Fuel Management Audit Report 2025

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BRAMPTON

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Executive Summary

Background

The City of Brampton's Fleet Services division manages fuel operations to support City departments that rely on gasoline and diesel-powered vehicles and equipment, with the exception of Fire & Emergency and Brampton Transit. Fuel is supplied through five on-site diesel fuelling stations as well as the off-site fuel card program for off-site refuelling. Between 2021 and 2024, the City spent approximately $6 million on fuel, with 55% attributed to on-site fuelling and 45% through the off-site fuel card program.

On-site fuelling is managed through two systems: the legacy Coencorp Site Manager and the newer AssetWorks Fuel Management System, which is being gradually implemented across sites and integrates directly with the City's M5 fleet management system. Fuel inventory levels are monitored daily, with deliveries verified using both automated system readings and manual measurements to ensure accuracy.

Off-site fuelling relies on fuel cards assigned to specific vehicles. Employees must input vehicle and mileage data at the pump, and Fleet Administration reviews the transactions and manually records the mileage into M5.

The audit was initiated as part of the 2025 audit plan and follows the last full-scope review conducted in 2019.

Audit Objectives

The audit aimed to assess whether Fleet Services has established effective controls and processes to support accountable and efficient fuel management operations. Specifically, the audit examined whether:

- appropriate policies and procedures are in place to ensure effective, consistent, and accountable fuel management.
- fuel inventory levels are properly monitored and replenished in a timely and controlled manner.
- access to on-site diesel fuelling is appropriately restricted and fuel activity is adequately monitored.
- off-site fuel cards are properly issued, managed, and monitored to prevent unauthorized use and ensure accountability.
- off-site fuel activity is effectively monitored and related payments are accurate, properly reviewed, and approved.

What We Recommend

This audit report recommends the following actions to improve fuel management operations:

1. **Strengthen the Process for Monitoring On-Site Fuel Usage**
   Implement a formal process to proactively monitor on-site fuel usage and detect irregularities, such as short-interval fuel-ups. This includes leveraging transaction reports generated by Coencorp and AssetWorks systems to support timely investigations and enhance accountability.

2. **Optimize Mileage Data Capture**
   Prioritize timely repairs of Vehicle Data Units (VDUs) and explore integration of Automatic Vehicle Location (AVL) with the M5 system to improve mileage data capture.

3. **Implement Annual Vehicle Level Fuel Efficiency Analysis**
   Conduct annual fuel consumption analyses at the vehicle level to monitor usage patterns and identify fuel inefficiencies.

4. **Strengthen Oversight of the Off-site Fuel Card Program**
   Enhance monitoring and follow-up of fuel card transactions to improve off-site fuel management. This includes improving access to analyzable fuel data, providing fuel transaction data to user groups and ensuring the availability of user-specific information to support transparency, accountability, and effective oversight.

5. **Improve Inventory Monitoring for On-site Fuel Tanks**
   Establish a documented formal monthly fuel reconciliation process at all fuelling sites. This includes reviewing system-generated reports, comparing them against manual dip readings, and defining acceptable variance thresholds to trigger follow-up actions and ensure robust inventory control.

Conclusion

Overall, several foundational controls are in place to support effective fuel management across City operations. Notable strengths include dual authorization for on-site fuelling, robust physical security around fuel storage tanks, and the use of automated systems – Coencorp, AssetWorks, and the off-site fuel card program for capturing fuel transactions.

However, this audit identified key areas where oversight, data accuracy, and accountability can be strengthened. Specifically, the lack of exception-based monitoring and regular fuel consumption analysis, limited oversight of off-site fuel card usage, and the absence of routine fuel inventory reconciliations present risks to operational efficiency and fuel accountability.

Implementing the recommendations outlined in this report will enhance Fleet's ability to detect anomalies, improve the reliability of fuel data, and streamline fuel management processes. These improvements will support stronger accountability across user departments and provide more accurate information to guide operational and financial decision making.

Management Action Plans

Management has reviewed the findings and agrees with all recommendations. Action plans have been developed to address each recommendation accordingly.

Thank You to Management and Staff

We appreciate the cooperation and assistance of the management and staff of Fleet during the audit.

Distribution List

Standard Recipients	Members of Audit Committee CAO Members of Council Members of Leadership Team KPMG LLP, Chartered Accountants (Statutory Auditor) Maria Khoushnood, Partner, Private Enterprise
Additional Recipients	Road Maintenance, Operations and Fleet • Shane Loftus, Director, Road Maintenance, Operations and Fleet • Angelo Mancuso, Manager, Fleet

Background

Fuel management is essential to support the operating needs of City divisions that operate gasoline or diesel-powered vehicles and equipment. Fleet Services manages the fuel for all City vehicles, with the exception of Fire & Emergency and Brampton Transit. City vehicles can access fuel through on-site fuelling stations and via an off-site fuel card program, ensuring convenient fuel access to all operating departments.

