



AGENDA
TOWN OF TWO HILLS
Tuesday February 10th, 2026
6:30 P.M.

Regular Council Meeting

- 1) CALL TO ORDER
- 2) ADOPTION OF AGENDA
- 3) ADOPTION OF MINUTES
 - a) Minutes from January 26th, 2026 - Council Meeting
- 4) DELEGATION
- 5) OPEN FORUM
- 6) ADMINISTRATIVE REPORTS
 - (a) Public Works and Water, Wastewater Report
 - (b) CFO Report
 - (c) EDO Report
 - (d) CAO Report
- 7) CORRESPONDENCE
- 8) OLD BUSINESS
 - a) Icom/Englobe Quote - Arena Ice Plant Room Modification - A change in the Building Code now requires engineered drawings.
 - b) Meeting Minutes from November 26th, 2025, error in Motion #2025-356 and Motion #2025-360 has been clarified.
 - c) Meeting with County Council to Review Fire Billing - Date and time to be confirmed.
 - d) YOLO Nomads letter for renewal and Stats on Website Visits - renew or terminate membership
 - e) Special Meeting to review and finalize the Strategic Plan.
- 9) BYLAWS & POLICIES
 - a) 2026-1062 Borrowing Bylaw - Credit Card - To establish Credit Card as its own entity.
- 10) NEW BUSINESS
 - a) Minister Invite - Confirm date to unveil completed MCCAC Projects
 - b) New Motion needed to satisfy the needs of the Alberta Community Partnership Grant in support of the Regional General Municipal Service Standards.
 - c) Community Priorities Plan (CPP) Community Leadership Invitation Letter with RCMP
 - d) EDO Terms of Reference
- 11) COUNCIL MEMBER REPORTS
- 12) NEXT MEETINGS - Tuesday February 24th, 2026 at 6:30 pm
- 13) CLOSED SESSION
- 14) ADJOURNMENT

TOWN OF TWO HILLS



Minutes of the Regular Meeting of Council for the Town of Two Hills held on January 26, 2026, at 6:30 PM in Council Chambers

Regular Council Meeting

PRESENT: Mayor M. Tarkowski; Deputy Mayor C. Dyck; Councillor M. Patel; Councillor A. Hiebert; Councillor H. Wall; CAO A. Kozakiewicz, FC D. Williams, MC C. Boyd

CALL TO ORDER: Mayor M. Tarkowski called the Regular Town Council Meeting to order at 6:30 PM.

ADOPTION OF AGENDA:

2026-025 MOVED by Councillor M. Patel to accept the agenda with addition of the RHPAP Rhapsody Award.

CARRIED

ADOPTION OF MEETING MINUTES:

2026-026 MOVED by Deputy Mayor C. Dyck to accept the minutes of the Council Meeting minutes held on January 13th, 2026, with the correction noted on Motion #2026-012 & #2026-013.

CARRIED

OPEN FORUM: None

ADMINISTRATIVE REPORTS:

2026-027 MOVED by Councillor H. Wall that the Administrative Reports be acknowledged and incorporated into the minutes.

CARRIED

CORRESPONDENCE:

2026-028 MOVED by Deputy Mayor C. Dyck that the Correspondence be acknowledged and incorporated into the minutes.

CARRIED

OLD BUSINESS:

2026-029 MOVED by Mayor M. Tarkowski to acknowledge and incorporate the notes regarding the Public Works Shop into the Minutes.

CARRIED

BYLAWS & POLICIES: 2026-1061 ATB Borrowing Bylaw

The purpose of the change on this Bylaw is to increase the Line of Credit with ATB.

2026-030 MOVED by Councillor H. Wall to approve the first reading of Bylaw No. 2026-1061 on the 26th day of January 2026. CARRIED

2026-031 MOVED by Councillor A. Hiebert to approve the second reading of the Bylaw No. 2026-1061 on the 26th day of January 2026. CARRIED

2026-032 MOVED by Councillor M. Patel to approve unanimous consent for a third and final reading of Bylaw No. 2026-1061 on the 26th day of January 2026. UNANIMOUS

2026-033 MOVED by Deputy Mayor C. Dyck to approve the third and final reading of Bylaw No. 2026-1061 on the 26th day of January 2026. CARRIED

NEW BUSINESS:

ATCO Meeting Request – Confirm if Council would like a Representative from ATCO to attend a Council Meeting in February or March to discuss Site ID, Service Fees and recent brown outs.

2026-034 MOVED by Mayer M. Tarkowski to invite ATCO to discuss with Council some billing and service issues such as, reducing Site ID's, distribution charges, voltage issues at the Council Meeting on February 24th or March 10th. CARRIED

Alberta CARE Spring Seminar 2026 – Review process and details of the 15th Annual CARE Seminar in Brooks Alberta, and the value of Council participation.

2026-035 MOVED by Councillor A. Hiebert to file for information. CARRIED

Charity Hockey Event – Discuss details and Council Representation at the Hockey Charity event in Cold Lake.

2026-036 MOVED by Mayor M. Tarkowski that Council Member H. Wall will attend the Charity Hockey Event to represent the Town of Two Hills in Cold Lake at the Cold Lake Energy Centre on February 20th, 2026. CARRIED

Alberta's Rural Health Professions Action Plan Rhapsody Award

Two Hills Rural Physician Action Plan Committee has requested a Letter of Support for the Nomination of Dr. Satar for the Rhapsody Award. Nomination due date is February 27th, 2026.

2026-037 MOVED by Deputy Mayor C. Dyck to approve and sign the Letter of Support from the Town of Two Hills for Dr. Satar's nomination for the Rhapsody Award. CARRIED

COUNCIL REPORTS:

2026-038 MOVED by Councillor M. Patel to accept the Council Reports and incorporate them into the minutes. CARRIED

NEXT MEETINGS: Tuesday February 10th, 2026.

CLOSED SESSION;

C Dyck Left Council Chambers at 8:00pm
A. Hiebert Left Council Chambers at 8:03pm
c. Dyck Returned to Council Chambers at 8:04pm
A. Hiebert Returned to Council Chambers at 8:04pm
C. Boyd, Left Council Chambers at 8:04 pm
D. Williams Left Council Chambers at 8:30pm

2026-039 MOVED by Mayor M. Tarkowski to go into closed session Re: ATIA Section 19 and 29 at 8:04 PM.

CARRIED

2026-040 MOVED by Mayor M. Tarkowski to return to open session at 9:00 PM.

CARRIED

2026-041 MOVED by Councillor H. Wall to arrange a meeting with the County of Two Hills to discuss Fire Call Billing.

CARRIED

ADJOURNMENT: Mayor M. Tarkowski called to adjourn the meeting at 9:00 PM.

Deputy Mayor C. Dyck

CAO A. Kozakiewicz



Roads

- Grade snow and ice off all roads
- Grade all back alley's
- Continue loading and hauling snow windrows
- Grade south of 47 Ave for snow dumping
- Applying beet juice to roads as required

Other

- Sweep snow off all town sidewalks
- Apply deicer to all town sidewalks
- Complete all service requests
- Repair ride control on JD skid steer
- Remove and reprogram ECM on IH dump truck (single axle)
- Delete SCR filter on IH dump truck and install a new muffler (single axle)

Water

- Read and record pressures and volumes daily
- Continuing with random CL2 sampling around town
- Continuing with BAC T samples weekly
- Recalibrate CL2 monitors at the water reservoir
- General maintenance at the water reservoir

Wastewater Report

- Monitor flows, volumes and pressures daily
- Continue with the additives at the lift station though the winter months
- Keep screens clear of large debris (wet cell side)
- General maintenance at lift station

Other

- Repair furnace at lift station (replace gas valve)
- Replace thermostat at lift station, high limit thermostat going off randomly causing alarms
- Keep truck fill pad at water reservoir clear of ice buildup

Town of Two Hills
Reconciliation Statement January 31, 2026

Net Balance at January 31, 2026	(\$1.00)
Plus Deposits	\$466,451.95
Sub Total	\$466,450.95
Minus Disbursements (including transfers)	\$466,450.95
Closing Balance	\$0.00

Summary of Town of Two Hills Accounts

ATB Financial	Description of Accounts	
General #24	Main Account	\$0.00
Notice Account 90 Day	Auction Holding	\$10,211.24
Savings Account #478	County Grant Account	\$218.20
Savings Account #578	Interest Bearing	\$9.63
Savings Account #178	Last Post Committee	\$4,223.76
Bill Payments #27	Deposit Only Account	\$30,898.03
Savings Account #30	ACE Debenture Account	\$50,441.88
TOTAL ATB		\$96,002.74
Revolving Loan - out of \$985,000.00		\$985,000.00
		\$596,298.50
		\$388,701.50

Vision Credit Union	Description of Accounts	
	Two Hills Improvement Committee	\$ 1,244.93
	Canada Day	\$ 10,659.99

Comments: County of Two Hills paid \$30,000 for NRED 1 Grant
December 29, 2025

CHEQUE REGISTER
ATB 24 GENERAL
JANUARY 6 - FEBRUARY 4, 2026

Number	Issued		Amount
E000000312	01/06/2026	DECEMBER 2025 WATER CONSUMPTION	39,229.20
E000000313	01/06/2026	MUNICIPAL LAW SEMINARS & EMERGING TRENDS	2,107.39
E000000314	01/06/2026	JANUARY 2026 BENFITS	15,404.29
E000000315	01/06/2026	SHOP SUPPLIES/PARTS	2,727.96
E000000316	01/06/2026	FUEL	4,639.72
E000000317	01/06/2026	NOVEMBER 2025 GARBAGE COLLECTION	3,570.00
E000000318	01/06/2026	FREIGHT	314.22
E000000319	01/06/2026	PENSION	8,791.16
E000000320	01/06/2026	OFFICE SUPPLIES	452.88
E000000321	01/06/2026	MONTHLY CONTRACT ASSESSMENT FEES DECEMBER 2025	1,671.60
E000000322	01/06/2026	CLEANING	240.00
E000000323	01/13/2026	CONTRACT LABOUR	7,893.50
E000000324	01/15/2026	DOUBLE TREE/MLA DINNER/MICROSOFT (MARCH 2025)	3,275.35
E000000325	01/15/2026	HAS/PSA DECEMBER 2025	2,262.82
E000000326	01/15/2026	GOPHER POINSON	2,294.25
E000000327	01/15/2026	DECEMBER 2025 GARBAGE COLLECTION	4,290.00
E000000328	01/15/2026	BEET JUICE	9,344.49
E000000329	01/15/2026	POSTAGE LEASE	174.93
E000000330	01/15/2026	PARTS	990.20
E000000337	01/21/2026	CHEMICAL	1,029.00
E000000338	01/21/2026	YEARLY MEMBERSHIP	175.00
E000000339	01/21/2026	MILEAGE/SUBSISTANCE	200.16
E000000340	01/21/2026	PREVENTATIVE MAINTENANCE	8,683.43
E000000341	01/21/2026	BEET JUICE	12,704.49
E000000342	01/21/2026	MILEAGE/SUBSISTANCE	216.00
E000000343	01/21/2026	DONATION	1,416.00
E000000344	01/21/2026	MILEAGE/SUBSISTANCE	350.19
E000000345	01/21/2026	BOOT ALLOWANCE	150.00
E000000346	01/21/2026	MILEAGE/SUBSISTANCE	222.28
E000000347	01/29/2026	H2O CONTRACT DECEMBER 2025	1,059.04
E000000348	01/29/2026	ANNUAL OPERATION & MAINTENANCE FEE	8,001.00
E000000349	01/29/2026	FREIGHT	679.60
E000000350	01/29/2026	OFFICE SUPPLIES	124.74
E000000351	01/29/2026	PW SUPPLIES	19.59
E000000352	01/29/2026	CLEANING	240.00
33500	01/06/2026	ANNUAL FIRE INSPECTIONS	2,805.81
33501	01/06/2026	MUNICIPAL TOURISM PARTNERSHIP/ANNUAL MEMBERSHIP	400.00
33502	01/06/2026	LEGAL MATTERS	1,115.10
33503	01/06/2026	BOARDROOM TABLE	1,856.70
33504	01/06/2026	SOCIAL FUND STAFF CONTRIBUTION	485.00
33505	01/06/2026	MEMBERSHIP FEE	243.23
33506	01/15/2026	PARTS	3,253.31
33507	01/15/2026	TIRES	1,852.28
33508	01/15/2026	OIL	325.08
33510	01/15/2026	HALL LICENSING FEE 2026	258.97
33511	01/15/2026	PW SUPPLIES	46.19
33512	01/15/2026	PARTS	2,415.55
33513	01/15/2026	REPAIR	796.48
33514	01/15/2026	REPAIR	126.00
33515	01/15/2026	LEGAL MATTERS	1,628.92
33516	01/15/2026	ICE MELT	611.11
33517	01/15/2026	PARTS	2,493.75
33518	01/15/2026	POSTAGE INK CARTRIDGE	346.37
33519	01/15/2026	Q1 & FRN PAYMENT	34,259.00
33520	01/15/2026	CENTENNIAL HALL MANAGEMENT FEE JANUARY 2026	2,625.00
33521	01/15/2026	PARTS	1,177.58
33522	01/21/2026	TITLE MUNICIPAL & CADASTRAL SUBSCRIPTION	56.70
33524	01/21/2026	OIL FILTER	276.17

33525	01/21/2026	ROADTRIP ADVENTURE GAME 2026	500.00
33526	01/21/2026	UTILITY BILL DISTRIBUTION ANNUAL SOFTWARE	5,250.00
33527	01/21/2026	OIL CHANGE & MAINTENANCE	310.23
33528	01/21/2026	FREIGHT	128.46
33530	01/21/2026	OFFICE & PW SUPPLIES	213.27
33531	01/21/2026	RECONCILIATION OF TOWN FIRE CALLS	2,880.00
33532	01/21/2026	2026 MEMBERSHIP	283.20
33533	01/29/2026	FLAT REPAIR	57.75
33534	01/29/2026	ANNUAL FIRE INSPECTIONS	2,329.45
33535	01/29/2026	CO-OP COMMUNITY SPACES SHEDS	15,750.00
33536	01/29/2026	PW SHOP PROGRESS PAYMENT 90%	277,992.67
33537	01/29/2026	PW SAFETY SUPPLIES & GAS MONITOR CALIBRATION	398.79
33538	01/29/2026	SHREDDING	37.41
33539	01/29/2026	LEGAL MATTERS	680.40
33540	01/29/2026	ADVERTISEMENT JANUARY 2026	495.00
33541	01/29/2026	GAS VALVE REPAIR LIFT STATION	1,030.66

TOTAL ISSUED (74): \$ 512,736.07

TOTAL VOIDED (0):

GRAND TOTAL: \$ 512,736.07

**TWO HILLS
ECONOMIC DEVELOPMENT & TOURISM**

Date: February, 2026

Notified by NRED that our application is being reviewed
EDC Terms of Reference updated at EDC Meeting for council review
AAIP zoom meeting regarding 2026 allotments for Rural Renewal
Followed up with sporting goods store in regards to expansion to Two Hills but reluctant at this time due to family commitments – however feels Two Hills is an ideal location
Follow up with commercial property owner regarding potential new development
Follow up with local vet tech towards opening a small start up facility in town
Out of province fabricator was unable to negotiate suitable rental agreement on shop was interested in but has now expressed interest in building a shop in industrial park
Attended Lakeland DMO meeting, nominated for and accepted position as Vice President
Booked Tradeshow spaces for Edmonton Sportsman Show and Ft. MacMurray Spring Show
Attended Calgary Powersports Show – positive feed back on Bike Week with potential sponsorship opportunities and some interest in Home purchases
Assisted La Crete Chamber of Commerce with some questions regarding Rural Renewal
Received approval from Federated Coop of Market Square promotional and signage graphics for Market project. Date set for grand opening July 22 in conjunction with Chili Cookoff – also informed that we were amongst the last to receive funding through Community Spaces as FCL is letting the program go
Re endorsed a local business employee who was about to time out on endorsement waiting for approval
Took performance measuring training through EDA and received certification
Met with new commercial property owner in regards to development requirements for new construction
Met with property developer in regards to permit requirements required for a commercial property under consideration as well as housing opportunities
Follow up with old gas station owners in regards to potential sale
Due to large number of events through out April the Two Hills Tourism Conference is being postponed until fall – date tba
Began working on “Free to Play” playground grant application
Met with interested party looking for restaurant to purchase in Two Hills
NOTE: Assisted public works with flagging on Hwy 36 for 2 days during snow removal
NOTE: Reviewed annual water reporting with County operator before submission to AB Environment

1. Ask ATCO to Salvage old Hall site and received - Upon further investigation from our field team, Site ID 0010001079218 (Old Hall) will require a project to proceed with a salvage. The transformer circled below is a dedicated transformer for this service, which will be required to salvage. The pole would remain for the connected streetlights. The wires from the pole to the building will be removed as well. The PLT noted that the wires on the building are dangling which is a cause for concern and should be remedied for safety purposes.



Please let me know if you would like to me to proceed with a request to our Projects team to provide you with the associated cost to salvage. Danielle is investigating if new site uses the same connection.

2. Ace update we negotiated a \$4.00 rate per meter to provide to Beauvallon, Myrnan, Derwent during the line upgrade in July and August 2026. Ace will send a letter requesting the council decision and possible change in Bylaw required.
3. Applied for Asset Management Grant with County being the managing partner
4. Meeting with Nelson to establish what and when we need to provide to him to complete the Audit on time. John is working on putting it all together and will be complete by Friday.
5. RMRF Seminar
6. Alberta Hub Meeting - Alberta Hub is considering merging with Northeast Alberta Alliance for Growth and Opportunities (NAAGO) The **Northeast Alberta Alliance for Growth and Opportunities (NAAGO)**, sometimes referred to as the Northeast Alberta Alliance, is a regional initiative focused on economic development, infrastructure improvement, and strengthening industrial, agricultural, and forestry sectors in the region northeast of Edmonton, Alberta. "Alberta HUB" is the Regional Economic Development Alliance (REDA) of **Northeast** Alberta. Our dedicated Executive Team, Board of Directors, and Membership work together to ensure a strong alliance is maintained with our local communities, businesses/industries, post-secondary educational institutions and government partners. Core Focus :

- a. **Investment and Business Growth**-Stimulate and support wealth and quality of life in the Alberta HUB region through the promotion of entrepreneurship, expansion of existing businesses, and attraction of new business.
- b. **Regional Collaboration and Community Readiness** - Foster collaborative partnerships that support the strategic growth and economic sustainability of the Alberta HUB region, communities and businesses.
- c. **Marketing and Communication** -Promote the Alberta HUB region as an excellent choice to live, work and invest.



Who we are

Welcome to the "Alberta HUB", the Regional Economic Development Alliance (REDA) of Northeast Alberta. Our dedicated Executive Team, Board of Directors, and Membership work together to ensure a strong alliance is maintained with our local communities, businesses/industries, post-secondary educational institutions and government partners.

The region we support is uniquely located in a triangle corridor between the high population centre of Edmonton, the Saskatchewan border, and the resource rich areas to the north leading to Fort McMurray. Established in 2000 and incorporated as a not-for-profit society, Alberta HUB provides economic development support to its members and increases the awareness of our region as the place to invest, grow and live.

Our Vision:

"Alberta HUB is recognized as a partnership of Northeast Alberta communities, post-secondary educational institutions, business and industry committed to developing a strong competitive diversified economy throughout the entire region."

Our Mission:

"To promote and facilitate economic development that supports business and enhances the quality of life and environment of its member communities."

Core Focus Areas:

- a. **Investment and Business Growth**-Stimulate and support wealth and quality of life in the Alberta HUB region through the promotion of entrepreneurship, expansion of existing businesses, and attraction of new business.
- b. **Regional Collaboration and Community Readiness** - Foster collaborative partnerships that support the strategic growth and economic sustainability of the Alberta HUB region, communities and businesses.
- c. **Marketing and Communication** -Promote the Alberta HUB region as an excellent choice to live, work and invest.

NORTHEAST ALBERTA ALLIANCE for GROWTH & OPPORTUNITY

Terms of Reference

1) Purpose Statement

The 31 municipalities and nine Indigenous communities that form ***Northeast Alberta Alliance for Growth and Opportunities (NAAGO)*** contribute up to a third of Alberta's GDP through significant energy, forestry, and agricultural industries. ***NAAGO*** aims to work together to advance initiatives that generate growth, improve social outcomes, and secure a stronger, more prosperous future for Northeast Alberta.

2) Objectives

- a) Demonstrate Northeast Alberta's importance to the provincial economy;
- b) Provide a forum for sharing information and discussing issues of mutual interest;
- c) Support the enhancement of members through networking and information sharing;
- d) Identify and advance economic and social initiatives to strengthen the region through ongoing communication with:
 - i) the Provincial Government
 - ii) Rural Municipalities of Alberta
 - iii) Alberta Municipalities and
 - iv) other groups/organizations and municipalities as determined by a majority of the membership.

3) Membership Requirements

- a) Members of the ***NAAGO*** must:
 - i) be a municipality located in Northeast Alberta;
 - ii) a Métis Settlement located in Northeast Alberta;
 - iii) a First Nation located in Northeast Alberta; or
 - iv) a municipality, Métis Settlement, or First Nation supported by a majority vote of ***NAAGO*** members.

4) Membership Representation & Voting

Each member shall have one vote and be represented by their respective Mayor, Reeve, Chairperson, or Chief. Should the Mayor, Reeve, Chairperson, or Chief be unable to attend a meeting, an alternate member from their Council may attend on their behalf and have voting privileges.

Meetings may take place without a majority of the ***NAAGO*** membership; however, matters requiring a vote shall not be called without the majority of the voting members being present.

NORTHEAST ALBERTA ALLIANCE for GROWTH & OPPORTUNITY

5) Appointment of Executive Committee

- a) Every two years in **NAAGO**, **NAAGO**, members will elect an executive committee comprising a Chair, vice chair, two sub committee chairs, two Vice-Chairs, a Secretary, and a Treasurer. To be eligible to serve on the executive committee, one must be a Mayor, Reeve, Chairperson, or Chief from a member municipality, Métis Settlement, or First Nation. At least one executive member must be from a Métis Settlement or a First Nation. Responsibilities will be as follows:
- i) Chair: The Chair shall chair the meetings and prepare meeting agendas.
 - ii) Vice Chair: The vice chair shall perform the duties of the Chair in the Chair's absence.
 - iii) Sub committee Chair: Shall perform the duties of the Chairing advocacy sub committees.
 - iv) Secretary: The Secretary shall be responsible for administrative and communication-related tasks, including recording meeting minutes.
 - v) Treasurer: The Treasurer shall be responsible for overseeing the financial matters of **NAAGO** and, including the preparation of annual financial reports.

6) Advocacy

Recognizing that **NAAGO** can only effectively advocate for a limited number of initiatives, the membership shall vote for a maximum of up to three primary matters that will be the focus of advocacy efforts. To become a primary matter, an initiative must have the support of at least three quarters of the membership.

Each advocacy initiative shall have a committee appointed, made up of a minimum of three member municipalities, Métis Settlements, and/or First Nations. At least one member must be from a Métis Settlement or First Nation. They shall work together to develop an advocacy framework/plan for the initiative, which will then need to be presented and approved by at least three quarters of the membership.

NAAGO may take on other small advocacy initiatives where time and resources permit and where the membership feels such initiatives are necessary and important to the group.

7) Meeting Schedule

- a) **NAAGO** members shall meet quarterly in person and virtually as required. Meeting will be at the call of the chair.

NORTHEAST ALBERTA ALLIANCE for GROWTH & OPPORTUNITY

- b) **When NAAGO** members meet in person invitations will be sent to all MLA's in the NAAGO membership region. Municipality/Métis Settlement/First Nation Host Committees shall be appointed by the membership after each meeting and shall be distributed as evenly as possible throughout the region in order to create equitable travel for the membership in general. Hosts shall:
- i) Plan and organize the agenda and activities
 - ii) Identify and invite government representatives and other guest speakers
 - iii) Review and approve any related communications products prepared by the Secretary
 - iv) Be provided \$500 from the **NAAGO** operational funds to host the event.
- c) This schedule may be changed through a majority vote of the **NAAGO** membership. Slight adjustments to the general meeting schedule may also be made at the discretion of the chair where it is determined reasonably necessary.

Addendum

Subject to support from at least three quarters of the membership, **NAAGO's** advocacy efforts with the Government of Alberta will focus on the following in 2023:

- Recognition of the region's economic contributions to the province's past and future prosperity.
- Repaving, or at least extensive repairs, of Highway 28 and other roads in the region.
- Infrastructure development to increase the economic competitiveness and connectivity of the region.
- Further economic development in the region.
- Increase brand awareness of Northeast Alberta with the provincial government and beyond.
- Medical services including EMS.



Correspondence Listing

February 10th, 2026

1. **Northern and Regional Economic Development (NRED) Program** - Confirmation of Attached Budget for Grant Application - NRED Program - NRED-04-00179
2. **ACE Water Restriction Notice** - Main Water Line Repairs by ACE are expected to affect flow to various communities the week of February 9th to February 13th. Posted Publicly to Residents, Public Works, Water, Wastewater, Fire Department and SAC Notified.
3. **ATCO Electric** - Request for Meeting Correspondence attached - March 10th Meeting date confirmed. Motion #2026-034 - Gather your questions to review with them for the March 10th Council Meeting.
4. **Clifton Engineering on behalf of Alberta Transportation** - Preformed a Risk Management Plan. Salt Contamination was found at the Highway Yard. A No Objection Letter is required to be signed by the Town of Two Hills.
5. **FCM Hotel and Registration** - Reservation for the Hotel is confirmed, and the Federation of Canadian Municipalities (FCM) has not opened yet. Please review Study Tours list attached and on-line and provide me with one selection as it is required at Registration which is opening soon. Agenda will be provided once Registered.
6. **Letter of Support** - Please review the Letter of Support we provided to the Rural Health Physician Action Plan (RhPAP) to Nominate Dr. Satar for the Rhapsody Award.
7. **ICOM Email** - Please review the email from ICOM indicating there may be additional charges to complete the Ice Plant Installation.
8. **Join AB Munis' webinar to learn how Alberta's 2026 budget supports Municipalities** - Register to attend virtual.
9. **RCMP Letter** - Inviting the Mayor to the 43rd Annual Regimental Dinner on April 30th, 2026.

Nov 25/2025 2025-360 NEW BUSINESS

"MOVED by Councillor M. Patel to apply for a \$120,000.00 Northern and Regional Economic Development (NRED) Grant, where a 50% of the matching funds are required towards Highway 45 Planning and Engineering Project. "

From: NRED Program <NRED.program@gov.ab.ca>

Sent: January 29, 2026 1:06 PM

To: Bob Ross <bross@townoftwohills.com>

Subject: Confirmation of Attached Budget for Your Grant Application – NRED Program – NRED-04-00179

Importance: High

Hello Bob Ross,

Thank you for your application to the Northern and Regional Economic Development (NRED) Program.

As part of our application review process, we assess proposed project budgets to ensure compliance with the NRED Intake 4 Program Guidelines. Where necessary, we have adjusted project budgets by moving eligible and ineligible expenses for alignment with program funding caps. The attached budget document reflects the budget for your application based on our initial assessment.

Application Number: NRED-04-00179

Project Title: TWO HILLS HWY 45 DEVELOPMENT

Requested Grant Amount in Original Application:

\$60,000.00

Requested Grant Amount after Program Compliance Check:

\$60,000.00

We recognize that there may be instances when applicants do not want to pursue their project based on the assessed eligible budget. We are seeking confirmation that you would like your application to continue through the evaluation process. Please reply by **Monday, February 2, 2026, at 4:00 p.m.** with one of the following statements:

1. I have reviewed the attached final budget and wish to proceed with our application.

OR

2. I have reviewed the final budget and would like to withdraw our application.

If you have any questions, please feel free to contact the NRED team at nred.program@gov.ab.ca.

Regards,

NRED Program Team



Water Restriction Communication Protocol

Date: February 4, 2026

Location: All Ace Water Communities supplied from West

Issuing Authority: ACE Water Corp in conjunction with Capital Region Northeast Water Services Commission

Reason for Restriction: Line repair

Nature of Restriction: On Monday February 9th at 7:00 am the Capital Region Northeast Water Service Commission Line will commence work to repair the second line leak they identified in the fall of 2025. They have moved the repair time up due to the warmer weather and expect the repair to take 5 days if there are no complications.

Impact: Reservoirs will be filled up prior to Monday morning. Each municipality must manage the water they have in their reservoir for over the course of 5 days. Should the repair take longer, be prepared to invoke emergency water restrictions. Ace will receive under 25% of regular flows from John S. Batiuk during this time. Both the Capital Region and John S. Batiuk will be implementing water restrictions, as well as ACE.

Compliance Guidelines:

Water Restriction “A” will be implemented during this time.

Water Restriction ‘A’

Municipalities are requested to suspend water used in municipal operations including but not limited to:

- Watermain flushing
- Sewer Flushing
- Firefighting Training
- Irrigation
- Street sweeping
- Fleet Vehicle washing
- Other non-essential municipal water use (defined as all water not used for

human consumption)

Municipalities are requested to carefully monitor and manage their water supply and postpone any known uses for large water consumption

Penalties for Non-Compliance: As set out in the Water Conservation Policy.

Alternative Solutions/support: n/a

- **Duration:** Monday February 9th, 2026 7:00 am - until repair is expected to be complete, Friday afternoon February 13th, 2026

Action Plan:

Monitoring and Enforcement:

- Each community is responsible for ensuring they are monitoring their water consumption.
- Each community is responsible for managing the water flow they receive.
- Each community should prepare for further restrictions should it be required.
- Each community should inform their fire department and make alternate plans for utilizing water in case of a fire.
- **Feed Back Mechanism:** If your municipality has a specific need concerning water restriction such as hydrant use for a fire, please contact Brent 780 808 1987 or myself 780 808 6785.
 - Ace will be reviewing the restrictions and community water flows daily.
 - **Communication Channels:** We have been advised that we may not receive any updates due to the complexity of the repair until it has been completed.
- 1. **Official announcement.** – Changes in the restrictions will be sent via email to all CAO's and Operators.
- 2. **Municipalities:** Each municipality is responsible for contacting their fire departments, public works and other departments impacted by the restrictions. Each municipality may put their own water restrictions on, if consumption is out pacing projected reservoir capacity.

Layden, Jen<Jen.Layden@atco.com>
Cindy Boyd;Adam Kozakiewicz
McCullough, Sharla <Sharla.McCullough@atco.com>;+3 others
Good afternoon Cindy,

Our team is unavailable to attend the February 24th Council meeting; however, we are able to attend on March 10th. Should an earlier discussion be required, we would be pleased to arrange a meeting during regular business hours.

Thank you,

Jen Layden
Customer Support Representative, Central East Region
Electricity

Hello Cindy,

Thank you for your email. I am available for a phone call this week to discuss the Risk Management Plan with the Town. Is there a representative available this Wednesday or Thursday afternoon?
I have attached a copy of the No-Objection Letter for your reference.

The Risk Management Plan outlines the extent of salt contamination that originated from the Alberta Transportation Highway Maintenance Yard and outlines the steps that Alberta Transportation will take to monitor the contamination going forward. Alberta Transportation is the party responsible for the contamination. Before accepted a Risk Management Plan, Alberta Environment requires that all affected third-party landowners be made aware of the contamination and the plan for ongoing monitoring. This is the purpose of the No-Objection Letter. My signing the letter, the Town is not taking on any liability for the contamination as this remains with Alberta Transportation. I hope this helps to frame the purpose of the Risk Management Plan.

Please let me know if there is a time on Wednesday or Thursday that would work for a phone call to discuss any further questions you have.

Kindly,

Julie

Julie Burghardt M.Sc.(Eng.), P.Eng.

Senior Environmental Engineer

Clifton

10509 – 46 Street SE

Calgary, AB T2C 5C2

T (403) 263-2556

C (403) 660-7258

www.clifton.ca

Cindy Boyd

Julie Burghardt <julie_burghardt@clifton.ca>

Cody Dyck;Adam Kozakiewicz

Good Afternoon Julie,

Adam has asked me to coordinate a meeting with you and our Council to review the Risk Management Plan for the Two Hills Highway Maintenance Yard that you completed in November 2025.

I see from the email correspondence below that you are looking to have us complete the Affected Third Party - Risk Management Plan No Obligation Form. It is noted below that it is attached, however, I do not see it attached as a separate file or in the RMP Appendices.

Town Council is meeting next on February 10th at 6:30pm and they would like to meet with you or a representative of Clifton Engineering Inc. to better understand the implications of the contamination and the No Obligation Form.

Please let me know if you or another member of your team is available. In Person would be great, but a Virtual Meeting is also available.

All My Best,

Cindy Boyd

Town of Two Hills

Layden, Jen <Jen.Layden@atco.com>;Adam Kozakiewicz

McCullough, Sharla <Sharla.McCullough@atco.com>;Wowdzia, Travis <Travis.Wowdzia@atco.com>;Michael Tarkowski;
Sheila Lupul

Good morning Adam,

Following up on our conversation earlier this week, confirmation that we will not be able to attend the January 26 meeting.

Please find the attached document containing the site reviews. All listed sites are billed under the D21 price schedule. For further details on the billing components for Rate D21, please refer to our 2026 Price Schedules (page 5), available at the link below:

<https://electric.atco.com/content/dam/atco-electric-website/en-ca/assets/understanding-rates/2026-01-01-atco-electric-price-schedules.pdf>.

If you have any questions or require additional information, please do not hesitate to reach out.

Thank you,

Jen Layden

Customer Support Representative, Central East Region
Electricity

From: Tammy Currie <tammy_currie@clifton.ca>

Sent: Friday, January 23, 2026 11:57

To: Adam Kozakiewicz <cao@townoftwohills.com>; Two Hills Administration <info@townoftwohills.com>

Subject: Re: Town of Two Hills, Two Hills Highway Maintenance Yard Risk Management Plan (RMP) affected third party no objection

Hello,

This is a follow up notification regarding the previously delivered electronic link copy of the proposed Two Hills Highway Maintenance Yard Risk Management Plan.

Clifton, on behalf of Alberta Transportation and Economic Corridors, has been carrying out an environmental assessment of the Two Hills Maintenance Yard and off-site areas. The Ministry of Environment and Protected Areas (EPA) mandates that all third parties potentially affected by contamination on or emanating from the above-noted lands be notified of a Risk Management Plan proposal.

We have previously mailed you a link to a copy of the Risk Management Plan for review by yourself and for future reference. We ask that you review the Risk Management Plan and contact us regarding any questions or concerns you have regarding the plan. Additionally, we ask that you sign and return the attached "Affected Third Party – Risk Management Plan No Objection" letter confirming that you are aware of the contamination on the Highway Maintenance Yard property and the proposed Risk Management Plan.

Please contact either Julie Burghardt or myself regarding any questions or concerns pertaining to the Risk Management Plan or if the link to the document did not work on your end.

Tammy Currie 587-643-1520 tammy_currie@clifton.ca or

Julie Burghardt 430-660-7258 julie_burghardt@clifton.ca

Thank you,

Tammy Currie, C.Tech BIT

Environmental Technician

Clifton

#205, 8915 – 51st Avenue NW

Edmonton, AB T6E 5J3

T (587) 643-1520

www.clifton.ca

File CG3687.2.23

Transportation and Economic Corridors

Risk Management Plan

Two Hills Highway Maintenance Yard

NE-31-54-12-W4M

Two Hills, AB



Clifton

05 November 2025

File CG3687.2.23

Transportation and Economic Corridors

Risk Management Plan

Two Hills Highway Maintenance Yard

NE-31-54-12-W4M

Two Hills, AB



Prepared by:
Raelene Nagy EIT
Environmental Engineer-in-Training

Reviewed by:
David Simpson MSc PEng
Principal Environmental Engineer

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Transportation and Economic Corridors	04 July 2025	1	RN	E-mail	PDF	Final Report	0
Transportation and Economic Corridors	05 November 2025	2	RN	E-mail	PDF	Final Report	0

Executive Summary

Clifton Engineering Group Inc. (Clifton) was retained by the Department of Transportation and Economic Corridors (TEC) to prepare a Risk Management Plan (RMP) for the Two Hills Highway Maintenance Yard (HMY) within the Contract Maintenance Area 511 of the Central Region. The Two Hills HMY (Site) is located within the northeastern quarter of Section 31, Township 54, Range 12, West of the 4th Meridia. The Legal land description of the Site is Plan 4397MC Lot L. The municipal address for the Site is 5012-52 Street, Two Hills, AB.

The RMP provides an updated conceptual site model (CSM), describes the relative risk to human and ecological receptors and provides a plan and timeline for monitoring the Site, and contingency plans for the long-term management of the contamination related to the Site.

The Site is owned by TEC and was developed in the 1960s and had been used for the storage/mixing of road salt and pickled sand. A series of intrusive Phase II Environmental Site Assessments (ESA) and groundwater monitoring programs have been completed on the Site and the adjacent land to the Site since 2013 to assess the soil and groundwater conditions. The ESAs confirmed the presence of salinity impacts on-Site and off-site (slightly downgradient of Site). The impacts have been vertically and horizontally delineated in all directions of Site.

The relative active exposure pathways on this Site are domestic use aquifer (DUA, i.e., drinking water), ecological direct soil contact and fresh aquatic life (FAL) pathways. The associated risks are outlined below:

- The risk to human drinking water pathway is low, as the Site and adjacent properties are connected to the Town of Two Hills water and sanitary system. There is a water well at least 180 m west of Site for which the risk of the salt impacts could not be eliminated. However, given that horizontal and vertical delineation has been achieved the risk is considered to be low.
- The risk to ecological direct soil contact is low. There are shallow soil impacts (above 3 m below ground surface (bgs)) which could impact ecological receptors. Currently the Site is covered in gravel and has limited vegetation on the boundaries of the Site.
- The risk of ecological FAL is low for salinity parameters. The groundwater impacts have potential to discharge into the surface water bodies. However, the risk decreases with distance.
- The groundwater impacts are currently delineated by monitoring wells located between the impacts and the nearest surface water body.

In order to monitor the contamination on the Site, and ensure protection of the sensitive receptors, a monitoring program has been established along with a contingency program. The monitoring program includes monitoring and sampling the 21 wells on-Site and off-Site for the next five years annually, and if the concentrations are stable or decreasing, the monitoring frequency will be re-evaluated. Along with

the groundwater program a geophysical electromagnetic (EM) survey will be completed every five to eight years, depending on the results of the groundwater monitoring program and assessed risks.

A communication plan is outlined which states that all reports will be submitted to TEC, Alberta Environmental and Protected Areas and affected stakeholders. Stakeholders can contact TEC and/or the Consultant with any concerns.

Use of this report and this Executive Summary is subject to the terms outlined in the Closure section of this report (Section 6.0). The reader's attention is specifically drawn to these conditions as it is considered essential that they be followed for the proper use and interpretation of this report.

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Appendix A: Historical Borehole Logs
Appendix B: Historical Soil and Groundwater Data
Appendix C: Water Well Reports
Appendix D: Historical Groundwater Chloride Concentration Trend Graphs
Appendix E: EM Survey
Appendix F: Review Checklist for Risk Management Plans
Appendix G: Person(s) Responsible- Risk Management Plan Commitment Letter

1.0 Introduction

Clifton Engineering Group Inc. (Clifton) was retained by the Department of Transportation and Economic Corridors (TEC) to prepare a Risk Management Plan (RMP) for the Two Hills Highway Maintenance Yard (HMY) within the Contract Maintenance Area 511 of the Central Region. The Two Hills HMY (Site) is located within the northeastern quarter of Section 31, Township 54, Range 12, West of the 4th Meridian. The Legal land description of the Site is Plan 4397MC Lot L. The municipal address for the Site is 5012-52 Street, Two Hills, AB. A Site Location Plan is presented in Figure 1.

This RMP provides an updated conceptual site model (CSM), describes the relative risk to human and ecological receptors, and provides a plan and timeline for monitoring the Site, and contingency plans for the long-term management of the contamination related to the Site.

1.1 Administrative Requirements

The following section outlines the administrative information relative to the RMP.

Table 1.1 – Site Location

Site Name:	Two Hills HMY
Municipal Address:	2012-52 Street, Two Hills, AB
Legal Description:	Plan 4397MC Lot L
ATS Description:	NE 31- 54-12-W4M
Alberta Environment and Protected Areas (EPA) File:	00435471

Table 1.2 – Proponent Information

Name:	Transportation and Economic Corridors
Address:	2 nd Floor Twin Atria Building 4999 98 Avenue, Edmonton, AB, T6B 2X3
Contact:	Leah Baer
Phone Number:	780-644-3765
Email Address:	leah.baer@gov.ab.ca

Table 1.3 – Consultant Information

Name:	Clifton Engineering Group Inc.
Address:	10509-46 Street SE, Calgary, AB T2C 5C2
Contact:	David Simpson
Phone Number:	403-263-2556
Email Address:	david_simpson@clifton.ca

Table 1.4 – Operator Information

Name:	Emcon Services Inc
Address:	9050-14 Street, Edmonton, AB T6P 1X2
Contact:	Sudar Stanislus
Phone Number:	780-449-0502
Email Address:	sstanislus@emconservices.ca

This RMP is prepared for the Site and properties in the vicinity of the Site where contamination is known to have migrated or where ongoing monitoring is required (i.e., stakeholders). The ownership information for stakeholders, updated on 3 November 2025 is summarized below:

- Lot K, Plan 6575KS – owned by Municipal District of Eagle No. 81 (south)

Table 1.5 – Stakeholder Information	
Adjacent landowner to the South:	Municipal District of Eagle No.81
Property Address/ Legal Location:	Lot K, Plan 6575KS
Contact:	St Paul's Education Business Shop
Mail:	5004-52 Street, Two Hills, AB T0B 4K0
Municipally owned roadways in vicinity of the Site:	Town of Two Hills
Property Address/ Legal Location:	Plan 8021571 Block 26 Lot 2; Plan 8021571 Block 26 Lot 3; Plan 8021571 Block 26 Lot 1; Plan 8309ET Block 12 Lot A
Email:	info@townoftwohills.com
Landowner to the Southwest:	Green Hills Construction Inc.
Property Address/ Legal Location:	12-54-3 W4M
Email:	info@greenhillsconstruction.ca
Landowner to the Southeast:	Private Owner
Property Address/ Legal Location:	Plan 0740396 Block 12 Lot 3
Mail:	P.O. Box 125 Two Hills, AB T0B 4K0
Landowner to the West:	Two Hills Lions Club
Property Address/ Legal Location:	Plan 9323640 Block 23 Lot 21A
Email:	twohillsgolf@mcsnet.ca
Landowner to the East:	Ukrainian Greek Orthodox Parish of Holy Trinity
Property Address/ Legal Location:	Plan 8309ET Block 11 Lots 5A & 5B
Mail:	5011 - 54 Avenue (Box 556) Two Hills, AB T0B 4K0
Landowner to the East:	Private Owner

Table 1.5 – Stakeholder Information	
Property Address/ Legal Location:	Plan 8309ET Block 11 Lots 6&6A
Mail:	PO Box 969 Two Hills AB T0B 4K0
Landowner to the South:	Alberta Infrastructure and Transportation
Property Address/ Legal Location:	Plan 476EO Railway ROW and extra land within
Mail:	C/O Twin Atria Bldg. 4999-98 Ave, Edmonton AB T6B 2X3

1.2 Outstanding Legal Requirements

There are no outstanding legal requirements that are known regarding the Site.

2.0 Historical Site Assessments

The following information is a summary of the previous environmental site assessments (ESAs) completed at the Site and on adjacent properties related to the Site. The Site features and electromagnetic survey (EM31) data are shown on Figure 2; a soil cross section with analytical results is shown on Figure 3; the soil analytical results are shown on Figure 4 (on-Site data only) and Figure 5 (off-Site data only); the groundwater elevations and flow direction from the most recent 2024 investigation are shown on Figure 6, and the 2024 groundwater chloride data is shown on Figure 7. The waterbodies and wells located near Site are shown in Figure 8. Copies of the available historical borehole’s logs are attached in Appendix A. Summary tables of the soil and groundwater analytical data are attached in Appendix B.

2.1 Subject of Previous Environmental Assessments

Various ESAs have been completed on and off of the Site since at least 2006 to present. The following sections summarize pertinent information from investigations completed in conjunction with the Two Hills HMY and surrounding properties.

2.1.1 Summary of the Previous On-Site Investigations

The following report summaries were acquired from Clifton’s 2024 Supplemental Phase II Environmental Site Assessment (Clifton, 2025) and the historical report review conducted by others (Ecoventure, 2019). In addition, Clifton summarized reports prepared by Clifton in 2022, 2023 and 2024.

In Spring 2015, Stantec Consulting Ltd. (Stantec) completed a groundwater and surface soil sampling program at the Site. Four groundwater monitoring wells on-Site (MW13-1 to MW13-4) were sampled and concentrations of total dissolved solids (TDS), dissolved chloride, and dissolved sodium exceeded the then

applicable regulatory guidelines in all monitoring wells. Four monitoring wells were previously installed on-Site (MW1 to MW4) but were not sampled during this event. The concentrations were determined to be less than the corresponding baseline values. The term 'baseline values' was not clearly defined in the 2018 *Baseline Environmental Site Assessment* completed by Ecoventure. Clifton believes that 'baseline values' refer to the range of concentrations for a particular parameter based on the 2018 results. Eight surface soil samples were analyzed for salinity parameters. Electrical conductivity (EC) and/or sodium adsorption ratio (SAR) exceeded the then applicable regulatory guidelines and corresponding baseline values in four samples. A copy of this report was not available and was not reviewed by Clifton to verify the locations of the surface soil samples or the purpose of the sampling event.

In Spring 2016, Stantec completed groundwater and surface soil sampling at the Site. The four groundwater monitoring wells sampled (MW13-1 to MW13-4) were in good condition. Concentrations of TDS, dissolved chloride, and dissolved sodium in groundwater exceeded the then applicable regulatory guidelines in all four monitoring wells and were elevated compared to the previous monitoring event but were still less than the corresponding baseline values. Soil results indicated that EC and/or SAR values exceeded the then applicable regulatory guidelines and corresponding baseline values in three samples. The SAR value in one sample corresponded to elevated sodium and chloride concentrations. SAR exceeded the then applicable regulatory guideline in another sample but was less than the baseline value. A copy of this report was not available and was not reviewed by Clifton to verify the locations of the surface soil samples or the purpose of the sampling event.

In Spring 2017, Stantec completed groundwater and surface soil sampling at the Site. Concentrations of TDS, dissolved chloride, and dissolved sodium in groundwater exceeded the then applicable regulatory guidelines in all four monitoring wells sampled (MW13-1 to MW13-4) but were less than the corresponding baseline values except for dissolved chloride in one monitoring wells. Soil results indicated that SAR exceeded the then applicable regulatory guidelines and corresponding baseline values in three samples. SAR exceeded the then applicable regulatory guideline in two soil samples but was less than or equivalent to the corresponding baseline value. The surface soil samples were collected along the perimeter of the Site with one sampled along the northern Site boundary, two samples along the eastern boundary, three samples on the southern boundary, and two samples on the western boundary. A copy of this report was not available and was not reviewed by Clifton to verify the locations of the surface soil samples or the purpose of the sampling event.

