	0	0	0
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FUEL

F	Fuel	N	N	N	N
---	------	---	---	---	---

WATER

W	Water	N	N	N	N
---	-------	---	---	---	---



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 Email: TIGER@CYPRESS.AB.CA

Interp By: Peter Leggo

EQUIPMENT

CUSTOMER EQUIP NUM : U53005
 SERIAL NUMBER : DV9GLG52010
 MODEL : W4700SB
 MANUFACTURER : WESTERN
 COMPANY NAME : CYPRESS COUNTY
 JOB SITE :
 AREA :
 REGION :

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM : 47192750330444
 COMPARTMENT MODEL :
 LABEL# : 4888546
 SHOP JOB NUM :
 SAMPLE TYPE : OIL
 SAMPLE SHIP TIME (days) : 7
 SAMPLE LOCATION :

**No Action
 Required**

ELEVATED POTASSIUM AND ALUMINUM IS COMMON IN NEW 'C' CLASS ENGINES DUE TO SOLDER USED IN ASSEMBLY OF INTERCOOLER SYSTEM. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #

N030-48312-0240

PROCESS 08-Nov-18
 DATE

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	SI	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
01-Nov-18	N030-48312-0240	2372	597	Y	Y	3	30	7	21	32	6	1	29	1	1	0	0	0	1099	1044	792	0	5	45	868
31-Jan-18	N030-48040-0160	1775	582	Y	Y	3	40	3	24	35	6	0	66	0	1	0	0	0	1156	1364	666	0	8	39	933

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	PGC	F
01-Nov-18	N030-48312-0240	2372	597	PETRO-CAN	DURON	10W-40	Y	Y	14.3	102.5	143	34	17	21	9	N	0	N
31-Jan-18	N030-48040-0160	1775	582	PETRO-CAN	DURON	10W-40	Y	Y	15.4	106.8	152	32	17	22	9	N	0	N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
01-Nov-18	N030-48312-0240	Y	Y	N
31-Jan-18	N030-48040-0160	Y	Y	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PGC = Percent Glycol Content, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.

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Unit Information

Service Information

UNIT: U 53005 Warranty Expiry Date: Service Interval:
 Equip Make: WESTERN STAR Comp Make: DETROIT_DS Work Order No:
 Equip Model: 4700 Comp Model: DD13 Job Site: Default Site
 Equip Serial: 2GLGS2012 Comp Serial: 47192750332698 Branch: Default Site
 Component: ENGINE Sampled Site: Default Site

Customer Comments:
 [Empty Box]

Evaluation Code: **A** Recommendation: **Normal** Date: 24/10/16 Lab Number: N030-46309-0450

Copper alone usually indicates cooler core leaching and is not normally wear of bronze/brass parts. Wear metal analysis indicates acceptable wear rate. Oil condition analysis is acceptable. Initially elevated "break-in" readings will usually improve after the 2nd, 3rd oil drain intervals. Resample at the next service interval.

Days to reach Lab: 11 Interpreted By: Dallas Livingston Analyzed By: dlivingston Label Number: 4490072

Evaluation Code: **A** Recommendation: **Normal** Date: 21/04/16 Lab Number: N030-46118-0252

Wear metal analysis indicates acceptable wear rate. Oil condition analysis is acceptable. Other readings appear to be normal. Resample at the next service interval.

Days to reach Lab: 6 Interpreted By: Peter Lewandowski Analyzed By: pspeed Label Number: 4506813

Sample Information										Sample Reading														
SMU	CMU	Oil Hours	Oil Chg	Filler Chg	Sample Date	Received Date	Oil Brand	Oil Grade	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	ST	OXI	SUL
									Sodium	Potassium	Silicon	Aluminum	Iron	Chromium	Lead	Copper	Tin	Nickel	Silver	Titanium	Vanadium	Soot	Oxidation	Sulfation
Baseline																								
A	412	412	412	N	N	24/10/16	04/11/16	FACTORY	7	18	4	10	45	2	0	393	3	1	1	<0	<0	9	15	18
A	211	211	211	N	N	21/04/16	27/04/16	FACTORY	6	12	4	6	33	1	<0	45	<0	1	1	0	<0	3	14	17