The City operates five on-site diesel fuelling stations using two systems: Coencorp, the legacy system, and AssetWorks, the newly integrated system, which is expected to be fully implemented across all stations by 2026.

The City operates five on-site diesel fuelling stations located at Sandalwood, Williams Parkway, Teramoto, Glidden, and a seasonal site at Chinguacousy Park. A single vendor supplies fuel for all stations. On-site fuelling activities are managed using two systems:

- **Coencorp Site Manager System (legacy system)**: This system uses Vehicle Data Units (VDUs) to automatically detect vehicle identification and mileage data. Employee ID cards are required to authorize fuelling.

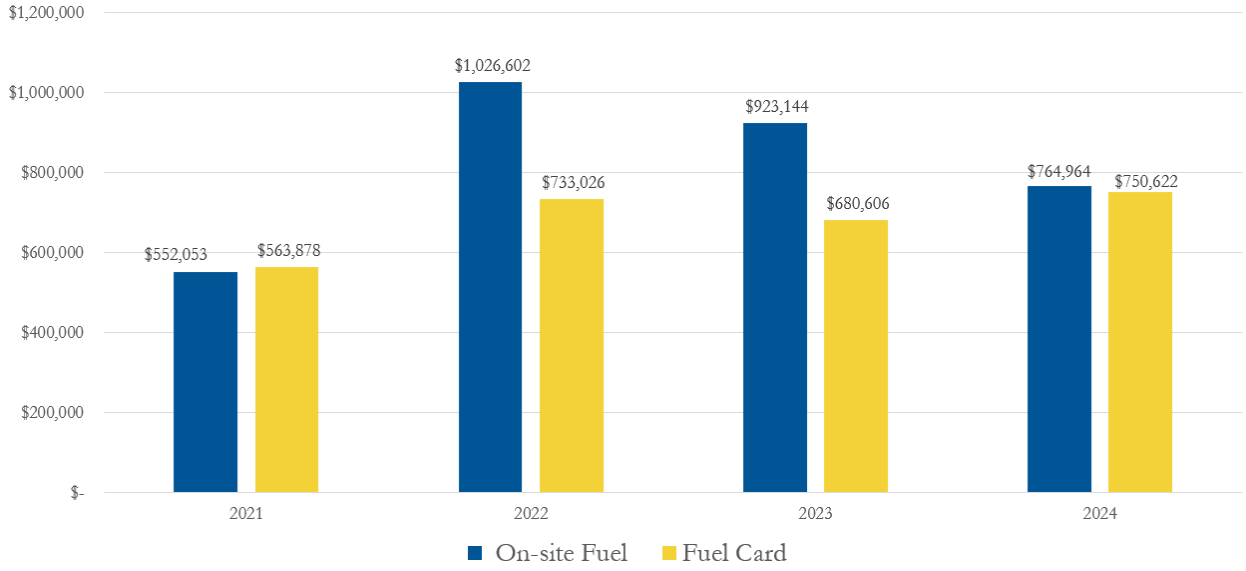
- **AssetWorks Fuel Management System (new system**): Introduced through a pilot project, this system uses fuel ring sensors for automated vehicle identification and transmits fuelling data directly to the M5 fleet management system. AssetWorks was implemented at Glidden in early 2024 and at Teramoto in January 2025, with testing currently underway at Chinguacousy Park. Full implementation across all five fuelling stations is expected by the end of 2026.

In addition to on-site fuelling, the City utilizes the off-site Fuel Card Program to support off-site fuelling. Off-site fuel cards are assigned to specific City vehicles and used at off-site commercial gas stations. Authorized employees must input the vehicle unit number and mileage at the pump. Transaction data is monitored by Fleet Administration, with mileage data manually entered into M5.

Between 2021 and 2024, the City spent approximately $6 million on fuel, with 55% of expenditures attributed to on-site diesel fuelling and 45% to the Off-site Fuel Card Program.

Between 2021 and 2024, the City spent approximately $6 million on fuel, with 55% of expenditures attributed to on-site diesel fuelling and 45% to the Off-site Fuel Card Program. Figure 1 provides a breakdown of fuel spending over the past four years.

Figure 1. Fuel Consumption



There are currently 7 full-time permanent employees in Fleet Administration including one Supervisor, Administration, one Analyst, Fleet, one Clerk, Fleet & Traffic Outside Services, two Maintenance Persons and two Technicians, Fleet. All administration staff report to the Supervisor, Administration, who reports to the Manager, Fleet.