In Winter of 2018, Ecoventure completed an assessment of the Site including: a Phase I and II ESA, a geophysical assessment, and a groundwater monitoring and sampling program along with the installation of three additional monitoring wells. The geophysical survey identified four areas of elevated conductivity with an estimated volume of soil with a conductivity over 102 mS/m calculated to be 5,447 m³. There were EC and/or SAR exceedances in soil, above the then applicable regulatory guidelines, at depths ranging from 0.4 m to 8.25 m below ground surface (m bgs). Based on their assessment, Ecoventure stated the following regarding the groundwater quality of the Site: samples submitted from MW1 to MW4 and MW13-01 to MW13-04 had concentrations of chloride, sodium, sulphate, and TDS which exceeded the then applicable regulatory guidelines; and samples submitted from MW18-05 to MW18-07 had concentrations of chloride, sodium, and TDS which exceeded the then applicable regulatory guidelines.

In July 2022, Clifton monitored the groundwater levels and collected groundwater samples for analysis of basic salinity from eleven of the on-Site monitoring wells. Based on the results of Clifton's 2022 Monitoring and Sampling Event and a review of select historical information, Clifton concluded the groundwater flow direction on the Site was to the southwest which consisted with the regional topography. Clifton also noted that all 11 monitoring wells sampled had at least one salinity analyte over the then applicable guidelines, which included chloride, sodium, sulphate, and/or TDS. There were also chloride exceedances in nine of the eleven monitoring wells; the two monitoring wells, MW1 and MW2, with no chloride exceedances over the then applicable guidelines were located to the northwest of the salt shed and in the northeastern corner of the Site. Based on the trend analysis for chloride concentrations in groundwater, MW1, MW2, MW13-02, and MW13-04 exhibited a decreasing trend, MW4 had an increasing trend, MW13-01 had a stable trend, and MW13-03 had no trend (Clifton, 2022).

In August 2023, Clifton monitored the groundwater levels and collected groundwater samples from 11 of the on-Site monitoring wells. All of the 11 monitoring wells sampled had at least one salinity analyte over the Tier 1 Guidelines, these included chloride, sodium, sulphate, and/or TDS. There were chloride exceedances in seven of the 11 monitoring wells. The four monitoring wells, MW1, MW2, MW3, and MW13-04, with no chloride concentrations above the Tier 1 Guidelines were located north and upgradient of the salt shed (Clifton, 2023).

In November 2024, Clifton completed the monitoring and sampling of groundwater in 11 of the on-Site wells. Nine of the monitoring wells sampled had chloride exceedances over Tier 1 Guidelines. MW3 and MW13-04 were the only two wells that had chloride concentrations below the Tier 1 Guidelines. Based on the M-K PSA for chloride concentrations in the groundwater, one monitoring well (MW4) is exhibiting an increasing trend and is located southeast of the salt shed. Monitoring wells, MW1, MW2, MW13-02, and MW13-04, all had decreasing trends and are located near the northeastern corner of the Site, to the northwest of the salt shed, and to the south of the salt shed, respectively (Clifton, 2024).

2.1.2 Summary of the Previous Off-Site Investigation

To gain insight into the off-Site environmental conditions at the Two Hills HMY the most recent off-Site investigation available through ERTA was reviewed. The investigation was completed by Thurber Engineering Ltd. (Thurber) in 2023. The 2023 off-Site assessment activities included drilling ten test holes, six of which were completed as groundwater monitoring wells, to further assess salinity impacts originating from the historical operation of the Site. The soil and groundwater programs were focused on lateral and vertical delineation. Based on the 2023 soil assessment and historical data, the report concluded that the lateral extent of the soil impacts was defined in all directions except for shallow impacts noted cross gradient to the southeast at 23-05 (0.60 m) and deeper impacts at 23-03 (5.40 m). It was noted that soil salinity impacts were delineated closer to the Site, and that the EC and SAR at 23-03 were less than commercial guidelines; however, the road allowance property was used for residential purposes. Based on the proximity to roadways at these locations, and the soluble nature of chloride, the report stated that these locations may be related to roadway salting and tracking activities. The vertical extents of the salinity were defined in the County yard to the south at 23-08, 23-09, and 23-10 at depths between 2.4 m and 9.0 m; however, elevated chloride concentrations were present up to depths of 10.5 m at 23-08, 7.2 m at 23-10, and greater than 12.0 m at 23-09. The 2023 groundwater sampling program identified dissolved chloride, sulphate, sodium, and/or TDS concentrations that

exceeded the applied guidelines. The lateral extents of the dissolved chloride impacts were delineated cross gradient to the west at 18-03 and vertically at 18-01D. Marginal chloride exceedances were noted at the perimeter wells upgradient, cross gradient and down gradient of the Site (18-06, 23-01, 23-02, 23-03, 23-04, 23-05, and 23-06); suggesting that the urban setting of the Site and/or road salt application on the adjacent roadways was contributing to the observed chloride exceedances. (Thurber, 2023).

In 2024, Clifton completed an off-Site Supplemental Phase II ESA which consisted of advancing six boreholes to a maximum depth of 15.2 m bgs and completing them as monitoring wells. Based on the soil salinity parameters for the six boreholes, three of the borehole locations (MW24-01, MW24-02 and MW24-06) had soil chloride concentrations exceeding the guidance value of 120 mg/L. These wells with exceedances in the soil and groundwater are located off-Site to the north, northeast and south of Site. Two of the monitoring wells, MW24-01 and MW24-02 located north, and northeast of the Site had chloride, SAR and EC impacts from the surface to the maximum depth of 4m and 1 m bgs respectively. As the two wells, MW24-01 and MW24-02, with surficial salinity impacts are located upgradient of Site, the impacts are not likely associated with the salinity impacts from the Site. MW24-06 located to the south of the Site also had chloride and EC exceedances from 0.15 to 1 m bgs, indicating a shallow source of salinity other than the groundwater migration from the Site. All three borehole locations are located near other developed properties and roads which could represent a potential source for salt. Therefore, horizontal delineation is assumed to be reasonably achieved in all directions. Vertical delineation for salinity impacts was achieved in MW24-05 and 18-01D (installed and sampled by Thurber in 2019), with samples to the maximum depth of 15 m bgs with no salinity exceedances. Horizontal delineation of the chloride groundwater exceedances to the north, south and west as the locations MW 24-01, MW24-03, MW24-06, MW24-05 and MW24-06 all had salinity concentrations below Tier 1 Guidelines. (Clifton, 2024).

3.0 Conceptual Site Model

3.1 General Site Background

The Site contains approximately 0.923 hectares of land located at 5012 - 52 Street, Two Hills, Alberta. The Site was initially developed in the late 1960s as a highway maintenance yard by TEC. The Site was operated by TEC till 2006, after the HMY continued operation under private ownership. The Site was repurchased by the Government of Alberta in 2018. Emcon Services Inc. (Emcon) has been the Highway Maintenance Contractor (HMC) for the Site since 2018. The Site can be accessed from the east via 52 Street. The legal land description of the Site is Plan 4397MC Lot L. The municipal address for the Site is 5012 – 52 Street, Two Hills, Alberta. Operations of the Site currently include storage equipment, salt, sand, and pickled sand.

3.2 Surrounding Land Use and Zoning

Currently the properties adjacent to north, east and west appear to be residential and adjacent to the south is an industrial property. The eastern properties along the southern portion of the Site is also zoned as highway commercial but appears to currently be developed as residential.

3.3 Regional and Site Topography

The Site Topography was noted too be generally flat with a slope to the southwest (Ecoventure, 2019). The regional topography is sloped downwards to the south towards the Vermillion River (Government of Canada, 2021).

3.4 Vegetation

There is limited vegetation on the Site as majority of the Site consists of gravel fill. There is some vegetation in the surrounding ditches. Clifton did not make observations of stressed vegetation. No stress vegetation was observed during the 2018 Phase I ESA (Ecoventure, 2019). However, observations of stressed vegetation are always contingent on the time of the year in which the observations are made; presence, type, and abundance of vegetation, and any physical obstacles that limit observations.

3.5 Soil and Surficial Geology

Based on the previous soil sampling investigations completed on the Site, the Site generally consists of sand and gravel material from surface to approximately 1.5 m bgs, overlying clay from 2 m bgs to the maximum depth investigated (15.2 m bgs).

The soil stratigraphy off-Site consisted of a sand/gravel or topsoil from surface to approximately 0.5 m bgs, overlaying clay mainly to completion depth (6 m to 12 m bgs). Interbedded sand lenses ranged at depths from 3 m to 6.5 m bgs were found in adjacent boreholes to the south of the property. Furthermore, borehole located further south of the Site and south of 50 Avenue displayed a shallow sand lens ranging from the depths of 0.5 to 3.0 mbgs.

Borehole logs from intrusive investigations conducted in 2018, 2023, and 2024 are attached in Appendix A and a soil cross section is shown on Figure 3.

3.6 Bedrock Geology

Bedrock at the Site consists of the Lower Belly River Group. This group is characterized as: very fine to medium-grained, buff weathering sandstone; thin coal layers; brownish-grey, carbonaceous silty mudstone; sandstone dominated, coarsening-upwards members intertongue with mudstone of the Lea Park Formation in east-central Alberta; sandstone members in ascending stratigraphic order: Brosseau, Victoria, Ribstone Creek, and Birch Lake; nonmarine to shallow marine (AER, 2013). Bedrock was not encountered during this subsurface investigation down to the maximum depth of investigation (15.2 m bgs).

3.7 Hydrogeology

Based on previous Site investigations, depth to groundwater is generally between 1.58 m and 5.78 m bgs.

The groundwater flow on the Site was determined to flow primarily to the southwest. The hydraulic conductivity was between 1.5×10^{-6} and 6.6×10^{-8} m/s in the shallow sand unit. Additionally, a hydraulic gradient conductivity of 4.59×10^{-9} m/s was found in the deeper clay unit. The average horizontal hydraulic gradient across the Site was measured to be 0.012, and the geometric mean hydraulic conductivity in the shallow groundwater unit was 3.5×10^{-7} m/s. Based on the effective porosity of 0.1, the shallow groundwater velocity was calculated to be approximately 1 m/year. (Thurber, 2019).

The groundwater elevations and the flow direction measured in 2024 are shown in Figure 6.

3.8 Local Groundwater Use

A search of the water wells within 500 m of the Site was conducted using the Alberta Water Well database on 19 February 2025. Based on a review of the database, there are two wells within the same quarter and five wells in the adjacent quarters within 500m of the Site. All the other water wells are over 500 m away from the Site boundary.

The two wells (Well ID 107223) located approximately 125 m south of the Site boundary were completed for the Town of Two Hills with a depth of 60.96 and 67.06 m respectively and drilled in 1988 and 1984. There was no well screened interval listed in the 1988 well report but it was reportedly used for domestic purposes. The well in 1984 was screened from 45.72 to 54.86 m bgs and was used for municipal purposes. However, these two wells were decommissioned in 2015 as shown in the water well report 1131331 and 1131332.

The four supply wells (Well ID 42179, 107228, 110169, and 234423) in the adjacent quarters are located from 185 m to 300 m away from Site. Well 42179 was completed for the Town down to a depth of 62.48 m with a screened interval from 48.77 to 57.91m which it is used for municipal purposes and is located to the north of the Site. Well 107228 adjacent to the east of Site did not have a screened interval or a total depth drilled reported' however, it was drilled for the Town for municipal (chemistry) purposes. Well 110169 completed for the Town was drilled to a total depth of 64.01 m but did not have a screened depth recorded and was used for domestic purposes; however, this well was decommissioned in 2016 as shown in the water well report 1131329. Well record 234423 completed for Alberta Environment is adjacent to the east of Site had a total depth drilled of 91.44 m with a screened interval of 58.52 m to 65.23 m and was used for domestic purposes but has since been decommissioned in 2007 as shown in the water well drilling report 234423.

A copy of the Alberta Water Well Information Database and the water well logs can be found in Appendix C and shown in Figure 8.

3.9 Surface Water Bodies and Drainage

Based on the review of the Alberta Fish and Wildlife Internet Mapping Tool (FWIMT) and the Alberta Biodiversity Monitoring Institute (ABMI) wetland inventory, the nearest documented water bodies are the Vermillion River located approximately 575 m to the southeast of the Site. There are waterbodies labeled as fen, marsh and swamps located to the south and southeast of Site. The closest wetland is approximately 400 m to the southeast of the Site boundary as shown in Figure 8.

3.10 Buildings

There are five structures on-Site including: a salt shed, an office/maintenance shop, a shop, a shed, and a brine tank storage building. The salt shed is located in the southwest corner of the Site. The office/maintenance shop is to the north of the salt shed. The brine tank storage building, the shed, and the shop are in the northeastern portion of the Site.

3.11 Utilities

Based on previous reports and review of the underground infrastructure present at the Site, there are natural gas pipelines along the eastern, northern and southern Site boundaries. There is a sewer and water line that run from 52 Street to the office and maintenance shop. There are overhead power lines on the north, east and west sides of the property boundaries. The power for the Site is connected from the transformer located on the northwest corner of the Site where it runs over head to the office and maintenance shop. There are two underground power lines, one which runs to the shop and the other to the brine tank building from the main office/ maintenance shop.

3.12 Contaminant Sources

The Site has operated as an HMY since at least the late 1960s and has been used for storage of road salt, pickling salt and brine. The Site continues to be used for the storage of road salt, pickled sand and brine. Furthermore, there is maintenance shops where equipment is maintained. The main source of contaminants is from the salt shed.

3.13 Contaminates of Concern (COCs)

The following is a list of COCs on the Site.

Table 3.1 – List of COCs

COC	Media	Source	Comments
Chloride	Soil and Groundwater	Salt	
EC	Soil	Salt	Primary indicator in soil
SAR	Soil	Salt	Primary indicator in soil
Sodium	Groundwater	Salt	
Sulphate	Groundwater	Salt	
TDS	Groundwater	Salt	

3.14 Remediation Guideline Selection

Under the EPA Contaminated Sites Policy Framework (EPA 2023), strategies for the management of risks at contaminated sites include remediation to Alberta Tier 1 Soil and Groundwater Remediation Guidelines (EPA 2024b), and Exposure Control. The Tier 1 Guidelines are generic remediation guidelines and are intended to protect receptors at more sensitive sites and can be used at most sites without modification. The Tier 2 Guidelines apply the same protection as the Tier 1 Guidelines but allow for modifications of the Tier 1 Guidelines values based on site-specific conditions. Within the Tier 1 and Tier 2 Guidelines, specific soil and groundwater guidelines are provided for each contaminant based on the applicable land use and the soil grain size. Furthermore, individual guidelines are provided for each exposure pathway/receptor of concern.

3.14.1 Land Use and Buffer Zones

As the Site is fenced (i.e., restricted), the land use, as defined by the Tier 1 Guidelines, is classified as industrial property. Under the Tier 1 Guidelines when a more sensitive land use is adjacent to the Site, a 30 m land use buffer is extended from the Site boundary of the more sensitive land use. Within this buffer, the vapour inhalations guidelines (for soil and groundwater) and the ecological direct contact (groundwater only) guidelines for the more sensitive land use are applied. However, as there are no vapour inhalation or ecological direct contact guidelines for salinity parameters, a 30 m buffer was not applied when evaluating the historical soil and groundwater data.

The properties to the north, east and west are zoned as residential and the property to the south is an industrial property.

3.14.2 Grain Size

Based on the results of the grain size analysis previously completed for the Site, the predominant soil type governing contamination migration is fine grained. For salinity parameters, there are no differences in soil or groundwater guideline values between fine or coarse grained soils.

3.14.3 Guideline Modifications

Clifton reviewed the mandatory Tier 2 guideline adjustment guidelines outlined in the Tier 1 Guidelines and determined that a Tier 2 Guideline adjustment was not necessary for this RMP.

Based on the Tier 1 Guidelines, delineation of the chloride in soil is to include the extent of chloride concentrations in saturated paste extracts (expressed in mg/L) that exceed the groundwater guideline (EPA, 2024). As such, the soil chloride results presented in the units of mg/L were compared to the guidance value of 120 mg/L applicable to industrial and natural land uses. This chloride reference concentration was used to delineate the extent of anthropogenic sources of salt impacts.

The remaining parameters for the on-Site boreholes/monitoring wells were compared to the Tier 1 Guidelines for industrial land use based on the fine grain guidelines. The boreholes/monitoring wells completed off site where applicable were compared to residential or industrial land use depending on the location.

3.14.4 Applicable Soil and Groundwater Guidelines

Based on the above assessment, the applicable Site guidelines are the Tier 1 Guidelines for commercial/industrial (presented as commercial/industrial in the Tier 1 document for salinity parameters) and residential land use or commercial/industrial for off-Site properties based on their land use, and fine-grained soil. The soil and groundwater chloride Tier 1 Guidelines for commercial/industrial and residential area land use are the same.

3.15 Contaminant Distribution

The following section outline the extents of impacts in soil and groundwater. Historical soil and groundwater analytical data compared to the 2024 Tier 1 Guidelines can be found in Appendix B.

3.15.1 Soil Impacts

There were salinity impacts in 10 of the boreholes drilled across the Site. Based on the findings the salinity impacts appear relatively shallow and to a maximum depth of 6.0 m bgs. Vertical delineation was achieved at boreholes (MW18-05 and BH18-08). The remaining borehole that was drilled on the Site had exceedances above the Tier 1 Guidelines for the samples submitted. Borehole 18-01D which is located off-Site and 30m south of the Site had samples with salinity impacts down to 9 mbgs, however, at 10.5 m bgs the soil was below Tier 1 Guidelines. This is consistent with the findings of the 2023 geophysical survey which included two electrical resistivity lines, one to the north and one to the south of the salt shed, which showed inferred salinity extents to approximately 9 m bgs depths. The geophysical survey report is located in Appendix E.

Based on the off-Site drilling investigation, 18 of the boreholes had elevated salinity impacts at relatively shallow depths at properties adjacent in all directions to the Site except for the boreholes located on the adjacent property to the south (County yard). The soil chemistry data obtained from 18-01D, 18-02, 23-08, 23-09 and 23-10 indicated salinity impacts up to approximately 9.0 m bgs. However, 23-09 had elevated chloride concentrations present up to 12 m bgs. These results suggest that the impacts from the HMY extend up to 9.0 m bgs in the County yard directly south of the Site. The remaining 13 borehole locations that are adjacent and a further distance away from Site with elevated salinity impacts are either near developed properties or roadways, which could present as a potential alternate source for salt impact. Therefore, horizontal delineation is assumed to be achieved in all directions. Vertical delineation has been achieved in MW25-05, with samples to the maximum depth of 15 m bgs with no salinity exceedances, as well as at 18-01D installed near the Site by Thurber in 2019.

3.15.2 Groundwater Impacts

Chloride is used as the primary indicator of salinity impacts from anthropogenic sources and was used to delineate the extents of the groundwater salinity impacts.

Chloride impacts are present in nine on-Site monitoring wells. The highest concentration historically has been identified in well MW13-01 and MW18-07 on the south side of the salt shed.

In 2024, 14 off-Site monitoring wells had chloride concentrations above Tier 1 Guidelines (18-01S, 18-02, 18-04, 18-05, 18-06, 18-07, 18-09, 23-01, 23-02, 23-03, 23-04, 23-05, 23-06, and 24-02). 18-01S and 18-02 located directly south of the Site, had a chloride concentration of 8,080 mg/L and 194 mg/L respectfully.

Monitoring wells 18-06, 18-07, 23-04, and MW24-02 have elevated chloride concentrations and are located hydraulically upgradient or adjacent to the east of the property; the elevated chloride is likely attributable to road salt application on the adjacent roadways. Additionally, 23-05 and 23-03 are cross gradient of the Site to the southeast which had chloride concentrations of 156 mg/L and 1,070 mg/L, which are also likely attributable to road salt application on the adjacent roads.

Chloride impacts in groundwater are delineated horizontally in all directions. Furthermore, vertical delineation was achieved in the groundwater downgradient as a nested monitoring well (18-01D) was installed downgradient of the Site and was screened in a deeper interval within the clay shale unit from 12.7 to 17.8 m bgs. Monitoring well 18-01D has historically shown a low chloride concentration (1.8 mg/L in 2023) below Tier 1 Guidelines, although it was not sampled in 2024.

3.16 Contamination Fate and Transport

The source of elevated salinity is interpreted to be related to the on-Site storage and handling of road salt and pickled sand. The highest concentrations on-Site are located adjacent to the salt shed. Off-Site the highest concentrations of chloride appear in monitoring wells adjacent to the south and downgradient of the Site (southwest). Salt material that escapes the enclosed salt shed or during transportation off-Site can come into contact with the bare ground and become mobilized when exposed to precipitation infiltration into the subsurface and migrating downward into the groundwater. Once in the groundwater, the salt may migrate through advection, dispersion and diffusion.

Trend analysis of the historical groundwater chloride concentrations was calculated using Mann-Kendall Plume Stability Analysis (M-K-PSA). Monitoring wells located on-Site showed increasing chloride trends in MW3 (located northwest of the brine tank building), MW4 (located southeast of the salt shed) and MW13-03 (former pond area). The trends at MW4 and MW13-03 were relatively stable over the last three sampling events since 2022. The remaining wells on Site display a decreasing trend or no trend indicating that the source is relatively stable. A summary of these trends is provided below, and the details of the M-K-PSA analysis are presented in Appendix D.

Table 3.2 – Monitoring Well Trend		
Monitoring Well ID	Location	Long Term Trend
MW1	NE corner of Site	Decreasing
MW2	NW of Salt Shed	Decreasing
MW3	NW of Brine Tank BLDG	Increasing
MW4	SE of Salt Shed	Increasing
MW13-01	NW of Salt Shed	Decreasing
MW13-02	South of Salt Shed	Decreasing

Table 3.2 – Monitoring Well Trend

Monitoring Well ID	Location	Long Term Trend
MW13-03	West of former Pond	Increasing
MW13-04	NW of Shop	Decreasing
MW18-05	NW Corner of Site	Stable
MW18-06	SE Corner of Site	No Trend
MW18-07	South of Salt Shed	No Trend

3.17 Receptors Applicable to Site Conditions**Table 3.3 – Applicable Receptors**

Applicable Exposure Pathways		The applicable exposure pathways for the Site and adjacent properties based on the applicable commercial/industrial and residential land uses are:	
Human		Direct soil contact, Domestic Use Aquifer (DUA, i.e., drinking water), and vapour inhalation.	
Ecological		Direct soil contact, wildlife soil and food ingestion, freshwater aquatic life (FAL) and wildlife watering.	
Receptors	Active pathways related to the Site?		Site Specific Application
Human Receptors			
Direct Soil Contact	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Humans coming into contact with contaminated soil via incidental ingestion, dermal contact or inhalation of air-born soil particles. Applies to all land uses except for natural areas. <i>The Site is currently used as an HMY and is frequented by the on-Site staff. There is potential for dermal contact and inhalation of air-born soil particles for workers on-Site and immediately adjacent to the Site; however, there are no guidelines for salinity parameters for this</i>			

Table 3.3 – Applicable Receptors

				<i>exposure pathway and as such there is low risk to human receptors.</i>
DUA (drinking water)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<p>The DUA is an applicable pathway as it included drinking and showering or bathing in water that is sourced from the ground water. There are soil and groundwater impacts above the DUA pathway for salinity parameters.</p> <p>Based on previous investigations and current hydraulic conductivity results, the shallow groundwater bearing unit (< 9 m bgs) cannot be excluded as a DUA. There may also be underlying DUAs in deeper geological units.</p> <p><i>The Site is currently used as an HMY and is frequented accessed by the on-Site staff. The Site is currently on the Town of Two Hills water and sanitary system. Based on a review of the Alberta Water Well Database (Government of Alberta, 2022b), there are no current water wells within the same quarter section of the Site; however, there are two water supply wells to the northwest of the Site is at least 150 m to 200 away, and no other water wells are located within 300 m from the Site. The one well there was no screen interval or total depth listed in the water well report, but the well was completed for municipal purposes. Further the second well located to the north of Site was completed to a total depth of 62.48 m bgs with a screened interval from 48.7 to 57.9 m bgs and was completed for municipal purposes.</i></p>
Vapour Inhalation	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	<p>Volatile contaminants being release from soil and/or groundwater and migrating upwards into living and working spaces where humans are exposed via inhalation. Applies to all land uses expect natural areas</p> <p><i>This pathway is applicable as there are on-Site buildings which are occupied by workers. However, this pathway is not active as there are no guidelines for this pathway applicable to salinity parameters.</i></p>

Table 3.3 – Applicable Receptors

Ecological Receptors:

Direct Soil Contact	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<p>Receptors include plants and soil invertebrates coming into direct contact with contaminants in soil or shallow groundwater. Direct contact is applicable to all land uses.</p> <p><i>Based on a review of the previous assessments, there are soil impacts present in the root zone which were above the ecological direct soil contact guidelines. The salinity impacts may affect vegetation growth. There is limited to no vegetation on-Site but there is some vegetation within the ditch areas adjacent to the Site that could be affected by the soil impacts. No observations of stressed vegetation were made previous investigations.</i></p>
Nutrient and Energy Cycling	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	<p>This exposure pathway examines the microbial functioning of the soil, including carbon and nitrogen cycling.</p> <p><i>The nutrient and energy cycling is not considered active for the Site as the shallow soil salinity impacts are not considered to affect the nutrient and energy cycles in the soil.</i></p>
Livestock/Wildlife Soil and Food Ingestion	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	<p>Livestock or wildlife ingesting via the incidental ingestion of soil and ingesting contaminants that have bioaccumulated from soil into fodder. Applicable to agricultural and natural area land use only.</p> <p><i>The Site is zoned as industrial and adjacent properties are zoned as industrial and residential land use. There are no agricultural or natural lands on or immediately adjacent to Site.</i></p>
FAL	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<p>Receptors include aquatic life, including fish, aquatic invertebrates and aquatic plants, being exposed to contaminants when groundwater discharges to a surface water body that is capable of supporting an aquatic ecosystem.</p> <p><i>There is no maximum distance between a source and a water body for which the FAL pathway can be eliminated under the Tier 1 Guidelines for salt contaminants of concern. The Tier 1 Guidelines</i></p>

Table 3.3 – Applicable Receptors

				<p><i>require that water bodies beyond 300 m be considered on a case by case basis. According to the available information the nearest permanent surface water body is the Vermillion River located approximately 575 m to the southeast of Site. The closest wetland is approximately 400 m to the southeast of the Site boundary. Salinity impacts in the groundwater have the potential to discharge into surface water bodies. The risk to these surface water bodies decreases with the distance from the area of impact.</i></p>
Irrigation	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	<p>Crops being exposed to contaminants when groundwater is used for irrigation. Applicable to agricultural land use only.</p> <p><i>This exposure pathway is only applicable to agricultural land use. There are no agricultural lands on or immediately adjacent to the Site.</i></p>
Livestock/Wildlife Watering	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	<p>Livestock or wildlife being exposed to contaminants when groundwater is used for livestock watering, or groundwater discharges to a surface water body where wildlife may drink. Applicable to agricultural and natural area land use only.</p> <p><i>The Site is currently used as HMY and zoned for industrial use, with adjacent properties zoned for commercial and residential land use. There are no agricultural or natural lands on or immediately adjacent to Site.</i></p>

4.0 Risk Evaluation

4.1 Evaluation of Current Environmental Risk

The following table summarizes the receptor pathways, the relative risk, along with the risk factors and controls.

Table 4.1 – Receptor Pathways

Receptors	Relative	Risk Factors and Control
<i>Human</i>		
Direct Soil Contact	Low	Risk Factors This pathway is not active.
DUA (drinking water)	Low	Risk Factors The Site is connected to the Town of Town Hills water or wastewater which is used at the Site. There are two waters well to the northwest of the Site is at least 150 m to 200 away, and no other water wells are located within 300 m from the Site. The one well there was no screen interval or total depth listed in the water well report, but the well was completed for municipal purposes to a total. Further the second well located to the north of Site was completed to a total depth of 62.48 m bgs with a screened interval from 48.7 to 57.9 m bgs and was completed for municipal purposes. <i>Vertical delineation of groundwater impacts was achieved in the deep nested well, 18-01D, screened between 12.7 and 14.8 m bgs. The deep monitoring well has met the Tier 1 Guideline for chloride over all four sampling events since 2018, while the shallower nested monitoring well (18-01S) exceeded (8,080 mg/L in 2024). The deepest monitoring well with a chloride exceedance is 7.50 m bgs and is located on-Site. It is possible that the deeper aquifer is not affected by the chloride contamination at this time but there is limited data from depth for a high degree of certainty. The monitoring wells the furthest hydraulically downgradient have chloride concentrations of 54.8 mg/L. Based on the distance of the chloride exceedances from the Site and the prevalence of water wells in the area there is the potential for a current or future constructed water well to have a chloride concentration greater than the 250 mg/L potable water guideline. Note that the guideline of 250 mg/L for drinking water is an aesthetic objective based on the potential for undesirable taste and corrosion (Government of Canada, 2008) and does not necessarily mean there is an immediate risk to human health and the current risk would be considered low.</i>
		Risk Control The Site owner has the right to prohibit the installation and use of water wells on the Site. Elevated salinity in

Table 4.1 – Receptor Pathways

		the groundwater off-Site on municipal land to the south but to a limited extent and the potable water guidelines are based on the aesthetic objectives not health effects.
Vapour Inhalation	Low	Risk Factors This pathway is not active.
<i>Ecological</i>		
Direct Soil Contact	Low	Risk Factors There are relatively shallow (<3.0 mbgs) salinity impacts in the soil on-Site above the ecological direct soil contact guidelines. The areas with the elevated salinity parameters are currently covered by gravel throughout the Site. There is limited vegetation on Site, however some vegetation within the ditch areas adjacent to the Site. Elevated salinity concentrations for the off-Site ranged from surface impacts to below the root zone. There were no observations of stressed vegetation on-Site or off-Site on adjacent land use, the risk to ecological direct contact appears to be low. Risk Controls The Highway Maintenance Contractor (HMC) operating on-Site is required to have, implement and monitor an Environmental Management Plan (EMP) to limit additional salt impact and any impacted surface water from leaving Site. The HMC must report to TEC annually on the performance of the EMP. Some physical measures include site grading.
Nutrient and Energy Cycling	Low	Risk Factors This pathway is not active.
Livestock/Wildlife Soil and Food Ingestion	Low	Risk Factors This pathway is not active.
FAL	Low	Risk Factors There are salinity parameters that exceed the applicable FAL exposure pathway in groundwater on-Site and off-Site downgradient of the Site. The nearest located water body identified as a marsh is located over 400m southwest from the Site. However, the groundwater impacts associated with the Site have been delineated to locations in relative proximity to the Site, and do not extend to the surrounding water bodies. The well

Table 4.1 – Receptor Pathways

		<p>(MW24-05) closest to the downgradient water body indicated salinity concentrations below the Tier 1 guideline values for the FAL pathway. The Site is not within a flood zone. There is salinity groundwater impacts on-Site that are greater FAL receptor guidelines; however, given the observed groundwater concentrations below the FAL pathway at the perimeter wells and the distance of the downgradient water bodies, the risk is low for the FAL pathway.</p> <p>Risk Controls The implementation and monitoring of the EMP on-Site to limit additional salt impacts from leaving Site.</p>
Irrigation	Low	<p>Risk Factors This pathway is not active.</p>
Livestock/Wildlife Watering	Low	<p>Risk Factors This pathway is not active.</p>

4.2 Contaminant Concentrations Above Management Limits

Management limits do not apply to salinity parameters. There are no COPC concentrations above management limits.

4.3 Evidence of Non-Aqueous Phase Liquids (NAPLs)

There has been no evidence of light or dense NAPLs observed in any on-Site or off-Site groundwater monitoring wells.

4.4 Identification of Heavily Impacted Media

Heavily Impacted Media can include high saline impacts. The highest chloride concentration in soil appears to be at BH18-03 with a concentration of approximately 12,925 mg/L at shallow depths of the soil (1-3 mbgs) which is near the salt shed. The next highest chloride levels are in the range of 4,000 to 8,000 mg/L adjacent to the south of the salt shed. The highest chloride concentrations in the groundwater on-Site were over 24,300 mg/L (MW13-02) adjacent to the south of the salt shed.

4.5 Preferential Flow Paths

Preferential paths could exist along utility corridors in service connections to buildings. The groundwater is relatively shallow (1.58 and 5.78 m bgs) and therefore impacted groundwater could intersect some of the utility corridors that have been buried at a greater depth and have coarse bedding material. The Site is connected to the Town of Two Hills water or sanitary sewer lines. There are two underground power lines one which run to the shop and the other to the brine tank building; however, based on the investigation

completed to date, there does not appear to be evidence of salinity impacted groundwater migrating through the utility corridors.

4.6 Observation of Adverse Effects

There is limited vegetation on-Site along the boundaries of the Site. Based on the observations made no signs of stress vegetation was present. The neighbouring ditches to the north, east and south of the Site consists of grass. There were no observations of stress vegetation on the neighbouring properties to indicate adverse effects have occurred. Vegetation bordering the Site can be continued to be evaluated during future groundwater monitoring events along the adjacent properties.

4.7 Sufficient Concentrations to Alter Physical or Chemical Properties

The elevated salinity concentrations can alter the physical soil structure which can result in reducing hydraulic conductivity and surface infiltration rates affecting plant growth. The Site is currently covered in gravel material at the surface and used for commercial purposes, which as a result this impact does not create an immediate risk in vegetation growth. Once the HMY is closed, the risks should be re-evaluated and determination made whether surface soil remediation or other remediation or mitigation measures are required for the future planned Site use.

5.0 Risk Management Approach

The RMP has been developed to address the salinity impacts in the soil and groundwater associated with the historical HMY operations at the Site. The proposed risk management approach is outlined below. A copy of the Risk Management Checklist is attached in Appendix F.

5.1 Source Control Measures

The Site is currently an active HMY with the storage, loading and maintenance of trucks with road and pickled sand. The source controls are outlined in the EMP prepared and implemented for the Site by the HMC. To ensure the EMP is being implemented there are monthly EMP inspections completed by the contactor and then semi-annual inspections conducted by a third-party consultant.

As part of the EMP measures, all road salt and pickled sand is stored and mixed inside all weather shelter used as the salt shed.

These are operational measures to ensure minimal pickled sand is tracked outside the shed. The HMY has designated an area through which all salt and pickled sand is hauled.

5.2 Administrative Control Measures

Currently the Site is owned by TEC and operated by a hired HMC. On-Site operations are required to implement the documented EMP. Administrative control measures will be implemented to ensure groundwater will not be used for drinking through use of the water wells on and off-Site to the south (County yard).

Once the HMY is closed, the risks will be re-evaluated and a determination made whether remediation or mitigation measures are required for the future planned Site use of the Site. A soil and groundwater management plan will be prepared and implemented for the specific handling of any contaminated soil and groundwater during future construction activities where contaminated soil and/or groundwater will be encountered.

5.3 Additional Assessment Activities

There is no additional assessment activities proposed at this time other than the on-going monitoring program outlined below.

5.4 Monitoring Plan

The following sections outline the long-term monitoring programs for the Site. The proposed monitoring program included monitoring and sampling of the groundwater wells, and documentation of any observed changes to on-Site and off-Site conditions that could affect the soil and groundwater quality (i.e., changes in handling or storage practices, changes to surface cover etc.). Inspection of adjacent properties will be conducted at the time of each groundwater monitoring event for the presence of new developments, water supply wells, dugouts and stressed vegetation within the area of the perimeter wells, and observations will be documented in the field and reported in the groundwater monitoring and sampling reports.

5.4.1 Groundwater Monitoring and Sampling

The proposed groundwater program includes annual monitoring and sampling of the 11 on-Site wells (MW1, MW2, MW3, MW4, MW13-01, MW13-02, MW13-03, MW13-04, MW18-05, MW18-06 and MW18-07) and ten off-Site wells (MW18-01S, 18-02S, 18-04, 18-05, 18-09, 23-01, 23-02, 23-06, MW24-04 and MW24-05). Given that the most sensitive receptors in proximity to the Site would be any downgradient water wells or surface water bodies, the monitoring and sampling program focuses on groundwater monitoring wells located down and cross gradient of the Site.

The proposed monitoring program shall include monitoring the groundwater wells once a year for the first five years. If after five years there is no indication of increasing concentration trends, the frequency of the groundwater monitoring and sampling will decrease to once every three years. Groundwater samples will be analyzed for basic salinity parameters (pH, calcium, chloride, EC, magnesium, potassium, SAR, sodium, sulphate, TDS, and hardness). Groundwater results will be compared to the Tier 1 Guidelines for natural area/commercial land use and fine-grained soils for on-Site and off-Site wells. The groundwater monitoring and sampling program will continue until such time as concentrations meet applicable Tier 1 Guidelines. A report will be prepared to document the sampling methods, results, trends analysis of salinity conditions, and notes of observed changes to the Site and adjacent properties.

5.4.2 Geophysical Survey

A geophysical electro magnetic (EM) survey is proposed to complement the groundwater monitoring to assess changes in the soil conductivity overtime. The results of the EM survey will generate a map of relative soil conductivities across the Site and the adjacent properties. The survey provides a non-intrusive method to evaluate whether the are of salt impact, as reflected by the area of elevated soil

conductivity, is expanding or stable. High soil conductivity readings can also be attribute to other ions and ferrous objects. A geophysical survey including at least two Electrical Resistivity Tomograph (ERT) lines will be conducted every five to eight years. The frequency of the survey would be driven based on the results of the groundwater monitoring program or other indications of potential changes to risk or other changes to the Site or adjacent properties.

5.5 Contingency Plan

The following outlines a contingency plan based on the results of the long-term monitoring program:

- For first time groundwater exceedances, initially confirmation results through a QA/QC check by reviewing field protocols and laboratory protocols and the absence of transcription errors within the dataset. If no errors were found, then confirm the initial groundwater results by re-sampling within 60 days.
- If the periphery wells report consistent increasing concentrations of 10% or more per year over four consecutive monitoring events, and exceed applicable guidelines, additional intrusive investigations may be completed to expand the monitoring network and assess plume migration.
- If wells within the on-Site source area report increasing concentrations, additional source control measures will be assessed.
- If the monitoring program identifies unacceptable risks to existing receptors, remedial or physical control measures will be evaluated to mitigate the risk.

5.6 Timelines and Plan Requirements

The following outlines a general timeline to implement the monitoring programs:

- Annual groundwater monitoring will occur between the spring and fall with a report generated prior to 31 March the following year. This is expected to begin in 2025/2026.
- If there is no indication of increasing trends and the program is reduced to a sampling frequency of once every three years, then the groundwater monitoring will occur between the spring and the fall with a report generated prior to 31 March the following year.
- A geophysical survey will be completed every five years to eight years, the results of which would be included in the annual groundwater monitoring report.
- The monitoring programs will be completed until the groundwater concentrations meet applicable guidelines.

5.7 Communications Plan

The results of the groundwater sampling programs will be compiled into a report consistent with the frequency of the groundwater monitoring. TEC will be responsible for ensuring reports are disseminated to EPA and stakeholders. The stakeholders include any tenants of the Site and properties in the vicinity of the Site where contamination is known to have migrated or where ongoing monitoring is required.

If the contingency actions are triggered, TEC will notify the affected stakeholders (via phone or email) within two weeks. Or sooner based on the inherent risks.

Stakeholders and third parties can raise concerns regarding the monitoring results with TEC and/or the Consultant. If the land ownership changes, the stakeholders will inform TEC so the new owner can be engaged.

5.8 Long-Term Care and Control

TEC is a public entity and is in a position to ensure the long-term care and control of the RMP.

TEC's Project Administrator will be responsible to ensure the implementation of the monitoring and reporting requirements. The long-term care and control of the Site is defined under this RMP. A copy of the Person(s) Responsible- Risk Management Plan Commitment Letter is included in Appendix G.

6.0 Limitations

This report was prepared by Clifton Engineering Group Inc. for the use of TEC for specific application to the Two Hills located at 2012-52 Street, Two Hills, AB.

The discussion and recommendations within this report were prepared in accordance with the standard care of environmental assessment practice at the time of the report preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Clifton accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

This report has been prepared in accordance with generally accepted standard engineering practice common to the local area. No other warranty, express or implied, is made.

Site information was obtained from the sources listed in the report. Clifton Engineering Group Inc. accepts no responsibility for any deficiencies or inaccuracies in the information provided in this report that are the direct result of intentional or unintentional misrepresentations, errors or omissions of the information reviewed.

Our conclusions and recommendations are preliminary and based upon the information obtained from the referenced subsurface exploration. The borings and associated laboratory testing indicate subsurface, groundwater and chemical conditions only at the specific locations and times investigated, only to the depth penetrated and only for the soil and chemical properties tested. The subsurface conditions may vary between the bore holes and with time. The subsurface interpretation provided is a professional opinion of conditions and not a certification of the site conditions. The nature and extent of subsurface variation may not become evident until excavation or further investigation. If variations or other latent conditions do become evident, Clifton Engineering Group Inc. should be notified immediately so that we may re-evaluate our conclusions and recommendations. Although subsurface conditions have been explored, we have not evaluated the site with respect to conditions pertinent to geotechnical and foundation characteristics.

No environmental site investigation or remediation can wholly eliminate uncertainty regarding environmental conditions in connection with a property. This investigation is intended to reduce but not eliminate the uncertainty regarding environmental conditions. Conclusions regarding the condition of the site do not represent a warranty that all areas within the site and beneath structures are of the same quality as those sampled. Further, contamination could also exist in forms not indicated by the investigation. The work was based in part upon the environmental quality guidelines and regulations in effect when the work was begun. Future regulatory changes may require reassessment of the findings of this investigation.

7.0 References

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Thurber Engineering Ltd., 2019, *2019 Groundwater Monitoring Program, Two Hills Highway Maintenance Yard, 5012 – 52 Street (NE-31-054-12 W4M), Two Hills, Alberta*.

Thurber Engineering Ltd., 2021, *2021 Groundwater Monitoring Program, Two Hills Highway Maintenance Yard, 5012 – 52 Street (NE-31-054-12 W4M), Two Hills, Alberta*.

Thurber Engineering Ltd., 2023, *2023 Off-Site Groundwater Monitoring Program, Two Hills Highway Maintenance Yard, 5012 – 52 Street (NE-31-054-12 W4M), Two Hills, Alberta*.

Figures



Clifton

RISK MANAGEMENT PLAN

PROJECT LOCATION: TWO HILLS HIGHWAY MAINTENANCE YARD, TWO HILLS, AB



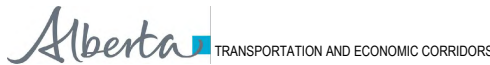
NOTES:
1. IMAGE FROM GOOGLE EARTH PRO
DATED 2025. IMAGE COURTESY OF
GOOGLE EARTH PRO AND
DIGITALGLOBE.

KEY PLAN - NOT TO SCALE

ENGINEER



CLIENT



TITLE

SITE LOCATION PLAN

DATE

2025-2-21

PROJECT No.

CG3687.2.023

FIG No.

01



LEGEND

SITE BOUNDARY

NOTES:

1. IMAGE FROM GOOGLE EARTH PRO DATED 2025. IMAGE COURTESY OF GOOGLE EARTH PRO AND DIGITALGLOBE.

2. GEOPHYSICAL SURVEY WAS COMPLETED BY AKS GEOSCIENCE ON 14 OCTOBER 2022 ON BEHALF OF CLIFTON AND ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS.

ENGINEER

CLIENT

PROJECT

DRAWING NAME

DESIGN BY

DWN. BY

REV. BY

RN

AC

-

SCALE

PROJECT NO.

FILE NO.

1:500

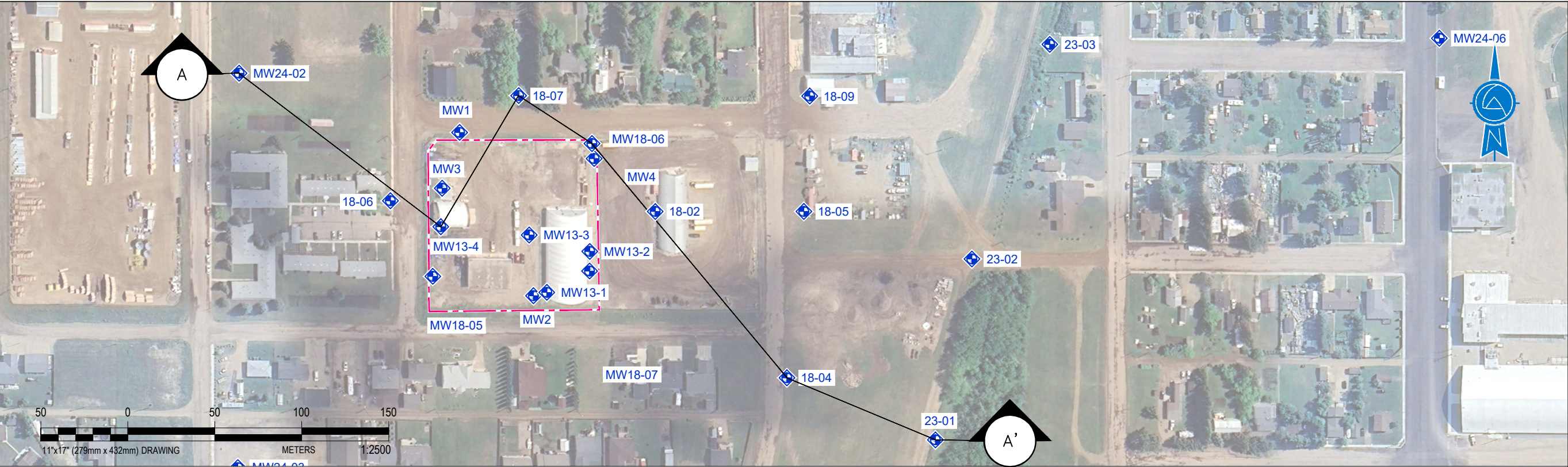
CG3687.2.023

DATE

DWG. NO.