Sample Reading														
NIT	Zn	Ca	Mg	Ba	B	Mo	P	V100	V40	F	W	% Water	% Fuel	GLY
Nitrogen	Zinc	Calcium	Magnesium	Barium	Boron	Molybdenum	Phosphorus	Viscosity	Viscosity	Fuel	Water	Percent W	Percent F	GLY
7	1136	1472	886	<0	36	47	930	14.5	106.3	NT	N	0.00	0.0	NT
A	1134	1382	837	0	29	42	936	14.5	105.5	NT	N	0.00	0.0	NT

CYPRESS COUNTY
 Attn: GREG SJOLIE
 BOX 108
 DUNSMOORE, AB T0J 1A0

P - Positive T - Trace N - Negative NR - Not Required NT - Not Tested

A No Action Required **B** Monitor **C** Action Required **U** Urgent Action Required



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EQUIPMENT

CUSTOMER EQUIP NUM : U53005
 SERIAL NUMBER : DV9GLG52010
 MODEL : W4700SB
 MANUFACTURER : WESTERN
 COMPANY NAME : CYPRESS COUNTY
 JOB SITE :
 AREA :
 REGION :

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM : 750332698
 COMPARTMENT MODEL :
 LABEL#: 200089077
 SHOP JOB NUM : 3066
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 11
 SAMPLE LOCATION :

Interp By: Gregory Scribner

**No Action
 Required**

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #

N030-49322-0313

PROCESS DATE 18-Nov-19

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
07-Nov-19	N030-49322-0313	2145	233	N	N	1	23	2	24	41	4	0	41	1	0	0	0	0	1257	1101	980	0	6	61	950
06-May-19	N030-49136-0022	1912	609	Y	Y	3	98	4	70	74	8	0	97	0	1	1	0	0	1226	1287	768	0	7	51	916
01-Nov-18	N030-48312-0240	2372	597	Y	Y	3	30	7	21	32	6	1	29	1	1	0	0	0	1099	1044	792	0	5	45	868
31-Jan-18	N030-48040-0160	1775	582	Y	Y	3	40	3	24	35	6	0	66	0	1	0	0	0	1156	1364	666	0	8	39	933

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	PGC	F
07-Nov-19	N030-49322-0313	2145	233	PETRO-CAN		10W-40	N	N	14.6	97.6	155	12	15	20	7	N		N
06-May-19	N030-49136-0022	1912	609	PETRO-CAN	DURON UHP	10W-40	Y	Y	14.2	99.6	146	27	17	21	9	N	0.0081	N
01-Nov-18	N030-48312-0240	2372	597	PETRO-CAN	DURON	10W-40	Y	Y	14.3	102.5	143	34	17	21	9	N	0	N
31-Jan-18	N030-48040-0160	1775	582	PETRO-CAN	DURON	10W-40	Y	Y	15.4	106.8	152	32	17	22	9	N	0	N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
07-Nov-19	N030-49322-0313	N	N	N
06-May-19	N030-49136-0022	Y	Y	N
01-Nov-18	N030-48312-0240	Y	Y	N
31-Jan-18	N030-48040-0160	Y	Y	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.

ENGINE

N030-51287-0564
 LABEL#: 200644150
 SHOP JOB NUM : 5026
 SAMPLE SHIP TIME (days) : 7
CYPRESS COUNTY
 RECEIVED DATE: 14-Oct-21

EQUIP NUM: U53005
WESTERN W4700SB
 **No Action Required**

SERIAL NUMBER: DV9GLG52010
COMP SERIAL NUM: 750332698

Interp By: Fluid Interpreter
Interpreted On: 15-Oct-21

WEAR METAL ANALYSIS INDICATES ACCEPTABLE WEAR RATE. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

SAMPLE INFORMATION

	07-Oct-21	24-Aug-21	05-Jul-21	21-May-21
Sampled Date	07-Oct-21	24-Aug-21	05-Jul-21	21-May-21
Sample Id	N030-51287-0564	N030-51245-0110	N030-51193-0230	N030-51152-0102
Lab Date	14-Oct-21	02-Sep-21	12-Jul-21	01-Jun-21
Meter [Hr]	4041	3832	3630	3442
Meter On Fluid	209	583	188	193
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	10W-40	10W-40	10W-40	10W-40
Fluid Type				
Fluid Change	N	Y	N	N
Filter Change	N	Y	N	N
Make Up Fluid []	0		0	