Fuel inventory is monitored daily and reconciled against deliveries to ensure accurate ordering, verification, and payment.

Fuel Inventory Management

Fuel levels in on-site tanks are monitored daily using the Site Manager system. When inventory reaches a predetermined threshold, Fleet Administration places fuel orders via email to the City's fuel vendor. Ordering frequency varies based on operational needs and seasonal consumption trends. Upon delivery, the fuel vendor conducts pre and post-delivery dip readings, which are verified against Site Manager data by Fleet staff. Any discrepancies are addressed through additional manual checks. Fuel pricing is determined by market rates on the order date and is reflected on the vendor's delivery slip. Invoices and delivery slips are reviewed and reconciled to recorded volumes before payment is processed and are retained in physical files for records.

On-site fuelling requires dual verification of both employees and vehicles, with transaction data automatically recorded in M5.

On-site Fuelling

The on-site fuelling process begins when a City vehicle arrives at a fuelling station. To initiate fuelling, the system identifies the vehicle automatically through the VDU. The vehicle operator is required to swipe their employee ID card. The system validates both the employee's and the vehicle's credentials to ensure that the individual is authorized correctly and the vehicle is eligible for fuelling. Fuelling is permitted only after this verification is completed. Once fuelling is finished, the system captures key transaction data, including employee ID, vehicle unit number, mileage, and fuel volume and transmits it to the City's fleet management system, FleetFocus M5, for tracking, reporting, and reconciliation.

During system outages, fuelling is done manually, with operators required to enter key details to maintain accountability.

In instances of a system outage or equipment failure, a manual fuelling mode is available. In this mode, the automatic recognition of vehicle ID, mileage, and employee credentials is bypassed. However, the operator is still required to manually enter their employee number, vehicle unit number, and vehicle mileage into the system to maintain control and accountability. The fuelling of jerry cans follows a comparable process, where each can is assigned a unique identifier, and the operator must swipe their employee ID and manually enter the jerry can number to access fuel. Fuel consumption through jerry cans is also recorded and tracked in M5.

Fleet Administration centrally manages all fuel cards, including those for vehicles and jerry cans.

Off-site Fuel Card Management

Fuel cards are issued and managed centrally by Fleet Administration as part of the vehicle commissioning process. In addition to standard vehicle-assigned cards, miscellaneous fuel cards are issued for the filling of plastic containers (jerry cans) used to fuel equipment that cannot easily be transported to a fuelling site. These miscellaneous cards are issued to and managed by designated supervisors within each operational unit. Requests for fuel card replacement or cancellation, due to loss, damage, or vehicle decommissioning, are also administered by Fleet Administration. Fuelling privileges are granted only to employees with a valid City-issued driver permit, and access is revoked when an employee departs the City. Access to the off-site card management system is restricted to designated Fleet Administration personnel.

Off-site fuelling is conducted through the off-site fuel card program, which requires employees to manually enter the vehicle unit number and mileage details.

Off-site Fuelling

Off-site fuelling is facilitated through the off-site fuel card program, with cards assigned to specific City vehicles. Authorized employees use these cards at commercial fuelling stations, where they are required to input the vehicle unit number and current mileage at the pump. This information is also manually recorded on fuel receipts, which are submitted to the user department supervisors for review.

Fleet Administration reviews the monthly Purchase Activity Reports retrieved from the off-site fuel vendor portal. If instances of excessive fuel card usage are identified, they are followed up with the respective user departments. Due to the absence of direct system integration, mileage data is manually entered into M5 based on vendor reports.

The fuel management audit is part of the approved 2025 audit plan. The last full scope fuel management audit was completed in 2019.

Detailed Audit Findings

A. Strengthen Monitoring Process for On-site Fuel Use

Priority Rating **P2**

Background

Fleet manages on-site fuel dispensing for 11 fuel tanks at 5 City locations. On-site fuelling is handled through the Coencorp or AssetWorks system, depending on the fuelling site. To initiate fuelling, operators are required to swipe their employee ID card and use a vehicle-specific key fob to validate both their identity and the associated vehicle. Once authorization is granted, the system automatically logs the transaction, capturing detailed data including the date, time, vehicle unit number, employee ID, pump and tank location, odometer reading, and the volume of fuel dispensed (measured in litres). This dual authorization process helps ensure that fuel is only dispensed by authorized personnel for designated City vehicles. A fuel transaction report showing all fuel activity can be run at any time by Fleet in both the Coencorp and AssetWorks systems.