2025-2-21

02



LEGEND

MONITORING WELL

BOREHOLE LOCATION

SITE BOUNDARY

TOPSOIL

CLAY

SAND

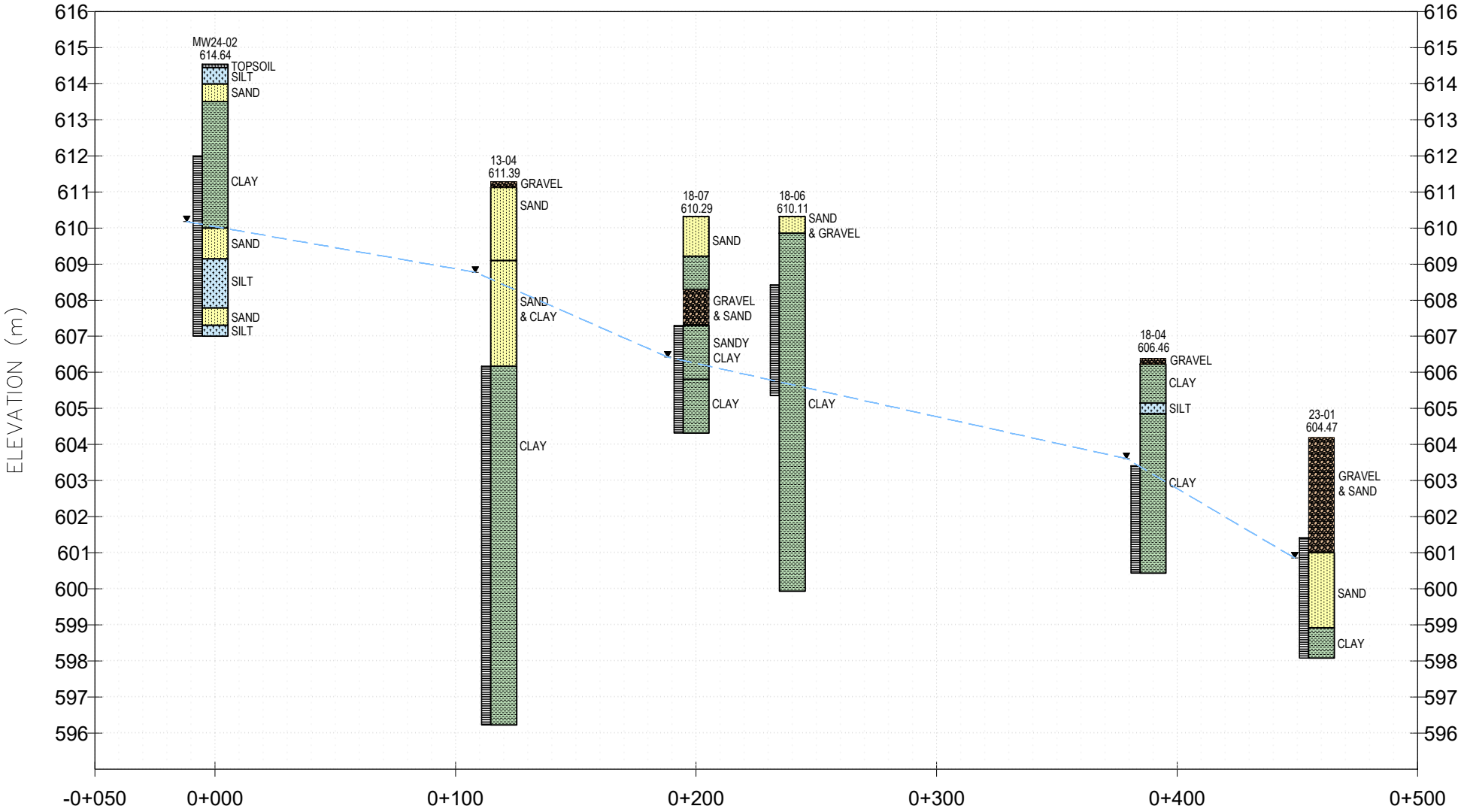
SILT

GRAVEL

SCREEN INTERVAL

WATER LEVEL

GROUNDWATER LEVEL



NOTES:

1. IMAGE FROM GOOGLE EARTH PRO DATED 2025. IMAGE COURTESY OF GOOGLE EARTH PRO AND DIGITALGLOBE.

ENGINEER

CLIENT

Alberta TRANSPORTATION AND ECONOMIC CORRIDORS

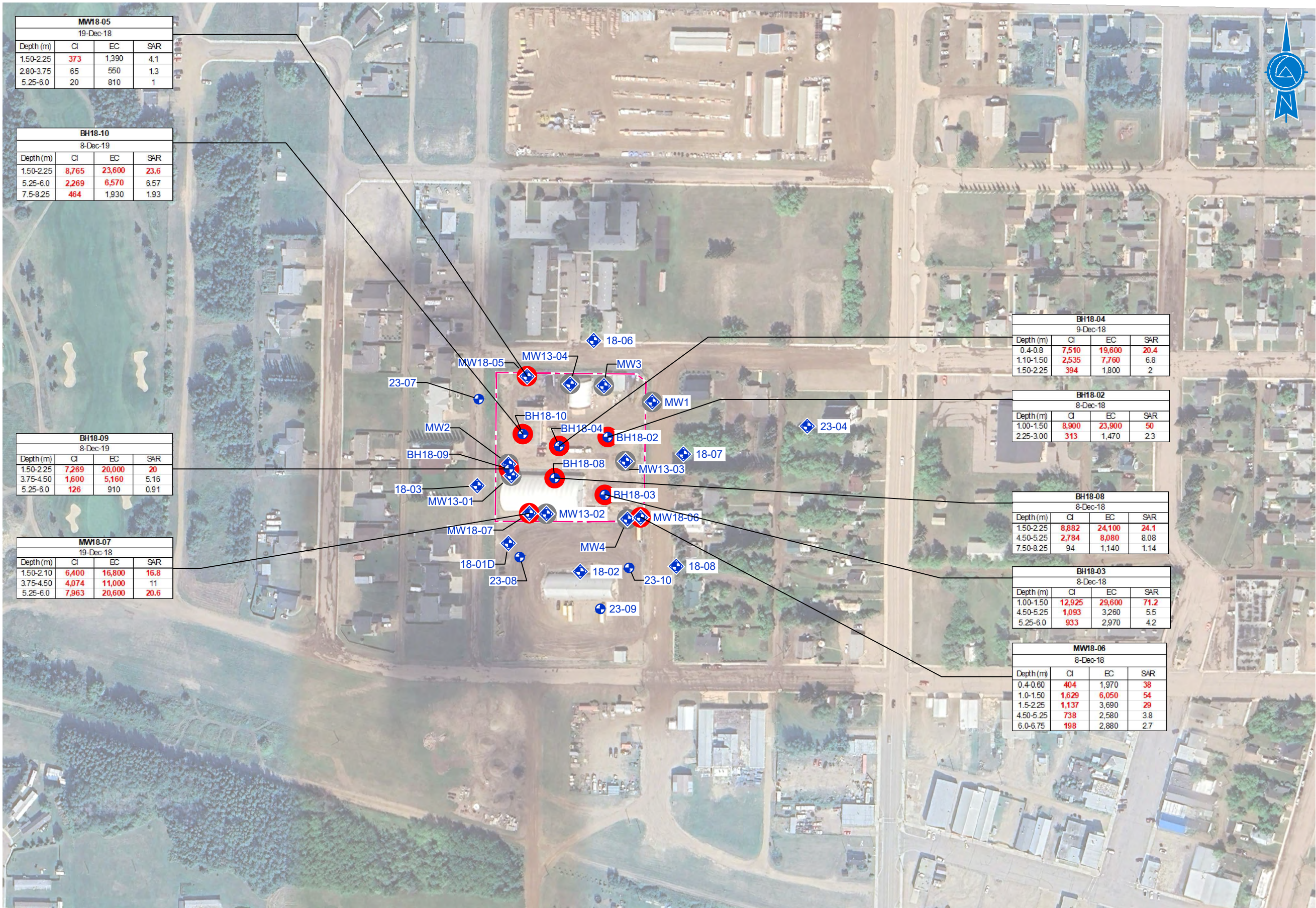
PROJECT

RISK MANAGEMENT PLAN
TWO HILLS HIGHWAY MAINTENANCE YARD

DRAWING NAME

CROSS SECTION A-A'

DSGN. BY	RN	SCALE	1:2500	DATE	2025-2-21
DWN. BY	AC	PROJECT NO.	CG3687.2.023	DWG. NO.	
REV. BY	-	FILE NO.			03



LEGEND

MONITORING WELL

BOREHOLE

MEETS APPLICABLE GUIDELINES

EXCEEDS APPLICABLE GUIDELINES

NO DATA AVAILABLE FOR THIS LOCATION

SITE BOUNDARY

CL

EC

SAR

Soluble Chloride Concentrations in (mg/L)

Electrical Conductivity in Concentrations of (uS/cm)

Sodium Absorption Ratio

- NOTES:
1. IMAGE FROM GOOGLE EARTH PRO DATED 2025. IMAGE COURTESY OF GOOGLE EARTH PRO AND DIGITALGLOBE.

2. CONCENTRATIONS WERE COMPARED TO THE AB TIER 1 2024 GUIDELINES FOR COMMERCIAL/INDUSTRIAL LAND USE (FINE SOIL).

COMMERCIAL/INDUSTRIAL GUIDELINES

CL : 120

EC : 4000

SAR : 12

ENGINEER

CLIENT

PROJECT

DRAWING NAME

DSGN. BY

DWN. BY

REV. BY

Clifton

Alberta

TRANSPORTATION AND ECONOMIC CORRIDORS

RISK MANAGEMENT PLAN

TWO HILLS HIGHWAY MAINTENANCE YARD

SOIL ANALYTICAL RESULTS - ON SITE

RN

SCALE

PROJECT NO.

FILE NO.

DATE

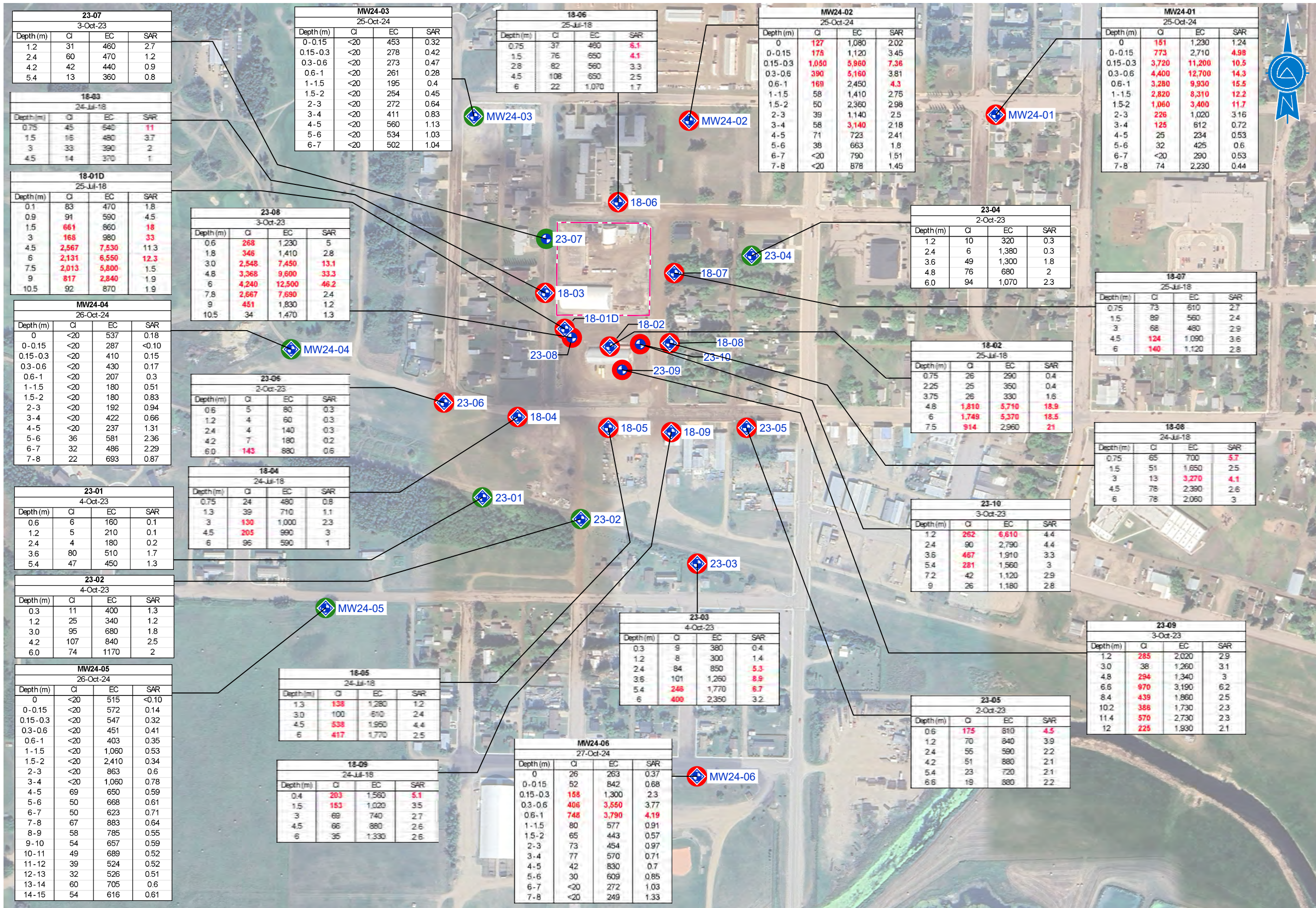
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2025-2-21

CG3687.2.023

04

Z:\Shared\Civil Design and Drafting\Projects\Calgary\CG3687.2 Technical Supplement to Transportation and Economic Corridors Standard Specifications for Highway Maintenance\23 - Two Hills - RMP\CG3687.2-04-RMP Soil Analytical Results-On Site.dwg, 02/28/2025 12:55:41 PM



LEGEND

MONITORING WELL

BOREHOLE

MEETS APPLICABLE GUIDELINES

EXCEEDS APPLICABLE GUIDELINES

NO DATA AVAILABLE FOR THIS LOCATION

SITE BOUNDARY

CL Soluble Chloride Concentrations in (mg/L)
EC Electrical Conductivity in Concentrations of (uS/cm)
SAR Sodium Absorption Ratio

NOTES:

1. IMAGE FROM GOOGLE EARTH PRO DATED 2025. IMAGE COURTESY OF GOOGLE EARTH PRO AND DIGITALGLOBE.

2. CONCENTRATIONS WERE COMPARED TO THE AB TIER 1 2024 GUIDELINES FOR RESIDENTIAL AND COMMERCIAL/INDUSTRIAL LAND USE(FINE SOIL).

RESIDENTIAL GUIDELINES
CL : 120
EC : 3000
SAR : 4

COMMERCIAL/INDUSTRIAL GUIDELINES
CL : 120
EC : 4000
SAR : 12

ENGINEER

CLIENT

PROJECT

DRAWING NAME

DSGN. BY RN **SCALE** 1:4000 **DATE** 2025-2-21

DWN. BY AC **PROJECT NO.** CG3687.2.023 **DWG. NO.**

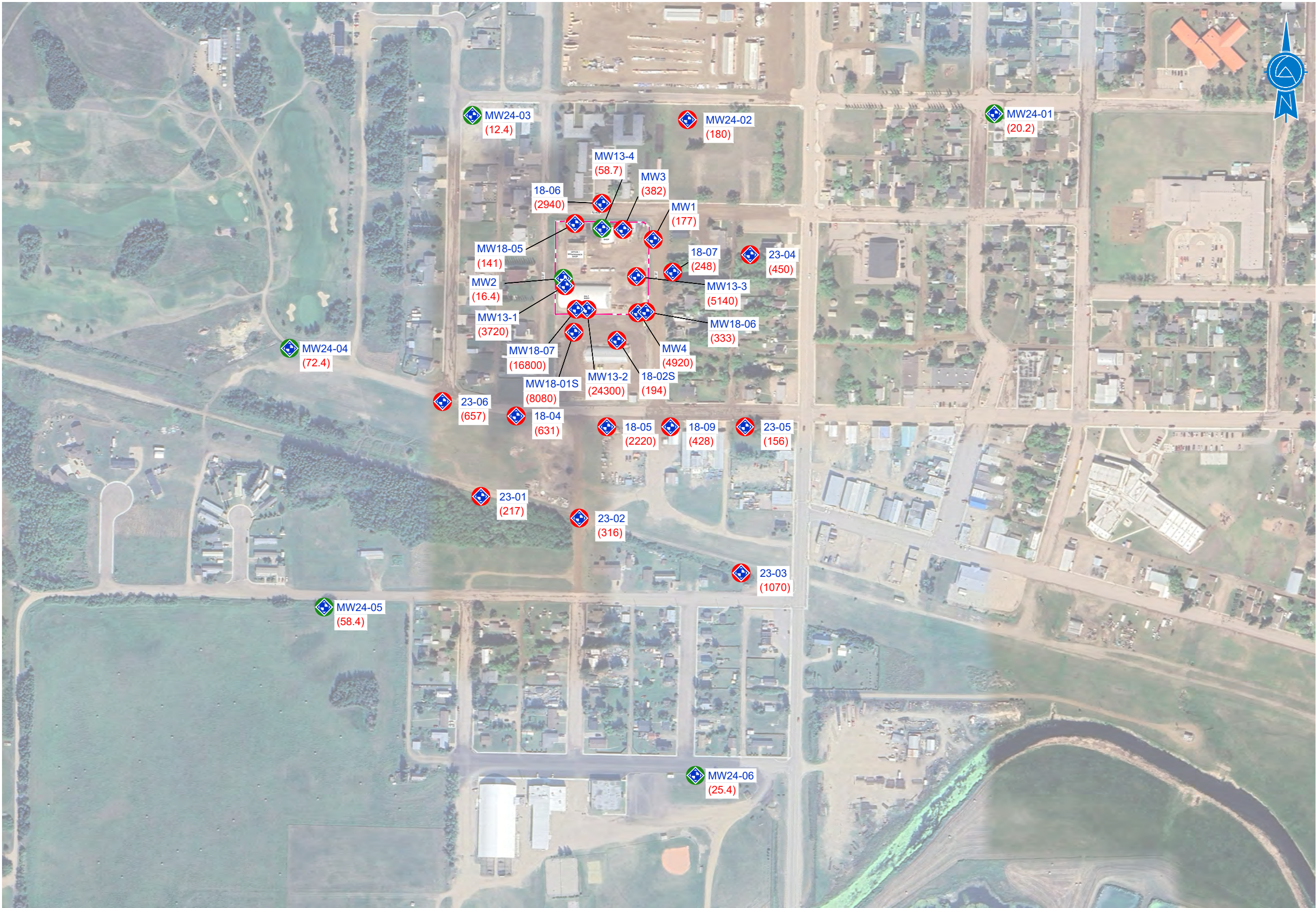
REV. BY - **FILE NO.**

SOIL ANALYTICAL RESULTS - OFF SITE

11'x17" (279mm x 432mm) DRAWING

METERS 1:4000

97



LEGEND

MONITORING WELL

BELOW CHLORIDE CONCENTRATION GUIDELINE

ABOVE CHLORIDE CONCENTRATION GUIDELINE

SITE BOUNDARY



CHLORIDE CONCENTRATION IN mg/L

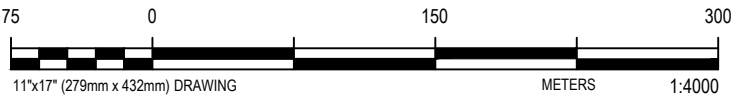
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- NOTES:
1. IMAGE FROM GOOGLE EARTH PRO DATED 2025. IMAGE COURTESY OF GOOGLE EARTH PRO AND DIGITALGLOBE.

2. CHLORIDE CONCENTRATIONS ARE MEASURED IN mg/L.

3. CHLORIDE CONCENTRATIONS WERE COMPARED TO THE AB TIER 1 2024 GUIDELINES FOR RESIDENTIAL AND INDUSTRIAL LAND USE. THE RESIDENTIAL AND INDUSTRIAL LAND USE GUIDELINE VALUE FOR CHLORIDE IS 120 MG/L.

ENGINEER		 Clifton			
CLIENT		 TRANSPORTATION AND ECONOMIC CORRIDORS			
PROJECT		RISK MANAGEMENT PLAN TWO HILLS HIGHWAY MAINTENANCE YARD			
DRAWING NAME		GROUNDWATER CHLORIDE DATA			
DSGN. BY	RN	SCALE	1:750	DATE	2025-2-21
DWN. BY	AC	PROJECT NO.	CG3687.2.023	DWG. NO.	
REV. BY	-	FILE NO.			07





LEGEND

SITE BOUNDARY

WATER WELL


OPEN WATER

SWAMP

MARSH

NOTES:

1. IMAGE FROM GOOGLE EARTH PRO DATED 2025.
IMAGE COURTESY OF GOOGLE EARTH PRO AND DIGITALGLOBE.

ENGINEER		 Clifton			
CLIENT		TRANSPORTATION AND ECONOMIC CORRIDORS			
PROJECT		RISK MANAGEMENT PLAN TWO HILLS HIGHWAY MAINTENANCE YARD			
DRAWING NAME		WATER BODIES AND WATER WELLS			
DSGN. BY	RN	SCALE	1:7,500	DATE	2025-2-21
DWN. BY	AC	PROJECT NO.	CG3687.2.023	DWG. NO.	
REV. BY	-	FILE NO.	08		
CG3687.2.023 WATER BODIES AND WATER WELLS					

Appendix A

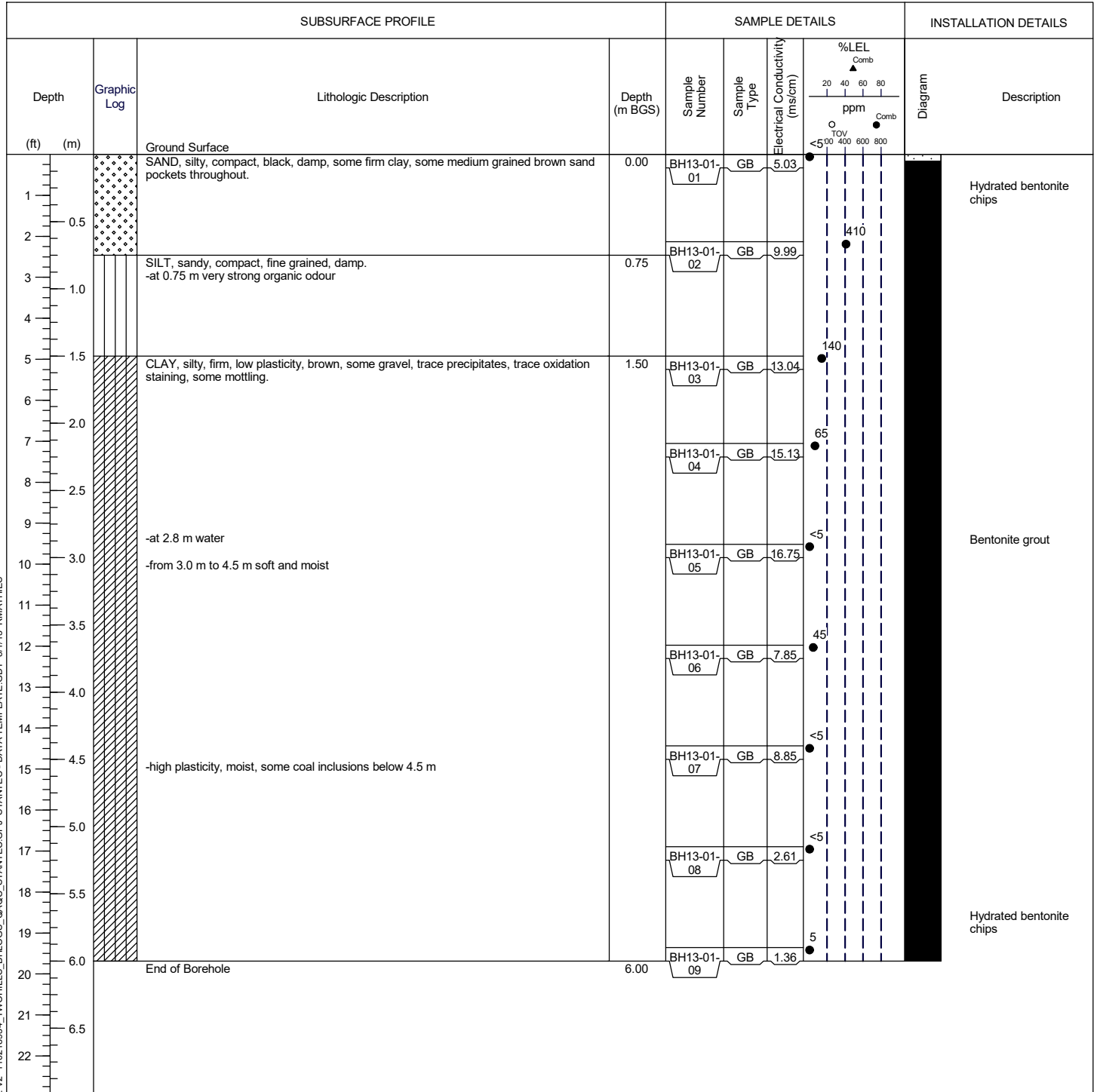
Historical Borehole Logs



Monitoring Well: BH13-01

Project: Environmental Management Plan
Client: Carillion Canada Inc.
Location: Two Hills HMY
Number: 110218934
Field investigator: KS/AE
Contractor: CP Drilling

Drilling method: Solid Stem Auger
Date started/completed: 16-Jul-2013
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a



Screen Interval: n/a
 Sand Pack Interval: n/a
 Well Seal Interval: n/a

Notes:
 m AMSL - metres above mean sea level
 m BGS - metres below ground surface
 GB - grab sample
 ppm - parts per million by volume
 n/a - not available

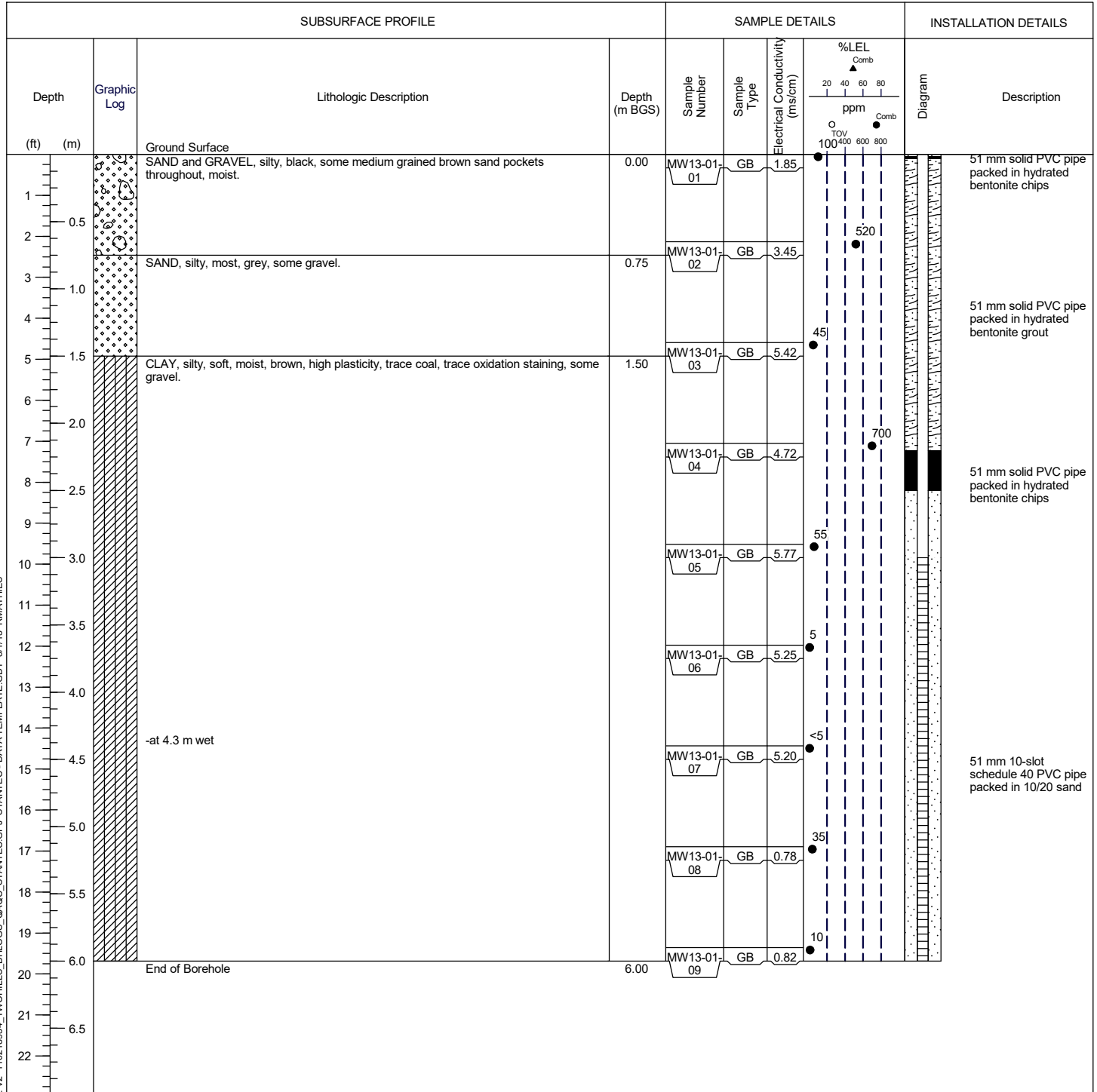
Drawn By/Checked By: AD



Monitoring Well: MW13-01

Project: Environmental Management Plan
Client: Carillion Canada Inc.
Location: Two Hills HMY
Number: 110218934
Field investigator: KS/AE
Contractor: CP Drilling

Drilling method: Solid Stem Auger
Date started/completed: 16-Jul-2013
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a



Screen Interval: 3.00 - 6.00 m BGS
 Sand Pack Interval: 2.50 - 6.00 m BGS
 Well Seal Interval: 0.01 - 2.50 m BGS

Notes:
 m AMSL - metres above mean sea level
 m BGS - metres below ground surface
 GB - grab sample
 ppm - parts per million by volume
 n/a - not available

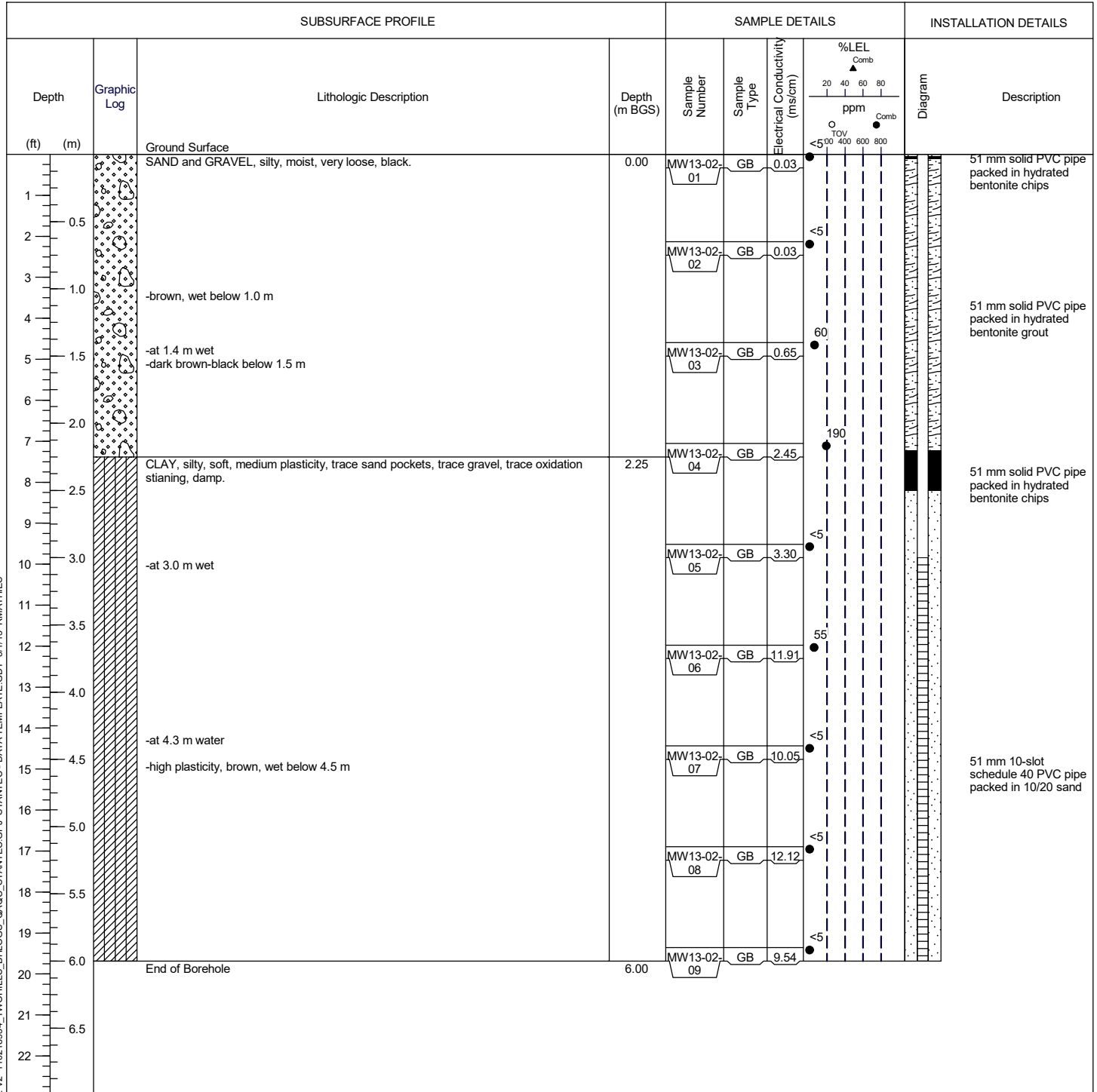
Drawn By/Checked By: AD



Monitoring Well: MW13-02

Project: Environmental Management Plan
Client: Carillion Canada Inc.
Location: Two Hills HMY
Number: 110218934
Field investigator: KS/AE
Contractor: CP Drilling

Drilling method: Solid Stem Auger
Date started/completed: 16-Jul-2013
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a



Screen Interval: 3.00 - 6.00 m BGS
 Sand Pack Interval: 2.50 - 6.00 m BGS
 Well Seal Interval: 0.01 - 2.50 m BGS

Notes:
 m AMSL - metres above mean sea level
 m BGS - metres below ground surface
 GB - grab sample
 ppm - parts per million by volume
 n/a - not available

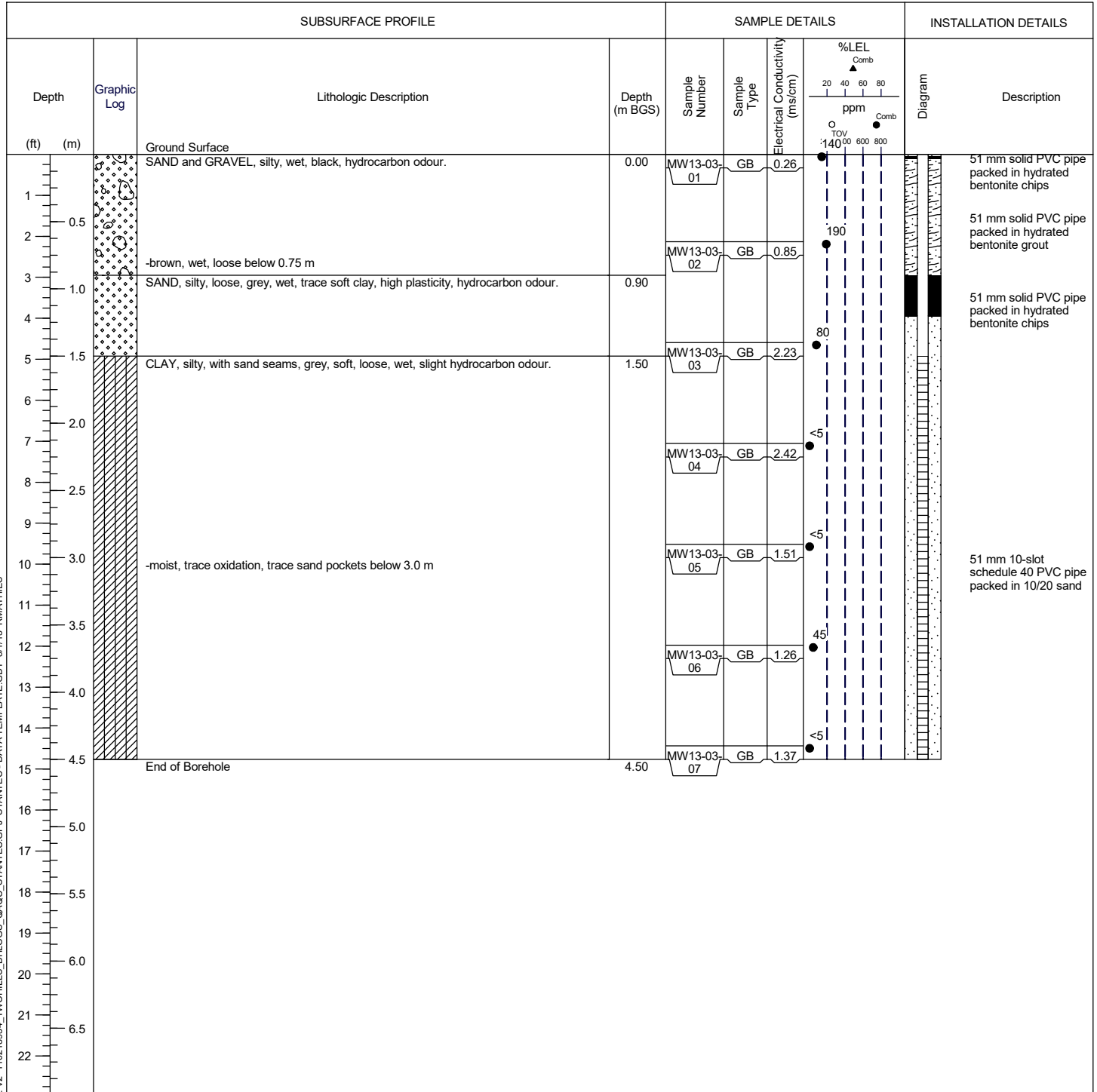
Drawn By/Checked By: AD



Monitoring Well: MW13-03

Project: Environmental Management Plan
Client: Carillion Canada Inc.
Location: Two Hills HMY
Number: 110218934
Field investigator: KS/AE
Contractor: CP Drilling

Drilling method: Solid Stem Auger
Date started/completed: 16-Jul-2013
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a



Screen Interval: 1.50 - 4.50 m BGS
 Sand Pack Interval: 1.20 - 4.50 m BGS
 Well Seal Interval: 0.01 - 1.20 m BGS

Notes:
 m AMSL - metres above mean sea level
 m BGS - metres below ground surface
 GB - grab sample
 ppm - parts per million by volume
 n/a - not available

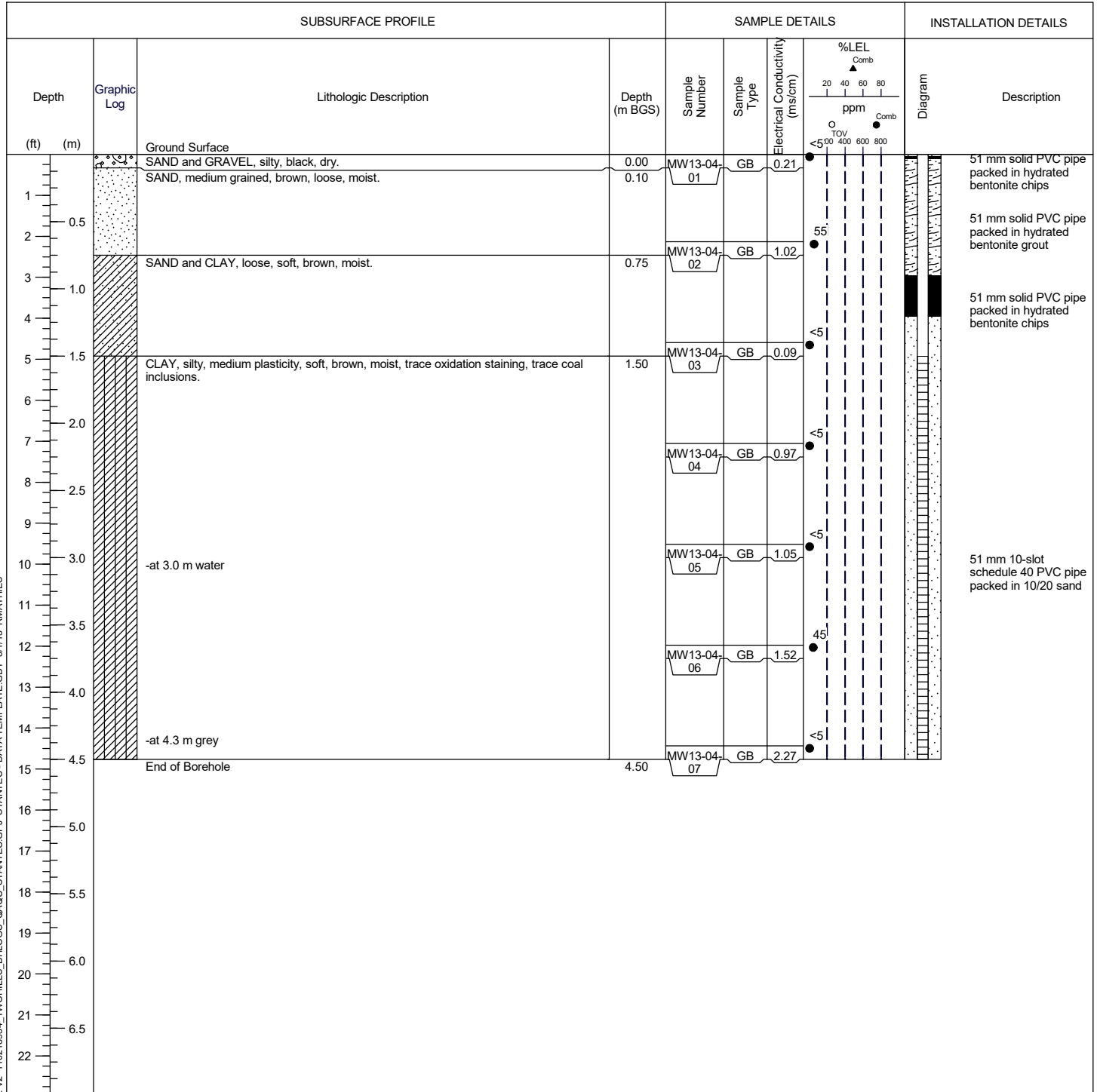
Drawn By/Checked By: AD



Monitoring Well: MW13-04

Project: Environmental Management Plan
Client: Carillion Canada Inc.
Location: Two Hills HMY
Number: 110218934
Field investigator: KS/AE
Contractor: CP Drilling

Drilling method: Solid Stem Auger
Date started/completed: 16-Jul-2013
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a



Screen Interval: 1.50 - 4.50 m BGS
 Sand Pack Interval: 1.20 - 4.50 m BGS
 Well Seal Interval: 0.01 - 1.20 m BGS

Notes:
 m AMSL - metres above mean sea level
 m BGS - metres below ground surface
 GB - grab sample
 ppm - parts per million by volume
 n/a - not available

Drawn By/Checked By: AD




Ecoventure Inc.

Client: Alberta Transportation
















Borehole / Monitoring Well Log: BH18-05 / MW18-05

Project: 2018 Baseline ESA	Date: 19-Dec-18	Top of Screen (m): 3.0	Ground Elevation (m): 586.675
Site: Two Hills HMY	Start: 10:45	Base of Screen (m): 6.0	Casing Stickup (m): 587.6169
GPS: Not recorded	Finish: 12:00	Sand Pack Interval (m): 2.8 - 6.0	Screen Slot Size: 10
Location: NW corner (Background)	Driller: CP Drilling	Total Depth (m): 6.00	Geonics EM38 (dS/cm): ---
Logged by: R. McLevin	Drill Type: Solid Stem	Sample method: Discrete	

Well Completion	Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
				0.00 - 1.50 m: Sand Coarse, trace clay, loose, no plasticity, moist, brown	0.00 - 0.15 0.15 - 0.50	NC NC	0.10 0.00	
				0.50 - 1.50 m: Some clay, some silt, fine sand, dark brown, soft	0.50 - 1.00	NC	0.11	
	1	-1		1.00 - 1.50 m: Stiff, low plasticity	1.00 - 1.50	NC	0.32	
				1.50 - 2.80 m: Sand and gravel (coarse), loose, dark brown	1.50 - 2.25	NC	0.88	
	2	-2		2.00 - 2.30 m: Fine sand	2.25 - 2.80	NC	0.92	
				2.80 - 6.00 m: Clay Till Some silt, trace gravel, soft, medium plasticity, grey, moist	2.80 - 3.75	NC	1.71	
	3	-3						
				3.60 - 6.00 m: Trace sand, stiff, dark grey, trace oxidation	3.75 - 4.50	NC	1.45	
	4	-4						
					4.50 - 5.25	NC	1.11	
	5	-5						
					5.25 - 6.00	NC	1.19	
	6	-6		End of Hole @ 6.00 m				

Notes:
 - Water level measure on January 4, 2019.

Key to Lithology:

 Bentonite	 Clay	 Screen
 Fill	 Sand	 Clay Till
 Cement	 Sandy Clay	 Shale
 Topsoil	 Silt	 Sandstone
 Loam	 Silty Clay	 Siltstone
— Not applicable		
NC Not conducted		

PHC BTEX, F1-4
PAH Polycyclic Aro...
SAL Detailed Salinity
GLY Glycols Screen
MTH Methanol Screen

MTL AT1 Metals
STL Sterilant Screen
TXT 75 um Sieve
PSA Hydrometer
HLD Hold

Ecoventure Inc.

Client: Alberta Transportation

Borehole / Monitoring Well Log: BH18-06 /
MW18-06

Project: 2018 Baseline ESA	Date: 08-Dec-18	Top of Screen (m): 2.0	Ground Elevation (m): 585.476
Site: Two Hills HMY	Start: 9:15	Base of Screen (m): 5.0	Casing Stickup (m): 586.230
GPS: 12U 0450570 m E, 5951665 m N	Finish: 10:30	Sand Pack Interval (m): 1.7 - 5.0	Screen Slot Size: 10
Location: 8 m W, 2 m N of SE site corner	Driller: CP Drilling	Total Depth (m): 10.50	Geonics EM38 (dS/cm): --
Logged by: T, Butler		Drill Type: Solid Stem	Sample method: Discrete

Well Completion	Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
				0.00 - 0.40 m: Sand and Gravel Medium to coarse grained, dark brown, moist, compact, fill	0.00 - 0.40	NC	0.06	
					0.40 - 0.60	NC	0.46	SAL
				0.40 - 10.50 m: Clay Silty and sandy, trace gravel, dark grey, organic inclusions, medium to coarse grained sand, medium stiff	0.60 - 1.00	NC	0.48	
					1.00 - 1.50	NC	1.76	
	1	585.476						
				1.50 - 1.60 m: Greyish blue, wet, soft 1.60 - 2.20 m: Medium stiff, moist	1.50 - 2.25	NC	1.56	SAL
	2	585.476						
				2.20 - 3.00 m: Dark brown, stiff, oxidation inclusions (red/brown)	2.25 - 3.00	NC	1.68	
	3	585.476						
				3.00 - 4.50 m: Soft	3.00 - 3.75	NC	1.54	SAL (Hold)
	4	585.476						
				4.50 - 6.00 m: Dark grey, 10-20 cm oxidation inclusion	4.50 - 5.25	NC	1.54	SAL
	5	585.476						
				5.00 m: 10-20 oxidation inclusion	5.25 - 6.00	NC	1.52	
	6	585.476						
				6.00 - 10.50 m: Medium stiff	6.00 - 6.75	NC	1.18	
					6.75 - 7.50	NC	1.24	
					7.50 - 8.25	NC	1.16	SAL (Hold)
	8	585.476						
					8.25 - 9.00	NC	1.12	
					9.00 - 9.75	NC	1.16	
	9	585.476						
					9.75 - 10.50	NC	1.13	SAL (Hold)
	10	585.476						
				End of Hole @ 10.50 m				

Notes:

Water level measure on January 4, 2019.