PREVIOUS SAMPLE

ELEVATED ALUMINUM MAY BE SOME ALUMINUM BUSHING; THRUST WASHER; SLEEVE BEARING; PUMP; PISTON OR TURBO WEAR. ALL OTHER WEAR METAL READINGS ARE ACCEPTABLE. RESAMPLE AT THE NEXT SERVICE INTERVAL.

CONDITION / CONTAMINATION

	07-Oct-21	24-Aug-21	05-Jul-21	21-May-21
VISCOSITY (Centistokes)				
V100 Viscosity at 100 C	14.5	14.3	14.2	14.6
VISCOSITY (Centistokes)				
V40 Viscosity at 40 C	96.8	98.1	97.5	99.1

WEAR LEVELS / ADDITIVES

	07-Oct-21	24-Aug-21	05-Jul-21	21-May-21
ELEMENTAL ANALYSIS (ppm)				
Na Sodium	2	1	4	1
K Potassium	5	15	9	8
Si Silicon	2	4	4	3
Al Aluminum	7	23	20	15
Fe Iron	17	44	36	30
Cr Chromium	2	3	2	2
Pb Lead	0	0	0	0
Cu Copper	5	13	12	10
Sn Tin	0	0	0	0
Ni Nickel	0	2	1	1
Ag Silver	0	0	0	0
Ti Titanium	0	0	0	0
V Vanadium	0	0	0	0
Zn Zinc	1261	1255	1228	1200
Ca Calcium	1102	1118	1094	1092
Mg Magnesium	1126	964	848	1043
Ba Barium	0	0	0	0
B Boron	3	2	2	3
Mo Molybdenum	61	56	55	62
P Phosphorus	1062	970	1058	1053

VISCOSITY INDEX

	07-Oct-21	24-Aug-21	05-Jul-21	21-May-21
VI Viscosity Index	155	150	149	153

INFRARED (UFM)

	07-Oct-21	24-Aug-21	05-Jul-21	21-May-21
ST Soot	18	28	19	10
OXI Oxidation	15	18	16	15
SUL Sulfur Products	21	22	21	19
NIT Nitration	7	9	8	7

ANTIFREEZE

	07-Oct-21	24-Aug-21	05-Jul-21	21-May-21
A Antifreeze	N	N	N	N

FUEL

	07-Oct-21	24-Aug-21	05-Jul-21	21-May-21
F Fuel	N	N	N	N

WATER

	07-Oct-21	24-Aug-21	05-Jul-21	21-May-21
W Water	N	N	N	N



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 FAX: 4035268958
 Email: GREG.SJOLIE@CYPRESS.AB.

EQUIPMENT

EQUIP NUM: U53005
 SERIAL NUMBER: DV9GLG52010
 MODEL : W4700SB
 MANUFACTURER : WESTERN
 COMPANY NAME : CYPRESS COUNTY
 JOB SITE :
 AREA:
 REGION:

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM: 750332698
 COMPARTMENT MODEL :
 LABEL#: 200599626
 SHOP JOB NUM : 4150
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 10
 SAMPLE LOCATION :

Interp By: Greg Eyre

**No Action
 Required**

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #

N030-50279-0415

PROCESS 05-Oct-20
 DATE

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	SI	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
25-Sep-20	N030-50279-0415	3058	399	N	N	2	11	3	12	24	2	0	16	0	2	0	0	0	1291	1093	958	0	1	58	1017
05-Aug-20	N030-50224-0173	2854	195	N	N	1	11	2	10	21	2	0	13	1	1	0	0	0	1335	1091	1083	0	1	64	1187
17-Jun-20	N030-50182-0544	2659	747	Y	Y	2	28	3	29	53	4	0	31	0	1	0	0	0	1133	1058	866	0	3	55	886
21-Jan-20	N030-50023-0257	2377	465	N	N	1	29	2	30	46	4	1	48	1	1	0	0	0	1263	1105	882	0	4	58	1017