Criteria

On-site diesel fuelling activity should be actively and consistently monitored to ensure that all transactions reflect valid, authorized usage. Exceptions such as short-interval fuel-ups should be detected and investigated promptly.

Condition

Internal Audit reviewed on-site fuel transaction data from 2022 to 2024 and identified multiple instances where the same vehicle was fuelled multiple times within a short time interval. These short-interval fuel-ups raise potential red flags for split transactions or improper fuelling practices.

Upon discussion with Fleet Administration, possible explanations included:

- The operator may have unintentionally stopped and restarted the fuelling process, resulting in two separate system entries.
- The operator may have fuelled up a vehicle as well as a rear tank or jerry can in two separate transactions, but entered the vehicle unit number for both fill-ups instead of the rear tank or jerry can unit number.

Operators are required to use designated key fobs that correspond to the specific unit numbers for rear tanks and jerry cans, separate from those assigned to City vehicles, to ensure accountability and traceability. In addition, vehicles are expected to complete fuelling in a single continuous transaction.

Given the age of the data and absence of exception reports, it is now difficult to conclusively determine the root cause of these anomalies. However, this highlights a need for after-the-fact data analytics and exception monitoring to detect and investigate such cases promptly.

Fleet should implement a formal exception monitoring process to flag irregular fuelling activity, such as short-interval fuel-ups, to ensure timely review and investigation.

Fleet should enforce the use of designated key fobs assigned specifically to jerry cans and rear tanks to ensure accurate tracking of fuel usage.

Cause Staff advised that the current process emphasizes preventative controls at the point of fuelling, specifically employee ID and vehicle key fob validation. However, they do not fully employ detective controls, such as exception-based monitoring. Staff also noted that resource limitations and competing operational priorities have impacted their ability to develop analytical tools to identify short-interval refuelling or improper use of jerry cans.

Impact In the absence of exception-based monitoring, irregular fuelling activities such as unauthorized use or improper jerry can transactions may go undetected. The lack of post-transaction analysis limits Fleet's ability to identify potential fuel misuse or operational inefficiencies in a timely and effective manner.

Recommendation:

1. **Strengthen the Process for Monitoring On-Site Fuel Usage**

   The Director, Road Maintenance, Operations and Fleet should implement an exception-based monitoring process to flag irregular fuel usage, enabling the timely detection of potential misuse and supporting greater accountability.

Management Response: ☒ Agree ☐ Disagree

Comments/Action Plan

Fleet currently provides fuel FOBs and training to staff who require access to the onsite fueling systems. Business System (IT) is currently installing a new fueling system in 3 of the 5 fuel sites.

1. Fleet will implement a report that identifies fueling expectations and irregularities and will follow up with the user groups when required.

2. Fleet is also working with Business Systems (IT) to implement system controls at the pump that will not allow consecutive fuel ups under the same FOB in a restricted time frame. This will prevent short interval fuel ups.

Fleet is also working with Business Systems (IT) to review any additional safeguards and reports that can be added to help strengthen the review process. Fleet may also require additional staffing to enhance any additional monitoring.

Timeline:

- Item 1: Q3 - Q4, 2026
- Item 2: Q4, 2025 - Q1, 2026

B. Enhance Vehicle Mileage Capture and Fuel Analysis

Priority Rating **P2**

Background Fleet relies on mileage data to monitor diesel fuel consumption and support operational planning. For on-site fuelling, Vehicle Data Units (VDUs) capture odometer readings at the fuel pump and transmit this data to M5 through the Coencorp system. This data feeds the Consumption Statistics (Vehicle) report, which is reviewed monthly to compare vehicle-level fuel use. Most Fleet vehicles are also equipped with Automatic Vehicle Location (AVL) systems that track location and mileage. However, AVL is not currently integrated with M5 and does not support fuel reporting. For off-site fuelling at vendor's fuelling stations, operators enter odometer readings manually at the pump and the mileage is manually entered into M5 by Fleet staff based on the monthly report.

Criteria Mileage should be accurately and consistently captured to ensure reliable tracking and oversight. Captured data should be regularly analyzed using metrics such as litres per kilometre to benchmark vehicle performance, identify inefficiencies, detect anomalies, and support data-driven decisions.

Condition We reviewed the mileage collection process and identified several limitations that impact the accuracy and consistency of fuel consumption monitoring.

- Non-Functional VDUs: At the time of the audit, 48 VDUs were found to be non-operational, limiting the automated capture of odometer readings during on-site fuelling. While this reflects progress from the 88 non-functional VDUs reported in the 2023 Fleet Maintenance Audit, a significant portion of the fleet still lacks reliable automated mileage tracking.