Key to Lithology:

Bentonite	Clay	Screen
Fill	Sand	Clay Till
Cement	Sandy Clay	Shale
Topsoil	Silt	Sandstone
Loam	Silty Clay	Siltstone

-- Not applicable

NC Not conducted

PHC BTEX, F1-4	MTL AT1 Metals
PAH Polycyclic Aro...	STL Sterilant Screen
SAL Detailed Salinity	TXT 75 um Sieve
GLY Glycols Screen	PSA Hydrometer
MTH Methanol Screen	HLH Hold




Ecoventure Inc.

Client: Alberta Transportation
















Borehole / Monitoring Well Log: BH18-07 / MW18-07

Project: 2018 Baseline ESA	Date: 19-Dec-18	Top of Screen (m): 3.0	Ground Elevation (m): 585.714
Site: Two Hills HMY	Start: 9:00	Base of Screen (m): 6.0	Casing Stickup (m): 586.542
GPS: Not recorded	Finish: 10:30	Sand Pack Interval (m): 2.8 - 6.0	Screen Slot Size: 10
Location: APEC 5	Driller: CP Drilling	Total Depth (m): 6.00	Geonics EM38 (dS/cm): ---
Logged by: R. McLevin	Drill Type: Solid Stem	Sample method: Discrete	

Well Completion	Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
				0.00 - 1.50 m: Sand Coarse, trace clay, loose, no plasticity, black, moist	0.00 - 0.15 0.15 - 0.50	NC NC	0.12 0.11	
					0.50 - 1.00	NC	0.28	
	1	-1			1.00 - 1.50	NC	0.24	
				1.50 - 2.10 m: Silty Clay Some fine sand, stiff, high plasticity, moist, light brown	1.50 - 2.10	NC	1.10	
	2	-2						
				2.10 - 3.00 m: Sand and gravel Coarse, trace clay, loose, no plasticity, dark brown, moist	2.10 - 3.00	NC	1.23	
	3	-3						
				3.00 - 4.50 m: Sandy Clay Some silt, very soft, low plasticity, wet, light brown	3.00 - 3.75	NC	1.41	
	4	-4			3.75 - 4.50	NC	2.01	
				4.50 - 6.00 m: Clay Some silt, soft, medium plasticity, moist, light brown 4.50 - 5.00 m: Trace oxidation	4.50 - 5.25	NC	1.22	
	5	-5						
				5.00 - 5.50 m: Some oxidation				
					5.25 - 6.00	NC	1.19	
				5.50 - 6.00 m: Trace oxidation				
	6	-6		End of Hole @ 6.00 m				

Notes:
 - Water level measure on January 4, 2019.

Key to Lithology:

 Bentonite	 Clay	 Screen
 Fill	 Sand	 Clay Till
 Cement	 Sandy Clay	 Shale
 Topsoil	 Silt	 Sandstone
 Loam	 Silty Clay	 Siltstone
— Not applicable		
NC Not conducted		

PHC BTEX, F1-4
PAH Polycyclic Aro...
SAL Detailed Salinity
GLY Glycols Screen
MTH Methanol Screen

MTL AT1 Metals
STL Sterilant Screen
TXT 75 um Sieve
PSA Hydrometer
HLD Hold

Ecoventure Inc.

Borehole Log: BH18-01

Client: Alberta Transportation

Project: 2018 Baseline ESA

Date: 19-Dec-18

Top of Screen (m): —

Site: Two Hills HMY

Start: Not recorded

Base of Screen (m): —

GPS: Not recorded

Finish: Not recorded

Sand Pack Interval (m): ---

Location: APEC 1

Driller: CP Drilling

Total Depth (m): 4.50

Logged by: R. McLevin

Drill Type: Solid Stem

Sample method: Discrete

Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
			0.00 - 0.50 m: Sand and gravel Coarse, loose, brown, moist	0.00 - 0.50	NC	0.05	
			0.50 - 4.50 m: Clay Some silt, soft, low plasticity, moist, light brown	0.50 - 1.00	NC	1.11	
1	1		1.00 - 1.70 m: Trace fine sand, stiff, medium plasticity	1.00 - 1.50	NC	1.41	
			1.70 - 3.00 m: Some sand and gravel (coarse), very soft, light brown, moist	1.50 - 2.25	NC	1.78	
2	2		1.90 - 4.50 m: Trace oxidation	2.25 - 3.00	NC	1.43	
3	3		3.00 - 3.30 m: Trace grey mottling 3.00 - 4.50 m: Trace sand and gravel, soft, brown, moist	3.00 - 3.75	NC	1.21	
				3.75 - 4.50	NC	1.27	
4	4						
			End of Hole @ 4.50 m				

Key to Lithology:

	Bentonite		Clay		Gravel
	Fill		Sand		Clay Till
	Cement		Sandy Clay		Shale
	Topsoil		Silt		Sandstone
	Loam		Silty Clay		Siltstone

— Not applicable

NC Not conducted

PHC BTEX, F1-4

PAH Polycyclic Aro...

SAL Detailed Salinity

GLY Glycols Screen

MTH Methanol Screen

MTL AT1 Metals

STL Sterilant Screen

TXT 75 um Sieve

PSA Hydrometer

HLD Hold

Ecoventure Inc.

Borehole Log: BH18-02

Client: Alberta Transportation

Project: 2018 Baseline ESA

Date: 08-Dec-18

Top of Screen (m): —

Site: Two Hills HMY

Start: 12:00

Base of Screen (m): —

GPS: 12U 0450550 m E, 5951717 m N

Finish: 12:15

Sand Pack Interval (m): ---

Location: APEC 2

Driller: CP Drilling

Total Depth (m): 3.00

Logged by: T. Buter

Drill Type: Solid Stem

Sample method: Discrete

Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
			0.00 - 1.50 m: Sand and Gravel Dark brown, moist, compact, medium to coarse grained sand	0.00 - 0.40	NC	0.61	
				0.40 - 1.00	NC	1.84	
1	-1			1.00 - 1.50	NC	2.03	SAL
			1.50 - 1.70 m: Topsoil Black, moist, soft	1.50 - 2.25	NC	1.36	
2	-2		1.70 - 3.00 m: Clay Silty, trace sand (fine), grey, moist, trace organic inclusions				
				2.25 - 3.00	NC	1.20	SAL (Hold)
3	-3		End of Hole @ 3.00 m				

Key to Lithology:

	Bentonite		Clay		Gravel
	Fill		Sand		Clay Till
	Cement		Sandy Clay		Shale
	Topsoil		Silt		Sandstone
	Loam		Silty Clay		Siltstone
	— Not applicable				
	NC Not conducted				

PHC BTEX, F1-4

PAH Polycyclic Aro...

SAL Detailed Salinity

GLY Glycols Screen

MTH Methanol Screen

MTL AT1 Metals

STL Sterilant Screen

TXT 75 um Sieve

PSA Hydrometer

HLD Hold

Ecoventure Inc.

Borehole Log: BH18-03

Client: Alberta Transportation

Project: 2018 Baseline ESA

Date: 08-Dec-18

Top of Screen (m): --

Site: Two Hills HMY

Start: 10:50

Base of Screen (m): --

GPS: 12U 0450548 m E, 5951679 m N

Finish: 11:50

Sand Pack Interval (m): --

Location: APEC 2

Driller: CP Drilling

Total Depth (m): 6.00

Logged by: T. Butler

Drill Type: Solid Stem

Sample method: Discrete

Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
			0.00 - 0.40 m: Asphalt No sample	0.00 - 0.40	NC	NC	
			0.40 - 1.00 m: Sand and gravel Compact, coarse grained, dark brown, fill	0.40 - 1.00	50	0.61	PHC (Hold)
1	-1						
			1.00 - 2.00 m: Clay Silty and sandy, dark brown, moist, medium stiff, medium to coarse grained, trace gravel	1.00 - 1.50	60	12.01	PHC (Hold), SAL
			1.50 - 1.60 m: Sand lens Wet, slight odour	1.50 - 2.25	150	3.61	PHC, SAL
2	-2						
			2.00 - 2.50 m: Topsoil/organics Silty, black, soft, moist	2.25 - 3.00	300	3.21	PHC (Hold)
			2.50 - 3.00 m: Clay Dark grey				
3	-3						
			3.00 - 6.00 m: Clay Silty and sandy, oxidation, trace gravel, wet, moist after 4.50 m	3.00 - 3.75	5	2.13	
				3.75 - 4.50	5	2.14	PHC (Hold)
4	-4						
				4.50 - 5.25	0	1.64	SAL
5	-5						
				5.25 - 6.00	0	1.51	
6	-6		End of Hole @ 6.00 m				

Key to Lithology:

	Bentonite		Clay		Gravel
	Fill		Sand		Clay Till
	Cement		Sandy Clay		Shale
	Topsoil		Silt		Sandstone
	Loam		Silty Clay		Siltstone

--- Not applicable

NC Not conducted

PHC BTEX, F1-4

PAH Polycyclic Aro...

SAL Detailed Salinity

GLY Glycols Screen

MTH Methanol Screen

MTL AT1 Metals

STL Sterilant Screen

TXT 75 um Sieve

PSA Hydrometer

HLD Hold

Ecoventure Inc.

Borehole Log: BH18-04

Client: Alberta Transportation

Project: 2018 Baseline ESA

Date: 09-Dec-18

Top of Screen (m): —

Site: Two Hills HMY

Start: 8:00

Base of Screen (m): —

GPS: 12U 0450518 m E, 5951711 m N

Finish: 8:25

Sand Pack Interval (m): ---

Location: APEC 3

Driller: CP Drilling

Total Depth (m): 3.00

Logged by: T. Butler

Drill Type: Solid Stem

Sample method: Discrete

Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
			0.00 - 0.40 m: Sand and gravel Dark brown, moist, compact, coarse grained	0.00 - 0.40	NC	0	
			0.40 - 0.80 m: Topsoil Black, moist, soft	0.40 - 0.80	NC	3.21	SAL, Dup1
1	1		0.80 - 3.00 m: Clay Silty and sandy, dark grey, moist, medium stiff, medium to coarse grained sand, organic inclusions	0.80 - 1.10	NC	3.10	
				1.10 - 1.50	NC	2.89	SAL
			1.50 - 3.00 m: Dark brown	1.50 - 2.25	NC	1.26	
2	2			2.25 - 3.00	NC	1.20	SAL
3	3		End of Hole @ 3.00 m				

Key to Lithology:

	Bentonite		Clay		Gravel
	Fill		Sand		Clay Till
	Cement		Sandy Clay		Shale
	Topsoil		Silt		Sandstone
	Loam		Silty Clay		Siltstone
	— Not applicable				
	NC Not conducted				

PHC BTEX, F1-4

PAH Polycyclic Aro...

SAL Detailed Salinity

GLY Glycols Screen

MTH Methanol Screen

MTL AT1 Metals

STL Sterilant Screen

TXT 75 um Sieve

PSA Hydrometer

HLD Hold


Ecoventure Inc.

Client: Alberta Transportation
















Borehole / Monitoring Well Log: BH18-05 / MW18-05

Project: 2018 Baseline ESA	Date: 19-Dec-18	Top of Screen (m): 3.0	Ground Elevation (m): 586.675
Site: Two Hills HMY	Start: 10:45	Base of Screen (m): 6.0	Casing Stickup (m): 587.6169
GPS: Not recorded	Finish: 12:00	Sand Pack Interval (m): 2.8 - 6.0	Screen Slot Size: 10
Location: NW corner (Background)	Driller: CP Drilling	Total Depth (m): 6.00	Geonics EM38 (dS/cm): ---
Logged by: R. McLevin	Drill Type: Solid Stem	Sample method: Discrete	

Well Completion	Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
				0.00 - 1.50 m: Sand Coarse, trace clay, loose, no plasticity, moist, brown	0.00 - 0.15 0.15 - 0.50	NC NC	0.10 0.00	
				0.50 - 1.50 m: Some clay, some silt, fine sand, dark brown, soft	0.50 - 1.00	NC	0.11	
	1	-1		1.00 - 1.50 m: Stiff, low plasticity	1.00 - 1.50	NC	0.32	
				1.50 - 2.80 m: Sand and gravel (coarse), loose, dark brown	1.50 - 2.25	NC	0.88	
	2	-2		2.00 - 2.30 m: Fine sand	2.25 - 2.80	NC	0.92	
				2.80 - 6.00 m: Clay Till Some silt, trace gravel, soft, medium plasticity, grey, moist	2.80 - 3.75	NC	1.71	
	3	-3						
				3.60 - 6.00 m: Trace sand, stiff, dark grey, trace oxidation	3.75 - 4.50	NC	1.45	
	4	-4						
					4.50 - 5.25	NC	1.11	
	5	-5						
					5.25 - 6.00	NC	1.19	
	6	-6		End of Hole @ 6.00 m				

Notes:
 - Water level measure on January 4, 2019.

Key to Lithology:

 Bentonite	 Clay	 Screen
 Fill	 Sand	 Clay Till
 Cement	 Sandy Clay	 Shale
 Topsoil	 Silt	 Sandstone
 Loam	 Silty Clay	 Siltstone
— Not applicable		
NC Not conducted		

PHC BTEX, F1-4
PAH Polycyclic Aro...
SAL Detailed Salinity
GLY Glycols Screen
MTH Methanol Screen

MTL AT1 Metals
STL Sterilant Screen
TXT 75 um Sieve
PSA Hydrometer
HLD Hold

Ecoventure Inc.

Client: Alberta Transportation

Borehole / Monitoring Well Log: BH18-06 /
MW18-06

Project: 2018 Baseline ESA	Date: 08-Dec-18	Top of Screen (m): 2.0	Ground Elevation (m): 585.476
Site: Two Hills HMY	Start: 9:15	Base of Screen (m): 5.0	Casing Stickup (m): 586.230
GPS: 12U 0450570 m E, 5951665 m N	Finish: 10:30	Sand Pack Interval (m): 1.7 - 5.0	Screen Slot Size: 10
Location: 8 m W, 2 m N of SE site corner	Driller: CP Drilling	Total Depth (m): 10.50	Geonics EM38 (dS/cm): --
Logged by: T. Butler		Drill Type: Solid Stem	
		Sample method: Discrete	

Well Completion	Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
				0.00 - 0.40 m: Sand and Gravel Medium to coarse grained, dark brown, moist, compact, fill	0.00 - 0.40	NC	0.06	
				0.40 - 10.50 m: Clay Silty and sandy, trace gravel, dark grey, organic inclusions, medium to coarse grained sand, medium stiff	0.40 - 0.60	NC	0.46	SAL
					0.60 - 1.00	NC	0.48	
					1.00 - 1.50	NC	1.76	
				1.50 - 1.60 m: Greyish blue, wet, soft 1.60 - 2.20 m: Medium stiff, moist	1.50 - 2.25	NC	1.56	SAL
				2.20 - 3.00 m: Dark brown, stiff, oxidation inclusions (red/brown)	2.25 - 3.00	NC	1.68	
				3.00 - 4.50 m: Soft	3.00 - 3.75	NC	1.54	SAL (Hold)
					3.75 - 4.50	NC	1.53	
				4.50 - 6.00 m: Dark grey, 10-20 cm oxidation inclusion	4.50 - 5.25	NC	1.54	SAL
				5.00 m: 10-20 oxidation inclusion	5.25 - 6.00	NC	1.52	
				6.00 - 10.50 m: Medium stiff	6.00 - 6.75	NC	1.18	
					6.75 - 7.50	NC	1.24	
					7.50 - 8.25	NC	1.16	SAL (Hold)
					8.25 - 9.00	NC	1.12	
					9.00 - 9.75	NC	1.16	
					9.75 - 10.50	NC	1.13	SAL (Hold)
				End of Hole @ 10.50 m				

Notes:

- Water level measure on January 4, 2019.

Key to Lithology:

Bentonite	Clay	Screen
Fill	Sand	Clay Till
Cement	Sandy Clay	Shale
Topsoil	Silt	Sandstone
Loam	Silty Clay	Siltstone

-- Not applicable

NC Not conducted

PHC BTEX, F1-4	MTL AT1 Metals
PAH Polycyclic Aro...	STL Sterilant Screen
SAL Detailed Salinity	TXT 75 um Sieve
GLY Glycols Screen	PSA Hydrometer
MTH Methanol Screen	HLH Hold




Ecoventure Inc.

Client: Alberta Transportation
















Borehole / Monitoring Well Log: BH18-07 / MW18-07

Project: 2018 Baseline ESA	Date: 19-Dec-18	Top of Screen (m): 3.0	Ground Elevation (m): 585.714
Site: Two Hills HMY	Start: 9:00	Base of Screen (m): 6.0	Casing Stickup (m): 586.542
GPS: Not recorded	Finish: 10:30	Sand Pack Interval (m): 2.8 - 6.0	Screen Slot Size: 10
Location: APEC 5	Driller: CP Drilling	Total Depth (m): 6.00	Geonics EM38 (dS/cm): ---
Logged by: R. McLevin	Drill Type: Solid Stem	Sample method: Discrete	

Well Completion	Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
				0.00 - 1.50 m: Sand Coarse, trace clay, loose, no plasticity, black, moist	0.00 - 0.15 0.15 - 0.50	NC NC	0.12 0.11	
					0.50 - 1.00	NC	0.28	
	1	-1			1.00 - 1.50	NC	0.24	
				1.50 - 2.10 m: Silty Clay Some fine sand, stiff, high plasticity, moist, light brown	1.50 - 2.10	NC	1.10	
	2	-2						
				2.10 - 3.00 m: Sand and gravel Coarse, trace clay, loose, no plasticity, dark brown, moist	2.10 - 3.00	NC	1.23	
	3	-3						
				3.00 - 4.50 m: Sandy Clay Some silt, very soft, low plasticity, wet, light brown	3.00 - 3.75	NC	1.41	
	4	-4			3.75 - 4.50	NC	2.01	
				4.50 - 6.00 m: Clay Some silt, soft, medium plasticity, moist, light brown 4.50 - 5.00 m: Trace oxidation	4.50 - 5.25	NC	1.22	
	5	-5						
				5.00 - 5.50 m: Some oxidation				
					5.25 - 6.00	NC	1.19	
				5.50 - 6.00 m: Trace oxidation				
	6	-6		End of Hole @ 6.00 m				

Notes:
 - Water level measure on January 4, 2019.

Key to Lithology:

 Bentonite	 Clay	 Screen
 Fill	 Sand	 Clay Till
 Cement	 Sandy Clay	 Shale
 Topsoil	 Silt	 Sandstone
 Loam	 Silty Clay	 Siltstone
— Not applicable		
NC Not conducted		

PHC BTEX, F1-4
PAH Polycyclic Aro...
SAL Detailed Salinity
GLY Glycols Screen
MTH Methanol Screen

MTL AT1 Metals
STL Sterilant Screen
TXT 75 um Sieve
PSA Hydrometer
HLD Hold

Ecoventure Inc.

Borehole Log: BH18-08

Client: Alberta Transportation

Project: 2018 Baseline ESA

Date: 08-Dec-18

Top of Screen (m): --

Site: Two Hills HMY

Start: 12:30

Base of Screen (m): --

GPS: 12U 0450515 m E, 5951890 m N

Finish: 13:53

Sand Pack Interval (m): --

Location: 24 m W, 2 m N of NE salt shed corner

Driller: CP Drilling

Total Depth (m): 10.50

Logged by: T. Butler

Drill Type: Solid Stem

Sample method: Discrete

Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
			0.00 - 0.40 m: Sand and gravel Fill, dark brown, moist, coarse grained	0.00 - 0.40	NC	0.06	
			0.40 - 0.90 m: Topsoil Black, moist, soft	0.40 - 0.90	NC	0.46	
1	-1		0.90 - 9.00 m: Clay Silty and sandy, grey, moist, medium stiff, medium to coarse grained sand	0.90 - 1.50	NC	5.18	
			1.50 - 6.50 m: Light brown, trace gravel, oxidation, organic inclusions	1.50 - 2.25	NC	11.68	SAL
				2.25 - 3.00	NC	9.64	
				3.00 - 3.75	NC	3.68	
				3.75 - 4.50	NC	3.51	
				4.50 - 5.25	NC	3.61	SAL
				5.25 - 6.00	NC	2.71	
				6.00 - 6.75	NC	1.86	
			6.50 - 7.50 m: Some sand, olive brown, medium grained sand	6.75 - 7.50	NC	1.84	
			7.50 - 9.00 m: Dark grey, stiff	7.50 - 8.25	NC	1.60	SAL
				8.25 - 9.00	NC	1.51	
			9.00 - 10.50 m: Silty Clay Trace sand (fine)	9.00 - 9.75	NC	1.31	
				9.75 - 10.50	NC	1.21	
			End of Hole @ 10.50 m				

Key to Lithology:

	Bentonite		Clay		Gravel
	Fill		Sand		Clay Till
	Cement		Sandy Clay		Shale
	Topsoil		Silt		Sandstone
	Loam		Silty Clay		Siltstone

-- Not applicable

NC Not conducted

PHC BTEX, F1-4
PAH Polycyclic Aro...
SAL Detailed Salinity
GLY Glycols Screen
MTH Methanol Screen

MTL AT1 Metals
STL Sterilant Screen
TXT 75 um Sieve
PSA Hydrometer
HLD Hold

Ecoventure Inc.

Borehole Log: BH18-09

Client: Alberta Transportation

Project: 2018 Baseline ESA

Date: 08-Dec-18

Top of Screen (m): —

Site: Two Hills HMY

Start: 2:10

Base of Screen (m): —

GPS: 12U 0450485 m E, 5951696 m N

Finish: 2:50

Sand Pack Interval (m): ---

Location: 3 m W, 4 m N of NW corner of Salt Shed

Driller: CP Drilling

Total Depth (m): 6.00

Logged by: T. Butler

Drill Type: Solid Stem

Sample method: Discrete

Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
			0.00 - 0.30 m: Sand and gravel Light brown, moist, coarse grained, fill	0.00 - 0.30	NC	NC	
			0.30 - 0.90 m: Topsoil Black, moist, soft	0.30 - 0.90	NC	0.14	SAL (Hold)
				0.90 - 1.50	NC	1.26	
1	-1		0.90 - 1.50 m: Sand Trace silt and clay, medium grained, light brown, compact, moist, oxidation				
			1.50 - 6.00 m: Clay Silty and sandy, light brown, moist, soft, oxidation, trace gravel, organic and white precipitate inclusions	1.50 - 2.25	NC	6.38	SAL
2	-2						
				2.25 - 3.00	NC	5.29	
3	-3			3.00 - 3.75	NC	3.60	
				3.75 - 4.50	NC	2.41	SAL
4	-4						
				4.50 - 5.25	NC	1.41	
5	-5						
				5.25 - 6.00	NC	1.11	SAL
			5.50 - 6.00 m: Medium stiff				
6	-6		End of Hole @ 6.00 m				

Key to Lithology:

	Bentonite		Clay		Gravel
	Fill		Sand		Clay Till
	Cement		Sandy Clay		Shale
	Topsoil		Silt		Sandstone
	Loam		Silty Clay		Siltstone

— Not applicable

NC Not conducted

PHC BTEX, F1-4

PAH Polycyclic Aro...

SAL Detailed Salinity

GLY Glycols Screen

MTH Methanol Screen

MTL AT1 Metals

STL Sterilant Screen

TXT 75 um Sieve

PSA Hydrometer

HLD Hold



Ecoventure Inc.

Borehole Log: BH18-10

Client: Alberta Transportation

Project: 2018 Baseline ESA

Date: 08-Dec-18

Top of Screen (m): --

Site: Two Hills HMY

Start: 14:53

Base of Screen (m): --

GPS: 12U 0450494 m E, 5951719 m N

Finish: 15:50

Sand Pack Interval (m): --

Location: 5 m N, 5 m W of Office/Maintenance Shop

Driller: CP Drilling

Total Depth (m): 7.50

Logged by: T. Butler

Drill Type: Solid Stem

Sample method: Discrete

Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
			0.00 - 1.50 m: Sand and gravel Coarse grained, dark brown, moist, compact, fill	0.00 - 0.40	NC	0.06	
			0.40 - 1.50 m: Black, trace clay and silt	0.40 - 1.10	NC	0.08	
1	1						
				1.10 - 1.50	NC	--	
			1.50 - 3.00 m: Sand Coarse grained, moist, light brown	1.50 - 2.25	NC	--	SAL
2	2			2.25 - 3.00	NC	--	
3	3			3.00 - 3.75	NC	2.10	
			3.00 - 9.00 m: Clay Silty and sandy, moist, soft, oxidation, light brown, medium to coarse grained sand				
				3.75 - 4.50	NC	1.28	
4	4						
				4.50 - 5.25	NC	2.61	
5	5			5.25 - 6.00	NC	2.68	
6	6			6.00 - 6.75	NC	2.08	
				6.75 - 7.50	NC	1.50	
7	7						
			End of Hole @ 7.50 m				

Key to Lithology:

	Bentonite		Clay		Gravel
	Fill		Sand		Clay Till
	Cement		Sandy Clay		Shale
	Topsoil		Silt		Sandstone
	Loam		Silty Clay		Siltstone

-- Not applicable

NC Not conducted

PHC BTEX, F1-4
PAH Polycyclic Aro...
SAL Detailed Salinity
GLY Glycols Screen
MTH Methanol Screen

MTL AT1 Metals
STL Sterilant Screen
TXT 75 um Sieve
PSA Hydrometer
HLD Hold



Ecoventure Inc.

Borehole Log: BH18-11

Client: Alberta Transportation

Project: 2018 Baseline ESA

Date: 09-Dec-18

Top of Screen (m): —

Site: Two Hills HMY

Start: 8:35

Base of Screen (m): —

GPS: 12U 0450546 m E 5951746 m N

Finish: 9:00

Sand Pack Interval (m): ---

Location: APEC 1

Driller: CP Drilling

Total Depth (m): 3.00

Logged by: T. Butler

Drill Type: Solid Stem

Sample method: Discrete

Depth (m)	Elevation	Lithology	Description (observed): Major soil type, minor soil type, consistency-structure/density, plasticity/gradation, moisture, colour, parent material, inclusions (mottling, concretions, salinity, carbonates, coarse fragments, inclusions, roots, effervescence)	Sample Interval (m)	OVA (ppm)	EC (mS/cm)	Lab Analysis
			0.00 - 1.50 m: Sand and gravel Coarse grained, moist, compact, light brown, fill	0.00 - 0.50	NC	0.06	
				0.50 - 1.00	NC	0.08	
1	-1			1.00 - 1.50	NC	0.09	PHC (Hold)
			1.50 - 3.00 m: Clay Silty and sandy, dark brown, moist, soft, medium to coarse grained	1.50 - 2.25	NC	1.16	PHC
2	-2			2.25 - 3.00	NC	0.90	PHC (Hold)
3	-3		End of Hole @ 3.0 m				

Key to Lithology:

	Bentonite		Clay		Gravel
	Fill		Sand		Clay Till
	Cement		Sandy Clay		Shale
	Topsoil		Silt		Sandstone
	Loam		Silty Clay		Siltstone
--- Not applicable					
NC Not conducted					

PHC BTEX, F1-4

PAH Polycyclic Aro...

SAL Detailed Salinity

GLY Glycols Screen

MTH Methanol Screen

MTL AT1 Metals

STL Sterilant Screen


TXT 75 um Sieve

PSA Hydrometer

HLD Hold

CLIENT: Alberta Transportation		PROJECT: Two Hills FHMY - Phase II ESA		BOREHOLE NO: 18-01D / 18-01S	
DRILLING COMPANY: ALL SERVICE DRILLING INC		DATE DRILLED: July 25, 2018		PROJECT NO: 16852.08	
DRILL/METHOD: M10 / Solid Stem Augers		LOCATION: N450484, E5951650		ELEVATION: 608.62 (m)	
SAMPLE TYPE <input type="checkbox"/> GRAB SAMPLE					
BACKFILL TYPE <input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> SLOUGH <input type="checkbox"/> SAND					

DEPTH (m)	SAMPLE TYPE	REMARKS	SOIL DESCRIPTION	ELEVATION (m)
0			GRAVEL (FILL) brown, some organics, trace clay	608
1			CLAY brown, trace sand	607
2				606
3		-Seepage at 3.0 m	-mottled orange	605
4			-grey with orange mottling	604
5				603
6			-grey, trace coal	602
7				601
8			-grey with orange mottling, some fine sand	600
9				599
10			-grey	

		FIELD LOGGED BY: PR PREPARED BY: JLB REVIEWED BY: CAC	COMPLETION DEPTH: 15.2 m COMPLETION DATE: 7/25/18
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BOREHOLE LOG 16852.08-03-EC TO 10.GPJ THRB AB.GDT 11/28/18- LIBRARY-NEW LOGO-EC TO 10.GLB

CLIENT: Alberta Transportation	PROJECT: Two Hills FHMY - Phase II ESA	BOREHOLE NO: 18-01D / 18-01S
DRILLING COMPANY: ALL SERVICE DRILLING INC	DATE DRILLED: July 25, 2018	PROJECT NO: 16852.08
DRILL/METHOD: M10 / Solid Stem Augers	LOCATION: N450484, E5951650	ELEVATION: 608.62 (m)

SAMPLE TYPE	<input type="checkbox"/> GRAB SAMPLE
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> SLOUGH <input type="checkbox"/> SAND

DEPTH (m)	SAMPLE TYPE	REMARKS	WELL INSTALLATION	WELL INSTALLATION	SOIL DESCRIPTION	ELEVATION (m)
10						
11						598
12						597
13					CLAY SHALE grey	596
14						595
15					END OF TEST HOLE AT 15.2m UPON COMPLETION: (Below ground surface) -Slough at 14.8m -Water at 6.7m -50mm dia. shallow (18-01S) and deep (18-01D) monitoring wells installed with machine slotted 0.020" screen -Both monitoring wells secured with stickup metal protector -Water level measured at 0.31m bgs (18-01S) and 2.98m bgs (18-01D) on August 21, 2018	594
16						593
17						592
18						591
19						590
20						589


BOREHOLE LOG: 16852.08-03-EC TO 10.GPJ THRB AB.GDT 11/28/18- LIBRARY-NEW LOGO-EC TO 10.GLB



FIELD LOGGED BY: PR	COMPLETION DEPTH: 15.2 m
PREPARED BY: JLB	COMPLETION DATE: 7/25/18
REVIEWED BY: CAC	Page 2 of 2

CLIENT: Alberta Transportation		PROJECT: Two Hills FHMY - Phase II ESA		BOREHOLE NO: 18-02	
DRILLING COMPANY: ALL SERVICE DRILLING INC		DATE DRILLED: July 25, 2018		PROJECT NO: 16852.08	
DRILL/METHOD: M10 / Solid Stem Augers		LOCATION: N450531, E5951630		ELEVATION: 609.01 (m)	
SAMPLE TYPE <input type="checkbox"/> GRAB SAMPLE					
BACKFILL TYPE <input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> SAND <input type="checkbox"/> SLOUGH					

DEPTH (m)	SAMPLE TYPE	REMARKS	SOIL DESCRIPTION	ELEVATION (m)
0			CLAY (FILL) brown, some clay	
1			CLAY brown	608
2		-Hydrocarbon odour	-grey	607
3				606
4				605
5		-Slight hydrocarbon odour -Seepage	SAND brown, clayey	604
6			CLAY grey	603
7				602
8			END OF TEST HOLE AT 7.6m UPON COMPLETION: (Below ground surface) -Slough at 6.4m -50mm dia. monitoring well installed with machine slotted 0.020" screen -Secured with stickup metal protector -Water level measured at 2.88m bgs on August 21, 2018	601
9				600
10				

 THURBER ENGINEERING LTD	FIELD LOGGED BY: PR	COMPLETION DEPTH: 7.6 m
	PREPARED BY: JLB	COMPLETION DATE: 7/25/18
	REVIEWED BY: CAC	Page 1 of 1

BOREHOLE LOG 16852.08-03-EC TO 10.GPJ THRB AB.GDT 11/28/18- LIBRARY-NEW LOGO-EC TO 10.GLB

CLIENT: Alberta Transportation		PROJECT: Two Hills FHMY - Phase II ESA		BOREHOLE NO: 18-03	
DRILLING COMPANY: ALL SERVICE DRILLING INC		DATE DRILLED: July 24, 2018		PROJECT NO: 16852.08	
DRILL/METHOD: M10 / Solid Stem Augers		LOCATION: N450464, E5951685		ELEVATION: 609.46 (m)	
SAMPLE TYPE <input type="checkbox"/> GRAB SAMPLE					
BACKFILL TYPE <input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> SAND					

DEPTH (m)	SAMPLE TYPE	REMARKS	SLOTTED PIEZOMETER	SOIL DESCRIPTION	ELEVATION (m)
0				GRAVEL (FILL), brown	609
				CLAY	
				light brown, trace sand, gravel, and coal	
1					608
2					607
3					606
4				-some orange - grey mottling	605
5					604
6		-Seepage		END OF TEST HOLE AT 6.2m UPON COMPLETION: -No slough -50mm dia. monitoring well installed with machine slotted 0.020" screen -Secured with flush mount road box -Water level measured at 3.48m bgs on August 21, 2018	603
7					602
8					601
9					600
10					

BOREHOLE LOG 16852.08-EC TO 10.GPJ THRB AB.GDT 11/28/18- LIBRARY-NEW LOGO-EC TO 10.GLB

CLIENT: Alberta Transportation	PROJECT: Two Hills FHMY - Phase II ESA	BOREHOLE NO: 18-04
DRILLING COMPANY: ALL SERVICE DRILLING INC	DATE DRILLED: July 24, 2018	PROJECT NO: 16852.08
DRILL/METHOD: M10 / Solid Stem Augers	LOCATION: N450434, E5951555	ELEVATION: 606.26 (m)

SAMPLE TYPE	<input type="checkbox"/> GRAB SAMPLE
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BACKFILL TYPE	<input checked="" type="checkbox"/> SAND	<input type="checkbox"/> BENTONITE
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DEPTH (m)	SAMPLE TYPE	REMARKS	SLOTTED PIEZOMETER	SOIL DESCRIPTION	ELEVATION (m)
0				GRAVEL (FILL) brown, sandy, trace clay	606
				CLAY black, sandy, trace gravel	
1				SILT, black, sandy	605
				CLAY light brown, some sand, trace gravel	
2					604
3					603
4					602
5		-Seepage		-grey with orange mottling	601
6					600
				END OF TEST HOLE AT 6.1m UPON COMPLETION: (Below ground surface) -No slough -Water at 5.2m -50mm dia. monitoring well installed with machine slotted 0.020" screen -Secured with flush mount road box -Water level measured at 2.58m bgs on August 21, 2018	599
7					598
8					597
9					
10					

BOREHOLE LOG 16852.08-03-EC TO 10.GPJ THRB AB.GDT 11/28/18- LIBRARY-NEW LOGO-EC TO 10.GLB



THURBER ENGINEERING LTD.

FIELD LOGGED BY: PR	COMPLETION DEPTH: 6.1 m
PREPARED BY: JLB	COMPLETION DATE: 7/24/18
REVIEWED BY: CAC	

CLIENT: Alberta Transportation	PROJECT: Two Hills FHY - Phase II ESA	BOREHOLE NO: 18-05
DRILLING COMPANY: ALL SERVICE DRILLING INC	DATE DRILLED: July 24, 2018	PROJECT NO: 16852.08
DRILL/METHOD: M10 / Solid Stem Augers	LOCATION: N450529, E5951544	ELEVATION: 605.75 (m)

SAMPLE TYPE	<input type="checkbox"/> GRAB SAMPLE
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> SAND

DEPTH (m)	SAMPLE TYPE	REMARKS	SOIL DESCRIPTION	ELEVATION (m)
0			SAND AND GRAVEL (FILL), brown, clayey	
1			SAND light brown, medium grained, trace gravel	605
2		-Organic / hydrocarbon odour	SILT, black, some sand	604
3		-Seepage	CLAY light grey, trace gravel	603
4				602
5			-grey with orange mottling	601
6				600
7			END OF TEST HOLE AT 6.1m UPON COMPLETION: (Below ground surface) -No slough -Water at 5.0m -50mm dia. monitoring well installed with machine slotted 0.020" screen -Secured with stickup metal protector -Water level measured at 1.92m bgs on August 21, 2018	599
8				598
9				597
10				596

BOREHOLE LOG 16852.08-03-EC TO 10.GPJ THRB AB.GDT 11/28/18- LIBRARY-NEW LOGO-EC TO 10.GLB



THURBER ENGINEERING LTD.

FIELD LOGGED BY: PR	COMPLETION DEPTH: 6.1 m
PREPARED BY: JLB	COMPLETION DATE: 7/24/18
REVIEWED BY: CAC	

CLIENT: Alberta Transportation	PROJECT: Two Hills FHMY - Phase II ESA	BOREHOLE NO: 18-06
DRILLING COMPANY: ALL SERVICE DRILLING INC	DATE DRILLED: July 25, 2018	PROJECT NO: 16852.08
DRILL/METHOD: M10 / Solid Stem Augers	LOCATION: N450540, E5951782	ELEVATION: 611.65 (m)

SAMPLE TYPE	<input type="checkbox"/> GRAB SAMPLE
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> SAND

DEPTH (m)	SAMPLE TYPE	REMARKS	SLOTTED PIEZOMETER	SOIL DESCRIPTION	ELEVATION (m)
0				SAND, dark brown, trace gravel -yellowish - brown, medium grained	611
1					610
2				CLAY light brown, trace sand	609
3					608
4					607
5				-grey	606
6				END OF TEST HOLE AT 6.1m UPON COMPLETION: -No slough -No water -50mm dia. monitoring well installed with machine slotted 0.020" screen -Secured with flush mount road box -Water level measured at 2.69m bgs on August 21, 2018	605
7					604
8					603
9					602
10					

<div>  <div>THURBER ENGINEERING LTD.</div> </div>	FIELD LOGGED BY: PR	COMPLETION DEPTH: 6.1 m
	PREPARED BY: JLB	COMPLETION DATE: 7/25/18
	REVIEWED BY: CAC	

CLIENT: Alberta Transportation		PROJECT: Two Hills FHMY - Phase II ESA		BOREHOLE NO: 18-07	
DRILLING COMPANY: ALL SERVICE DRILLING INC		DATE DRILLED: July 25, 2018		PROJECT NO: 16852.08	
DRILL/METHOD: M10 / Solid Stem Augers		LOCATION: N450599, E5951707		ELEVATION: 610.58 (m)	
SAMPLE TYPE <input type="checkbox"/> GRAB SAMPLE					
BACKFILL TYPE <input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> SAND					


DEPTH (m)	SAMPLE TYPE	REMARKS	SLOTTED PIEZOMETER	SOIL DESCRIPTION	ELEVATION (m)
0				GRAVEL (FILL), brown	
				CLAY	
				brown, trace sand and gravel	610
1					
					609
2					
					608
3		-Seepage			
					607
4				-grey - orange mottling	
					606
5					
					605
6				SAND	
				brown, clayey	
7				END OF TEST HOLE AT 6.1m	
				UPON COMPLETION: (Below ground surface)	604
				-No slough	
				-Water at 4.0m	
				-50mm dia. monitoring well installed with machine	
				slotted 0.020" screen	
				-Secured with flush mount road box	603
				-Water level measured at 2.41m bgs on August 21,	
				2018	602
8					
					601
9					
10					

 THURBER ENGINEERING LTD	FIELD LOGGED BY: PR	COMPLETION DEPTH: 6.1 m
	PREPARED BY: JLB	COMPLETION DATE: 7/25/18
	REVIEWED BY: CAC	Page 1 of 1

BOREHOLE LOG - 16852.08-03-EC TO 10.GPJ THRB AB.GDT 11/28/18- LIBRARY-NEW LOGO-EC TO 10.GLB

CLIENT: Alberta Transportation		PROJECT: Two Hills FHY - Phase II ESA		BOREHOLE NO: 18-08	
DRILLING COMPANY: ALL SERVICE DRILLING INC		DATE DRILLED: July 24, 2018		PROJECT NO: 16852.08	
DRILL/METHOD: M10 / Solid Stem Augers		LOCATION: N450595, E5951632		ELEVATION: 610.05 (m)	
SAMPLE TYPE <input type="checkbox"/> GRAB SAMPLE					
BACKFILL TYPE <input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> SAND					

DEPTH (m)	SAMPLE TYPE	REMARKS	SLOTTED PIEZOMETER	SOIL DESCRIPTION	ELEVATION (m)
0				GRAVEL (FILL), brown	
				CLAY	
				light brown, trace sand, silt, and gravel	
1					609
2				-trace coal	608
3				-grey - orange mottling	607
4				SAND, light brown, clayey	606
5				CLAY, brown, gravelly, sandy	605
				-grey with orange mottling, trace sand and coal	
6				END OF TEST HOLE AT 6.1m	604
7				UPON COMPLETION: (Below ground surface)	603
				-No slough	
				-Water at 3.8m	
				-50mm dia. monitoring well installed with machine slotted 0.020" screen	
				-Secured with flush mount road box	
				-Water level measured at 3.41m bgs on August 21, 2018	
8					602
9					601
10					

 THURBER ENGINEERING LTD	FIELD LOGGED BY: PR	COMPLETION DEPTH: 6.1 m
	PREPARED BY: JLB	COMPLETION DATE: 7/24/18
	REVIEWED BY: CAC	Page 1 of 1

BOREHOLE LOG 16852.08-03-EC TO 10.GPJ THRB AB.GDT 11/28/18- LIBRARY-NEW LOGO-EC TO 10.GLB

CLIENT: Alberta Transportation	PROJECT: Two Hills FHMY - Phase II ESA	BOREHOLE NO: 18-09
DRILLING COMPANY: ALL SERVICE DRILLING INC	DATE DRILLED: July 24, 2018	PROJECT NO: 16852.08
DRILL/METHOD: M10 / Solid Stem Augers	LOCATION: N450596, E5951540	ELEVATION: 605.39 (m)

SAMPLE TYPE	<input type="checkbox"/> GRAB SAMPLE
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> SAND

DEPTH (m)	SAMPLE TYPE	REMARKS	SLOTTED PIEZOMETER	SOIL DESCRIPTION	ELEVATION (m)
		Δ EC (mS/cm) Δ			
		2 4 6 8			
0				GRAVEL AND SAND (FILL), black	
				SILT	605
				black, trace sand and gravel	
1					
					604
2				CLAY	
				light greyish - brown, trace sand and gravel	
					603
3					
				-orange mottling	602
4					
					601
5					
					600
6					
				END OF TEST HOLE AT 6.1m	599
				UPON COMPLETION: (Below ground surface)	
				-No slough	
				-Water at 3.8m	
				-50mm dia. monitoring well installed with machine	
				slotted 0.020" screen	
				-Secured with flush mount road box	598
				-Water level measured at 1.21m bgs on August 21,	
				2018	
					597
					596
10					

<div> </div>	FIELD LOGGED BY: PR	COMPLETION DEPTH: 6.1 m
	PREPARED BY: JLB	COMPLETION DATE: 7/24/18
	REVIEWED BY: CAC	

CLIENT: Transportation and Economic Corridors			PROJECT: 2023 Off-Site Assessment - Two Hills HMY			TEST HOLE NO: 23-01				
PROJECT NO: 28440.09			UTM 12 NAD 83, Northing: 5951470 m, Easting: 450396 m			ELEVATION: 604.10 m				
SAMPLE TYPE: <div><div></div> Grab Sample</div>										
BACKFILL TYPE: <div><div></div> BENTONITE</div> <div><div></div> SAND</div>										
DEPTH (m)	SAMPLE TYPE	SAMPLE ID	● EC (mS/cm) ●				REMARKS		DESCRIPTION	ELEVATION (m)
			1	2	3	4				
0	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div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CLIENT: Transportation and Economic Corridors			PROJECT: 2023 Off-Site Assessment - Two Hills HMY			TEST HOLE NO: 23-02				
PROJECT NO: 28440.09			UTM 12 NAD 83, Northing: 5951447 m, Easting: 450500 m			ELEVATION: 603.38 m				
SAMPLE TYPE: <div><div></div> Grab Sample</div>										
BACKFILL TYPE: <div><div></div> BENTONITE</div> <div><div></div> SAND</div>										
DEPTH (m)	SAMPLE TYPE	SAMPLE ID	● EC (mS/cm) ●				REMARKS	<div></div>	DESCRIPTION	ELEVATION (m)
			1	2	3	4				
0		G-1	●						CLAY, brown, silty, sandy, trace gravel, rootlets and wood fragments	603
		G-2	●							
		G-3	●							
			●							
1		G-4	●						-trace black organics	602
			●							
		G-5	●						GRAVEL, brown, sandy, some clay	
2			●							
		G-6	●						-clayey	601
				●					SAND, brown, silty, clayey	
3		G-7		●						
					●				CLAY, brown, silty, sandy	600
		G-8			●					
4					●					
		G-9				●			-brown with grey mottling	599
						●				
5		G-10				●				
						●				
		G-11					●			598
								●		
6		G-12						●		
7									END OF HOLE at 6.0 m UPON COMPLETION: -No slough 50 mm dia. monitoring well installed WATER LEVEL BELOW GROUND SURFACE: -October 30, 2023 = 4.10 m	597
										596
8										595
9										594
10										

THURBER ENGINEERING LTD.