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	PGC	F
25-Sep-20	N030-50279-0415	3058	399	PETRO-CAN		10W-40	N	N	13.5	96.5	140	23	16	20	8	N		N
05-Aug-20	N030-50224-0173	2854	195	PETRO-CAN		10W-40	N	N	13.7	97.0	143	15	15	20	7	N		N
17-Jun-20	N030-50182-0544	2659	747	PETRO-CAN		10W-40	Y	Y	13.8	96.3	145	32	18	23	10	N	0	N
21-Jan-20	N030-50023-0257	2377	465	PETRO-CAN		10W-40	N	N	13.9	96.7	146	21	16	20	8	N	0	N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
25-Sep-20	N030-50279-0415	N	N	N
05-Aug-20	N030-50224-0173	N	N	N
17-Jun-20	N030-50182-0544	Y	Y	N
21-Jan-20	N030-50023-0257	N	N	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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 FAX: 4035268958
 Email: TIGER@CYPRESS.AB.CA

Interp By: Peter Leggo

EQUIPMENT

CUSTOMER EQUIP NUM : U53005
 SERIAL NUMBER : 2GLGS2012
 MODEL : 4700
 MANUFACTURER : WESTERN_ST
 COMPANY NAME : CYPRESS COUNTY
 JOB SITE :
 AREA :
 REGION :

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM : 47192750332698
 COMPARTMENT MODEL :
 LABEL#: 4884930
 SHOP JOB NUM :
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 7
 SAMPLE LOCATION :

**No Action
 Required**

ELEVATED COPPER LEVEL MAY BE DUE TO INCREASED OIL COOLER CORE LEACHING, NOT WEAR. OIL CHANGE OR NEW FORMULATION CAN RESTART COOLER CORE LEACHING. ELEVATED POTASSIUM AND ALUMINUM IS COMMON IN NEW 'C' CLASS ENGINES DUE TO SOLDER USED IN ASSEMBLY OF INTERCOOLER SYSTEM. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #

N030-48065-0142

PROCESS 06-Mar-18
 DATE

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
27-Feb-18	N030-48065-0142	1309	684	Y	Y	6	131	5	85	82	11	0	228	2	1	1	0	0	1170	2112	202	0	30	12	880
18-Dec-17	N030-48018-0018	1087	465	N	N	4	75	4	51	58	8	0	218	0	1	1	0	0	1106	2025	211	0	37	12	894
16-Mar-17	N030-47081-0842	860	238	N	N	5	41	3	28	30	4	1	190	<0	1	1	0	<0	1119	2032	208	0	73	11	929
21-Dec-16	N030-47010-0435	622	622	Y	Y	7	24	5	13	44	2	1	328	<0	1	1	0	<0	1090	1353	785	0	35	42	866

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	PGC	F
27-Feb-18	N030-48065-0142	1309	684	PETRO-CAN	UNKNOWN	10W-40	Y	Y	14.8	102.5	150	28	18	22	9	N	0	N
18-Dec-17	N030-48018-0018	1087	465	PETRO-CAN	UNKNOWN	10W-40	N	N	14.9	104.3	149	18	16	20	7	N	0.0085	N
16-Mar-17	N030-47081-0842	860	238	PETRO-CAN	DURON-E	10W-40	N	N	14.8	101.8	10	14	18	6	N			NT
21-Dec-16	N030-47010-0435	622	622	FACTORYFIL	UNKNOWN		Y	Y	14.8	107.5		15	17	20	8	N		NT

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
27-Feb-18	N030-48065-0142	Y	Y	N
18-Dec-17	N030-48018-0018	N	N	N
16-Mar-17	N030-47081-0842	N	N	N
21-Dec-16	N030-47010-0435	Y	Y	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PGC = Percent Glycol Content, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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