- Limited Integration of AVL Systems: Although the majority of fleet vehicles are equipped with AVL systems capable of tracking mileage, AVL is not integrated with M5 and does not feed into the Coencorp Consumption Statistics (Vehicle) report. Consequently, AVL mileage data is not currently utilized to support fuel consumption analysis.

- Manual Data Entry for Off-Site Fuelling: For off-site fuelling at off-site vendor fuelling stations, operators manually input odometer readings at the pump. This information is then manually transferred into M5 by Fleet technical staff based on monthly reports. The reliance on manual processes at two stages increases the risk of data entry errors and inconsistencies.

- Lack of Annual Fuel Efficiency Analysis: Although Fleet conducts monthly comparisons of fuel consumption by vehicle, it does not perform annual litres-per-100-kilometre (L/100 KM) analysis, a common fuel efficiency metric in Canada, at the individual vehicle level. The absence of this analysis limits the City's ability to detect long-term trends, inefficiencies, or red flags indicative of improper fuelling practices or mechanical issues.

Fleet should prioritize the proactive repair or replacement of non-functional VDUs to ensure consistent and automated odometer data capture across the fleet. They should also explore opportunities to integrate mileage data from the more accurate and reliable AVL system into the fuel consumption analysis.

Fleet should work toward minimizing reliance on manual data entry for off-site fuelling mileage by exploring options for partial automation or enhanced data validation controls, which would help reduce input errors and improve the reliability of off-site fuelling records.

Fleet should also implement an annual litres-per-100 kilometre (L/100 KM) analysis at the individual vehicle level to support ongoing monitoring of fuel efficiency. Conducting regular L/100 KM reviews would enable Fleet to benchmark vehicle performance and identify anomalies or inefficiencies.

Cause Staff advised VDU repairs are performed during vehicle maintenance, leading to gradual rather than proactive restoration. VDUs are also often unplugged during off-site servicing at dealerships and not reconnected upon return, contributing to extended downtime. Although most vehicles are equipped with AVL, it is not currently integrated with M5. Additionally, the City's off-site fuelling vendor does not support automated data transfer or provide exportable data formats, requiring Fleet staff to manually enter kilometres into M5.

Impact The lack of consistent and automated mileage capture, combined with the absence of a litres-per-kilometre analysis, reduces Fleet's ability to monitor fuel efficiency. This creates potential blind spots in detecting irregular usage, identifying mechanical issues, or flagging inappropriate fuelling patterns.

Recommendation:

2. **Optimize Mileage Data Capture**

   The Director, Road Maintenance, Operations and Fleet should optimize mileage data capture by prioritizing the repair of non-functional Vehicle Data Units, exploring integration of Automatic Vehicle Location data with M5, and reducing reliance on manual data entry.

3. **Implement Annual Vehicle Level Fuel Efficiency Analysis**

   The Director, Road Maintenance, Operations and Fleet should implement annual vehicle-level fuel efficiency analyses to identify and investigate vehicles with poor fuel efficiency, which may indicate mechanical issues or potential fuel misuse.

Management Response: ☒ Agree ☐ Disagree

Comments/Action Plan

1. Fleet is tracking and repairing the non-functional Vehicle Data Units (VDU's) on an ongoing basis. We are currently working with Business Systems (IT) and AVL team to find an alternative and robust system to capture accurate mileage for all COB fleet vehicles. Fleet is currently running a small pilot on 10 licensed vehicles to extract mileage and ensure it is compatible with M5 and CoenCorp (onsite fuel system).

2. Fleet will implement an annual fuel consumption report based on the current usage report. The analysis will be based on L/100km and any high or low consumption will be investigated as necessary.

Timeline:

- Item 1: Q3, 2026
- Item 2: Q4, 2025

C. Enhance Oversight of the Off-site Fuel Card Program

Priority Rating **P2**

Background Fleet issues fuel cards to authorized fleet users for off-site fuelling. The use of these cards is governed by Fleet's standard operating procedure (SOP), *Use of Commercial Fuel Purchasing Card*. A monthly Purchase Activity Report is provided for each card, accessible through the vendor's portal. These reports contain detailed transaction-level data, including the date, time, fuelling location, unit number, odometer reading, fuel type, litres dispensed, unit cost, and total amount. Access to the portal is limited to 6 Fleet staff. All reports are delivered in PDF format.

Criteria Fleet and business units should have a coordinated and comprehensive approach to monitoring off-site card usage in order to identify irregular fuelling activity. Access to complete, analysable data should be available to support oversight and ensure compliance with fuel policies.