DRILLING CO.: Landmark Drilling

RIG TYPE: Geoprobe 8040DT

DRILL METHOD: Direct Push

FIELD LOGGED BY: HK

PREPARED BY: JLB

REVIEWED BY: CAC

COMPLETION DEPTH: 6.0 m

COMPLETION DATE: 2023-10-04

Page 1 of 1

CLIENT: Transportation and Economic Corridors			PROJECT: 2023 Off-Site Assessment - Two Hills HMY			TEST HOLE NO: 23-03				
PROJECT NO: 28440.09			UTM 12 NAD 83, Northing: 5951400 m, Easting: 450624 m			ELEVATION: 601.83 m				
SAMPLE TYPE: <div><div></div> Grab Sample</div>										
BACKFILL TYPE: <div><div></div> BENTONITE<div><div></div> SAND</div></div>										
DEPTH (m)	SAMPLE TYPE	SAMPLE ID	● EC (mS/cm) ●				REMARKS	WELL INSTALLATION	DESCRIPTION	ELEVATION (m)
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CLIENT: Transportation and Economic Corridors		PROJECT: 2023 Off-Site Assessment - Two Hills HMY		TEST HOLE NO: 23-07	
PROJECT NO: 28440.09		UTM 12 NAD 83, Northing: 5951742 m, Easting: 450465 m		ELEVATION: 610.27 m	
SAMPLE TYPE: <div><div></div> Grab Sample</div>					
BACKFILL TYPE:					
DEPTH (m)	SAMPLE TYPE	SAMPLE ID	<div>● EC (mS/cm) ●</div> <div>1234</div>	REMARKS	DESCRIPTION
0		G-1			GRAVEL, clayey, sandy, trace black organics
		G-2			CLAY, brown, silty, sandy, trace gravel and oxides
		G-3			
1		G-4			
		G-5			
2		G-6			-brown with grey mottling
		G-7			
3		G-8			
		G-9			
4		G-10			-grey
		G-11			
5		G-12			
6					END OF HOLE at 6.0 m UPON COMPLETION: Backfilled with bentonite chips
7					
8					
9					
10					
<div><div></div><div>THURBER ENGINEERING LTD</div></div>			DRILLING CO.: Landmark Drilling		COMPLETION DEPTH: 6.0 m
			RIG TYPE: Geoprobe 8040DT		COMPLETION DATE: 2023-10-02
			DRILL METHOD: Direct Push		
			FIELD LOGGED BY: HK		
			PREPARED BY: JLB		
			REVIEWED BY: CAC		Page 1 of 1

SAMPLE TYPE: ☒ Grab Sample


BACKFILL TYPE:

DEPTH (m)	SAMPLE TYPE	SAMPLE ID	● EC (mS/cm) ●	REMARKS	DESCRIPTION	ELEVATION (m)
			1 2 3 4			
0		G-1	●		GRAVEL, brown, sandy, clayey	608
		G-2	●			
		G-3	●		CLAY, grey, silty, sandy, trace gravel	
1		G-4	●			607
		G-5	●		-trace black organics	
2		G-6	●		-brown, trace sand pockets	606
		G-7	●			
3		G-8	●		-interbedded sand layers	605
		G-9	●			604
4		G-10	●			
5		G-11	●			603
		G-12	●		-trace coal	
6		G-13	●		-grey, trace sand	602
		G-14	●			601
7		G-15	●			
8		G-16	●			600
		G-17	●			
9		G-18	●			599
10			●			

CLIENT: Transportation and Economic Corridors			PROJECT: 2023 Off-Site Assessment - Two Hills HMY			TEST HOLE NO: 23-08			
PROJECT NO: 28440.09			UTM 12 NAD 83, Northing: 5951638 m, Easting: 450492 m			ELEVATION: 608.23 m			
SAMPLE TYPE: <div><div></div></div> Grab Sample									
BACKFILL TYPE:									
DEPTH (m)	SAMPLE TYPE	SAMPLE ID	● EC (mS/cm) ●				REMARKS	DESCRIPTION	ELEVATION (m)
			1	2	3	4			
10	<div><div></div><div></div></div>	G-19 G-20	<div><div></div><div></div></div>					CLAY - CONTINUED	598
11								END OF HOLE at 10.5 m UPON COMPLETION: Backfilled with cement-grout	597
12									596
13									595
14									594
15									593
16									592
17									591
18									590
19									589
20									
<div><div></div><div></div></div> <div>THURBER ENGINEERING LTD.</div>			DRILLING CO.: Landmark Drilling			FIELD LOGGED BY: HK		COMPLETION DEPTH: 10.5 m	
			RIG TYPE: Geoprobe 8040DT			PREPARED BY: JLB		COMPLETION DATE: 2023-10-03	
			DRILL METHOD: Direct Push			REVIEWED BY: CAC		Page 2 of 2	

CLIENT: Transportation and Economic Corridors			PROJECT: 2023 Off-Site Assessment - Two Hills HMY			TEST HOLE NO: 23-09			
PROJECT NO: 28440.09			UTM 12 NAD 83, Northing: 5951604 m, Easting: 450545 m			ELEVATION: 608.58 m			
SAMPLE TYPE: <div><div></div> Grab Sample</div>									
BACKFILL TYPE:									
DEPTH (m)	SAMPLE TYPE	SAMPLE ID	● EC (mS/cm) ●				REMARKS	DESCRIPTION	ELEVATION (m)
			1	2	3	4			
0		G-1	●					GRAVEL, brown, sandy, clayey	
		G-2		●					
		G-3	●					-trace black organics	608
1			●					CLAY, brown, silty, sandy, trace gravel	
		G-4		●					
				●					
2		G-5		●				-trace oxides	
				●					
		G-6		●				-trace sand pockets	606
			●						
3		G-7		●					
				●					
		G-8		●					605
				●					
4		G-9		●					
				●					
		G-10			●				604
5					●				
					●				
		G-11			●			-trace coal	603
					●				
					●				
6		G-12		●				SAND, brown, silty, fine grained	
				●					
		G-13				●		-coarse grained	602
						●			
7		G-14				●		CLAY, grey, silty, trace sand	
						●			
		G-15				●			601
						●			
		G-16				●			600
						●			
		G-17				●			
						●			
		G-18				●			599
						●			
10						●			
			DRILLING CO.: Landmark Drilling			FIELD LOGGED BY: HK		COMPLETION DEPTH: 12.0 m	
			RIG TYPE: Geoprobe 8040DT			PREPARED BY: JLB		COMPLETION DATE: 2023-10-03	
			DRILL METHOD: Direct Push			REVIEWED BY: CAC			
								Page 1 of 2	

CLIENT: Transportation and Economic Corridors		PROJECT: 2023 Off-Site Assessment - Two Hills HMY		TEST HOLE NO: 23-09			
PROJECT NO: 28440.09		UTM 12 NAD 83, Northing: 5951604 m, Easting: 450545 m		ELEVATION: 608.58 m			
SAMPLE TYPE: <div><div></div> Grab Sample</div>							
BACKFILL TYPE:							
DEPTH (m)	SAMPLE TYPE	SAMPLE ID	● EC (mS/cm) ●	REMARKS	DESCRIPTION		
			1234			ELEVATION (m)	
10	<div><div></div></div>	G-19	●		CLAY - CONTINUED	598	
			●				
11	<div><div></div></div>	G-20	●				
			●				
	<div><div></div></div>	G-21	●			597	
			●				
12	<div><div></div></div>	G-22	●				
13							
14							
15							
16						595	
17						594	
18						593	
19						592	
20					END OF HOLE at 12.0 m UPON COMPLETION: Backfilled with cement-grout	591	
						590	
						589	

	DRILLING CO.: Landmark Drilling	FIELD LOGGED BY: HK	COMPLETION DEPTH: 12.0 m
	RIG TYPE: Geoprobe 8040DT	PREPARED BY: JLB	COMPLETION DATE: 2023-10-03
	DRILL METHOD: Direct Push	REVIEWED BY: CAC	Page 2 of 2

CLIENT: Transportation and Economic Corridors			PROJECT: 2023 Off-Site Assessment - Two Hills HMY			TEST HOLE NO: 23-10			
PROJECT NO: 28440.09			UTM 12 NAD 83, Northing: 5951631 m, Easting: 450564 m			ELEVATION: 609.04 m			
SAMPLE TYPE: <div><div></div> Grab Sample</div>									
BACKFILL TYPE:									
DEPTH (m)	SAMPLE TYPE	SAMPLE ID	● EC (mS/cm) ●				REMARKS	DESCRIPTION	ELEVATION (m)
			1	2	3	4			
0	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div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Borehole: MW24-01

Page: 1 of 1

Date Drilled: 25/10/2024

Drill: Geoprobe 8040

Drilling Method: Direct Push

Logged By: R.Meidl

Elev (m)	Depth (m)	Symbol	Soil Description	Type	Sample	Submitted For Lab Analysis	Electrical Conductivity (mS/cm)		Headspace Vapour (ppm)			Monitoring Well Construction Detail
					No.		1	10	10	100	1000	
617	0.5	+	(TOPSOIL), and silt, trace clay, trace sand, dark brown, soft, moist, rootlets. SILT, some clay, trace sand, layered, brown, dark brown and black, oxidized, soft, moist, rootlets, trace salt crystal, Fe staining.	■	TOP	⊗						Bentonite Chips
					SC10	⊗						
					0.25	⊗						
616	1.0	+		■	0.45	⊗						14/11/2024 Grout
					0.80	⊗						
					1.40	⊗						
615	2.0	+	SAND (fine to medium), some silt, some clay, trace gravel (fine to coarse), brown, oxidized, loose, moist, trace salt crystal, Fe staining.	■	1.80	⊗						Bentonite Chips
					2.85	⊗						
					3.75	⊗						
614	3.5	+	CLAY, silty, trace sand (fine), some silt, brown, oxidized, soft, moist, trace salt crystal, Fe staining.	■	2.85	⊗						10 slot screen Sand 10-20 silica
					3.75	⊗						
					4.85	⊗						
613	4.5	+	from 3.5 to 3.6m, sandy (fine), black, moist to wet	■	3.75	⊗						
					4.85	⊗						
					5.90	⊗						
612	5.5	+	SILT, some sand (fine), some clay, greyish brown, oxidized, firm, moist to dry, Fe and grey staining.	■	4.85	⊗						
					5.90	⊗						
					6.70	⊗						
611	6.5	+	@ 6.3m, 10cm layer of fine-grained sand, some silt, some gravel, orange brown	■	6.70	⊗						
					7.60	⊗						
					7.60	⊗						
610	7.5	+	SAND (fine), some silt, trace clay, grey, hard, dry.	■	7.60	⊗						
609	8.0	+	End of Borehole - well completed with roadbox casing protector. Top of PVC 0.14m below ground surface.	■								
608	9.5	+		■								



Borehole: MW24-02

Logged By: R.Meidl

Elev (m)	Depth (m)	Symbol	Soil Description	Type	Sample	Submitted For Lab Analysis	Electrical Conductivity (mS/cm)		Headspace Vapour (ppm)			Monitoring Well Construction Detail																														
					No.		1	10	10	100	1000																															
614	0.5	+	(TOPSOIL), silty, trace sand, trace clay, very dark brown, soft, moist, rootlets.	H	TOP	⊗		0.144				Bentonite Chips																														
					0.20								⊗																													
					0.45									⊗																												
					0.80										⊗																											
613	1.0	+	SILT, gravelly (fine), some sand (fine), some clay, dark brown, oxidized, firm, moist, rootlets, Fe staining.	H	0.80	⊗		0.600				Grout																														
													1.5			+	SAND (fine), some silt, trace clay, brown, stiff, moist.	H	1.40	⊗		0.997																				
														612												2.0	+	CLAY, silty, trace sand, trace gravel, brown, oxidized, firm, moist, trace salt crystal, Fe staining.	H	1.75	⊗		1.035				Bentonite Chips					
															2.5																							+				
611	3.0	+	by 3.0m, soft	H	2.80	⊗		1.027																																		
													3.5		+																											
																											610	4.0	+													
																																									4.5	+
609	5.0	+	SAND (fine), silty, trace clay, brown, oxidized, compact, moist to dry, Fe and grey staining.	H	4.85	⊗		1.081				10 slot screen 14/11/2024																														
													5.5	+																												
																									608	6.0	+	SILT, sandy (fine), some clay, trace gravel, greyish borwn, oxidized, firm, dry, Fe and grey staining.	H	5.90	⊗		0.898									
																																							6.5	+	from 6.0, dark greyish brown	
607	7.0	+	SAND (fine), silty, trace clay, grey, oxidized, stiff, dry, Fe staining.	H	6.85	⊗		1.825																																		
													7.5	+																												
																												606	8.0	+	SILT, sandy (fine), some clay, greyish brown, oxidized, firm, dry, Fe staining.	H	7.60	⊗		1.113						
605	9.0	+	End of Borehole - well completed with roadbox casing protector. Top of PVC 0.09m below ground surface.	H																																						
													9.5	+																												
																													+													
																																										+



Borehole: MW24-03

Logged By: R.Meidl

[illegible]



Clifton

MONITORING WELL LOG

Borehole: MW24-05

Page: 1 of 2

Client: Alberta Transportation and Economic Corridors

Northing: 5951353.26 m

Date Drilled: 26/10/2024

Project: Two Hills HMY

Easting: 450232.62 m

Drill: Geoprobe 8040

Location: Two Hills, AB

Ground Elev: 602.70 m

Drilling Method: Direct Push

Project No.: CG3687.2.023

Top Casing Elev: 603.58 m

Logged By: R.Meidl

Elev (m)	Depth (m)	Symbol	Soil Description	Type	Sample No.	Submitted For Lab Analysis	Electrical Conductivity (mS/cm)		Headspace Vapour (ppm)			Monitoring Well Construction Detail
							1	10	10	100	1000	
602 <												

Continued on Next Page



Clifton

MONITORING WELL LOG

Borehole: MW24-05

Page: 2 of 2

Client: Alberta Transportation and
Economic Corridors
Project: Two Hills HMY
Location: Two Hills, AB
Project No.: CG3687.2.023

Northing: 5951353.26 m
Easting: 450232.62 m
Ground Elev: 602.70 m
Top Casing Elev: 603.58 m

Date Drilled: 26/10/2024
Drill: Geoprobe 8040
Drilling Method: Direct Push
Logged By: R.Meidl

Elev (m)	Depth (m)	Symbol	Soil Description	Type	Sample No.	Submitted For Lab Analysis	Electrical Conductivity (mS/cm)		Headspace Vapour (ppm)			Monitoring Well Construction Detail		
							1	10	10	100	1000			
592	10.5				10.85	⊗			0.530					Slough
	11.0													
591	11.5													
	12.0				11.95	⊗			0.457					
	12.5													
590	13.0				12.85	⊗			0.449					
	13.5													
589	14.0		13.90	⊗			0.432							
	14.5													
588	15.0		15.0	⊗			0.407							
	15.5	End of Borehole												
587	16.0													
	16.5													
586	17.0													
	17.5													
585	18.0													
	18.5													
584	19.0													
	19.5													
583														



Clifton

MONITORING WELL LOG

Borehole: MW24-06

Page: 1 of 1

Client: Alberta Transportation and Economic Corridors

Northing: 5951176.01 m

Date Drilled: 27/10/2024

Project: Two Hills HMY

Easting: 450623.69 m

Drill: Geoprobe 8040

Location: Two Hills, AB

Ground Elev: 602.04 m

Drilling Method: Direct Push

Project No.: CG3687.2.023

Top Casing Elev: 602.00 m

Logged By: R.Meidl

Elev (m)	Depth (m)	Symbol	Soil Description	Type	Sample No.	Submitted For Lab Analysis	Electrical Conductivity (mS/cm)		Headspace Vapour (ppm)			Monitoring Well Construction Detail
							1	10	10	100	1000	
601	0.5	+	(TOPSOIL), silty, trace clay, trace sand, trace gravel, black, soft, loose, dry, rootlets. <i>from 0.15m, gravelly for 10cm</i>		TOP				0.063			
		+			0.20				0.068			
		+			0.45				0.247			
	1.0	+	SILT, some clay, trace sand (fine), trace gravel, black, soft, dry to moist.		0.80				1.837			
	1.5		CLAY, silty, trace sand (fine), trace gravel, grey, brown, oxidized, stiff, dry, trace salt crystal, Fe staining.		1.40				0.983			
	1.8			1.80				1.051				
	2.5											
	3.0		<i>from 3.0m, greyish brown</i>		2.80				1.064			
	3.5											
	4.0		<i>from 4.0m, grey, moist, no salt crystals or Fe staining</i>		3.75				1.037			
597	4.5											
	5.0				4.85				1.136			
	5.5											
	6.0		SAND (fine), trace silt, trace clay, grey, loose, wet.		5.95				1.148			
595	6.5											
	7.0				6.80				0.154			
593	7.5		End of Borehole - well completed with roadbox casing protector. Top of PVC 0.10m below ground surface.		7.60				0.108			
	8.0											
	8.5											
	9.0											
	9.5											

Bentonite Chips

14/11/2024

Grout

Bentonite Chips

Slough
10 slot screen

Appendix B

Historical Soil and Groundwater Data



Table 1 - Summary of Borehole and Groundwater Locations and Monitoring Data		Top of Pipe Elevation ¹	Ground Surface Elevation ¹	Northing ²	Easting ²	Total Depth	Total Depth	Depth to Water	Depth to Water	Water Elevation	Screened Interval ⁸	Stratigraphy of Screened Interval ⁸	Hydraulic Conductivity ⁸
		(m asl ⁴)	(m asl ⁴)	(UMT 12N ⁵)	(UMT 12N ⁵)	(m btop ⁶)	(m bgs ⁷)	(m btop ⁶)	(m bgs ⁷)	(m asl ⁴)	(m bgs ⁷)	-	(m/s)
Field ID		Date Drilled											
Boreholes													
BH18-01	19-Dec-18	Not Recorded											
BH18-02	18-Dec-18			5951717	450550		3						
BH18-03	8-Dec-18			5951679	450548		6						
BH18-04	9-Dec-18			55951711	450518		3						
BH18-08	8-Dec-18			5951690	450515		10.5						
BH18-09	8-Dec-18			5951696	450485		6						
BH18-10	8-Dec-18			5951719	450494		7.5						
BH23-07	2-Oct-23		610.27	5951742	450465		6						
BH23-08	3-Oct-23		608.23	5951638	450492		10.5						
BH23-09	3-Oct-23		608.58	5951604	450545		12						
BH23-10	3-Oct-23		609.04	5951631	450564		9						
Monitoring Wells													
MW13-1	16-Jul-13	611.17	610.34	5951691.59	450486.46	6.94	6.10	4.35	3.51	606.83	3.0-6.0	Silty Clay	-
MW13-2	16-Jul-13	611.17	610.37	5951666.49	450509.54	6.93	6.13	4.55	3.75	606.62	3.0-6.0	Silty Clay	-
MW13-3	16-Jul-13	611.32	611.32	5951701.15	450561.66	5.42	5.42	3.38	3.38	607.94	1.5-4.5	Silty Clay	-
MW13-4	16-Jul-13	612.19	611.39	5951751.89	450525.21	5.43	4.63	3.31	2.51	608.88	1.5-4.5	Silty Clay	6.6x10 ⁻⁸
18-01S	25-Jul-18	609.69	608.82	5951647.13	450484.51	6.88	6.01	4.04	3.17	605.65	2.8-6.1	Clay	1.5x10 ⁻⁶
18-01D	25-Jul-18	609.24	608.82	5951647.13	450484.51	15.22	14.80	Not monitored in 2024			12.7-14.8	Clay Shale	4.59x10 ⁻⁹
18-02S	25-Jul-18	610.13	609.26	5951628.47	450531.85	6.44	5.57	4.36	3.49	605.78	2.7-6.4	-	2.1x10 ⁻⁶
18-03	24-Jul-18	609.34	609.46	5951685	450464.00	6.08	6.20	Not monitored in 2024			3.2-6.2	Clay	2.2x10 ⁻⁷
18-04	24-Jul-18	606.37	606.46	5951554.38	450434.94	5.90	5.98	2.69	2.78	603.68	2.8-6.1	-	-
18-05	24-Jul-18	606.85	606.07	5951543.00	450530.42	7.10	6.31	3.59	2.81	603.26	2.7-6.1	Clay till, some silt, trace gravel	2.4x10 ⁻⁶
18-06	25-Jul-18	611.84	611.88	5951780.60	450540.65	5.99	6.03	2.44	2.48	609.40	2.7-6.1	Clay, silty and sandy, trace gravel	2.1x10 ⁻⁸
18-07	25-Jul-18	610.76	610.83	5951705.85	450599.81	5.45	5.52	2.59	2.66	608.17	2.7-6.1	Sandy Clay, some silt	-
18-08	24-Jul-18	609.87	610.50	5951632.00	450595.00	5.02	5.65	Not monitored in 2024			3.2-6.1	Clay, Sand, Clay	
18-09	24-Jul-18	605.65	605.72	5951538.53	450596.67	4.93	5.00	1.96	2.03	603.69	3.2-6.1	Clay	-
MW1	2018	611.36	610.77	5951740.12	450579.25	9.77	9.18	3.07	2.48	608.29	Unknown	-	-
MW2	2018	610.93	610.24	5951699.27	450484.62	9.02	8.34	3.67	2.98	607.26	Unknown	-	-
MW3	2018	612.10	611.38	5951750.69	450547.34	6.12	5.39	3.37	2.65	608.73	Unknown	-	-
MW4	2018	610.70	609.87	5951663.03	450562.88	8.32	7.49	3.13	2.30	607.58	Unknown	-	-
MW18-05	19-Dec-18	612.39	611.47	5951756.95	450496.78	6.37	5.44	3.38	2.46	609.01	3.0-6.0	Clay Till	-
MW18-06	8-Dec-18	610.99	610.11	5951664.16	450571.54	5.37	4.49	3.21	2.33	607.78	2.0-5.0	Silty Sandy Clay	-
MW18-07	19-Dec-18	611.30	610.29	5951666.81	450498.29	6.95	5.95	4.85	3.85	606.45	3.0-6.0	Silty Clay	-

Table 1 - Summary of Borehole and Groundwater Locations and Monitoring Data		Top of Pipe Elevation ¹	Ground Surface Elevation ¹	Northing ²	Easting ²	Total Depth	Total Depth	Depth to Water	Depth to Water	Water Elevation	Screened Interval ⁸	Stratigraphy of Screened Interval ⁸	Hydraulic Conductivity ⁸
		(m asl ⁴)	(m asl ⁴)	(UMT 12N ⁵)	(UMT 12N ⁵)	(m btop ⁶)	(m bgs ⁷)	(m btop ⁶)	(m bgs ⁷)	(m asl ⁴)	(m bgs ⁷)	-	(m/s)
23-01	4-Oct-23	605.30	604.47	5951469.65	450397.80	6.74	5.91	4.46	3.63	600.84	3.0-6.0	Sand, Clay	-
23-02	4-Oct-23	604.49	603.81	5951446.86	450501.44	6.93	6.25	3.67	3.00	600.82	3.0-6.0	Sand, Clay	-
23-03†	4-Oct-23	601.77	601.83	5951400	450624	5.97	6.03	2.10	2.16	599.68	3.0-6.0	Clay	-
23-04	2-Oct-23	612.98	613.08	5951724.18	450681.30	5.89	5.99	3.75	3.85	609.23	2.8-5.8	Clay	-
23-05	2-Oct-23	604.96	605.04	5951543.02	450676.02	7.32	7.40	1.51	1.58	603.46	4.2-7.2	Clay	-
23-06	2-Oct-23	606.42	606.45	5951569.53	450357.38	5.97	5.99	4.26	4.28	602.16	3.0-6.0	Sand, Clay	-
MW24-01	25-Oct-24	617.51	617.62	5951872.58	450938.46	7.34	7.44	2.45	2.56	615.06	4.5-7.5	Silt, some sand (fine), some clay	-
MW24-02	25-Oct-24	614.60	614.64	5951866.35	450615.46	6.13	6.17	3.02	3.06	611.58	3.0-6.0	Clay, silty, trace sand, trace gravel	-
MW24-03	25-Oct-24	614.65	613.82	5951870.92	450388.80	6.83	5.99	6.61	5.78	608.04	3.0-6.0	Clay, silty, trace sand (fine), trace gravel	-
MW24-04	26-Oct-24	607.91	607.06	5951625.68	450196.28	6.74	5.88	5.69	4.84	602.22	2.7-5.7	Sand (fine to medium), trace silt, trace clay	-
MW24-05	26-Oct-24	603.59	602.70	5951353.26	450232.62	6.33	5.44	4.02	3.13	599.57	4.0-5.5	Sand (fine), trace silt, trace clay	4.045x10 ⁻⁵ *
MW24-06	27-Oct-24	602.00	602.05	5951176.01	450623.69	7.31	7.35	2.49	2.53	599.52	6.0-7.5	Sand (fine), trace silt, trace clay	-

1 - Elevation data collected from Ecoventure 2019, 2018 Baseline Environmental Site Assessment.

2 - Survey data collected by Clifton during the 2022 sampling event with hand held GPS.

3 - ((Total Well Depth - Depth to Water) X 2.0 L/m) X 3

4 - Meters above sea level

5 - Measurements were taken in the Universal Transverse Mercator zone 12N.

6 - Meters below the top of the pipe

7 - Meters below ground surface

8 - Data collected from Ecoventure 2019, 2018 Baseline Environmental Site Assessment.

NC - Not Calculated - The monitoring wells were sampled using a low-flow sampling method that does not require the monitoring wells be purged prior to sampling.

Screened intervals and lithology information for previously installed monitoring wells was retrieved from the borehole logs in Appendix A.

* Hydraulic conductivity for MW24-05 is the average of the results from the rising head and falling head tests conducted

† Survey and elevation data collected from Thurber, 2024, 2023 Off-Site Additional Assessment Two Hills Highway Maintenance yard; not used for assessment of groundwater flow

Table 2: Summary of Soil Analyses - Grain Size			Classification
Field ID	Depth (m)	Date	
18-06	1.5	25-Jul-18	Coarse-Grained
18-06	2.8	25-Jul-18	Fine-Grained
18-01D	1.5	25-Jul-18	Fine-Grained
18-01D	6	25-Jul-18	Fine-Grained
18-01D	10.5	25-Jul-18	Fine-Grained
18-02	3.75	25-Jul-18	Fine-Grained
18-03	1.5	24-Jul-18	Fine-Grained
18-04	1.3	24-Jul-18	Fine-Grained
18-05	1.3	24-Jul-18	Fine-Grained
18-07	1.5	25-Jul-18	Fine-Grained
18-08	1.5	24-Jul-18	Fine-Grained
18-08	4.5	24-Jul-18	Fine-Grained
18-09	1.5	24-Jul-18	Fine-Grained
BH18-03	1.50-2.25	8-Dec-18	Fine-Grained
MW23-01	1.2	4-Oct-23	Coarse-Grained
MW23-02	6	4-Oct-23	Fine-Grained
MW23-03	1.2	4-Oct-23	Coarse-Grained
MW23-05	4.2	2-Oct-23	Fine-Grained
MW23-04	1.2	2-Oct-23	Fine-Grained
MW23-06	2.4	2-Oct-23	Coarse-Grained
MW23-07	1.2	3-Oct-23	Coarse-Grained
MW23-08	1.8	3-Oct-23	Coarse-Grained
MW23-09	4.8	3-Oct-23	Coarse-Grained
MW24-01-1.40	1 - 1.5	25-Oct-24	Coarse-Grained
MW24-03-6.80	6 - 7	25-Oct-24	Fine-Grained
MW24-04-4.80	4 - 5	26-Oct-24	Coarse-Grained
MW24-05A-2.85	2 - 3	26-Oct-24	Fine-Grained
MW24-05A-12.85	12 - 13	26-Oct-24	Coarse-Grained
MW24-06-1.80	1.5 - 2	27-Oct-24	Fine-Grained
MW24-06-6.80	6 - 7	27-Oct-24	Coarse-Grained

Table 3: Summary of Soil Analyses - Salinity			Analytes														
			Calcium, Soluble	Magnesium, Soluble	Potassium, Soluble	Soluble Chloride	Soluble Sulfate	Soluble Sodium	pH (Lab)	Electrical Conductivity (Lab)	Sodium Adsorption Ratio	Calcium	Chloride	Magnesium	Potassium	Sodium	Sulphate
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	-	µS/cm	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AB Tier 1 (2024) Soil - Residential (Fine Soil)						120 ¹			6-8.5	3000	4						
AB Tier 1 (2024) Soil - Commercial/Industrial (Fine Soil)						120 ¹			6-8.5	4000	12						
Field ID	Depth	Date															
On-Site Locations																	
BH18-01	0.5-1.0	19-Dec-18	209	56	5	9	636	30	7.5	1,310	0.5	134	6	36.1	3	19	407
BH18-01	1.5-2.25	19-Dec-18	17	8	3	5	67	66	7.7	440	3.2	6.5	2	3.2	1	25	25.3
BH18-01	3.75-4.5	19-Dec-18	58	33	8	344	44	142	7.5	1,310	3.7	30	179	17	4	74	22.9
BH18-02	1.00-1.50	08-Dec-18	545	120	43	8,900	60	4950	7.6	23,900	50	218	3560	48	17	1980	<24
BH18-02	2.25-3.00	08-Dec-18	111	49	4	313	168	115	7.7	1,470	2.3	59.8	169	26.5	2	62	90.5
BH18-03	1.00-1.50	08-Dec-18	561	67	67	12,925	60	6731	7.9	29,600	71.2	376	8660	45	45	4510	<40
BH18-03	4.50-5.25	08-Dec-18	178	93	14	1,093	66	364	7.6	3,260	5.5	78.2	481	41	6	160	29
BH18-03	5.25-6.0	08-Dec-18	187	95	16	933	91	284	7.4	2,970	4.2	80.4	401	41	7	122	39
BH18-04	0.4-0.8	09-Dec-18	796	494	73	7,510	71	2980	7	19,600	20.4	406	3830	252	37	1520	36
BH18-04	1.10-1.50	09-Dec-18	367	374	33	2,535	507	774	7.8	7,760	6.8	158	1090	161	14	333	218
BH18-04	1.50-2.25	09-Dec-18	105	94	10	394	252	117	7.3	1,800	2	54.7	205	48.8	5	61	131
MW18-05	1.50-2.25	19-Dec-18	72	23	7	373	26	157	7.5	1,390	4.1	21.5	112	6.8	2	47	7.9
MW18-05	2.80-3.75	19-Dec-18	40	19	8	65	45	40	7.6	550	1.3	15.8	26	7.5	3	16	17.9
MW18-05	5.25-6.0	19-Dec-18	77	32	16	20	222	41	7.8	810	1	39.1	10	16.1	8	21	113
MW18-06	0.4-0.60	08-Dec-18	8	1	6	404	40	413	8	1,970	38	4	214	0.5	3	219	21
MW18-06	1.0-1.50	08-Dec-18	42	6	13	1,629	185	1398	7.9	6,050	54	22	847	3	7	727	96
MW18-06	1.5-2.25	08-Dec-18	33	8	13	1,137	30	737	7.1	3,690	29	20	682	5	8	442	<18
MW18-06	4.50-5.25	08-Dec-18	128	100	21	738	70	238	8	2,580	3.8	67.6	391	53	11	126	37
MW18-06	6.0-6.75	08-Dec-18	290	200	37	198	1406	242	8	2,880	2.7	151	103	104	19	126	731
MW18-07	1.50-2.10	19-Dec-18	715	112	25	6,400	58	3175	7.6	16,800	16.8	286	2560	44.9	10	1270	23
MW18-07	3.75-4.50	19-Dec-18	630	404	22	4,074	96	1333	7.6	11,000	11	170	1100	109	6	360	26
MW18-07	5.25-6.0	19-Dec-18	889	346	24	7,963	163	35556	7.6	20,600	20.6	480	4300	187	13	19200	88
BH18-08	1.50-2.25	08-Dec-18	109	24	20	8,882	60	8882	7.9	24,100	24.1	93	7550	20	<17	7550	<51
BH18-08	4.50-5.25	08-Dec-18	354	224	19	2,784	128	2784	7.7	8,080	8.08	262	2060	166	14	2060	95
BH18-08	7.50-8.25	08-Dec-18	105	30	17	94	284	94	8.1	1,140	1.14	87.2	78	24.9	14	78	236
BH18-09	1.50-2.25	08-Dec-18	294	42	19	7,269	164	7269	7.9	20,000	20	197	4870	28	<13	4870	110
BH18-09	3.75-4.50	08-Dec-18	99	45	11	1,600	72	1600	7.9	5,160	5.16	74	1200	34	<8	1200	54
BH18-09	5.25-6.0	08-Dec-18	74	31	12	126	134	126	8	910	0.91	51.1	87	21.7	8	87	92.3
BH18-10	1.50-2.25	08-Dec-18	897	197	26	8,765	74	8765	7.7	23,600	23.6	305	2980	67	9	2980	25
BH18-10	5.25-6.0	08-Dec-18	546	329	27	2,269	54	2269	7.8	6,570	6.57	284	1180	171	14	1180	28
BH18-10	7.5-8.25	08-Dec-18	138	75	24	464	155	464	8.1	1,930	1.93	81.4	274	44.4	14	274	91.2

Table 3: Summary of Soil Analyses - Salinity			Analytes															
			Calcium, Soluble	Magnesium, Soluble	Potassium, Soluble	Soluble Chloride	Soluble Sulfate	Soluble Sodium	pH (Lab)	Electrical Conductivity (Lab)	Sodium Adsorption Ratio	Calcium	Chloride	Magnesium	Potassium	Sodium	Sulphate	Saturation
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	-	µS/cm	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AB Tier 1 (2024) Soil - Residential (Fine Soil)						120 ¹			6-8.5	3000	4							
AB Tier 1 (2024) Soil - Commercial/Industrial (Fine Soil)						120 ¹			6-8.5	4000	12							
Field ID	Depth	Date																
Off Site Locations																		
18-01D	0.1	25-Jul-18	41	7	6	83	21	49	7.9	470	1.8	14.4	29	2.3	2	17	7.4	35
18-01D	0.9	25-Jul-18	32	5	4	91	16	104	7.8	590	4.5	14.9	43	2.5	2	49	7.7	47
18-01D	1.5	25-Jul-18	24	6	11	661	122	817	8.2	860	18	4.4	119	1.1	2	147	22	18
18-01D	3	25-Jul-18	3	1	1	168	36	231	8.7	980	33	3.8	252	1	2	346	54.5	150
18-01D	4.5	25-Jul-18	343	200	12	2,567	64	1066	7.6	7,530	11.3	230	1720	134	8	714	43	67
18-01D	6	25-Jul-18	287	129	13	2,131	100	1000	7.9	6,550	12.3	175	1300	78.4	8	610	61	61
18-01D	7.5	25-Jul-18	690	268	32	2,013	108	178	7.8	5,800	1.5	538	1570	209	25	139	84	78
18-01D	9	25-Jul-18	340	98	24	817	302	152	8.3	2,840	1.9	214	515	62	15	96	190	63
18-01D	10.5	25-Jul-18	80	21	19	92	241	73	8.1	870	1.9	50.3	58	13	12	46	152	63
18-02	0.75	25-Jul-18	41	5	6	26	27	12	7.7	290	0.4	14	9	1.8	2	4	9.3	34
18-02	2.25	25-Jul-18	52	7	8	25	100	12	7.9	350	0.4	30.6	15	4.3	5	7	58.8	59
18-02	3.75	25-Jul-18	20	13	6	26	57	37	8.1	330	1.6	17.6	23	11.3	5	33	51.2	90
18-02	4.8	25-Jul-18	176	39	14	1,810	43	1061	8.2	5,710	18.9	86.4	887	19	7	520	21	49
18-02	6	25-Jul-18	160	38	13	1,749	40	1009	7.8	5,370	18.5	71.8	787	17	6	454	18	45
18-02	7.5	25-Jul-18	35	18	10	914	62	614	8.4	2,960	21	45	1170	23	<13	786	79	128
18-03	0.75	24-Jul-18	8	3	2	45	73	146	8.2	640	11	4.7	25	1.5	<1	82	40.9	56
18-03	1.5	24-Jul-18	17	12	2	16	106	82	7.4	480	3.7	7.6	7	5.1	1	36	46.8	44
18-03	3	24-Jul-18	25	11	5	33	66	47	7.5	390	2	10.8	14	4.6	2	20	28.4	43
18-03	4.5	24-Jul-18	34	13	5	14	91	26	7.2	370	1	21.8	9	8.5	3	17	59.1	65
18-04	0.75	24-Jul-18	55	18	6	24	88	26	7.6	480	0.8	27.7	12	8.8	3	13	44	50
18-04	1.3	24-Jul-18	32	30	6	39	80	45	6.7	710	1.1	20.1	24	18.4	4	28	49.7	62
18-04	3	24-Jul-18	65	45	6	130	257	96	7.4	1,000	2.3	34.9	70	24.2	3	52	139	54
18-04	4.5	24-Jul-18	59	27	8	205	110	112	7.6	990	3	34.6	121	15.7	5	66	65.1	59
18-04	6	24-Jul-18	47	25	9	96	88	35	7.6	590	1	26	53	13.7	5	19	48.4	55
18-05	1.3	24-Jul-18	172	41	12	138	414	68	7.1	1,280	1.2	86.2	69	20.6	6	34	207	50
18-05	3	24-Jul-18	28	25	7	100	42	74	7.8	610	2.4	12.9	46	11.5	3	34	19.3	46
18-05	4.5	24-Jul-18	92	64	8	538	107	223	7.8	1,950	4.4	44.1	258	30.5	4	107	51.3	48
18-05	6	24-Jul-18	123	77	16	417	238	145	8	1,770	2.5	71.2	242	44.5	9	84	138	58
18-06	0.75	25-Jul-18	11	2	3	37	71	83	7.5	460	6.1	3.3	11	0.6	<1	25	21.2	30
18-06	1.5	25-Jul-18	31	7	3	76	144	97	7.9	650	4.1	10.7	26	2.3	1	33	49.1	34
18-06	2.8	25-Jul-18	19	13	5	82	67	77	7.5	560	3.3	7.5	32	4.9	2	30	26.2	39
18-06	4.5	25-Jul-18	32	18	5	108	91	74	7.8	650	2.5	12.1	41	6.9	2	28	34.5	38
18-06	6	25-Jul-18	104	38	16	22	475	82	8.2	1,070	1.7	57	12	20.9	9	45	261	55

Table 3: Summary of Soil Analyses - Salinity			Analytes																
			Calcium, Soluble	Magnesium, Soluble	Potassium, Soluble	Soluble Chloride	Soluble Sulfate	Soluble Sodium	pH (lab)	Electrical Conductivity (lab)	Sodium Adsorption Ratio	Calcium	Chloride	Magnesium	Potassium	Sodium	Sulphate	Saturation	
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	-	µS/cm	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%
AB Tier 1 (2024) Soil - Residential (Fine Soil)						120 ¹			6-8.5	3000	4								
AB Tier 1 (2024) Soil - Commercial/Industrial (Fine Soil)						120 ¹			6-8.5	4000	12								
Field ID	Depth	Date																	
18-07	0.75	25-Jul-18	49	9	4	73	62	77	8.1	610	2.7	23.6	35	4.1	2	37	29.9	48	
18-07	1.5	25-Jul-18	38	9	4	89	52	64	8.1	560	2.4	21.1	49	5.2	2	35	28.6	55	
18-07	3	25-Jul-18	15	13	4	68	40	64	7.6	480	2.9	7.6	34	6.5	2	32	20	50	
18-07	4.5	25-Jul-18	56	31	7	124	304	135	7.9	1,090	3.6	31	68	16.9	4	74	167	55	
18-07	6	25-Jul-18	64	40	6	140	311	120	8.1	1,120	2.8	22.4	49	14.1	2	42	109	35	
18-08	0.75	24-Jul-18	11	16	6	65	98	124	8.2	700	5.7	5.7	35	8.5	3	67	53.1	54	
18-08	1.5	24-Jul-18	138	78	10	51	822	149	7.9	1,650	2.5	86.7	32	49.1	6	94	518	63	
18-08	3	24-Jul-18	275	240	15	13	2267	385	7.6	3,270	4.1	165	8	144	9	231	1360	60	
18-08	4.5	24-Jul-18	249	128	13	78	1358	207	7.9	2,390	2.6	112	35	57.7	6	93	611	45	
18-08	6	24-Jul-18	169	91	11	78	1028	192	8	2,060	3	61	28	32.7	4	69	370	36	
18-09	0.4	24-Jul-18	46	35	41	203	298	190	7.8	1,560	5.1	27.9	124	21.1	25	116	182	61	
18-09	1.5	24-Jul-18	33	33	13	153	203	119	7.7	1,020	3.5	22.4	104	22.7	9	81	138	68	
18-09	3	24-Jul-18	37	23	5	69	197	86	7.8	740	2.7	15.7	29	9.5	2	36	82.9	42	
18-09	4.5	24-Jul-18	49	29	7	66	291	94	7.9	880	2.6	33	45	20	5	64	198	68	
18-09	6	24-Jul-18	100	50	12	35	604	128	8.1	1,330	2.6	56.9	20	28.4	7	73	344	57	
23-01	0.6	04-Oct-23	25	6	2	6	8	3	7	160	0.1	16	4	3.8	1	2	5	64	
23-01	1.2	04-Oct-23	30	6	2	5	6	3	8	210	0.1	19.4	3	3.8	1	2	<3.9	65	
23-01	2.4	04-Oct-23	21	6	3	4	6	5	8.1	180	0.2	15.9	3	4.2	2	4	<4.4	74	
23-01	3.6	04-Oct-23	31	11	4	80	37	42	8.1	510	1.7	15.5	40	5.3	2	21	18.7	50	
23-01	5.4	04-Oct-23	30	11	5	47	48	33	7.9	450	1.3	17.2	27	6.3	3	19	27.6	57	
23-02	0.3	04-Oct-23	40	5	13	11	13	31	7.9	400	1.3	24.5	7	2.9	8	19	8.2	61	
23-02	1.2	04-Oct-23	35	6	8	25	11	30	7.4	340	1.2	42.6	31	7.6	10	37	14	123	
23-02	3	04-Oct-23	31	24	5	95	101	56	8.2	680	1.8	17.2	52	13	3	31	55.8	55	
23-02	4.2	04-Oct-23	34	28	7	107	134	82	8.1	840	2.5	22.5	72	18.6	5	55	89.6	67	
23-02	6	04-Oct-23	85	40	17	74	358	91	8.3	1,170	2	83.8	73	39.3	17	90	354	99	
23-03	0.3	04-Oct-23	40	18	11	9	11	13	8	380	0.4	47.3	11	21.4	13	16	13	119	
23-03	1.2	04-Oct-23	20	9	2	8	23	31	8.2	300	1.4	10.2	4	4.8	1	16	12	52	
23-03	2.4	04-Oct-23	23	14	6	84	144	130	8.4	850	5.3	15.9	59	9.7	4	91	101	70	
23-03	3.6	04-Oct-23	23	14	9	101	285	222	8.5	1,260	8.9	16.9	75	10.7	7	164	211	74	
23-03	5.4	04-Oct-23	59	29	14	246	366	253	8.3	1,770	6.7	46.6	194	22.9	11	200	289	79	
23-03	6	04-Oct-23	184	62	15	400	440	195	7.9	2,350	3.2	167	364	56	14	177	400	91	
23-04	1.2	02-Oct-23	35	17	4	10	15	8	8.2	320	0.3	25.1	7	12.2	3	6	11	72	
23-04	2.4	02-Oct-23	168	78	13	6	685	22	8	1,380	0.3	133	5	61.5	10	17	541	79	
23-04	3.6	02-Oct-23	83	68	11	49	514	91	8	1,300	1.8	103	61	84.3	14	113	637	124	
23-04	4.8	02-Oct-23	29	24	7	76	110	61	8.2	680	2	43.6	115	37.1	11	93	167	152	
23-04	6	02-Oct-23	55	43	8	94	297	93	7.9	1,070	2.3	38.7	67	30.5	6	66	211	71	

Table 3: Summary of Soil Analyses - Salinity			Analytes														
			Calcium, Soluble	Magnesium, Soluble	Potassium, Soluble	Soluble Chloride	Soluble Sulfate	Soluble Sodium	pH (Lab)	Electrical Conductivity (Lab)	Sodium Adsorption Ratio	Calcium	Chloride	Magnesium	Potassium	Sodium	Sulphate
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	-	µS/cm	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AB Tier 1 (2024) Soil - Residential (Fine Soil)						120 ¹			6-8.5	3000	4						
AB Tier 1 (2024) Soil - Commercial/Industrial (Fine Soil)						120 ¹			6-8.5	4000	12						
Field ID	Depth	Date															
23-05	0.6	02-Oct-23	23	15	4	175	17	112	7.7	810	4.5	17.8	135	11.4	3	86	13
23-05	1.2	02-Oct-23	29	18	3	70	161	108	8.3	840	3.9	17.5	42	10.7	2	65	96.8
23-05	2.4	02-Oct-23	24	21	5	55	91	62	8.1	590	2.2	17.5	41	15.2	4	46	67
23-05	4.2	02-Oct-23	54	29	8	51	262	78	8	880	2.1	40.3	38	21.7	6	58	194
23-05	5.4	02-Oct-23	46	20	12	23	198	70	8.3	720	2.1	58.8	30	26.4	16	90	256
23-05	6.6	02-Oct-23	62	24	15	19	263	80	8.2	880	2.2	56.3	17	21.4	14	73	239
23-06	0.6	02-Oct-23	10	2	4	5	6	4	7.8	80	0.3	5.7	3	1.2	2	2	<3.4
23-06	1.2	02-Oct-23	7	1	2	4	6	4	7.6	60	0.3	3.5	2	0.7	1	2	<3.0
23-06	2.4	02-Oct-23	17	3	2	4	6	6	8	140	0.3	9.4	2	1.4	1	3	<3.2
23-06	4.2	02-Oct-23	23	5	2	7	9	5	8	180	0.2	9.5	3	2.2	<1	2	3.8
23-06	6	02-Oct-23	81	30	19	143	103	27	8.2	880	0.6	91.4	162	34.4	21	30	116
23-07	1.2	03-Oct-23	22	9	3	31	34	60	8	460	2.7	13.7	19	5.3	2	37	20.8
23-07	2.4	03-Oct-23	31	16	6	60	35	33	7.6	470	1.2	22	42	10.9	4	23	24.5
23-07	4.2	03-Oct-23	33	15	5	42	51	25	7.8	440	0.9	18.8	24	8.7	3	14	28.9
23-07	5.4	03-Oct-23	29	13	6	13	47	20	8.3	360	0.8	22.8	10	10.2	5	16	37.4
23-08	0.6	03-Oct-23	35	26	11	268	73	162	7.4	1,230	5	37.9	289	28.1	12	175	78.5
23-08	1.8	03-Oct-23	28	74	9	346	37	122	8.1	1,410	2.8	21.1	263	56.5	7	93	28.4
23-08	3	03-Oct-23	249	167	10	2,548	71	1090	7.7	7,450	13.1	182	1860	122	<7	796	52
23-08	4.8	03-Oct-23	154	62	11	3,368	79	1943	8	9,600	33.3	163	3570	66	12	2060	84
23-08	6	03-Oct-23	144	60	13	4,240	75	2606	7.8	12,500	46.2	150	4410	62	14	2710	78
23-08	7.8	03-Oct-23	835	275	37	2,667	130	314	8.2	7,690	2.4	476	1520	157	21	179	74
23-08	9	03-Oct-23	158	48	22	451	108	69	8	1,830	1.2	166	474	50.5	23	72	113
23-08	10.5	03-Oct-23	147	44	23	34	489	69	8	1,470	1.3	122	28	36.6	19	57	406
23-09	1.2	03-Oct-23	120	107	12	285	344	178	7.7	2,020	2.9	103	245	91.9	10	153	296
23-09	3	03-Oct-23	52	48	7	38	390	128	8.3	1,260	3.1	37.2	27	34.1	5	91	277
23-09	4.8	03-Oct-23	48	35	8	294	81	111	7.4	1,340	3	47.1	288	34.2	8	109	79.3
23-09	6.6	03-Oct-23	133	89	9	970	122	374	7.9	3,190	6.2	72	524	48	<5	202	66
23-09	8.4	03-Oct-23	104	56	13	439	108	127	8.4	1,860	2.5	79.9	338	43.1	10	98	83.2
23-09	10.2	03-Oct-23	112	57	19	386	176	120	8.2	1,730	2.3	78.2	270	40	13	84	123
23-09	11.4	03-Oct-23	232	113	32	570	464	170	7.5	2,730	2.3	172	422	83.3	24	126	343
23-09	12	03-Oct-23	149	61	22	225	439	119	8.2	1,930	2.1	131	198	53.8	19	105	386
23-10	1.2	03-Oct-23	485	649	22	262	4218	638	8	6,610	4.4	267	144	357	12	351	2320
23-10	2.4	03-Oct-23	131	170	12	90	1319	327	8.2	2,790	4.4	123	85	160	11	307	1240
23-10	3.6	03-Oct-23	76	67	8	467	129	167	8.2	1,910	3.3	29.8	182	26	3	65	50.5
23-10	5.4	03-Oct-23	87	44	8	281	243	138	8	1,560	3	46.2	149	23.2	4	73	129
23-10	7.2	03-Oct-23	72	25	9	42	344	113	8.5	1,120	2.9	55.6	32	19.6	7	87	265
23-10	9	03-Oct-23	87	24	10	26	384	115	8.3	1,180	2.8	59.2	18	16.4	7	78	261

Table 3: Summary of Soil Analyses - Salinity			Analytes														
			Calcium, Soluble	Magnesium, Soluble	Potassium, Soluble	Soluble Chloride	Soluble Sulfate	Soluble Sodium	pH (Lab)	Electrical Conductivity (Lab)	Sodium Adsorption Ratio	Calcium	Chloride	Magnesium	Potassium	Sodium	Sulphate
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	-	µS/cm	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AB Tier 1 (2024) Soil - Residential (Fine Soil)						120 ¹			6-8.5	3000	4						
AB Tier 1 (2024) Soil - Commercial/Industrial (Fine Soil)						120 ¹			6-8.5	4000	12						
Field ID	Depth	Date															
MW24-01-TOPSOIL	0	25 Oct 2024	88.8	16.8	149	151	47.9	48.7	6.79	1,230	1.24	104	177	19.6	174	57	56
MW24-01-0.10	0 - 0.15	25 Oct 2024	159	22.4	86.5	773	30.3	253	7.02	2,710	4.98	131	639	18.5	71.5	209	25
MW24-01-0.25	0.15 - 0.3	25 Oct 2024	796	138	75.9	3,720	63.5	1,220	7.47	11,200	10.5	536	2,510	93	51.2	822	42.8
MW24-01-0.45	0.3 - 0.6	25 Oct 2024	702	123	21.2	4,400	45.8	1,560	7.68	12,700	14.3	522	3,270	91.4	15.8	1,160	34
MW24-01-0.80	0.6 - 1	25 Oct 2024	528	70	12.7	3,280	135	1,430	7.51	9,930	15.5	263	1,640	34.9	6.3	714	67.4
MW24-01-1.40	1 - 1.5	25 Oct 2024	431	87	<5.0	2,820	74.6	1,060	7.42	8,310	12.2	295	1,930	59.6	<5.0	726	51.1
MW24-01-1.80	1.5 - 2	25 Oct 2024	100	23.8	6.7	1,060	38.4	500	7.63	3,400	11.7	33.2	352	7.9	<5.0	166	12.7
MW24-01-2.85	2 - 3	25 Oct 2024	46	22.7	13.3	226	90.5	105	7.64	1,020	3.16	24.6	121	12.1	7.1	56.2	48.4
MW24-01-3.75	3 - 4	25 Oct 2024	51.5	19.3	6.8	125	62.3	23.9	7.49	612	0.72	38.4	93	14.4	5.1	17.8	46.4
MW24-01-4.85	4 - 5	25 Oct 2024	25.1	7.7	<5.0	25	66.2	11.8	7.3	234	0.53	15.3	15	<5.0	<5.0	7.2	40.4
MW24-01-5.90	5 - 6	25 Oct 2024	42	11.3	<5.0	32	110	16.9	7.6	425	0.6	30	23	8.1	<5.0	12.1	78.6
MW24-01-6.70	6 - 7	25 Oct 2024	41	10.5	<5.0	<20	111	14.7	7.91	290	0.53	32.4	<16	8.3	<5.0	11.6	87.8
MW24-01-7.60	7 - 8	25 Oct 2024	386	67.7	28.5	74	1,370	36	7.48	2,230	0.44	247	47	43.3	18.2	23	877
MW24-02-TOPSOIL	0	25 Oct 2024	83.6	23.9	35	127	138	81.2	7.49	1,080	2.02	42.9	65	12.3	18	41.6	70.8
MW24-02-0.10	0 - 0.15	25 Oct 2024	66.6	22.8	9.1	175	157	128	7.71	1,120	3.45	23.6	62	8.1	<5.0	45.4	55.7
MW24-02-0.20	0.15 - 0.3	25 Oct 2024	346	208	13.1	1,050	1,960	702	7.94	5,960	7.36	130	394	78	<5.0	263	735
MW24-02-0.45	0.3 - 0.6	25 Oct 2024	417	316	11.9	390	2,810	424	7.45	5,160	3.81	214	200	162	6.1	218	1,440
MW24-02-0.80	0.6 - 1	25 Oct 2024	91.7	116	9.8	169	947	263	7.79	2,450	4.3	39.8	73	50.3	<5.0	114	411
MW24-02-1.40	1 - 1.5	25 Oct 2024	73.4	64.5	5.6	58	545	134	8.11	1,410	2.75	34.6	27	30.4	<5.0	63.1	257
MW24-02-1.75	1.5 - 2	25 Oct 2024	139	136	13.7	50	1,200	206	8.08	2,360	2.98	58.9	21	57.7	5.8	87.3	509
MW24-02-2.80	2 - 3	25 Oct 2024	55.7	47.6	10.7	39	398	105	7.94	1,140	2.5	24.2	17	20.6	<5.0	45.6	173
MW24-02-3.75	3 - 4	25 Oct 2024	328	157	14.4	58	1,700	192	7.77	3,140	2.18	185	33	88.7	8.1	108	960
MW24-02-4.85	4 - 5	25 Oct 2024	34.7	20	6.8	71	181	71.9	7.73	723	2.41	24.6	50	14.2	<5.0	51	128
MW24-02-5.90	5 - 6	25 Oct 2024	42	20.6	6.3	38	210	57.1	8	663	1.8	31	28	15.2	<5.0	42.2	155
MW24-02-6.80	6 - 7	25 Oct 2024	64.4	25.4	8.8	<20	315	56.6	7.9	790	1.51	53.3	<16	21	7.3	46.9	261
MW24-02-7.60	7 - 8	25 Oct 2024	78	25	12.4	<20	356	57.4	7.38	878	1.45	50.9	<13	16.3	8.1	37.5	232
MW24-03-0.10	0 - 0.15	25 Oct 2024	59.6	13	10.4	<20	59.3	10.4	7.69	453	0.32	26.9	<10	5.9	<5.0	<5.0	26.7
MW24-03-0.20	0.15 - 0.3	25 Oct 2024	43	11	6.5	<20	33.6	11.8	7.66	278	0.42	20.9	<10	5.3	<5.0	5.7	16.3
MW24-03-0.45	0.3 - 0.6	25 Oct 2024	35.7	13.9	5.1	<20	49.4	13.2	7.76	273	0.47	15.5	<10	6	<5.0	5.7	21.5
MW24-03-0.80	0.6 - 1	25 Oct 2024	33.4	14	<5.0	<20	32.6	7.8	7.41	261	0.28	12.2	<10	5.1	<5.0	<5.0	12
MW24-03-1.40	1 - 1.5	25 Oct 2024	22.1	9.3	<5.0	<20	9.9	8.9	7.7	195	0.4	10.2	<10	<5.0	<5.0	<5.0	<8.0
MW24-03-1.80	1.5 - 2	25 Oct 2024	27.8	13.5	<5.0	<20	24.9	11.5	7.8	254	0.45	11.5	<10	5.6	<5.0	<5.0	10.3
MW24-03-2.85	2 - 3	25 Oct 2024	28.4	13.5	<5.0	<20	39.8	16.5	7.83	272	0.64	15.4	<11	7.3	<5.0	8.9	21.6
MW24-03-3.75	3 - 4	25 Oct 2024	34.2	14	<5.0	<20	42.2	22.9	7.82	411	0.83	17.1	<10	7	<5.0	11.4	21
MW24-03-4.80	4 - 5	25 Oct 2024	44.9	20.4	8.4	<20	152	36.5	7.68	560	1.13	23.2	<10	10.5	<5.0	18.8	78.4
MW24-03-5.90	5 - 6	25 Oct 2024	47	19.4	6.4	<20	126	33.3	7.92	534	1.03	34.9	<15	14.4	<5.0	24.7	93.5
MW24-03-6.80	6 - 7	25 Oct 2024	41.9	15.9	7.1	<20	131	31.3	7.7	502	1.04	32	<15	12.1	5.4	23.9	100

Table 3: Summary of Soil Analyses - Salinity			Analytes														
			Calcium, Soluble	Magnesium, Soluble	Potassium, Soluble	Soluble Chloride	Soluble Sulfate	Soluble Sodium	pH (Lab)	Electrical Conductivity (Lab)	Sodium Adsorption Ratio	Calcium	Chloride	Magnesium	Potassium	Sodium	Sulphate
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	-	µS/cm	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AB Tier 1 (2024) Soil - Residential (Fine Soil)						120 ¹			6-8.5	3000	4						
AB Tier 1 (2024) Soil - Commercial/Industrial (Fine Soil)						120 ¹			6-8.5	4000	12						
Field ID	Depth	Date															
MW24-04-TOPSOIL	0	26 Oct 2024	65.1	14	36.4	<20	16.5	6.1	6.83	537	0.18	52.4	<16	11.3	29.3	<5.0	13.3
MW24-04-0.10	0 - 0.15	26 Oct 2024	52	9.6	21.5	<20	13.2	<5.0	7.2	287	<0.10	25.6	<10	<5.0	10.6	<5.0	<8.0
MW24-04-0.20	0.15 - 0.3	26 Oct 2024	61.9	12.6	<5.0	<20	65.6	5	7.51	410	0.15	34.4	<11	7	<5.0	<5.0	36.4
MW24-04-0.45	0.3 - 0.6	26 Oct 2024	64.8	14.9	<5.0	<20	40.7	5.8	7.47	430	0.17	28.4	<10	6.5	<5.0	<5.0	17.9
MW24-04-0.80	0.6 - 1	26 Oct 2024	33	7.2	<5.0	<20	24.9	7.4	7.82	207	0.3	9.2	<10	<5.0	<5.0	<5.0	<8.0
MW24-04-1.40	1 - 1.5	26 Oct 2024	24.7	5.9	<5.0	<20	16.2	10.9	7.79	180	0.51	6.6	<10	<5.0	<5.0	<5.0	<8.0
MW24-04-1.75	1.5 - 2	26 Oct 2024	23.6	5.4	<5.0	<20	12.9	17.2	7.98	180	0.83	6.4	<10	<5.0	<5.0	<5.0	<8.0
MW24-04-2.80	2 - 3	26 Oct 2024	23	<5.0	<5.0	<20	22.5	16.4	8.04	192	0.94	6.3	<10	<5.0	<5.0	<5.0	<8.0
MW24-04-3.75	3 - 4	26 Oct 2024	48.6	9.3	<5.0	<20	126	19.1	7.81	422	0.66	14.6	<10	<5.0	<5.0	5.7	37.9
MW24-04-4.80	4 - 5	26 Oct 2024	23.7	5.2	<5.0	<20	44.9	27	7.91	237	1.31	7.3	<10	<5.0	<5.0	8.3	13.9
MW24-04-5.90	5 - 6	26 Oct 2024	39.1	9.6	<5.0	36	146	63.6	7.92	581	2.36	13	12	<5.0	<5.0	21.2	48.8
MW24-04-6.80	6 - 7	26 Oct 2024	30.4	7.4	<5.0	32	104	54.2	8.02	486	2.29	10.5	11	<5.0	<5.0	18.8	36.1
MW24-04-7.60	7 - 8	26 Oct 2024	78.9	20.8	13.2	22	189	33.8	7.98	693	0.87	43.2	12	11.4	7.2	18.5	103
MW24-05A-TOPSOIL	0	26 Oct 2024	81.4	15.8	23.6	<20	31.5	<5.0	7.25	515	<0.10	79	<19	15.3	22.9	<5.0	30.6
MW24-05A-0.10	0 - 0.15	26 Oct 2024	92.9	23.4	6.5	<20	29.1	6	7.43	572	0.14	81.9	<18	20.6	5.7	5.3	25.7
MW24-05A-0.20	0.15 - 0.3	26 Oct 2024	72.2	28.9	<5.0	<20	42.8	12.8	7.67	547	0.32	54.1	<15	21.6	<5.0	9.6	32
MW24-05A-0.45	0.3 - 0.6	26 Oct 2024	56	24.6	<5.0	<20	44.6	14.6	7.84	451	0.41	44.4	<16	19.5	<5.0	11.6	35.4
MW24-05A-0.80	0.6 - 1	26 Oct 2024	50.1	17	<5.0	<20	66.8	11.3	7.77	403	0.35	32.5	<13	11	<5.0	7.3	43.3
MW24-05A-1.40	1 - 1.5	26 Oct 2024	165	28.1	6.6	<20	500	27.9	7.68	1,060	0.53	79.4	<10	13.5	<5.0	13.4	240
MW24-05A-1.80	1.5 - 2	26 Oct 2024	537	50.5	12.1	<20	1,520	30.5	7.57	2,410	0.34	329	<12	30.9	7.4	18.7	930
MW24-05A-2.85	2 - 3	26 Oct 2024	100	32.6	11.9	<20	332	27	7.5	863	0.6	51.1	<10	16.6	6.1	13.8	170
MW24-05A-3.75	3 - 4	26 Oct 2024	94.1	57.1	19	<20	378	38.9	8.03	1,060	0.78	44.7	<10	27.1	9	18.5	180
MW24-05A-4.85	4 - 5	26 Oct 2024	59	24.5	12.9	69	150	21.3	8.08	650	0.59	19.5	23	8.1	<5.0	7	49.5
MW24-05A-5.90	5 - 6	26 Oct 2024	70.4	20.7	15.3	50	186	22.7	8.09	668	0.61	24.4	17	7.2	5.3	7.8	64.4
MW24-05A-6.75	6 - 7	26 Oct 2024	58.8	18.6	12.8	50	166	24.4	8.13	623	0.71	19.4	16	6.1	<5.0	8	54.8
MW24-05A-7.80	7 - 8	26 Oct 2024	105	28	14.2	67	288	28.4	8.11	883	0.64	34.4	22	9.2	<5.0	9.3	94.5
MW24-05A-8.90	8 - 9	26 Oct 2024	94.4	21.7	13.6	58	229	22.9	8.11	785	0.55	30.1	18	6.9	<5.0	7.3	73
MW24-05A-9.80	9 - 10	26 Oct 2024	76.8	17	12.4	54	158	21.8	8.06	657	0.59	24.3	17	5.4	<5.0	6.9	50.1
MW24-05A-10.85	10 - 11	26 Oct 2024	81	18.6	12.4	49	162	20.1	8.03	689	0.52	25.8	16	5.9	<5.0	6.4	51.7
MW24-05A-11.95	11 - 12	26 Oct 2024	69.8	16.6	12	39	108	18.8	7.96	524	0.52	23.6	13	5.6	<5.0	6.4	36.5
MW24-05A-12.85	12 - 13	26 Oct 2024	62.4	17.2	11.2	32	98.3	17.8	7.66	526	0.51	22.2	11	6.1	<5.0	6.3	34.9
MW24-05A-13.90	13 - 14	26 Oct 2024	81.1	20.5	11.1	60	165	23.4	8.02	705	0.6	26.7	20	6.7	<5.0	7.7	54.3
MW24-05A-15.0	14 - 15	26 Oct 2024	69.8	17	10.2	54	154	22	8.13	616	0.61	23.3	18	5.7	<5.0	7.3	51.4

Table 3: Summary of Soil Analyses - Salinity			Analytes														
			Calcium, Soluble	Magnesium, Soluble	Potassium, Soluble	Soluble Chloride	Soluble Sulfate	Soluble Sodium	pH (Lab)	Electrical Conductivity (Lab)	Sodium Adsorption Ratio	Calcium	Chloride	Magnesium	Potassium	Sodium	Sulphate
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	-	µS/cm	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AB Tier 1 (2024) Soil - Residential (Fine Soil)						120 ¹			6-8.5	3000	4						
AB Tier 1 (2024) Soil - Commercial/Industrial (Fine Soil)						120 ¹			6-8.5	4000	12						
Field ID	Depth	Date															
MW24-06-TOPSOIL	0	27 Oct 2024	23.6	10.8	34.8	26	33	8.7	6.56	263	0.37	22.1	24	10.1	32.6	8.2	30.9
MW24-06-0.10	0 - 0.15	27 Oct 2024	101	27.1	25.5	52	195	29.9	7.36	842	0.68	39.5	20	10.6	10	11.7	76.2
MW24-06-0.20	0.15 - 0.3	27 Oct 2024	115	33.8	11.3	158	253	109	7.44	1,300	2.3	57	78	16.8	5.6	54.1	125
MW24-06-0.45	0.3 - 0.6	27 Oct 2024	298	134	14.9	406	1,110	312	7.68	3,550	3.77	180	245	80.8	9	188	669
MW24-06-0.80	0.6 - 1	27 Oct 2024	298	118	<5.0	748	653	338	7.71	3,790	4.19	214	538	85	<5.0	243	470
MW24-06-1.40	1 - 1.5	27 Oct 2024	58	16.6	<5.0	80	68.6	30.4	7.74	577	0.91	26.2	36	7.5	<5.0	13.7	31
MW24-06-1.80	1.5 - 2	27 Oct 2024	44.9	13.6	5.4	65	35.4	17	7.66	443	0.57	20.2	29	6.1	<5.0	7.6	15.9
MW24-06-2.80	2 - 3	27 Oct 2024	39.8	11.4	6.4	73	28.5	26.9	7.56	454	0.97	17.3	32	<5.0	<5.0	11.7	12.4
MW24-06-3.75	3 - 4	27 Oct 2024	55.3	18.1	8.4	77	86.9	23.7	7.64	570	0.71	22.6	31	7.4	<5.0	9.7	35.4
MW24-06-4.85	4 - 5	27 Oct 2024	99.7	25.7	9.1	42	290	30.2	8.11	830	0.7	49.2	21	12.7	<5.0	14.9	143
MW24-06-5.95	5 - 6	27 Oct 2024	63.5	15.6	7	30	225	29.2	8.15	609	0.85	32.3	15	7.9	<5.0	14.9	114
MW24-06-6.80	6 - 7	27 Oct 2024	29.9	8.3	<5.0	<20	68.3	24.8	8.19	272	1.03	10.2	<10	<5.0	<5.0	8.4	23.3
MW24-06-7.60	7 - 8	27 Oct 2024	27.3	8.4	7.8	<20	71.6	31	8.28	249	1.33	9.2	<10	<5.0	<5.0	10.4	24.1

Comments

0 Concentration exceeds applicable guideline.

Notes

1 - Guidance value for delineation of chloride in soil

Table 4: Summary of Soil Analyses - PHC			Analytes										
			Benzene	Toluene	Ethylbenzene	Xylenes	Styrene	F1 (C ₈ - C ₁₀)	F1-BTEX	F2 (C ₁₀ - C ₁₆)	F3 (C ₁₆ - C ₃₄)	F4(C ₃₄ - C ₆₀)	F4 GHH ²
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AB Tier 1 (2024) Soil - Surface , Commercial/Industrial Use (Fine Soil)			0.046	0.52	0.073	0.99	0.68		320	260	2500	6600	6600
AB Tier 1 (2024) Soil - Subsoil , Commercial/Industrial Use (Fine Soil)			0.046	0.52	0.073	0.99	0.68		640	520	4300	10000	10000
Field ID	Depth	Date											
BH18-03	1.50-2.25	09-Dec-18	<0.005	<0.02	<0.005	<0.03	<0.01	<10	<10<50	<50	<100	<100	<100
BH18-11	0.40-1.00	08-Dec-18											3.12
BH18-11	1.000-1.50	08-Dec-18											16
BH18-11	1.50-2.25	08-Dec-18	<0.005	<0.02	<0.005	<0.03	-	<10	<10	<50	136	<100	166
BH18-11	2.25-3.0	08-Dec-18											17.8
BH18-11	3.75-4.50	08-Dec-18											15.1

Comments

0 Concentration exceeds applicable guideline.

Noted

1 - Guidance value for delineation of chloride in soil

3- F4 GHH 9 Gravimetries Heavy Hydrocarbons) is reported when more than 50% of the total carbon Envelope elutes C₅₀. When both F4 and F4 GHH are reported, the F4 GHH result is compared to the applicable guidelines.

Table 5 - Summary of Groundwater Analyses - Salinity		pH (Lab)	Calcium (dissolved)	Chloride (dissolved)	Electrical Conductivity (Lab)	Magnesium (dissolved)	Potassium (dissolved)	Sodium Adsorption Ratio	Sodium (dissolved)	Sulphate (dissolved)	Hardness as CaCO3 (filtered)	TDS
		-	mg/L	mg/L	µS/cm	mg/L	mg/L	-	mg/L	mg/L	mg/L	mg/L
AB Tier 1 (2024) GW - Residential, Commercial/Industrial (Fine Soil)		6.5-8.5	-	120	-	-	-	-	200	429 ¹		500
Field ID	Date											
On- Site Wells												
MW13-01	29-Jul-13	7.41	1,500	8,100	23,000	630	17	14	2,600	650		23,000
	25-Nov-13	7.2	1,300	6,900	19,000	640	16	14	2,600	220		19,000
	8-May-14	7.69	810	4,500	14,000	370	11	11	1,500	190		13,000
	6-Nov-14	7.37	1,500	8,000	22,000	690	18	14	2,500	190		13,000
	21-May-15	7.51	940	5,200	15,000	440	13	11	1,700	190		15,000
	20-Nov-15	6.97	1,200	6,800	19,000	520	14	12	2,000	170		19,000
	13-Apr-16	7.22	950	4,900	15,000	390	12	10	1,500	180		14,000
	8-May-17	7.31	930	5,000	15,000	430	12	12	1,700	160		15,000
	10 Jan 2019	7.29	1,040	6,130	18,100	470	12	13.2	2040	170	4,540	10,800
	28 Jul 2022	7.75	803	6,150	14,800	364	<20.0	18.7	2,540	228		10,200
	16 Aug 2023	7.31	601	4,470	13200	274	11.5	16.6	1960	7710		166
	15 Nov 2024	7.1	493	3,720	10,400	222	10.6	15.8	1,680	178	2,140	7,720
MW13-02	29-Jul-13	7.31	2,500	29,000	81,000	400	81	71	15,000	390		80,000
	25-Nov-13	7.06	2,500	27,000	74,000	580	77	80	17,000	250		74,000
	8-May-14	7.04	2,400	25,000	73,000	570	60	74	15,000	230		73,000
	6-Nov-14	7.31	2,000	25,000	68,000	510	60	72	14,000	240		43,000
	21-May-15	7.37	1,900	24,000	65,000	560	53	72	14,000	260		64,000
	20-Nov-15	6.89	2,000	21,000	62,000	500	50	62	12,000	210		62,000
	13-Apr-16	7.01	2,200	24,000	62,000	460	41	52	10,000	210		61,000
	8-May-17	7.07	2,600	23,000	62,000	600	48	57	12,000	190		62,000
	10 Jan 2019	7.08	3,000	24,900	61,000	490	60	52.9	11,900	270	9,500	42,400
	28 Jul 2022	7.16	2,880	20,900	47,700	498	<200	42.6	9,410	308		34,400
	16 Aug 2023	7.01	2200	17000	40500	421	125	39.7	7760	23200		267
	15 Nov 2024	6.88	3,690	24,300	47,600	492	236	39.2	9,560	209	11,200	38,900
MW13-03	29-Jul-13	7.65	250	2,100	8,200	76	8.8	21	1,500	160		7,700
	25-Nov-13	7.22	300	2,500	8,700	110	6.9	18	1,400	29		8,300
	8-May-14	7.71	320	2,600	9,000	87	8.3	19	1,500	190		8,600
	6-Nov-14	7.6	260	2,200	7,500	86	9.4	18	1,300	67		4,500
	21-May-15	7.57	160	1,200	4,900	53	4.9	14	830	60		4,200
	20-Nov-15	7.35	140	1,100	4,900	52	5.2	13	730	43		4,200
	13-Apr-16	7.45	190	1,400	5,500	76	4.9	11	740	36		4,800
	8-May-17	7.35	200	2,300	8,100	37	9	26	1,500	40		7,600
	10 Jan 2019	7.37	360	2,850	9,620	67.8	13	20.7	1,640	28	1,180	5,680
	28 Jul 2022	8.17	306	6,070	16,800	38.7	30.2	52.4	3,660	348		10,100
	16 Aug 2023	7.26	379	5960	17400	58.6	25.5	46	3640	9110		137
	15 Nov 2024	7.13	368	5,140	14,000	72.9	21.7	39.2	3,150	126	1,220	10,200

Table 5 - Summary of Groundwater Analyses - Salinity		pH (Lab)	Calcium (dissolved)	Chloride (dissolved)	Electrical Conductivity (Lab)	Magnesium (dissolved)	Potassium (dissolved)	Sodium Adsorption Ratio	Sodium (dissolved)	Sulphate (dissolved)	Hardness as CaCO ₃ (filtered)	TDS
		-	mg/L	mg/L	µS/cm	mg/L	mg/L	-	mg/L	mg/L	mg/L	mg/L
AB Tier 1 (2024) GW - Residential, Commercial/Industrial (Fine Soil)		6.5-8.5	-	120	-	-	-	-	200	429 ¹		500
Field ID	Date											
MW13-04	29-Jul-13	7.79	400	1,900	6,700	270	7.9	4.3	460	230		6,200
	25-Nov-13	7.58	140	1,100	4,300	81	5.8	11	660	150		3,700
	8-May-14	8.01	200	1,300	4,900	140	5.1	7.2	540	120		4,200
	6-Nov-14	7.88	220	1,400	4,900	150	6.4	7.4	580	98		2,700
	21-May-15	7.86	150	900	3,700	110	4.8	6.8	450	81		3,100
	20-Nov-15	7.59	130	830	3,600	88	4.4	6.4	380	70		2,900
	13-Apr-16	7.72	150	890	3,700	93	4.3	0.4	400	75		3,100
	8-May-17	7.79	130	750	3,400	90	4.6	7.3	440	66		2,700
	10 Jan 2019	7.77	106	586	2,760	67.5	4	7.2	385	61.1	542	1,540
	28 Jul 2022	8.55	23.5	123	1,160	9.5	<2.00	10.1	230	30.9		989
	16 Aug 2023	7.99	20.7	66.1	973	8.18	<2.00	9.56	203	786		20.5
	14 Nov 2024	7.67	24.4	58.7	955	11.9	3.64	9.13	220	19.4	110	955
MW1	10 Jan 2019	7.52	208	70.3	1,800	72.9	6.3	1.6	104	463	818	1,280
	28 Jul 2022	8.19	230	42.8	1,720	78.6	7.18	1.51	104	528		1,320
	16 Aug 2023	7.39	208	50.2	1,750	72	6.79	1.52	100	1230		463
	15 Nov 2024	7.49	180	177	1,770	84.5	6.07	1.86	121	392	797	1,360
MW2	10 Jan 2019	7.66	139	19	1,180	44.9	3.5	1.2	61.4	324	532	802
	28 Jul 2022	8.27	144	16.3	1,160	49.2	3.6	1.15	62.8	319		862
	16 Aug 2023	7.62	138	14.9	1170	44.4	3.56	1.15	60.7	791		320
	15 Nov 2024	7.63	134	16.4	1,090	46.2	3.72	1.23	64.7	337	525	850
MW3	10 Jan 2019	7.68	217	147	2,300	114	5	2.3	168	709	1010	1,780
	28 Jul 2022	8.17	265	198	2,460	132	4.62	1.89	151	883		1,920
	16 Aug 2023	7.54	271	367	2830	134	6.06	2.02	163	1,850		696
	15 Nov 2024	7.53	256	382	2,580	144	6.73	2.26	182	748	1,230	2,020
MW4	10 Jan 2019	7.26	820	3,780	11,600	629	12	4.6	720	79	4,640	6,890
	28 Jul 2022	7.7	958	5,610	13,800	777	<20.0	6.11	1,050	69.5		8,720
	16 Aug 2023	7.16	710	4350	12700	533	11.6	8.77	1270	6030		45.9
	15 Nov 2024	6.9	865	4,920	12,100	729	14.9	5.8	958	39.3	5,160	8,580
MW18-05	10 Jan 2019	7.83	121	77	1150	43.3	5.1	1.3	64.6	221	482	736
	28 Jul 2022	8.16	120	264	1,380	58.8	4.83	1.58	84.3	47.9		874
	16 Aug 2023	7.81	111	226	1340	54.1	5.19	1.64	84.3	670		41.5
	14 Nov 2024	7.63	78.5	141	965	39.3	4.72	1.7	74.1	29.3	358	566
MW18-06	10 Jan 2019	7.35	287	2,230	7250	111	5.8	13.5	1060	17	1180	4,800
	28 Jul 2022	7.87	352	2,440	7,820	202	<10.0	11.6	1,100	19.6		4,820
	16 Aug 2023	7.11	278	2,320	7560	150	5.4	14	1,170	4,100		17
	15 Nov 2024	6.99	353	2,940	8,430	212	5.58	14.1	1,360	14.5	1,750	5,790
MW18-07	10 Jan 2019	7.3	1690	10,900	30,300	1030	20	17	3,610	190	8,470	18,800
	02 Jul 2022	7.36	2,020	13,400	31,700	1,040	<200	19.7	4,370	200		21,000
	16 Aug 2023	7.1	1950	13,400	32700	1000	63.8	21.8	4,760	17,400		131
	15 Nov 2024	7.23	2,320	16,800	33,000	1,060	25.6	28.4	6,580	224	10,200	29,700

Table 5 - Summary of Groundwater Analyses - Salinity		pH (Lab)	Calcium (dissolved)	Chloride (dissolved)	Electrical Conductivity (Lab)	Magnesium (dissolved)	Potassium (dissolved)	Sodium Adsorption Ratio	Sodium (dissolved)	Sulphate (dissolved)	Hardness as CaCO ₃ (filtered)	TDS
		-	mg/L	mg/L	µS/cm	mg/L	mg/L	-	mg/L	mg/L	mg/L	mg/L
AB Tier 1 (2024) GW - Residential, Commercial/Industrial (Fine Soil)		6.5-8.5	-	120	-	-	-	-	200	429 ¹		500
Field ID	Date											
Off-Site Wells												
18-01D	21-Aug-18	7.82	150	47.9	1540	42.9	8.4	2.8	152	270		988
	27-Jun-19	7.9	135	37.3	1460	38.3	7.8	2.6	134	259		932
	20-May-21	7.82	135	4.3	1330	41.2	8.5	2.5	131	269		853
	31-Oct-23	7.59	120	1.8	1360	32.7	6.4	2.3	110	299		874
18-01S	21-Aug-18	7.54	1440	8460	23300	874	20	14.3	2,800	180		14900
	27-Jun-19	7.38	1240	7,600	20900	732	20	15.8	2,840	160		13,400
	20-May-21	7.28	1290	8,290	21,400	739	14	13.9	2,540	150		13,700
	31-Oct-23	7.59	987	5,360	15,500	532	13	2.3	1,990	75		9,890
	16 Nov 2024	7.41	1,250	8,080	15,500	677	15	14.4	2,540	98.7	5,910	16,500
18-02	21 Aug 2018	7.66	231	1,040	4,190	87	9.8	8	563	71		2,680
	27 Jun 2019	7.68	172	695	3,100	83.6	6.4	5.3	341	91.9		1,980
	20 May 2021	7.39	117	182	1,600	70.2	4.9	2.7	148	67.2		1,020
	31 Oct 2023	7.22	150	326	2,290	79.1	6.7	4.7	288	110		1,470
	16 Nov 2024	7.25	134	194	1,810	87.1	6.49	3.67	222	204	693	1,350
18-03	21 Aug 2018	7.94	132	4.5	1,000	37.4	5	0.9	44.9	197		641
	27 Jun 2019	8.05	129	1.4	979	35.3	4.4	0.8	41.2	191		627
	20 May 2021	7.76	144	2.5	1,020	39.5	4.9	0.9	45.3	209		655
	31 Oct 2023	7.68	138	2.5	1,080	37.9	4.8	0.9	45.1	227		691
18-04	21 Aug 2018	7.75	242	612	3,120	118	6.2	3.8	287	226		2,000
	27 Jun 2019	7.81	422	1,980	3,490	177	5.4	3.6	270	188		2,230
	20 May 2021	7.5	277	803	3,460	138	6.4	3.8	309	189		2,210
	31 Oct 2023	7.45	219	663	3,180	108	6.2	4.4	321	158		2,040
	15 Nov 2024	7.28	200	631	2,780	112	6.86	3.72	265	175	961	1,700
18-05	21 Aug 2018	7.65	255	1070	4,280	196	5.6	4.6	403	79		2,740
	27 Jun 2019	7.56	422	1,980	6,690	317	8.6	4.9	552	150		4,280
	20 May 2021	7.43	427	2110	6,890	333	8.1	4.9	562	150		4,410
	31 Oct 2023	7.39	314	1,420	5,440	264	7.3	5.2	521	89		3,480
	15 Nov 2024	7.08	400	2,220	6,700	322	11	6.24	692	190	2,320	4,200
18-06	21 Aug 2018	7.94	107	76.3	1,180	44.2	5	1.9	93.5	287		753
	27 Jun 2019	7.88	98.7	191	1,460	53.7	4.1	2.5	122	185		934
	20 May 2021	7.93	95.7	334	1,700	70.8	4.4	2.9	154	88.1		1,090
	31 Oct 2023	7.89	88.9	331	1,710	67.3	4.6	2.9	151	86.4		1,100
	16 Nov 2024	7.91	88.6	333	1,500	72.1	5.22	3.02	158	92.3	518	1,040

Table 5 - Summary of Groundwater Analyses - Salinity		pH (Lab)	Calcium (dissolved)	Chloride (dissolved)	Electrical Conductivity (Lab)	Magnesium (dissolved)	Potassium (dissolved)	Sodium Adsorption Ratio	Sodium (dissolved)	Sulphate (dissolved)	Hardness as CaCO ₃ (filtered)	TDS
		-	mg/L	mg/L	µS/cm	mg/L	mg/L	-	mg/L	mg/L	mg/L	mg/L
AB Tier 1 (2024) GW - Residential, Commercial/Industrial (Fine Soil)		6.5-8.5	-	120	-	-	-	-	200	429 ¹		500
Field ID	Date											
18-07	21 Aug 2018	7.84	175	252	2,440	128	5.2	3.4	242	282		1,560
	27 Jun 2019	7.77	181	235	2,470	104	7.1	2.8	189	330		1,580
	20 May 2021	7.58	228	268	2,630	147	8.7	2.9	228	435		1,680
	31 Oct 2023	7.54	220	267	2,800	162	5.9	2.9	230	482		1,790
	16 Nov 2024	7.63	237	248	2,420	157	6.89	3.13	253	584	1,240	2,070
18-08	21 Aug 2018	7.86	350	104	3,270	200	9.9	2.9	277	1540		2,090
	27 Jun 2019	7.8	323	191	3,600	203	10	2.9	269	1,380		2,300
	20 May 2021	7.74	396	214	3,770	241	10	3	308	1,590		2,410
	31 Oct 2023	7.66	405	227	3,960	248	11	3.2	333	1,590		2,530
18-09	21 Aug 2018	7.94	138	177	1,980	96	6	2.8	176	329		1,270
	27 Jun 2019	7.73	191	231	2,540	138	5.9	2.7	199	208		1,630
	20 May 2021	7.66	238	282	2,800	1700	7.3	2.7	222	537		1,790
	31 Oct 2023	7.52	232	391	3,050	170	73	2.7	223	455		1,950
	16 Nov 2024	7.75	226	428	2,550	166	8.5	2.93	238	497	1,250	2,060
23-01	31 Oct 2023	7.68	148	211	1,680	56.4	4.8	2.1	120	125		1,070
	15 Nov 2024	7.73	155	217	1,380	66.2	5.11	1.41	83.2	101	660	965
23-02	31 Oct 2023	7.6	283	332	3,060	162	11	2.8	242	612		1,960
	15 Nov 2024	7.77	331	316	2,720	163	9.94	2.88	256	1,080	1,500	2,550
23-03	31 Oct 2023	0.86	88.2	222	2,200	65.8	6.8	7.6	386	266		1,410
	15 Nov 2024	7.82	274	1,070	3,810	137	11.1	6.95	564	543	1,250	2,980
23-04	31 Oct 2023	7.71	174	450	2,740	166	6.7	2.5	194	294		1,750
	16 Nov 2024	7.93	164	450	2,380	158	7.12	2.71	203	312	1,060	1,720
23-05	31 Oct 2023	8.01	94.4	149	2,200	51.6	7.5	7.8	381	459		1,410
	16 Nov 2024	8.05	151	156	1,920	72.2	10.3	4.32	258	551	674	1,500
23-06	31 Oct 2023	7.6	254	721	3,310	116	9.2	4.3	330	172		2,120
	15 Nov 2024	7.79	206	657	2,540	100	8.65	4.08	285	183	926	1,790
MW24-01	14 Nov 2024	7.11	209	20.2	1,350	57.9	7.44	0.7	44.2	258	760	924
MW24-02	14 Nov 2024	7.27	121	180	2,000	105	13.3	3.47	216	379	734	1,280
MW24-03	14 Nov 2024	7.42	174	12.4	1,290	46.5	8.27	1.19	68.2	439	626	983
MW24-04	15 Nov 2024	7.95	103	72.4	1,080	27.5	6.19	2.87	127	152	1,060	787
MW24-05	14 Nov 2024	7.43	154	58.4	1,380	91.8	7.92	0.61	38.8	356	762	976
MW24-06	15 Nov 2024	8.28	85.3	25.4	756	25.6	5.52	1.46	59.8	117	318	535

Comments

The concentration exceeded the guideline value

Notes

1 - Guideline value depends on water hardness.

Appendix C

Water Well Reports



Clifton



Alberta Water Well Information Database Map

Projection

Web Mercator (Auxillary Sphere)

Datum

WGS 84

Date

2/19/2025, 10:46:25 AM

Legend

- Groundwater Drilling Report
- Baseline Water Well Report

<https://groundwater.alberta.ca/WaterWells/d/>

Information as depicted is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use.
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Water Well Drilling Report

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

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GIC Well ID 42179
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2002/08/27

GOWN ID

Well Identification and Location										Measurement in Imperial		
Owner Name		Address			Town		Province		Country		Postal Code	
TWO HILLS, TOWN OF		4712 50 ST, TWO HILLS									T0B 4K0	
Location		1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description		
16		31	54	12	4							
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)							
ft from					Latitude 53.713845 Longitude -111.750721					Elevation ft		
ft from					How Location Obtained					How Elevation Obtained		
					Not Verified					Not Obtained		

Drilling Information	
Method of Drilling Rotary	Type of Work New Well
Proposed Well Use Municipal	

Formation Log			Measurement in Imperial		
Depth from ground level (ft)	Water Bearing	Lithology Description			
17.00		Brown Till			
32.00		Blue Till			
65.00		Fine Grained Sand			
67.00		Gravel			
74.00		Gray Shale			
80.00		Sandstone			
157.00		Gray Shale			
197.00		Fine Grained Sandstone			
205.00		Gray Shale			

Yield Test Summary			Measurement in Imperial		
Recommended Pump Rate 20.00 igpm					
Test Date	Water Removal Rate (igpm)	Static Water Level (ft)			
2002/07/18	20.00	22.20			

Well Completion			Measurement in Imperial		
Total Depth Drilled	Finished Well Depth	Start Date	End Date		
205.00 ft		2002/07/16	2002/07/18		
Borehole					
Diameter (in)	From (ft)	To (ft)			
0.00	0.00	205.00			
Surface Casing (if applicable)			Well Casing/Liner		
Plastic					
Size OD :	6.00 in	Size OD :	0.00 in		
Wall Thickness :	0.432 in	Wall Thickness :	0.000 in		
Bottom at :	160.00 ft	Top at :	0.00 ft		
		Bottom at :	0.00 ft		
Perforations					
From (ft)	To (ft)	Diameter or Slot Width(in)	Slot Length (in)	Hole or Slot Interval(in)	
Perforated by					
Annular Seal Bentonite Chips/Tablets					
Placed from 0.00 ft to 155.00 ft					
Amount					
Other Seals					
Type			At (ft)		
Screen Type Stainless Steel					
Size OD : 6.00 in					
From (ft)	To (ft)	Slot Size (in)			
160.00	190.00	0.015			
Attachment Attached To Casing					
Top Fittings Coupler			Bottom Fittings Washdown		
Pack					
Type Artificial			Grain Size 10-20		
Amount 35.00 Bags					

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER	Certification No 1
Company Name LAKELAND DRILLING LTD.	Copy of Well report provided to owner Date approval holder signed



Water Well Drilling Report

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GIC Well ID 42179
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2002/08/27

GOWN ID

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

Well Identification and Location										Measurement in Imperial
Owner Name		Address		Town		Province		Country	Postal Code	
TWO HILLS, TOWN OF		4712 50 ST, TWO HILLS							T0B 4K0	
Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description	
	16	31	54	12	4					
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)					
ft from					Latitude 53.713845 Longitude -111.750721					Elevation ft
ft from					How Location Obtained					How Elevation Obtained
					Not Verified					Not Obtained

Additional Information										Measurement in Imperial
Distance From Top of Casing to Ground Level in										
Is Artesian Flow										Is Flow Control Installed
Rate igpm										Describe
Recommended Pump Rate 20.00 igpm										Pump Installed
Recommended Pump Intake Depth (From TOC) 160.00 ft										Depth ft
										Type Make H.P.
										Model (Output Rating)
Did you Encounter Saline Water (>4000 ppm TDS)										Depth ft
Gas										Well Disinfected Upon Completion
Remedial Action Taken										Geophysical Log Taken Electric
										Submitted to ESRD
										Sample Collected for Potability
										Submitted to ESRD
Additional Comments on Well										

Yield Test			Taken From Ground Level	Measurement in Imperial
			Depth to water level	
Test Date	Start Time	Static Water Level		
2002/07/18	7:12 AM	22.20 ft		
Method of Water Removal			Pumping (ft)	Elapsed Time
				Minutes:Sec
				Recovery (ft)
Type Pump				
Removal Rate 20.00 igpm				
Depth Withdrawn From 160.00 ft				
If water removal period was < 2 hours, explain why				

Water Diverted for Drilling		
Water Source	Amount Taken	Diversion Date & Time
	ig	

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well	Certification No
UNKNOWN NA DRILLER	1
Company Name	Copy of Well report provided to owner
LAKELAND DRILLING LTD.	Date approval holder signed



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GIC Well ID	107228
GoA Well Tag No.	
Drilling Company Well ID	
Date Report Received	1982/11/05

GOWN ID

Well Identification and Location										Measurement in Imperial	
Owner Name		Address			Town		Province		Country	Postal Code	
TWO HILLS, TOWN OF		TWO HILLS					AB		CA		
Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description		
NE		31	54	12	4				GOLF COURSE		
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)						
ft from					Latitude 53.712000		Longitude -111.753000		Elevation		ft
ft from					How Location Obtained		How Elevation Obtained				
					Map		Not Obtained				

Drilling Information <i>Method of Drilling</i> Not Applicable <i>Proposed Well Use</i> Municipal		Type of Work Chemistry
-------------------------------------------------------------------------------------------------------------------------	--	----------------------------------

Formation Log		Measurement in Imperial	
Depth from ground level (ft)	Water Bearing	Lithology Description	

Yield Test Summary		Measurement in Imperial	
Recommended Pump Rate _____ igpm			
Test Date	Water Removal Rate (igpm)	Static Water Level (ft)	

Well Completion		Measurement in Imperial	
Total Depth Drilled	Finished Well Depth	Start Date	End Date
0.00 ft			
Borehole			
Diameter (in)	From (ft)	To (ft)	
0.00	0.00	0.00	
Surface Casing (if applicable)		Well Casing/Liner	
Size OD : _____	0.00 in	Size OD : _____	0.00 in
Wall Thickness : _____	0.000 in	Wall Thickness : _____	0.000 in
Bottom at : _____	0.00 ft	Top at : _____	0.00 ft
		Bottom at : _____	0.00 ft
Perforations			
From (ft)	To (ft)	Diameter or Slot Width(in)	Slot Length (in)
Perforated by _____			
Annular Seal			
Placed from _____ 0.00 ft to _____ 0.00 ft			
Amount _____			
Other Seals			
Type		At (ft)	
Screen Type			
Size OD : _____ 0.00 in			
From (ft)	To (ft)	Slot Size (in)	
Attachment _____			
Top Fittings _____		Bottom Fittings _____	
Pack			
Type _____		Grain Size _____	
Amount _____			

Contractor Certification <i>Name of Journeyman responsible for drilling/construction of well</i> UNKNOWN NA DRILLER <i>Company Name</i> UNKNOWN DRILLER		<i>Certification No</i> 1 <i>Copy of Well report provided to owner</i> <i>Date approval holder signed</i>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	---------------------------------------------------------------------------------------------------------------------



Water Well Drilling Report

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GIC Well ID 107228
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 1982/11/05

GOWN ID

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

Well Identification and Location										Measurement in Imperial
Owner Name		Address		Town		Province		Country	Postal Code	
TWO HILLS, TOWN OF		TWO HILLS				AB		CA		
Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description	
	NE	31	54	12	4				GOLF COURSE	
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)					
ft from					Latitude 53.712000		Longitude -111.753000		Elevation ft	
ft from					How Location Obtained		How Elevation Obtained			
					Map		Not Obtained			

Additional Information										Measurement in Imperial
Distance From Top of Casing to Ground Level in										
Is Artesian Flow										Is Flow Control Installed
Rate igpm										Describe
Recommended Pump Rate										Pump Installed
Recommended Pump Intake Depth (From TOC) ft										Depth ft
										Type
										Make
										H.P.
										Model (Output Rating)
Did you Encounter Saline Water (>4000 ppm TDS)										Depth ft
Gas										Well Disinfected Upon Completion
Remedial Action Taken										Geophysical Log Taken
										Submitted to ESRD
										Sample Collected for Potability
										Submitted to ESRD Yes
Additional Comments on Well										

Yield Test			Taken From Ground Level	Measurement in Imperial
Test Date	Start Time	Static Water Level		
		ft		
Method of Water Removal				
Type				
Removal Rate igpm				
Depth Withdrawn From ft				
If water removal period was < 2 hours, explain why				

Water Diverted for Drilling		
Water Source	Amount Taken	Diversion Date & Time
	ig	

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well	Certification No
UNKNOWN NA DRILLER	1
Company Name	Copy of Well report provided to owner
UNKNOWN DRILLER	Date approval holder signed



Water Well Drilling Report

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GIC Well ID 107223
GoA Well Tag No.
Drilling Company Well ID
Date Report Received

GOWN ID

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Well Identification and Location										Measurement in Imperial	
Owner Name		Address			Town		Province		Country	Postal Code	
TWO HILLS, TOWN OF		P.O. BOX 630			TWO HILLS		ALBERTA		CA	T0B 4K0	
Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description		
	9	31	54	12	4	G		1392HW	TOWN SHOP		
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)						
ft from					Latitude 53.710192					Longitude -111.749156	
ft from					How Location Obtained					Elevation ft	
					Map					How Elevation Obtained	
										Not Obtained	

Drilling Information	
Method of Drilling	Type of Work
Unknown	Chemistry
Proposed Well Use	
Domestic	

Formation Log			Yield Test Summary			Well Completion					
Measurement in Imperial			Measurement in Imperial			Measurement in Imperial					
Depth from ground level (ft)	Water Bearing	Lithology Description	Recommended Pump Rate	igpm	Test Date	Water Removal Rate (igpm)	Static Water Level (ft)	Total Depth Drilled	Finished Well Depth	Start Date	End Date
								200.00 ft			1988/01/18
			Borehole								
			Diameter (in)			From (ft)			To (ft)		
			0.00			0.00			200.00		
			Surface Casing (if applicable)			Well Casing/Liner					
			Unknown			Unknown					
			Size OD :			0.00 in			Size OD :		
						0.00 in			0.00 in		
			Wall Thickness :			0.000 in			Wall Thickness :		
						0.00 ft			Top at :		
									Bottom at :		
									0.00 ft		
			Perforations								
			From (ft)			To (ft)			Diameter or Slot Width(in)		
									Slot Length (in)		
									Hole or Slot Interval(in)		
			Perforated by			Unknown					
			Annular Seal			Unknown					
			Placed from			0.00 ft to			0.00 ft		
			Amount								
			Other Seals								
			Type						At (ft)		
			Screen Type								
			Size OD :			0.00 in					
			From (ft)			To (ft)			Slot Size (in)		
			Attachment								
			Top Fittings						Bottom Fittings		
			Pack								
			Type			Unknown			Grain Size		
			Amount			Unknown					

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well	Certification No
UNKNOWN NA DRILLER	1
Company Name	Copy of Well report provided to owner
UNKNOWN DRILLER	Date approval holder signed



Water Well Drilling Report

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GIC Well ID 107223
GoA Well Tag No.
Drilling Company Well ID
Date Report Received

GOWN ID

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Well Identification and Location										Measurement in Imperial	
Owner Name		Address			Town		Province		Country	Postal Code	
TWO HILLS, TOWN OF		P.O. BOX 630			TWO HILLS		ALBERTA		CA	T0B 4K0	
Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description		
	9	31	54	12	4	G		1392HW	TOWN SHOP		
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)						
ft from					Latitude 53.710192 Longitude -111.749156					Elevation ft	
ft from					How Location Obtained					How Elevation Obtained	
					Map					Not Obtained	

Additional Information										Measurement in Imperial	
Distance From Top of Casing to Ground Level										in	
Is Artesian Flow										Is Flow Control Installed	
Rate										igpm	
Describe											
Recommended Pump Rate										igpm	
Pump Installed										Depth ft	
Recommended Pump Intake Depth (From TOC)										ft	
Type										Make	
										H.P.	
										Model (Output Rating)	
Did you Encounter Saline Water (>4000 ppm TDS)										Depth ft	
Well Disinfected Upon Completion											
Gas										Depth ft	
Geophysical Log Taken											
Remedial Action Taken:										Submitted to ESRD	
										Sample Collected for Potability	
										Submitted to ESRD	
Additional Comments on Well											
TOWN OF TWO HILLS WELL #5 ORIGINALLY LOCATED AT 00-32-054-12-W4. CHEMISTRIES MOVED TO WELL ID# 0107223.											