Condition A review of the off-site fuel card monitoring process noted the following:

1. No formal process to follow up with business units on potential fuelling exceptions. A review of off-site fuel card transaction data from 2022 to 2024 noted:

- 324 transactions were conducted at off-site fuel stations outside of Brampton, totalling $26,827 across 75 cities. The majority of these transactions occurred at locations within the Greater Toronto and Hamilton Area (GTHA), while the other transactions occurred in other areas of Ontario, as well as 7 out-of-province fuel-ups. The transactions outside of the GTHA are due to city vehicles being taken to repair facilities, auctions or being used for work-related conferences or training. According to Fleet staff, if they are not aware of the reason for out-of-town travel, they will contact the operator. However, there is no form or email to support the inquiry.

- $25,494.48 was spent on Super Unleaded Ethanol (10% blend) and $3,376.11 on Unleaded Super. Both fuel grades are considered premium fuel types not typically required by the City's fleet. These premium fuel-ups are not flagged or followed up with the operator.

2. Business units do not receive Purchase Activity Reports from off-site fuel vendor. The monthly report is uploaded to the portal, which only Fleet Administration has access to. Instead, business units rely on operators manually submitting receipts or ad hoc phone calls from Fleet to inform them of any suspected exception usage. This approach by business units to monitor fuel usage is inconsistent and dependent on the employee submitting their receipts.

3. Off-site reports are not provided in a user-friendly format. All off-site reports in the portal are provided only in PDF format, which presents a significant barrier to data analysis. The inability to convert the data into a usable format (e.g., Excel or CSV) severely limits Fleet Administration's ability to analyze data and detect fuelling anomalies, such as short interval refuelling or unauthorized employee usage. Additionally, the portal only provides access to the most recent 24 months of transaction data, which further limits the ability to conduct historical analysis and long-term trend evaluation.

4. Employee ID is not captured for fuel transactions. At the pump, operators are required to enter their unit number and mileage, however, they are not prompted to input their employee ID. As a result, the Purchase Activity Report does not capture any employee information. This limitation restricts Fleet's ability to directly associate fuel transactions with individual employees, posing challenges in ensuring accountability and following up on specific fuel transactions.

Fleet administration should have a standardized process for identifying and following up on out-of-Brampton fuel-ups and the use of premium fuels, which should include sending an email or form to the operator and their supervisor.

Monthly off-site Purchase Activity reports should be filtered and shared with business units either by Fleet administration or, if possible, directly from the vendor. This will allow business units to obtain a comprehensive view of their staff's fuelling activity, even if manual receipts are not submitted.

The vendor should be engaged, and a request should be made for monthly reports to be available in CSV or Excel format, in addition to the existing PDF format. This will improve data usability and make it easier for fleet to analyze fuel data.

The off-site fuel card program should be enhanced to require drivers to enter their employee ID or a unique identifier when using the fuel card. This would improve traceability and support more effective monitoring of fuel transactions.

Cause Staff advised that ongoing staff shortages and the high volume of monthly transactions have made it difficult to effectively monitor fuel activity. Access limitations and the static report format further contribute to this challenge.

Impact The lack of a formal fuel monitoring process, limited fuel transaction information for business units, the lack of fuel data in an analyzable format, and the absence of employee information increase the risk that unauthorized or irregular fuelling will go undetected.

Recommendation:

4. **Strengthen the Oversight of the Off-site Fuel Card Program**

   The Director, Road Maintenance, Operations and Fleet should strengthen the off-site fuel card program by implementing formal processes to improve oversight, accountability, and data usability. Specifically, the program should be enhanced by:

   a. Establishing a formal procedure for following up on fuelling exceptions, including out-of-town transactions and use of premium fuel types, with documented communication (e.g., standardized forms or emails) to support inquiries and responses.

   b. Providing business units with regular access to fuel purchase activity reports to support operation level monitoring and shared accountability.

   c. Working with the vendor to obtain fuel transaction data in an analyzable format (e.g., Excel or CSV) to facilitate fuel review and analysis.

   d. Exploring enhancements to capture operator-specific information such as employee ID at the time of fuelling to improve traceability and support effective monitoring of fuel transactions.

Management Response: ☒ Agree ☐ Disagree

Comments/Action Plan

1. Fleet will implement a formal process to review and follow up on all exceptions, such as out of town fueling and premium fuel types. User groups to provide explanations for the transactions.

2. Fleet will explore options available to provide monthly off-site fuel reports to the respective user groups to enable the review of offsite fuel transactions at the operational level.