Yield Test			Taken From Ground Level		Measurement in Imperial	
Test Date	Start Time	Static Water Level	ft			
Method of Water Removal						
Type						
Removal Rate igpm						
Depth Withdrawn From ft						
If water removal period was < 2 hours, explain why						

Water Diverted for Drilling		
Water Source	Amount Taken	Diversion Date & Time
	ig	

Contractor Certification		
Name of Journeyman responsible for drilling/construction of well		Certification No
UNKNOWN NA DRILLER		1
Company Name		Copy of Well report provided to owner
UNKNOWN DRILLER		Date approval holder signed



Water Well Drilling Report

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GIC Well ID 107223
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 1984/10/29

GOWN ID

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Well Identification and Location										Measurement in Imperial		
Owner Name		Address			Town		Province		Country		Postal Code	
TWO HILLS, TOWN OF		TWO HILLS					AB		CA			
Location		1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description		
9		31	54	12	4	G			1392HW	TOWN SHOP		
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)							
ft from					Latitude 53.710192 Longitude -111.749156					Elevation ft		
ft from					How Location Obtained					How Elevation Obtained		
					Map					Not Obtained		

Drilling Information	
Method of Drilling	Type of Work
Rotary	New Well
Proposed Well Use	
Municipal	

Formation Log			Measurement in Imperial		
Depth from ground level (ft)	Water Bearing	Lithology Description			
20.00		Yellow Clay			
30.00		Gray Clay			
65.00		Soft Sand			
66.00		Gravel & Boulders			
72.00		Gray Shale			
83.00		Sandstone			
152.00		Hard Shale			
198.00		Gray Fine Grained Sandstone			
220.00		Gray Shale			

Yield Test Summary			Measurement in Imperial		
Recommended Pump Rate			0.00 igpm		
Test Date	Water Removal Rate (igpm)	Static Water Level (ft)			
1984/06/20	30.00	60.00			

Well Completion				Measurement in Imperial			
Total Depth Drilled	Finished Well Depth	Start Date	End Date				
220.00 ft		1984/06/12	1984/06/20				
Borehole							
Diameter (in)	From (ft)	To (ft)					
0.00	0.00	220.00					
Surface Casing (if applicable)				Well Casing/Liner			
Steel				Unknown			
Size OD :		7.00 in	Size OD :		0.00 in		
Wall Thickness :		0.000 in	Wall Thickness :		0.000 in		
Bottom at :		151.00 ft	Top at :		0.00 ft		
			Bottom at :		0.00 ft		
Perforations							
From (ft)	To (ft)	Diameter or Slot Width(in)	Slot Length (in)	Hole or Slot Interval(in)			
Perforated by Unknown							
Annular Seal Unknown							
Placed from		0.00 ft	to	149.00 ft			
Amount							
Other Seals							
Type				At (ft)			
Screen Type Stainless Steel							
Size OD :		4.00 in					
From (ft)	To (ft)	Slot Size (in)					
150.00	180.00	0.015					
Attachment		Unknown					
Top Fittings		Unknown		Bottom Fittings		Unknown	
Pack							
Type		Sand		Grain Size		40-60	
Amount		0.00		Unknown			

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well	Certification No
UNKNOWN NA DRILLER	1
Company Name	Copy of Well report provided to owner
EARNST WATER WELL DRILLING LTD.	Date approval holder signed



Water Well Drilling Report

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GIC Well ID 107223
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 1984/10/29

GOWN ID

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

Well Identification and Location										Measurement in Imperial		
Owner Name		Address			Town		Province		Country		Postal Code	
TWO HILLS, TOWN OF		TWO HILLS					AB		CA			
Location		1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description		
		9	31	54	12	4	G		1392HW	TOWN SHOP		
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)							
ft from					Latitude 53.710192 Longitude -111.749156					Elevation ft		
ft from					How Location Obtained					How Elevation Obtained		
					Map					Not Obtained		

Additional Information										Measurement in Imperial	
Distance From Top of Casing to Ground Level in											
Is Artesian Flow										Is Flow Control Installed	
Rate igpm										Describe	
Recommended Pump Rate 0.00 igpm										Pump Installed Yes	
Recommended Pump Intake Depth (From TOC) 0.00 ft										Depth ft	
										Type SUB	
										Make	
										H.P. 7.5	
										Model (Output Rating)	
Did you Encounter Saline Water (>4000 ppm TDS)										Depth ft	
Gas										Depth ft	
Remedial Action Taken										Well Disinfected Upon Completion	
										Geophysical Log Taken	
										Submitted to ESRD	
Additional Comments on Well										Sample Collected for Potability	
CHEMISTRIES FROM WELL ID# 0281400 MOVED TO THIS FILE.										Submitted to ESRD Yes	

Yield Test			Taken From Ground Level		Measurement in Imperial	
			Depth to water level			
Test Date	Start Time	Static Water Level				
1984/06/20	12:00 AM	60.00 ft				
Method of Water Removal			Pumping (ft)		Elapsed Time	
					Minutes:Sec	
					Recovery (ft)	
Type Pump						
Removal Rate 30.00 igpm						
Depth Withdrawn From 0.00 ft						
If water removal period was < 2 hours, explain why						

Water Diverted for Drilling		
Water Source	Amount Taken	Diversion Date & Time
	ig	

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well	Certification No
UNKNOWN NA DRILLER	1
Company Name	Copy of Well report provided to owner
EARNST WATER WELL DRILLING LTD.	Date approval holder signed



Water Well Drilling Report

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GIC Well ID 1131332
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2016/01/06

GOWN ID

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

Well Identification and Location										Measurement in Imperial									
Owner Name		Address			Town		Province		Country		Postal Code								
TOWN OF TWO HILLS		P.O. BOX 630			TWO HILLS		ALBERTA		CANADA		T0B 4K0								
Location		1/4 or LSD		SEC		TWP		RGE		W of MER		Lot		Block		Plan		Additional Description	
		9		31		54		12		4		g				1392HW		TOWN SHOP	
Measured from Boundary of										GPS Coordinates in Decimal Degrees (NAD 83)									
ft from										Latitude 53.710192 Longitude -111.749156 Elevation ft									
ft from										How Location Obtained									
										Map									
										Not Obtained									

Additional Information										Measurement in Imperial							
Distance From Top of Casing to Ground Level in																	
Is Artesian Flow										Is Flow Control Installed							
Rate igpm										Describe							
Recommended Pump Rate										igpm		Pump Installed		Depth ft			
Recommended Pump Intake Depth (From TOC)										ft		Type		Make		H.P.	
														Model (Output Rating)			
Did you Encounter Saline Water (>4000 ppm TDS)										Depth ft		Well Disinfected Upon Completion		Yes			
Remedial Action Taken										Gas		Depth ft		Geophysical Log Taken			
												Submitted to ESRD					
Additional Comments on Well										Sample Collected for Potability		Submitted to ESRD					
PULLED PUMP, CHLORINATED WELL, AND PLUGGED WITH 34 BAGS OF BENTONITE CHIPS AND 1 PAIL OF BENTONITE PELLETS. WELL PLUGGED FROM A DEPTH OF 175 FT TO SURFACE.																	

Yield Test			Taken From Ground Level		Measurement in Imperial	
Test Date		Start Time		Static Water Level		
				ft		
Method of Water Removal						
Type						
Removal Rate igpm						
Depth Withdrawn From ft						
If water removal period was < 2 hours, explain why						

Water Diverted for Drilling			
Water Source		Amount Taken	
		ig	
		Diversion Date & Time	

Contractor Certification			
Name of Journeyman responsible for drilling/construction of well		Certification No	
DAVID LEES		5545A	
Company Name		Copy of Well report provided to owner	
BIG IRON DRILLING LTD.		Yes	
		Date approval holder signed	
		2015/12/30	



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GIC Well ID	1131331
GoA Well Tag No.	
Drilling Company Well ID	
Date Report Received	2016/01/06

GOWN ID

Well Identification and Location										Measurement in Imperial	
Owner Name		Address			Town		Province		Country	Postal Code	
TOWN OF TWO HILLS		P.O. BOX 630			TWO HILLS		ALBERTA		CANADA	T0B 4K0	
Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description		
9		31	54	12	4	g		1392HW	TOWN SHOP		
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)						
ft from					Latitude 53.710192		Longitude -111.749156		Elevation _____ ft		
ft from					How Location Obtained		How Elevation Obtained				
					Map		Not Obtained				

Drilling Information			
Method of Drilling	Type of Work	<i>Plugged</i>	<u>2015/11/27</u>
Unknown	Existing Well-Decommissioned	<i>Plugged with</i>	<u>Bentonite Chips</u>
Proposed Well Use		<i>Amount</i>	<u>34.00 Bags</u>
Unknown			

Formation Log			Measurement in Imperial		
Depth from ground level (ft)	Water Bearing	Lithology Description			

Yield Test Summary			Measurement in Imperial		
Recommended Pump Rate _____ igpm					
Test Date	Water Removal Rate (igpm)	Static Water Level (ft)			

Well Completion				Measurement in Imperial	
Total Depth Drilled	Finished Well Depth	Start Date	End Date		

Borehole

Diameter (in)	From (ft)	To (ft)

Surface Casing (if applicable)

Size OD : _____ in

Wall Thickness : _____ in

Bottom at : _____ ft

Well Casing/Liner

Size OD : _____ in

Wall Thickness : _____ in

Top at : _____ ft

Bottom at : _____ ft

Perforations

From (ft)	To (ft)	Diameter or Slot Width(in)	Slot Length (in)	Hole or Slot Interval(in)

Performed by _____

Annular Seal

Placed from _____ ft to _____ ft

Amount _____

Other Seals

Type	At (ft)

Screen Type

Size OD : _____ in

From (ft)	To (ft)	Slot Size (in)

Attachment _____

Top Fittings _____ Bottom Fittings _____

Pack

Type _____ Grain Size _____

Amount _____

Contractor Certification			
Name of Journeyman responsible for drilling/construction of well		Certification No	
DAVID LEES		5545A	
Company Name		Copy of Well report provided to owner	Date approval holder signed
BIG IRON DRILLING LTD.		Yes	2015/12/30



Water Well Drilling Report

[View in Metric](#) [Export to Excel](#)

GIC Well ID 1131331
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2016/01/06

GOWN ID

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Well Identification and Location										Measurement in Imperial									
Owner Name		Address			Town		Province		Country		Postal Code								
TOWN OF TWO HILLS		P.O. BOX 630			TWO HILLS		ALBERTA		CANADA		T0B 4K0								
Location		1/4 or LSD		SEC		TWP		RGE		W of MER		Lot		Block		Plan		Additional Description	
9		31		54		12		4		g		1392HW		TOWN SHOP					
Measured from Boundary of										GPS Coordinates in Decimal Degrees (NAD 83)									
ft from										Latitude 53.710192 Longitude -111.749156 Elevation ft									
ft from										How Location Obtained How Elevation Obtained									
Map										Not Obtained									

Additional Information										Measurement in Imperial							
Distance From Top of Casing to Ground Level in																	
Is Artesian Flow										Is Flow Control Installed							
Rate igpm										Describe							
Recommended Pump Rate										igpm		Pump Installed		Depth ft			
Recommended Pump Intake Depth (From TOC)										ft		Type		Make		H.P.	
														Model (Output Rating)			
Did you Encounter Saline Water (>4000 ppm TDS)										Depth ft		Well Disinfected Upon Completion		Yes			
Remedial Action Taken										Gas		Depth ft		Geophysical Log Taken		Submitted to ESRD	
Additional Comments on Well										Sample Collected for Potability		Submitted to ESRD					
CHLORINATED WELL AND PLUGGED WITH 34 BAGS OF BENTONITE CHIPS AND 1 PAIL OF BENTONITE PELLETS. WELL PLUGGED FROM A DEPTH OF 193 FT TO SURFACE. ORIGINAL GIC WELL ID# 107223.																	

Yield Test			Taken From Ground Level		Measurement in Imperial	
Test Date		Start Time		Static Water Level		
				ft		
Method of Water Removal						
Type						
Removal Rate igpm						
Depth Withdrawn From ft						
If water removal period was < 2 hours, explain why						

Water Diverted for Drilling					
Water Source		Amount Taken		Diversion Date & Time	
		ig			

Contractor Certification			
Name of Journeyman responsible for drilling/construction of well		Certification No	
DAVID LEES		5545A	
Company Name		Copy of Well report provided to owner	
BIG IRON DRILLING LTD.		Yes	
		Date approval holder signed	
		2015/12/30	



Water Well Drilling Report

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GIC Well ID 1131329
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2016/01/06

GOWN ID

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

Well Identification and Location										Measurement in Imperial	
Owner Name		Address			Town		Province		Country	Postal Code	
TOWN OF TWO HILLS		P.O. BOX 630			TWO HILLS		ALBERTA		CANADA	T0B 4K0	
Location		1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description	
12		32	54	12	4					PARK	
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)						
ft from					Latitude 53.710100 Longitude -111.744764					Elevation ft	
ft from					How Location Obtained					How Elevation Obtained	
					Map					Not Obtained	

Drilling Information	
Method of Drilling	Type of Work
Unknown	Existing Well-Decommissioned
Proposed Well Use	Plugged
Unknown	Plugged with
	Amount
	2015/11/30
	Bentonite Chips
	57.00 Bags

Formation Log			Yield Test Summary			Well Completion					
Measurement in Imperial			Measurement in Imperial			Measurement in Imperial					
Depth from ground level (ft)	Water Bearing	Lithology Description	Recommended Pump Rate	igpm	Test Date	Water Removal Rate (igpm)	Static Water Level (ft)	Total Depth Drilled	Finished Well Depth	Start Date	End Date
			Borehole								
			Diameter (in)			From (ft)			To (ft)		
			Surface Casing (if applicable)			Well Casing/Liner					
			Size OD :			in			Size OD :		
			Wall Thickness :			in			Wall Thickness :		
			Bottom at :			ft			Top at :		
									Bottom at :		
			Perforations								
			From (ft)			To (ft)			Diameter or Slot Width(in)		
									Slot Length (in)		
									Hole or Slot Interval(in)		
			Perforated by								
			Annular Seal								
			Placed from			ft to			ft		
			Amount								
			Other Seals								
			Type						At (ft)		
			Screen Type								
			Size OD :			in					
			From (ft)			To (ft)			Slot Size (in)		
			Attachment								
			Top Fittings						Bottom Fittings		
			Pack								
			Type						Grain Size		
			Amount								

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well	Certification No
DAVID LEES	5545A
Company Name	Copy of Well report provided to owner
BIG IRON DRILLING LTD.	Date approval holder signed
	Yes
	2015/12/30



Water Well Drilling Report

[View in Metric](#) [Export to Excel](#)

GIC Well ID 1131329
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2016/01/06

GOWN ID

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Well Identification and Location										Measurement in Imperial	
Owner Name		Address			Town		Province		Country	Postal Code	
TOWN OF TWO HILLS		P.O. BOX 630			TWO HILLS		ALBERTA		CANADA	T0B 4K0	
Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description		
	12	32	54	12	4				PARK		
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)						
_____ ft from					Latitude 53.710100 Longitude -111.744764					Elevation _____ ft	
_____ ft from					How Location Obtained					How Elevation Obtained	
					Map					Not Obtained	

Additional Information										Measurement in Imperial	
Distance From Top of Casing to Ground Level _____ in											
Is Artesian Flow _____										Is Flow Control Installed _____	
Rate _____ igpm										Describe _____	
Recommended Pump Rate _____ igpm										Pump Installed _____	
Recommended Pump Intake Depth (From TOC) _____ ft										Depth _____ ft	
										Type _____ Make _____ H.P. _____	
										Model (Output Rating) _____	
Did you Encounter Saline Water (>4000 ppm TDS) _____										Depth _____ ft	
Gas _____										Well Disinfected Upon Completion Yes _____	
Remedial Action Taken: _____										Geophysical Log Taken _____	
										Submitted to ESRD _____	
										Sample Collected for Potability _____	
										Submitted to ESRD _____	
Additional Comments on Well											
PULLED PUMP, CHLORINATED WELL, AND PLUGGED WITH 57 BAGS OF BENTONITE CHIPS AND 1 PAIL BENTONITE PELLETS. WELL PLUGGED FROM A DEPTH OF 200 FT TO SURFACE. ORIGINAL GIC WELL ID# 110169.											

Yield Test			Taken From Ground Level		Measurement in Imperial	
Test Date	Start Time	Static Water Level				
		ft				
Method of Water Removal						
Type _____						
Removal Rate _____ igpm						
Depth Withdrawn From _____ ft						
If water removal period was < 2 hours, explain why						

Water Diverted for Drilling		
Water Source	Amount Taken	Diversion Date & Time
	ig	

Contractor Certification			
Name of Journeyman responsible for drilling/construction of well		Certification No	
DAVID LEES		5545A	
Company Name		Copy of Well report provided to owner	Date approval holder signed
BIG IRON DRILLING LTD.		Yes	2015/12/30



Water Well Drilling Report

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GIC Well ID 110169
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 1980/06/23

GOWN ID

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Well Identification and Location										Measurement in Imperial
Owner Name		Address		Town		Province		Country	Postal Code	
TWO HILLS, TOWN OF		P.O. BOX 630 TWO HILLS				AB		CA		
Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description	
12		32	54	12	4				#TOWN OFFICE	
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)					
ft from					Latitude 53.710100 Longitude -111.744764					Elevation ft
ft from					How Location Obtained					How Elevation Obtained
					Map					Not Obtained

Additional Information										Measurement in Imperial
Distance From Top of Casing to Ground Level										in
Is Artesian Flow										
Rate										igpm
Is Flow Control Installed										
Describe										
Recommended Pump Rate										igpm
Pump Installed										ft
Recommended Pump Intake Depth (From TOC)										ft
Type										Make
										H.P.
										Model (Output Rating)
Did you Encounter Saline Water (>4000 ppm TDS)										ft
Depth										ft
Well Disinfected Upon Completion										
Gas										ft
Geophysical Log Taken										
Submitted to ESRD										
Remedial Action Taken:										
Sample Collected for Potability										Submitted to ESRD Yes
Additional Comments on Well										
CHEMISTRIES FROM WELL ID# 0281399 AND 0107233 MOVED TO THIS WELL ID.										

Yield Test			Taken From Ground Level	Measurement in Imperial
Test Date	Start Time	Static Water Level		
		ft		
Method of Water Removal				
Type				
Removal Rate				
igpm				
Depth Withdrawn From				
ft				
If water removal period was < 2 hours, explain why				

Water Diverted for Drilling		
Water Source	Amount Taken	Diversion Date & Time
	ig	

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well	Certification No
UNKNOWN NA DRILLER	1
Company Name	Copy of Well report provided to owner
UNKNOWN DRILLER	Date approval holder signed



Water Well Drilling Report

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GIC Well ID 234423
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2014/07/16

GOWN ID 173

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

Well Identification and Location										Measurement in Imperial	
Owner Name		Address			Town		Province		Country	Postal Code	
ALBERTA ENVIRONMENT							ALBERTA		CANADA		
Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description		
	12	32	54	12	4	9A	10	951RS	OLD HOSPITAL		
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)						
_____ ft from					Latitude 53.711294 Longitude -111.745364					Elevation _____ ft	
_____ ft from					How Location Obtained					How Elevation Obtained	
					Lat/Long calculated to centre of lot					Not Obtained	

Drilling Information	
Method of Drilling	Type of Work
Unknown	Old Well-Yield
Proposed Well Use	
Unknown	

Formation Log			Measurement in Imperial
Depth from ground level (ft)	Water Bearing	Lithology Description	
300.00		Old Well	

Yield Test Summary			Measurement in Imperial
Recommended Pump Rate _____ igpm			
Test Date	Water Removal Rate (igpm)	Static Water Level (ft)	
1994/06/10	11.00	47.08	

Well Completion			Measurement in Imperial	
Total Depth Drilled	Finished Well Depth	Start Date	End Date	
300.00 ft			1994/06/10	
Borehole				
Diameter (in)	From (ft)	To (ft)		
Surface Casing (if applicable)		Well Casing/Liner		
Size OD :	_____ in	Size OD :	_____ in	
Wall Thickness :	_____ in	Wall Thickness :	_____ in	
Bottom at :	_____ ft	Top at :	_____ ft	
		Bottom at :	_____ ft	
Perforations				
From (ft)	To (ft)	Diameter or Slot Width(in)	Slot Length (in)	Hole or Slot Interval(in)
Perforated by				
Annular Seal				
Placed from _____ ft to _____ ft				
Amount _____				
Other Seals				
Type		At (ft)		
Screen Type				
Size OD : _____ in				
From (ft)	To (ft)	Slot Size (in)		
Attachment _____				
Top Fittings _____		Bottom Fittings _____		
Pack				
Type _____		Grain Size _____		
Amount _____				

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well	Certification No
UNKNOWN NA DRILLER	1
Company Name	Copy of Well report provided to owner
ALBERTA ENVIRONMENT	Date approval holder signed



Water Well Drilling Report

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GIC Well ID 234423
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2014/07/16

GOWN ID 173

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

Well Identification and Location										Measurement in Imperial	
Owner Name		Address			Town		Province		Country	Postal Code	
ALBERTA ENVIRONMENT							ALBERTA		CANADA		
Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description		
	12	32	54	12	4	9A	10	951RS	OLD HOSPITAL		
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)						
ft from					Latitude 53.711294 Longitude -111.745364					Elevation ft	
ft from					How Location Obtained					How Elevation Obtained	
					Lat/Long calculated to centre of lot					Not Obtained	

Additional Information										Measurement in Imperial
Distance From Top of Casing to Ground Level in										
Is Artesian Flow										Is Flow Control Installed
Rate igpm										Describe
Recommended Pump Rate igpm										Pump Installed
Recommended Pump Intake Depth (From TOC) ft										Depth ft
										Type
										Make
										H.P.
										Model (Output Rating)
Did you Encounter Saline Water (>4000 ppm TDS)										Depth ft
Gas										Depth ft
Remedial Action Taken:										Well Disinfected Upon Completion
										Geophysical Log Taken
										Submitted to ESRD
Additional Comments on Well										Sample Collected for Potability
										Submitted to ESRD
JUNE 10, 1994 SWL @ 10:10 = 11.56M, 1WV = 33.2 - 11.54 = 21.66M X 1.25 = 88.8G, 3WV = 266.5G, T = 25 MIN, WATER CLEAN & CLEAR, EC 1560, PH = 8.38										

Yield Test			Taken From Top of Casing	Measurement in Imperial
			Depth to water level	
Test Date	Start Time	Static Water Level	Pumping (ft)	Elapsed Time
1994/06/10	3:25 PM	47.08 ft		Minutes:Sec
				Recovery (ft)
Method of Water Removal			47.08	0:00
Type PUMP			53.31	2:00
Removal Rate 11.00 igpm			56.04	10:00
Depth Withdrawn From 83.00 ft			57.45	20:00
			57.74	25:00
			58.10	35:00
If water removal period was < 2 hours, explain why				

Water Diverted for Drilling		
Water Source	Amount Taken	Diversion Date & Time
	ig	

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well	Certification No
UNKNOWN NA DRILLER	1
Company Name	Copy of Well report provided to owner
ALBERTA ENVIRONMENT	Date approval holder signed

Appendix D

Historical Groundwater Chloride Concentration Trend Graphs



Clifton

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:**19-Feb-25**

Facility Name:**Two Hills HMY**

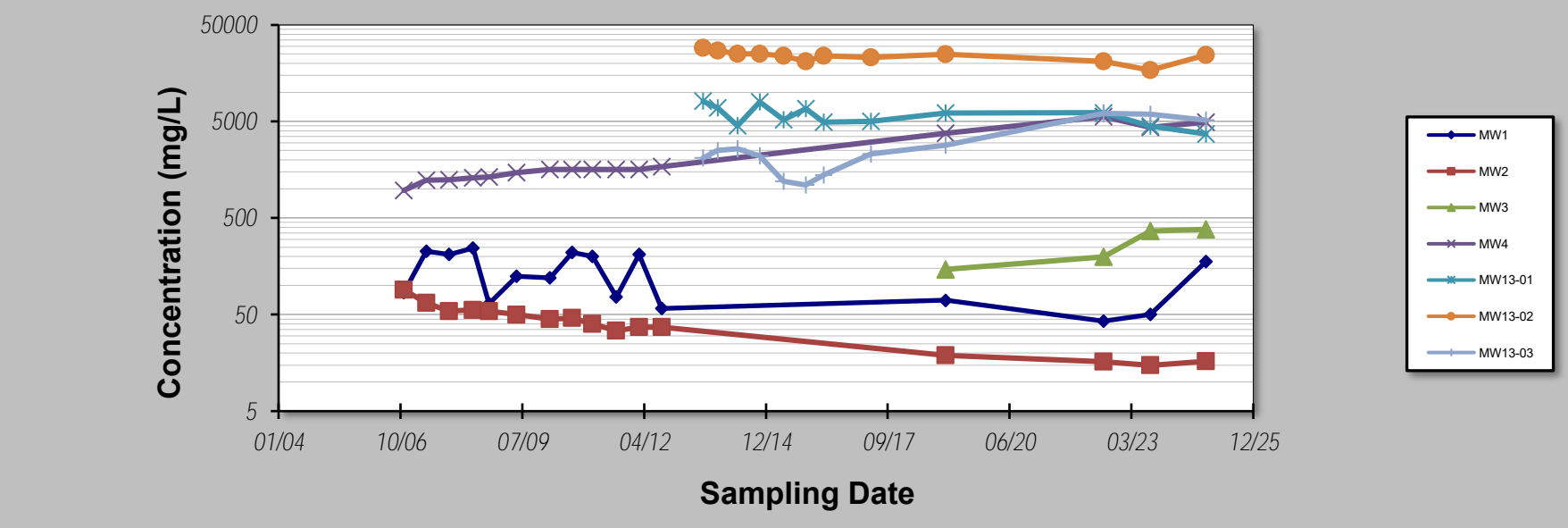
Conducted By:**Raelene Nagy**

Job ID:**CG3687.1/23**

Constituent:**Chloride**

Concentration Units:**mg/L**

Sampling Point ID:		MW1	MW2	MW3	MW4	MW13-01	MW13-02	MW13-03
Sampling Event	Sampling Date	CHLORIDE CONCENTRATION (mg/L)						
1	8-Nov-06	85	90		967			
2	11-May-07	226	66		1240			
3	14-Nov-07	210	54		1250			
4	28-May-08	244	56		1310			
5	7-Oct-08	65	54		1330			
6	21-May-09	125	50		1480			
7	19-Feb-10	120	45		1600			
8	20-Aug-10	220	46		1600			
9	2-Feb-11	200	40		1600			
10	17-Aug-11	76	34		1600			
11	21-Feb-12	210	37		1600			
12	24-Aug-12	58	37		1700			
13	29-Jul-13					8100	29000	2100
14	25-Nov-13					6900	27000	2500
15	8-May-14					4500	25000	2600
16	6-Nov-14					8000	25000	2200
17	21-May-15					5200	24000	1200
18	20-Nov-15					6800	21000	1100
19	13-Apr-16					4900	24000	1400
20	8-May-17					5000	23000	2300
21	10-Jan-19	70.3	19	147	3780	6130	24900	2850
22	28-Jul-22	42.8	16.3	198	5610	6150	20900	6070
23	16-Aug-23	50.2	14.9	367	4350	4470	17000	5960
24	15-Nov-24	177	16.4	382	4920	3720	24300	5140
25								
Coefficient of Variation:		0.54	0.48	0.43	0.67	0.24	0.13	0.60
Mann-Kendall Statistic (S):		-45	-106	6	106	-32	-40	26
Confidence Factor:		97.7%	>99.9%	95.8%	>99.9%	98.4%	99.7%	95.7%
Concentration Trend:		Decreasing	Decreasing	Increasing	Increasing	Decreasing	Decreasing	Increasing



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:**19-Feb-25**

Facility Name:**Two Hills HMY**

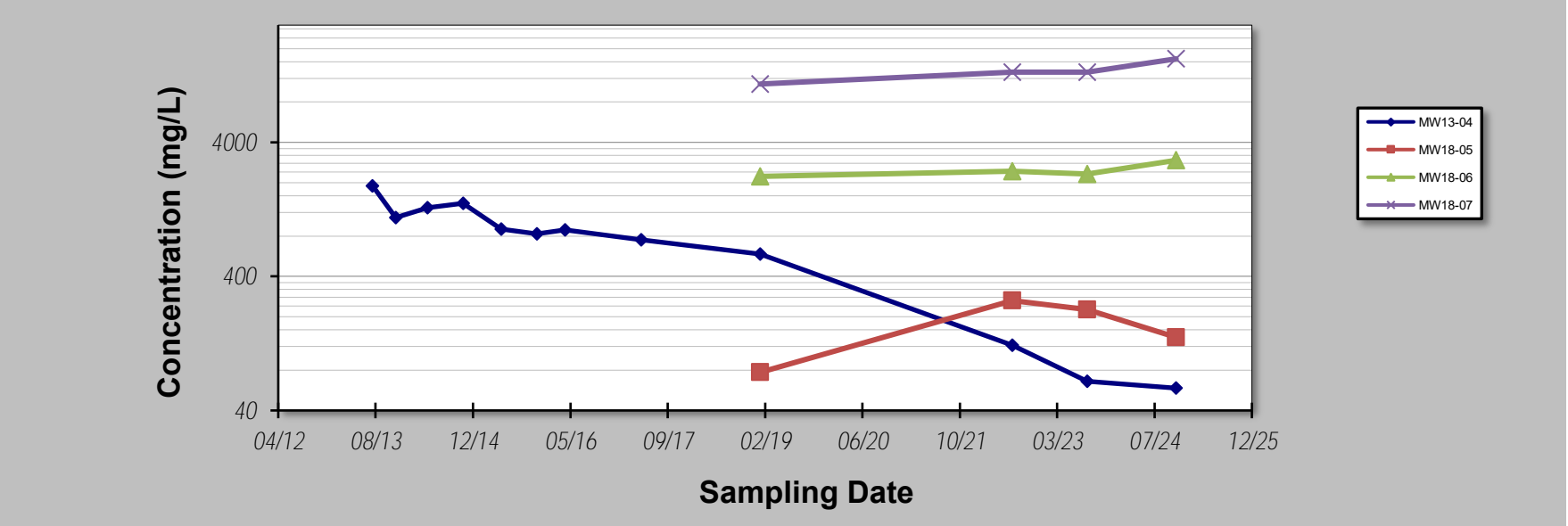
Conducted By:**Raelene Nagy**

Job ID:**CG3687.1/23**

Constituent:**Chloride**

Concentration Units:**mg/L**

Sampling Point ID:		MW13-04	MW18-05	MW18-06	MW18-07			
Sampling Event	Sampling Date	CHLORIDE CONCENTRATION (mg/L)						
1	29-Jul-13	1900						
2	25-Nov-13	1100						
3	8-May-14	1300						
4	6-Nov-14	1400						
5	21-May-15	900						
6	20-Nov-15	830						
7	13-Apr-16	890						
8	8-May-17	750						
9	10-Jan-19	586	77	2230	10900			
10	28-Jul-22	123	264	2440	13400			
11	16-Aug-23	66.1	226	2320	13400			
12	15-Nov-24	58.7	141	2940.0	16800			
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.69	0.48	0.13	0.18			
Mann-Kendall Statistic (S):		-58	0	4	5			
Confidence Factor:		>99.9%	37.5%	83.3%	89.6%			
Concentration Trend:		Decreasing	Stable	No Trend	No Trend			



- Notes:**
- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
 - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
 - Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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Appendix E

EM Survey



Clifton

November 27, 2023

Project 3308.1

Thurber Engineering Ltd.
4127 Roper Road NW
Edmonton, AB
T6B 3S5

Attention: Jordan Balfour BSc., P.Geo.

**RE: GEOPHYSICAL INVESTIGATION AT A HIGHWAY MAINTENANCE
YARD AT TWO HILLS, ALBERTA.**

INTRODUCTION

AKS Geoscience Inc. was retained by Thurber Engineering Ltd. to conduct a geophysical investigation at a highway maintenance yard at the above-mentioned location. The main objective of the investigation was to locate regions of potential inorganic soil and/or groundwater quality impacts related to site operations.

To realize the above objective, Electromagnetics (EM31 and EM38) and Electrical Resistivity Tomography (ERT) surveys were completed. Electrical methods, as mentioned, are highly useful for this type of application as they respond dramatically to anomalous concentrations of inorganic constituents in the shallow subsurface. The EM and ERT surveys were completed August 29, 2023.

Terrain Conductivity

The Geonics EM31SH (referred to as EM31) and EM38 electromagnetic survey instruments provide terrain (or bulk) conductivity information to depths of approximately 4 m and 1.5 m below ground surface, respectively. All EM instruments operate on the principle of electromagnetic induction. A primary, alternating electromagnetic field is introduced into the subsurface by a transmitting coil. The primary field induces electrical currents to flow in the ground, thus creating a secondary electromagnetic field. Under specific conditions, the ratio of the primary to the quadrature component of the secondary field is equivalent to the ground conductivity, in units of millisiemens per metre (mS/m).

Electrical conductivity of soils and rocks is primarily electrolytic (i.e., electrical current is transmitted via dissolved solids in the pore space). An increase in total dissolved solids in the soil will increase the electrical conductivity of the soil. Sands and sandstones, due to the high quartz content, act as electrical insulators and exhibit low electrical conductivity values. Clays and shales readily release ions into the pore space with the introduction of small amounts of moisture, and thus exhibit relatively high conductivity values. Background conductivity values for common soils range from 10 - 30 mS/m for sands and 80 - 100 mS/m for clays. Inorganic soil and/or



groundwater impacts (i.e., salts) can dramatically increase the terrain conductivity, and thus, are readily detected by electromagnetic instruments.

The introduction of metal debris into the subsurface greatly increases the ground conductivity and the instrument response is no longer linear. Thus, in areas of buried metal, conductivity values may appear as a mixture of positive and negative values. This response is diagnostic of buried metal debris or electromagnetic interference.

Electrical Resistivity Tomography

The ERT technique provides an image of the electrical properties of the subsurface in a cross-sectional format. ERT data are collected using a linear array of 48 electrodes connected to a resistivity transmitter/receiver and an electrode control box. Resistivity data are then automatically collected using all possible 4-electrode combinations (i.e., two current electrodes and two potential electrodes). A total of 342 resistivity data points are collected beneath the array. Various electrode spacing and arrangements can be used, depending upon the objective of the survey and local geology. In this case, Wenner arrays were used, as they are well suited for identifying lateral discontinuities such as those associated with inorganic impacts.

Resistivity data are then processed using a finite difference forward modeling subroutine. The final field product is a 2-D conductivity, colour-contoured cross-section (note that conductivity is the mathematical inverse of resistivity). Typically, low conductivity values (presented as blue coloured zones) are indicative of background conditions. Conversely, high conductivity values (presented as red coloured zones) are indicative of potential inorganic soil and/or groundwater quality impacts. In general, ground conductivity derived from the resistivity and the electromagnetic method will have different values.

The ERT and electromagnetic methods derive ground conductivity using distinct and separate approaches; hence, the conductivity values will differ. However, the methods must be looked at in relativistic terms (i.e., regions of high EM conductivity values will generally correspond to regions of high ERT conductivity values).

Global Positioning Systems

A Magellan Mobile Mapper differential global positioning system (DGPS) was used to provide positional data for all geophysical measurements. GPS data were referenced to Universal Transverse Mercator (UTM), Zone 12, North American Datum 83. Differential corrections were supplied by the Wide-Angle Augmentation System (WAAS). The corrections are capable of providing sub-metre positioning (easting and northing only).

Positional data are acquired at 1-second intervals in a dynamic mode (i.e., collecting positions while a person is walking). Coupling a GPS and a data logger to an EM instrument allows for dense sampling in a highly time-efficient manner.



Data Acquisition and Processing

EM31 and EM38 measurements were collected at 1-second intervals (approximately 1m linear distance) as the operator(s) traversed the area of interest in a swath-like pattern, with approximately 8 – 10 m between passes. This provided relatively dense spatial sampling of the area of interest.

The ERT line locations and parameter selections (eg., electrode spacings) were based on review of the EM data, site logistics, and through conversations with Thurber personnel. ERT data was collected across 2 section lines. Electrode spacing and depth of investigation for each line is summarized below:

- ERT Line 1 – 3 m electrode separation and 15 m depth of investigation.
- ERT Line 2 - 2 m electrode separation and 10 m depth of investigation.

A 2-D resistivity inversion was performed on the ERT raw data using a proprietary data analysis sequence combined with a least-squares algorithm. Gridding and contouring of the EM and ERT data was performed with the Surfer processing package, using a geostatistical algorithm. Final presentation and plotting of data was performed using CorelDRAW.

RESULTS

Electromagnetic Conductivity

Drawing No. 1 presents the conductivity data collected from the EM31 survey. EM31 conductivity values predominantly ranged from 30 - 120 mS/m within the surveyed area. An interpretation of the results from the EM31 survey is provided in Table 1 below.

Table 1. Interpretation of EM31 Conductivity Data

Range of EM31 response (mS/m)	Level of response	Colour	Potential source of response (in order of probability)
30 - 60	Background	Blue	Fine grained soil texture (eg., silt/clay till).
60 - 93	Background – Elevated	Green	<ol style="list-style-type: none"> 1 A natural variation in soil texture (eg., a bulk decrease in grain size or increased soil moisture content). 2 A relatively lessor degree of inorganic impact related to site operations.
> 93	Highly Elevated	Yellow - Red	<ol style="list-style-type: none"> 1 Inorganic impact related to current/former operations. 2 EM interference related to near surface metal objects.



Drawing No. 2 presents the conductivity data collected from the EM38 survey. EM38 conductivity values predominantly ranged from 30 – 140 mS/m within the surveyed area. An interpretation of the results from the EM38 surveys is provided in Table 2 below.

Table 2. Interpretation of EM38 Conductivity Data

Range of EM38 response (mS/m)	Level of response	Colour	Potential source of response (in order of probability)
30 - 60	Background	Blue	Fine grained soil texture (eg., silt/clay till).
60 – 105	Background – Elevated	Green	1 A natural variance in soil texture 2 A relatively lesser degree of inorganic impact related to site activities.
> 105	Highly Elevated	Yellow - Red	1 Inorganic impact related to current/former operations. 2 EM interference related to near surface metal objects.

Drawing No. 3 displays EM31 conductivity as an overlay on a recent aerial photograph. This plot was generated to provide regional context and should be used for conceptual purposes only.

Electrical Resistivity Tomography

Locations of the ERT section lines are presented in Dwg. Nos. 1, 2, and 3. ERT conductivity data is presented in Drawing No. 4.

Elevated ERT conductivity values are presented as Yellow - Red coloured regions on Dwg. No. 4. An elevated ERT response suggests the presence of inorganic impacts related to site operations. Elevated ERT values are present at the edges of ERT Line 1 and 2 (approximately 10 m line distance). The ERT inversion algorithm can generate edge effect and these-zone are likely data processing artifacts.

Moderately elevated ERT values are shown as green coloured regions on the ERT sections. This level of ERT response may be related to very fine-grained soils or a relatively lesser degree of inorganic impact. Blue coloured regions on the ERT lines represent lower ERT values and are likely representative of background conditions.



CLOSURE

This report has been prepared with generally accepted geophysical practices for the exclusive use of Thurber. The reported information is believed to provide a reasonable representation of the electrical conductivity of the shallow subsurface at the site, limited to the capabilities of the instrumentation employed. However, intrusive investigations (i.e., soil and/or groundwater sampling) are required to confirm the geophysical interpretations.

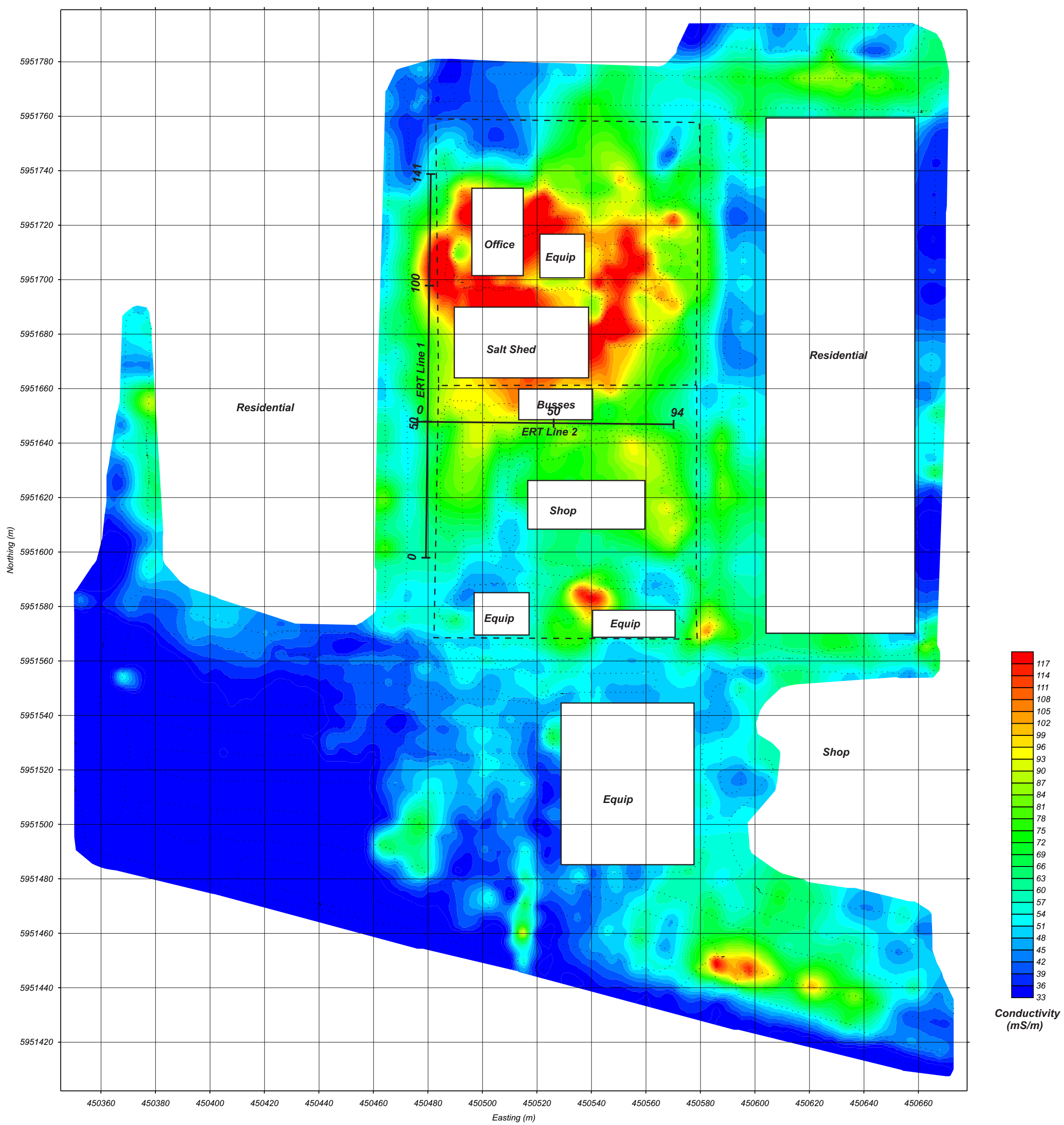
We trust this meets with your present requirements. If there should be any further enquiries, please do not hesitate to contact the undersigned.