3. Fleet will work with our current off site fuel provider to generate reports in excel.

4. Fleet will implement additional tracking of offsite fueling to enable user identification such as employee ID.

Timeline: Q4, 2025

D. Establish A Standard Fuel Inventory Reconciliation Process

Priority Rating **P2**

Background

The City currently operates two fuel management systems to manage diesel fuel inventory: the legacy Coencorp system and the recently integrated AssetWorks system. Both systems incorporate manual dip readings as part of inventory verification.

The Coencorp system can generate inventory reconciliation reports, which compare fuel consumption calculated from tank gauging with consumption based on transaction records i.e. fuel dispensed through pumps. A negative variance, where gauged consumption exceeds transaction-based records, could suggest potential fuel losses due to unrecorded withdrawals, leaks or unauthorized usage. Conversely, a positive variance, where gauged consumption is less than transaction-based consumption, may indicate issues such as tank sensor errors or inflated fuel usage due to transaction capture errors.

The AssetWorks system includes functionality to generate a Tank Sticking Journal report. The report compares automated stick readings, which are electronic measurements of fuel levels in storage tanks through sensors, with calculated inventory levels based on recorded deliveries and fuel consumption. This report, along with the Product Issue Journal, which details all recorded fuel transactions, can be used to perform the monthly fuel inventory reconciliation.

Criteria

Fuel inventory should be reconciled monthly through a documented process that includes:

- Comparing consumption based on fuel transactions with consumption based on fuel deliveries and tank gauging
- Verifying manual dip readings against system-recorded inventory levels to confirm accuracy
- Investigating discrepancies that exceed defined variance thresholds to detect issues such as leaks, gauge errors, or unrecorded transactions

Condition A review of the reconciliation process for on-site fuel inventory noted the following:

1. For Coencorp-managed sites, inventory reconciliations are not being performed or reviewed. There were no Coencorp inventory reconciliation reports run between 2022 and 2024, despite the system's capability to produce them. Since this process is not being actively monitored, no variance thresholds have been established to flag discrepancies for investigation.

   Internal Audit examined Coencorp reconciliation reports for three selected months across six tanks (18 total samples). In two cases, the variance between consumption calculated using inventory tank levels and consumption based on fuelling transactions exceeded 5%. Variances over a certain threshold should trigger an investigation since a negative variance may indicate potential tank leakage or unrecorded withdrawals, whereas a large positive variance could point to gauging errors.

2. For AssetWorks managed sites, Fleet is not fully utilizing the system's reporting capabilities to perform fuel inventory reconciliations. AssetWorks provides tools such as the Tank Sticking Journal Report and the Product Issue Journal, which can support effective monthly reconciliation. However, these reports are not regularly reviewed, and no reconciliations have been performed by comparing recorded fuel consumption against automated tank readings and delivery data.

   Fleet should generate and review monthly inventory reconciliation reports from the Coencorp system and ensure that reconciliation procedures are performed for AssetWorks-managed sites. Regular reconciliation will enhance oversight and enable timely identification of discrepancies in fuel inventory.

3. While Fleet staff perform manual dip readings at both Coencorp and AssetWorks sites, these readings are not stored in a centralized location, and the comparison between manual readings and system-recorded inventory levels is not documented.

Fleet should centralize the collection of the manual dip readings and formally document the comparison between manual measurements and system-recorded inventory levels. Establishing a standardized process for capturing and evaluating this data will improve traceability and validate on hand fuel quantities.

4. There is no formal SOP that outlines roles, responsibilities, or the required steps for performing fuel inventory reconciliations.

   Fleet should develop a formal SOP for fuel inventory reconciliation that outlines roles, responsibilities, variance thresholds and investigation protocols to strengthen accountability and promote consistent practices across all fuelling sites.

Cause Staff advised due to staff shortages and the fact that there are 11 different fuel tanks, it has been an ongoing challenge to stay on top of the monthly fuel reconciliations. Recent efforts have prioritized the rollout and stabilization of the AssetWorks system, resulting in decreased attention to reconciliation activities at Coencorp sites.

Impact The lack of a consistent, standardized fuel reconciliation process weakens fleet's ability to monitor diesel fuel inventory accurately. This increases the risk that discrepancies, including leaks, unauthorized usage, or delivery errors, will go undetected.

Recommendation:

5. Improve Inventory Monitoring for On-Site Fuel Tank

The Director, Road Maintenance, Operations and Fleet should implement a standardized monthly fuel inventory reconciliation process across all fuelling sites to strengthen oversight and enable timely identification and investigation of discrepancies. Specifically, the process should include:

a. Generating and reviewing monthly reconciliation reports from both Coencorp and AssetWorks systems

b. Establishing defined variance thresholds that trigger follow-up actions and investigations to address potential issues such as unrecorded withdrawals, or gauging errors.

c. Centralizing the collection and storage of manual dip readings and formally documenting comparisons between manual measurements and system recorded inventory levels.

d. Developing a formal SOP that outlines staff roles, responsibilities, reconciliation steps, documentation requirements, and investigation protocols.

Management Response: ☒ Agree ☐ Disagree

Comments/Action Plan

1. Fleet will formalize the fuel reconciliation process, including the review of the monthly reconciliation reports from both CoenCorp and Asset Works fuel systems.

2. The formalized process will include defined variance thresholds that trigger follow ups for potential fuel tank and recording issues.

3. Fleet will centralize the collection of the monthly manual dip readings and document the comparison between the manual and fuel system inventory levels.

4. Fleet will develop a formal SOP that addresses all areas of the fueling reconciliation process.

Timeline: Q4, 2025

Audit Objectives, Scope and Methodology

Objectives

The audit assessed whether Fleet Services has established effective controls and processes to support accountable and efficient fuel management operations. Specifically, the audit examined whether:

- Appropriate policies and procedures are in place to ensure effective, consistent, and accountable fuel management.
- Fuel inventory levels are properly monitored and replenished in a timely and controlled manner.
- Access to on-site diesel fuelling is appropriately restricted and fuel activity is adequately monitored.
- Off-site fuel cards are properly issued, managed, and monitored to prevent unauthorized use and ensure accountability.
- Off-site fuel activity is effectively monitored and related payments are accurate, properly reviewed, and approved.

Scope

Our audit scope covered fuel activity for the period of January 1, 2022 to December 31, 2024.

Methodology

Our audit methodology included the following:

- reviewing policies and standard operating procedures guiding fuel management
- interviewing staff involved in the fuel management process
- conducting sample testing and data analytics to assess efficiency, effectiveness and compliance of fuel management activities
- conducting site visits to observe fuelling practices and system functionality.

Appendix 1: List of Figures and Tables

List of Figures

Figure 1. Fuel Consumption 7

Appendix 2: Criteria for Assigning Ratings to Audit Findings

Priority Rating	Description
Priority 1 (P1)	One or more of the following conditions exist that require immediate attention of the Senior Leadership Team. Corrective actions by Senior Management must be implemented. • Financial impact of both actual and potential losses is material • Management's actions, or lack thereof, have resulted in the compromise of a key process or control, which requires immediate significant efforts and/or resources (including time, financial commitments, etc.) to mitigate associated risks. Failure by Management to remedy such deficiencies on a timely basis will result in the City being exposed to immediate risk and/or financial loss • One more of the following conditions is true: i) management failed to identify key risks, ii) management failed to implement process and controls to mitigate key risks • Management's actions, or lack thereof, have resulted in a key initiative to be significantly impacted or delayed, and the financial support for such initiative will likely be compromised • Management failed to implement effective control environment or provide adequate oversight, resulting in a negative pervasive impact on the City or potential fraudulent acts by City staff • Fraud by Management or staff, as defined by the *Corporate Fraud Prevention Policy* (Policy 2.14)

Priority 2 (P2)	One or more of the following conditions exist that require attention by Senior Management. Corrective actions by Management should be implemented. • Financial impact of both actual and potential losses is significant • Management's actions, or lack thereof, may result in a key process or control to be compromised, which requires considerable efforts and/or resources (including time, financial commitments etc.) to mitigate associated risks • Management correctly identified key risks and have implemented processes and controls to mitigate such risks, however, one or more of the following is true: i) the processes and controls are not appropriate or adequate in design, ii) the processes and controls are not operating effectively on a consistent basis • Management's actions, or lack thereof, have impacted or delayed a key initiative, and the funding for such initiative may be compromised • Management failed to provide effective control environment or oversight on a consistent basis, resulting in a negative impact on the respective division, or other departments • Management failed to comply with Council-approved policies, by-laws, regulatory requirements, etc., which may result in penalties • Management failed to identify or remedy key control deficiencies that may impact the effectiveness of anti-fraud programs
Priority 3 (P3)	One or more of the following conditions exist that require attention by Management. Corrective actions by Management should be implemented. • Financial impact of both actual and potential losses is insignificant • A non-key process or control, if compromised, may require some efforts and/or resources (including time, financial commitments, etc.) to mitigate associated risks • Processes and controls to mitigate risks are in place; however, opportunities exist to further enhance the effectiveness or efficiency of such processes and controls. Management oversight exists to ensure key processes and controls are operating effectively • Minimal risk of non-compliance to Council-approved policies, by-laws, regulatory requirements, etc. • Low impact to the City's strategic or key initiative • Low impact to the City's operations