Respectfully submitted,

AKS Geoscience Inc.

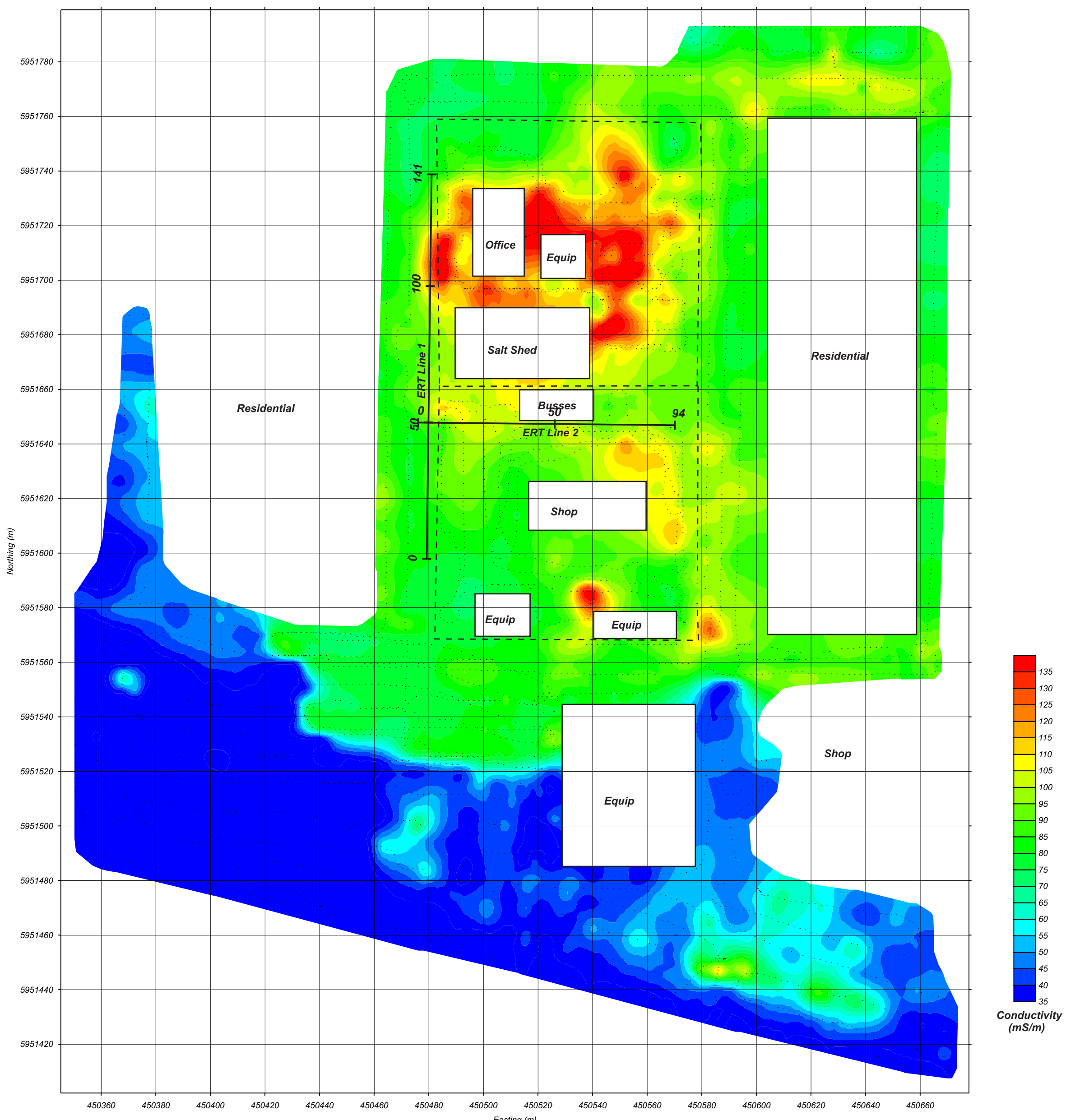


Anil Sharma, P.Geoph.



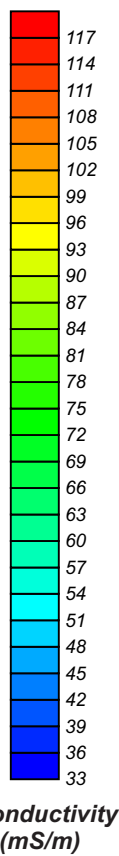
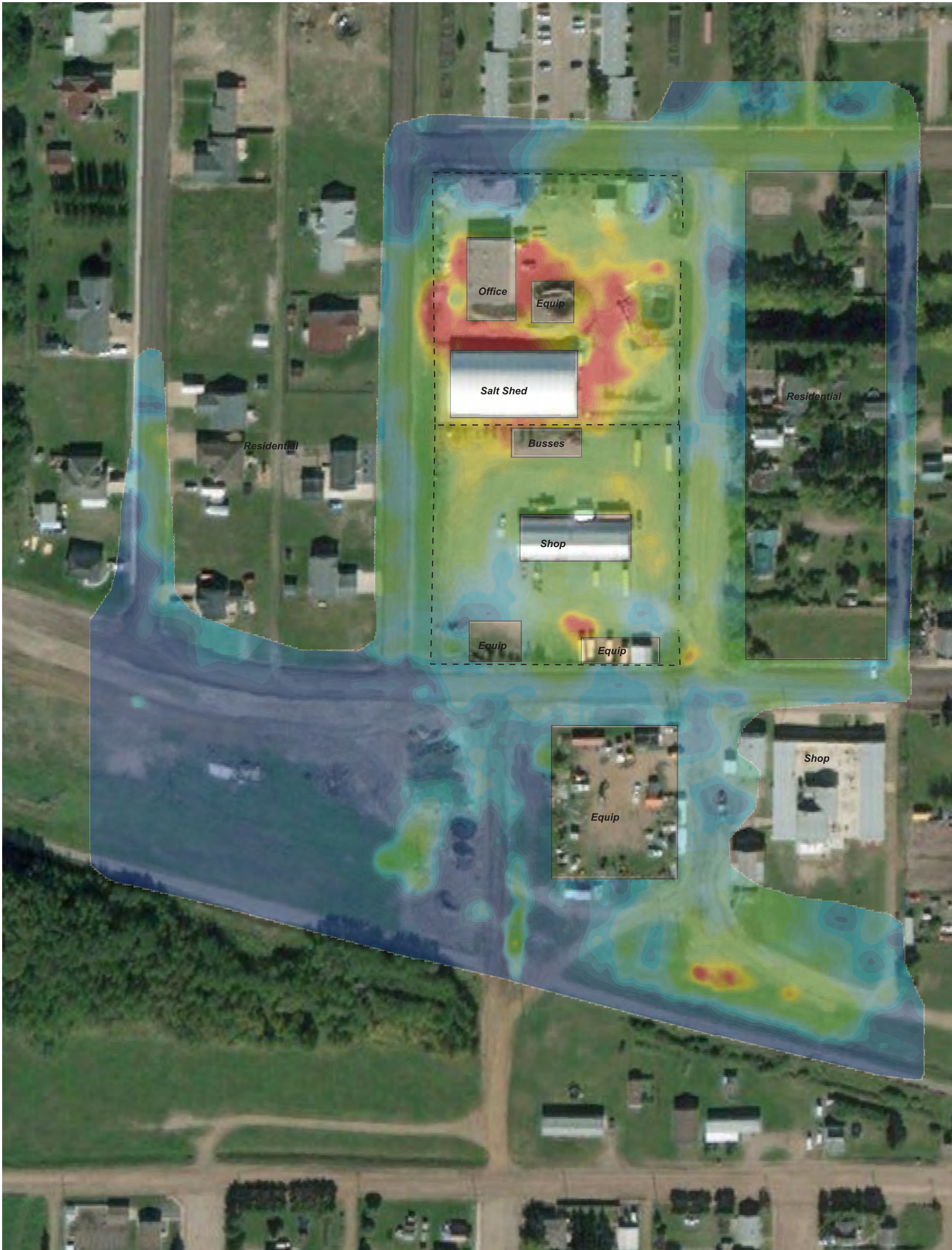
Note: Grid Coordinates are in UTM, NAD 83, Zone 12

EM31 CONDUCTIVITY DATA HIGHWAY MAINTENANCE YARD TWO HILLS, ALBERTA	<div>Clients:</div> <div> THURBER ENGINEERING LTD. <i>Alberta</i> Transportation and Economic Corridors</div>	Prepared by:	
			
		Job No. 3308.1	Scale: 1:1250
		Dwg. No. 1	Survey: Aug. 29, 2023



Note: Grid Coordinates are in UTM, NAD 83, Zone 12

EM38 CONDUCTIVITY DATA HIGHWAY MAINTENANCE YARD TWO HILLS, ALBERTA	<div>Clients:</div> <div> THURBER ENGINEERING LTD.  Transportation and Economic Corridors</div>	Prepared by:  AKS GEOSCIENCE	
		Job No. 3308.1	Scale: 1:1250
		Dwg. No. 2	Survey: Aug. 29, 2023



EM31 CONDUCTIVITY DATA
OVERLAID ON AIRPHOTO
HIGHWAY MAINTENANCE YARD
TWO HILLS, ALBERTA

Clients:



THURBER ENGINEERING LTD.

Alberta

Transportation and Economic Corridors

Prepared by:



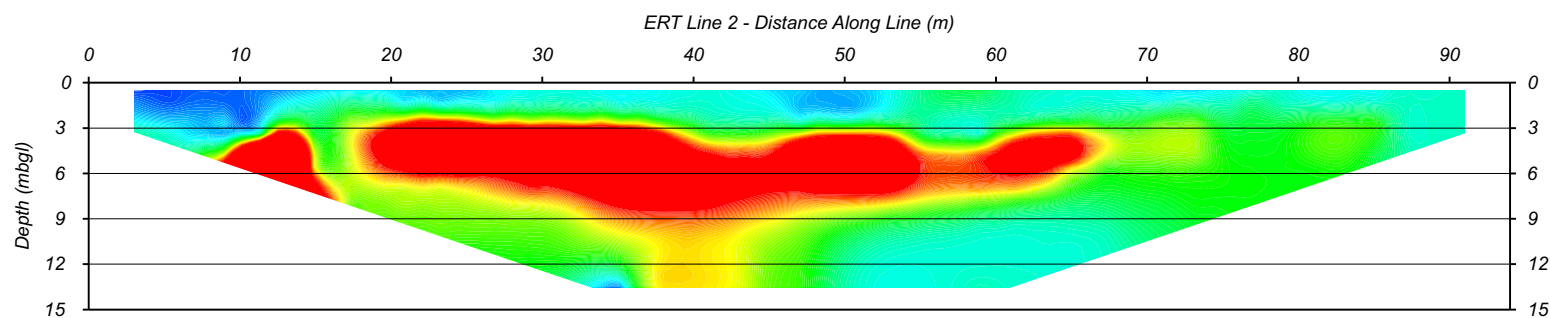
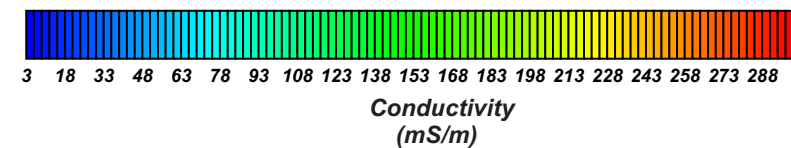
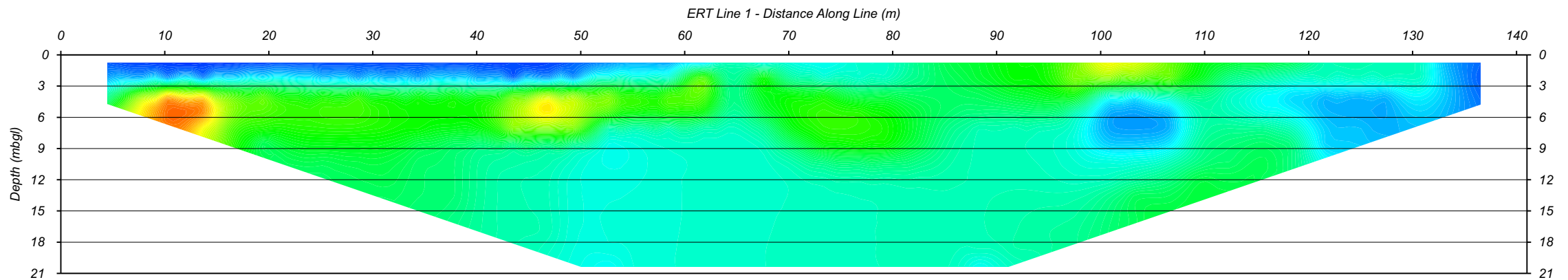
AKS
GEOSCIENCE

Job No. 3308.1

Scale: 1:1250

Dwg. No. 3

Survey: Aug. 29, 2023



ERT CONDUCTIVITY DATA
HIGHWAY MAINTENANCE YARD
TWO HILLS, ALBERTA

Clients:



Prepared by:



Job No. 3308.1

Scale: 1:500

Dwg. No. 4

Survey: Aug. 29, 2023

Appendix F

Review Checklist for Risk Management Plans



Clifton

Appendix A – Review Checklist for Risk Management Plans

This checklist was designed to be used in conjunction with guidance provided in the *Risk Management Plan Guide*.

The Risk Management Plan (RMP) Checklist is intended as a companion document to the Guide and must not be used as a substitute or on its own.

The review checklist must be reviewed, completed and submitted by the environmental professional as an Appendix to the RMP.

Site Name and Location: Two Hills HMY

Site File Info/Number: 00435471

Administrative Requirements

Section of Guide	Query	Yes, No, N/A	Page # in report	Comments, Discussion, Description
3.1 Completed Reviewer's Checklist	Was a completed reviewer's checklist submitted by the professional in an appendix to the RMP?	Y	Cover	
3.2 Site Identification and Physical Location	Is the legal address of the source site provided (Plan, Block, Lot and/or Legal Land Description)?	Y	1	
	If it is a municipal site, is the civic/street address of the source site provided?	Y	1	
	Are legal and/or municipal street addresses of all affected adjacent lands provided?	Y	2	
	Is the site name provided?	Y	1	
	Is the relevant file information provided? (e.g., AEP/AER CSU, PST or SCD file number, Approval number, Incident or Reference number.)	Y	1	
3.3 Proponent Information	Is the name, address and other business card information of the registered owner or person(s) responsible, occupant, renter and lessee provided?	Y	2	

3.4 Consultant Information	Is the key contact information provided? (Name, address and other relevant business card information)?	Y	2	Section 1.1
	Did the consultant(s) who prepared the RMP provide verification of appropriate professional status (e.g., stamp, permit to practice, number demonstrating professional designation)?	Y	Cover page	
3.5 Record of Site Condition	Has a signed Record of Site Condition (RSC) form been submitted with Section 7 completed?	Y		Separate document
3.6 Outstanding Legal Requirements	Are there any federal, provincial, or municipal requirements, charges, or orders that may be attached to the site that need to be considered in developing the RMP?	N	2	Section 1.3

Site Investigation Requirements

Section of Guide	Query	Yes, No, N/A	Page # in report	Comments, Discussion, Description
4.1 Background Site Information	Does the RMP provide background site information?	Y	3-6	Section 2.0
	Are there references to all background reports detailing site history?	Y	25-26	Reference List

Section of Guide	Query	Yes, No, N/A	Page # in report	Comments, Discussion, Description
	Does the background summary provide or reference detailed scale site maps including;			
	<ul style="list-style-type: none"> the location of previous, current and proposed buildings, 	Y	8	Section 3.11 and Figure 2
	<ul style="list-style-type: none"> current operating status of the site, 	Y	6	Section 3.1
	<ul style="list-style-type: none"> any impacted offsite properties, 	Y	2-3	
	<ul style="list-style-type: none"> historic, current, future site and adjacent land uses, 	Y	6	Section 3.2 and Section 3.3
	<ul style="list-style-type: none"> soil type(s) and fill material type(s), 	Y	7	Section 3.6
	<ul style="list-style-type: none"> surface drainage directions, 	Y	5	Section 3.4
	<ul style="list-style-type: none"> depth to groundwater and groundwater flow direction, 	Y	7	Section 3.8
	<ul style="list-style-type: none"> natural features, including any permanent or seasonal surface water bodies to at least 300 m from the contaminant plume, 	Y	8	Section 3.10
	<ul style="list-style-type: none"> any existing well locations within 300 m of the APECs (or 100 m up-gradient and 300 m down-gradient if sufficient groundwater information is available), 	Y	8	Section 3.9
	<ul style="list-style-type: none"> all previous and current soil and groundwater monitoring locations, 	Y	3-5	Section 2.1 and Figure 4, Figure 5 and Figure 7
	<ul style="list-style-type: none"> surface and underground structures including utility services, 	Y	8	Section 3.12 and Appendix D
	<ul style="list-style-type: none"> soil and groundwater sampling, delineation and remediation results 	Y	11-12	Section 3.16, Figure 4, Figure 5 and Figure 7
	<ul style="list-style-type: none"> two-dimensional representation of all areas of potential concern, including relative concentrations of CoPCs, and 	Y	9	Figure 4, Figure 5, and Figure 7
	<ul style="list-style-type: none"> sufficient information to understand vertical distribution of the CoPCs? 	Y	11-12	Section 3.16
	Where multiple risk management areas are proposed, are there vertical and horizontal representations of the various risk management areas?	N/A		
	Does the site summary provide sufficient information to understand risks to sensitive receptors if present?	N/A		

Section of Guide	Query	Yes, No, N/A	Page # in report	Comments, Discussion, Description
	Where multiple land uses or development restrictions are considered over the area, is it clear what land uses are applicable to which area(s)?	N/A		
4.2 Conceptual Site Model (CSM)	Is a CSM provided?	Y	6-17	Section 3.0
	Does the report summarize the CSM in a manner that it provides clear and unambiguous information regarding critical pathways and receptors?	Y	12-17	Section 3.17
	Were any assumptions, calculations, statistical analyses and/or tables used? Was a worked example of any calculations or sufficient explanation of statistical analyses provided?	N/A		
4.3 Contaminants of Potential Concern (CoPCs)	Does the RMP information clearly identify the CoPCs?	Y	9	Section 3.14
4.4 Risks Associated with Site Condition	Are there clear and unambiguous conclusions supported with technical information regarding risks associated with the current site condition?	Y	17-20	Section 4.1
4.5 Land Use and Zoning	Where applicable, have any future land uses or potential changes to zoning been verified with the municipality in question?	Y	6	Section 3.2
	Is surrounding land use provided (where applicable)?	Y	6	Section 3.2
	Does land use zoning(s) described in the report conform to the Alberta Tier 1 land use descriptions?	Y	10	Section 3.15.1
	If land use zoning(s) do not conform to the Alberta Tier 1 land use descriptions, has the consultant taken into account appropriate special considerations to account for differences in land use between the Alberta Tier 1 description and that described in the report?	N/A		

Section of Guide	Query	Yes, No, N/A	Page # in report	Comments, Discussion, Description
4.6 Remediation Guideline Selection	Does the RMP state which remediation guidelines are being used and why? What receptors and pathways have been identified for this site?	Y	9, 12-17	Section 3.14 and Section 3.17
	Is it clear which remediation guidelines are being applied to which areas?	Y	9	Section 3.14
	Have the relevant Alberta Tier 1 guidelines been documented and compared against the site condition in this or previous reports?	Y	10-11	Section 3.15, Figure 4, Figure 5 , Figure 7 and Appendix B
	Where an Alberta Tier 2 option has been employed for any CoPC, has sufficient justification for the Alberta Tier 2 option been documented in this or previous reports?	N/A		
	Where an Alberta Tier 2 site-specific risk assessment process has been used for any CoPCs, has this been reviewed?	N/A		
	Have the conclusions of the risk assessment been accepted by the Department and/or Regulator?	N/A		
	For sites where there is a more sensitive land use adjacent to the site, has the 30 m buffer zone been applied for contaminants that may be laterally mobile in the groundwater or vapour media?	N/A		
4.7 Complete Delineation	Is delineation of contamination in soil complete vertically and horizontally? Where contamination has entered the bedrock, delineation must be complete for bedrock as well.	Y	10	Section 3.15.1
	Where impact to the groundwater has not been ruled out, is delineation of contamination in groundwater both vertically and horizontally complete?	Y	11	Section 3.15.2
4.8 Evaluation and Management of Source and Heavily Impacted Media	For soil or groundwater contamination, have all sources of contamination, as defined in Alberta Tier 1 guidelines been identified, removed and properly disposed of or remediated and/or controlled as per Alberta Tier 2, Section 2.3.1?	N	20	Section 4.4. Heavily saline impacted soil and groundwater is present on-Site and is currently operational, no plans to remediate while the site is operational.

Section of Guide	Query	Yes, No, N/A	Page # in report	Comments, Discussion, Description
	Where a source area is being managed rather than remediated, is delineation sufficient to define the boundaries of the source areas or heavily impacted soils and to estimate potential mass and volume of contamination? It is important to understand the highest concentration and spatial distribution of the source and plume.	Y	10-11	Section 3.15, Figure 4, Figure5 and Figure7
4.8.1 Source Removal and Control	Is there a timeline for source removal and source control? Does it seem feasible?	N		
	If source control is proposed, does information provide detail that the control measure will:			
	<ul style="list-style-type: none"> prevent the contaminant from spreading to adjacent areas (i.e. offsite) causing the soil or groundwater to exceed Alberta Tier 1 or Tier 2 guidelines?, 	Y	21	Section 5.1
	<ul style="list-style-type: none"> operate until the source area meets remediation guidelines?, 	Y	22	Section 5.4
	<ul style="list-style-type: none"> be supported by a monitoring program that demonstrates its efficacy?, 	Y	22	Section 5.4
	<ul style="list-style-type: none"> identify any site management or use restrictions to protect acute, sub-chronic and chronic risks to human and environmental health?, and 	Y	21	Section 5.2
4.8.2 Contaminant Concentrations above Management Limits	Are contaminant concentrations above applicable management limits?	N	20	Section 4.2
	Are there any areas of active risk management or technical solutions that require ongoing maintenance, such as source control plans (or other)?	Y	21	Section 5.2, following the implemented EMP
	Will the site be managed in the future to ensure that the source area will continue to be appropriately managed?	Y	21	Section 5.2

Section of Guide	Query	Yes, No, N/A	Page # in report	Comments, Discussion, Description
	For any source(s) of contamination in the soil or groundwater, are there sufficient lines of evidence provided in the RMP to demonstrate that the risks associated with the contaminated area will remain stable or will decrease with time and ensure against further contaminant migration to any area outside the managed area?	Y	11 17-20 20	Section 3.15.2 Section 4.0 Table 4.1 Section 4.2
4.8.3 Evidence of Non-Aqueous Phase Liquids (NAPLs)	Does investigation provide enough information to demonstrate that NAPL is absent?	N/A		
	Are DNAPLs and/or LNAPLs described?	N/A		
	If free-phase NAPL remains, is information related to mobility, volatility (potential to migrate to a human receptor at ground surface), solubility (potential to enter the groundwater pathway) and toxicity included?	N/A		
	Is a monitoring program proposed to demonstrate contaminant plume stability or decreasing contaminant plume size?	N/A		
	Has the proponent identified special considerations (e.g. vapour barriers, vapour monitoring, restricted development, etc.) for NAPLs/source areas?	N/A		
	Has the proponent identified how access to the source area will be attained in the event that it is required in the future, including any hindrances to access from infrastructure or development?	N/A		
4.8.4 Identification of Heavily Impacted Media	Has the proponent indicated the presence of heavily impacted media in the RMP proposal?	Y	20	Section 4.4
	Are administrative controls required to ensure activities are not conducted within the management areas?	Y	21	Section 5.2

Section of Guide	Query	Yes, No, N/A	Page # in report	Comments, Discussion, Description
4.8.5 Preferential Flow Paths	If the CoPC has entered or has potential to enter preferential flow paths such as fractured bedrock, deposits comprised dominantly of medium, coarse sands and/or gravel, or coarse-grained materials along utility rights-of-way, has the RMP addressed increased risk to the groundwater or vapour phases along these exposure routes?	Y	20	Section 4.5
	Is modeling being used to address the layers encountered and flow movement among layers? If modelling has been used, has sufficient information explaining the modelling been provided?	N		
4.9 Soil Vapour Evaluation and Management	For volatile or semi-volatile CoPCs, has the applicant included an evaluation of the potential for contaminant migration in the vapour phase beyond the risk managed area or along preferential flow paths?	N/A		
	For volatile or semi-volatile CoPCs, has the applicant appropriately considered restrictions required for surface receptors, future development, buried infrastructure, fire, explosive hazards and potential for exposures during excavation?	N/A		
	For volatile CoPCs, does the RMP ensure monitoring of vapour concentrations near buildings, within the building and near the source of vapours?	N/A		
	If necessary, are the soil vapour probes located in the appropriate areas to monitor the near building and/or near source vapour concentrations?	N/A		
	If necessary, have the soil vapour probes been properly installed and tested prior to use?	N/A		
	Has the applicant used proper QA/QC protocols to ensure that samples collected are representative of the vapour in the soil?	N/A		

Section of Guide	Query	Yes, No, N/A	Page # in report	Comments, Discussion, Description
	Has the applicant used appropriate attenuation charts or protocols to estimate attenuation coefficients to calculate soil vapour guidelines for the CoPCs? Has the applicant provided sufficient information on how the attenuations were derived?	N/A		
	Have the appropriate site-specific soil vapour guidelines been used in the assessment of the contaminants?	N/A		
4.10 Observation of Adverse Effects	Were adverse effects observed?	N	20	Section 4.6
	Was the RMP re-evaluated and/or amended after adverse effects were observed?	N		
	Can further adverse effects be anticipated for the RMP?	N		
4.11 Acute, Sub-chronic, or Chronic Exposure	Are there acute, sub-chronic, or chronic exposure concerns that need to be considered?	N		
	If so, does the RMP indicate how short term exposure of critical receptors will be prevented?	N/A		
4.12 Human Health Exposure via Direct Contact or Ingestion Pathways	Is there the potential for exposure of a sensitive receptor to high levels of CoPCs through multiple or single exposure events based on direct contact or ingestion pathways (e.g. pica child exposure, populations with high reliance on game or locally grown food products)?	N		Site is currently fenced all around the Site, therefore only workers can access the Site.
	For human health direct contact or ingestion pathways, has the applicant considered risks from potential acute, short-term, sub-chronic, or chronic effects within the risk managed area (e.g. effects to the “pica” child or other high exposure incidents that may result in acute, short-term, sub-chronic, or chronic health effects, concentrations that may cause acute, short-term, sub-chronic, or chronic health effects in general populations)?	N		Site is currently fenced all around the Site, therefore only workers can access the Site.

Section of Guide	Query	Yes, No, N/A	Page # in report	Comments, Discussion, Description
	Has the applicant appropriately considered risks of surface exposure for human health direct contact or ingestion exposure pathways, within heavily impacted areas and proposed acceptable methods to prevent or mitigate exposure via this route?	Y	17	Section 4.1
4.14 Sufficient Concentrations to alter Physical or Chemical Properties	Is the CoPC concentration sufficient to alter the physical or chemical properties of the soil or groundwater? If so, outline special considerations to address potential changes in the surrounding medium, transport mechanisms, pH value, redox conditions, or biological conditions.	Y	21	Section 4.7

Implementation Requirements

Section of Guide	Query	Yes, No, N/A.	Page # in report	Comments, Discussion, Description
5.1 Summary of Requirements and Conditions	Is a written summary (executive summary or management summary) of requirements and/or conditions for the RMP provided?	Y	i	
	Is the summary clear, concise, and simple? Is information presented in such a way that all readers can rapidly become acquainted with the larger body of material contained within the RMP?	Y	i	
	Does the summary contain a brief statement of the problem or proposal covered within the RMP? Are background information, a concise analysis of the problem and main conclusions presented?	Y	i	
	Is there clear emphasis on the main risk management requirements, conditions, and exposure controls needed for the RMP to be effective?	Y	i	
5.2 Risk Evaluation	Have all risks from APECs or CoPCs been considered in the scope of the RMP?	Y	17-2 0	Section 4.1
	Does the RMP have clear and unambiguous conclusions that demonstrate protection of receptors that may be at risk during the life of the RMP?	Y	17-2 0	Section 4.1

Section of Guide	Query	Yes, No, N/A.	Page # in report	Comments, Discussion, Description
	Is the RMP supporting rationale sufficient to demonstrate that it will protect human health and environment?	Y	21-23	Section 5.0
	Would failure of the RMP result in any of the following: <ul style="list-style-type: none"> •Immediate risk of exposure of humans to CoPCs at levels likely to be above Alberta Tier 1 or Tier 2 guidelines for a pathway of concern? •Sudden discharge of CoPCs to aquatic environments? •Immediate risk to terrestrial or non-human receptors? •Risk of CoPCs spreading to media such as soil, sediment, air, surface water or groundwater at concentrations that exceed the regulatory guidelines? 	N N N N	17-20	Section 4.0 Table 4.1
	Where the failure of the RMP can result in more serious risks, such as immediate risks of exposure to humans or discharge into aquatic environments, more detailed monitoring, management and contingency plans will need to be included.			
	Does the RMP provide sufficient details on the exposure barriers to be used?	Y	21	Section 5.1 and 5.2
	Will the RMP prevent further deterioration of soil or groundwater conditions?	Y	21	Section 5.1 and 5.2
5.3 Monitoring Plan	Does the RMP ensure appropriate management of CoPCs if disturbed or excavated in the future?	Y	21	Section 5.2
	Does the RMP have a Monitoring Plan?	Y	22	Section 5.4
	For mobile CoPCs, does the RMP monitor changes to on-site and off-site conditions that may result from transport of the CoPC in the vapour or groundwater media?	Y	22	Section 5.4

Section of Guide	Query	Yes, No, N/A.	Page # in report	Comments, Discussion, Description
	Does the RMP include clearly defined monitoring requirements including reporting schedules to Alberta Environment and Parks and/or Alberta Energy Regulator and any affected stakeholders?	Y	23	Section 5.6 and Section 5.7
5.4 Contingency Plan	Does the RMP have a Contingency Plan?	Y	22-23	Section 5.5
	Does the RMP include measures to identify changes to site condition?	Y	22	Section 5.4
	Does the RMP include clear triggers to identify whether risks associated with the managed area are not stable or decreasing with time?	Y	22-23	Section 5.5
	Does the contingency plan include provisions to initiate renewed stakeholder consultations for any affected or potentially affected party?	Y	22	Section 5.7
5.5 Timelines and Plan Requirements	Does the RMP include timelines, milestones, and/or monitoring to ensure that the effectiveness of the RMP is determined?	Y	23	Section 5.6
	Is there a clear understanding of the time frame that will be required and does the RMP include commitments by appropriate parties for any long-term management or monitoring?	Y	23	Section 5.6
5.6 Communication Plan	Does the RMP have a Communication Plan?	Y	23	Section 5.7

Section of Guide	Query	Yes, No, N/A.	Page # in report	Comments, Discussion, Description
	Have all directly impacted landowners provided a signed copy of the <i>Affected Third Party – Risk Management Plan No Objection</i> form? These parties may include affected adjacent landowners, the municipality in which the contaminated site resides and potentially the Government of Alberta, if required.	N	23	Section 5.7
	Have <i>Affected Third Party – Risk Management Plan Notification</i> letters been sent to affected parties and are the letters included as an appendix in the RMP?	N		
	Does the communication plan ensure that all affected parties are aware of any restrictions on use required by the RMP?	Y	23	Section 5.7
	Does the communication plan ensure that current and future land owners and other affected parties will be notified of any physical or administrative requirements to maintain the RMP?	Y	23	Section 5.7
	Does the RMP include a mechanism for affected third parties, the proponent and the consultant to discuss and resolve third party concerns?	Y	23	Section 5.7
	Does the RMP document concern(s) raised from third parties and methods used to address those concerns?	Y	23	Section 5.7
5.7 Obligations for Long-term Care and Control	Does the RMP need long-term care and control to perform successfully?	Y	23	Section 5.8
	Has the applicant submitted a signed copy of the <i>Person(s) Responsible – Risk Management Plan Commitment</i> form that indicates maintaining the RMP indefinitely or until compliance with the governing risk management objectives have been demonstrated?	Y	APP F	Appendix F NEED TO OBTAIN FROM TEC
	For any RMP that requires ongoing administrative commitments to ensure against exposure along a particular pathway, have administrative commitments been made to ensure the requirement is communicated and enacted for the time required?	Y	21 23	Section 5.2 Section 5.8

Appendix G

Person(s) Responsible Commitment Letter



Clifton

Person(s) Responsible – Risk Management Plan Commitment Two Hills Highway Maintenance Yard

1. I, Transportation and Economic Corridors, am the person responsible/owner/operator (the “Person(s) Responsible”) of a contaminated site on lands (the “Source Lands” or “Source Land”) legally described as: Plan 4397MC Lot L.

I am submitting a Risk Management Plan (RMP) proposal, expressed as “Risk Management Plan Two Hills Highway Maintenance Yard,” prepared by Clifton Engineering Group Inc., to Alberta Environment and Protected Areas. I Declare that, as the Person(s) Responsible, I have read and fully understand the proposed RMP and am committed to any and all requirements necessary to fulfill and maintain the RMP as described until such time all Lands contaminated by and including my own have been remediated to the appropriate regulatory guidelines of the day.

2. I have, to the best of my abilities, identified all lands that are, or that may become, affected by the contamination emanating from my Source Land(s). I have completed a Declaration in respect of each such legal parcel of affected or potentially affected lands.
3. This Declaration is made in respect of the lands which are affected, or that may become affected by the contamination, and which are legally described as and have as a registered owner(s) the following person(s):

Lot K, Plan 6575KS

Municipal District of Eagle No.81

780-657-2016

4. In the case of risk management, I have provided the Registered Owner(s) with a copy of the proposed Risk Management Plan for contamination on the Source Land(s). The Registered Owner(s) (or authorized representative of the Registered Owners if there is more than one) has/have indicated no objection to the Risk Management option and of the Risk Management Plan proposal which has been provided to them, and they have signed an *Affected Third Party – Risk Management Plan No Objection* form.
5. I have entered into Risk Management in respect of the affected Lands with the Registered Owner(s). If, at any time, the Risk Management Plan is modified significantly, I will provide the Registered Owner(s) with any information required to ensure their understanding and ongoing commitment.
6. If at any time my Land is to be transferred or sold, I will give full disclosure of the state of the property by providing the interested parties with a copy of the above described RMP and any related information required. If a land transaction occurs, and the purchaser is committed to taking over responsibility and liability for the contamination and the RMP, I will provide them with a copy of the *Person(s) Responsible - Risk Management Plan Commitment* form, have them sign and personally return a copy to Alberta Environment and Protected Areas for their records. If I am to maintain responsibility and liability for the RMP, I will report to Alberta Environment and Protected Areas that the property has been sold (including purchaser name, address and telephone number) but indicate that I remain the Person Responsible for contamination and the RMP.

Signature: Stephen.Legaree
(Sworn before a commissioner of oaths)

Digitally signed by Stephen.Legaree
DN: dc=ca, dc=ab, dc=gov, dc=ds, dc=goa, ou=AdminUnits, ou=TRANS,
ou=Stephen.Legaree
Date: 2025.06.12 09:39:35 -0600

Date: _____

The Risk Management Plan must technically demonstrate an equivalent level of human and ecological health protection as *Alberta Tier 1 Soil and Groundwater Remediation Guidelines* or *Alberta Tier 2 Soil and Groundwater Remediation Guidelines*. All affected third parties must agree to the terms and conditions of the Risk Management Plan. The person(s) responsible must obtain no objection to the terms and conditions of the ongoing Risk Management Plan from all affected third parties. Any portion of the release under a Risk Management Plan remains the responsibility of the person(s) responsible for the release under the *Environmental Protection and Enhancement Act*.

The Risk Management Plan proposal must include the signed *Person(s) Responsible - Risk Management Plan Commitment* form as well as any *Affected Third Party - Risk Management Plan No Objection* form(s) and *Affected Third Party - Risk Management Plan Notification* letter(s).



Clifton

Calgary Office

10509 – 46 Street SE
Calgary, AB T2C 5C2
T (403) 263-2556

Edmonton Office

#101, 9636 – 51st Avenue NW
Edmonton, AB T6E 6A5
T (780) 432-6441

Lloydminster Office

#10, 6309 – 43rd Street W
Lloydminster, AB T9V 2W9
T (780) 872-5980

Regina Office

340 Maxwell Crescent
Regina, SK S4N 5Y5
T (306) 721-7611
F (306) 721-8128

Saskatoon Office

#4, 1925 – 1st Avenue N
Saskatoon, SK S7K 6W1
T (306) 975-0401

North Battleford Office

#2, 9802 – 27th Avenue
North Battleford, SK S9A 1K5
T (306) 445-1621

www.clifton.ca

Affected Third Party – Risk Management Plan No Objection

Department File Number: 00435471

1. I, _____ am:

- a. The registered owner of the lands legally described as **Plan 8309ET Block 12 Lot A; Plan 8021571 Block 26 Lot 1; Plan 8021571 Block 26 Lot 3; Plan 8021571 Block 26 Lot 2** (the “Lands”) **OR**
- b. One of the registered owners, including _____, _____, (use the back of this Acknowledgement if additional space is required) of the lands legally described as **Plan 8309ET Block 12 Lot A; Plan 8021571 Block 26 Lot 1; Plan 8021571 Block 26 Lot 3; Plan 8021571 Block 26 Lot 2** (the “Lands”), and have been authorized to sign this Non-Objection on behalf of all of the Registered Owners of the Lands.

2. I am aware that **Transportation and Economic Corridors** (“Persons(s) Responsible”) is submitting a Risk Management Plan proposal with respect to contamination emanating from their Source Land(s) legally described as: **Lot L, Plan 4397MC**.

3. I am aware that the contamination on the above noted land is either causing or may cause adverse effects on the Lands of which I am the/a Registered Owner.

4. I acknowledge that I have reviewed and do not object to the Risk Management Plan proposed by the Person(s) Responsible. I understand that by not objecting to the Risk Management Plan proposed, that if, at any time, my Land is to be transferred or sold, I will give full disclosure of the state of the property by providing the interested parties with a copy of the above described RMP and any related information required.

5. By signing below, I understand that I do not object to entering into a Risk Management Plan with the Person(s) Responsible.

Dated this _____ day of _____ (month), _____ (year).

(Registered Owner)

of _____ (Mailing Address) Phone: _____

Witness Name: _____ Signature: _____

(Sworn before a commissioner of oaths)

Alberta Environment and Protected Areas is collecting this information to assess the Person(s) Responsible Risk Management Plan proposal in respect of specific contamination on and emanating from their land. The information in this document is deemed to be public information for the purposes of s. 35 of EPEA and the Disclosure of Information Regulation (AR 273/2004).

Study tours

FCM's 2026 Annual Conference and Trade Show

[Facebook](#)[X](#)[Bluesky](#)[LinkedIn](#)[Email](#)

Events Navigation

- [Study tours](#)
- [Companion tours](#)
- [Trade show](#)

Learn about innovative, ambitious projects and unique programs that the City of Edmonton has implemented during one of our exciting study tours! Discover how it has tackled its municipal challenges and embraced new opportunities for success.

Due to capacity limits, delegates can only choose one (1) study tour when registering. You may sign up for additional tours in person at the conference if space permits.

It is strongly recommended to wear closed-toe shoes. All tours will meet at the Hall D Foyer at the Edmonton Convention Centre unless otherwise specified. Tours will run rain or shine unless otherwise noted, so please dress for the weather.

Please note: Schedules are subject to change.

Thursday, June 4

[Investments in Old Strathcona and Garneau neighbourhoods](#)

[Metro main streets](#)

[Supporting progressive urban planning and development](#)

[Visit the Indigenous Peoples Experience at Fort Edmonton Park](#)

[The library as a catalyst: Experiencing local impact and innovation at the revitalized Stanley A. Milner Library](#)

[The River Crossing Plan with Destination Canada](#)

[University of Alberta - Centre for Hydrogen Innovation, Workforce Development and Outreach \(CHIWDO\) - Amit Kumar Lab](#)
[The Making of a Nation: Building the Otipemisiwak Métis Government in the 21st century](#)
[Introduction to machine learning exploration](#)
[Capital Power: Genesee tour](#)
[Regional connectivity and economic growth at Canada's airports](#)
[Inglewood infill walking tour](#)
[Spruce Grove - Building community through urban infrastructure](#)
[Supportive housing site tour](#)
[A walking tour of Edmonton's downtown revitalization](#)
[Discover the heart of community living with Dream](#)
[Edmonton Learning City](#)
[EPCOR - E.L. Smith Water Treatment Plant & Solar Farm](#)

Friday, June 5

[Edmonton's sustainability tour](#)
[Data and the city](#)
[CN Alberta Operations Tour: Safety in Motion](#)
[Urban forest management & canopy expansion](#)
[Indigenous-led Healthcare Innovation: The Enoch Surgical Centre](#)
[Vegreville - CPC Closure Advocacy](#)
[LRT construction alignment tour](#)
[Stadium yards](#)
[The city scoop: ice cream & urban development](#)
[Edmonton waste management centre & eco station tour](#)
[Parkland County - Acheson Innovation in Action](#)
[River Valley tour](#)
[Prioritizing equity in Edmonton's public spaces bylaw](#)

Saturday, June 6

[Advancing Reconciliation and anti-racism at the city](#)
[The Problem Property Initiative—Exploring Edmonton's impactful multi-agency approach](#)
[Blatchford, Edmonton's first green community](#)
[Edmonton Unlimited: Experience Edmonton's innovation advantage](#)
[Windermere's net zero fire station tour](#)

Arts District

Claystone waste landfill and compost tour

Community Resilience by Design: An ALUS landscape tour

Partnerships that Power Progress: Municipal Collaboration and Clean Innovation

The kihcihkaw askî site tour

Village at Griesbach: Canada Lands Company's complete community

Sunday, June 7

Community safety tour: Edmonton's multi-agency approach

Kathleen Andrews Garage tour

Bringing Vision Zero to life

Explore the Coronation Park Sports and Recreation Centre

CANTERRA SUITES HOTEL

HELLO

[My reservations](#)

[My reservations](#)

RESERVATION SUMMARY

Guest name	CAO Adam Kozakiewicz
Confirmation	50263260
Email	mc@townoftwohills.com
Mobile	7806573395-Cindy
Check-in date	Thursday, June 4, 2026
Check-in time	From 04:00 PM
Check-out date	Sunday, June 7, 2026
Check-out time	Until 11:00 AM
Nights	3
Adults	1
Room type	1 Bedroom Suite
Rooms	1
Rate type	Government Rate
Average nightly rate	CAD \$154.00/night
Room	CAD \$462.00
Sub total	CAD \$462.00
Taxes	CAD \$18.48
TOTAL	CAD \$480.48

- Cancellations 72 hours prior to arrival will receive the full refund of the deposit.
Reservations cancelled within 72 hours will be subject to 1 night plus eligible taxes penalty.

Canterra Suites Hotel

11010 Jasper Avenue, Edmonton, AB, T5K 0K9

Tel: 780-421-1212

Email: info@canterrasuites.com

Web: canterrasuites.com

Powered by [WebRezPro](#)

CANTERRA SUITES HOTEL

HELLO

[My reservations](#)

[My reservations](#)

RESERVATION SUMMARY

Guest name	Mayor Michael Tarkowski
Confirmation	50263246
Email	mc@townoftwohills.com
Mobile	7806573395- Cindy
Check-in date	Thursday, June 4, 2026
Check-in time	From 04:00 PM
Check-out date	Sunday, June 7, 2026
Check-out time	Until 11:00 AM
Nights	3
Adults	1
Room type	1 Bedroom Suite
Rooms	1
Rate type	Government Rate
Average nightly rate	CAD \$154.00/night
Room	CAD \$462.00
Sub total	CAD \$462.00
Taxes	CAD \$18.48
TOTAL	CAD \$480.48

- Cancellations 72 hours prior to arrival will receive the full refund of the deposit.
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Powered by [WebRezPro](#)



February 5th, 2026

Rhapsody Awards Selection Committee Rural Health Professions Action Plan (RhPAP)

Re: Nomination of Dr. Majeed Abdul Satar for the Rhapsody Physician Award

Dear Selection Committee,

It is with great pride and enthusiasm that I submit this nomination for Dr. Majeed Abdul Satar for the Rhapsody Physician Award. This single letter reflects not only my observations but also the broad support of our community, which has been deeply impacted by Dr. Satar's professional excellence, personal compassion, and lasting contributions.

Professional Excellence

Since joining Two Hills in 2006, Dr. Satar has become the cornerstone of healthcare in our region. With over 19 years of experience, he is considered a "pillar of the community" and is well known for his work in the region. As the medical director of the Two Hills Health Care Centre for over 10 years, he has led multidisciplinary teams, mentored students and residents, and implemented programs to attract and retain healthcare professionals in our rural area.

His 10-year tenure as a Hospital Medical Director, and the Director of the SAGE Program, and his current role as Chair of the Regional Advisory Council (Zone 9) exhibits the high level of trust from the medical community, residents and the provincial government. His clinical skills, dedication, and innovation have transformed the level of care available in Two Hills, and the surrounding rural communities, including Willingdon, Myrnam, and Saddle Lake.

For example, Dr. Satar has provided comprehensive family medicine services, including obstetrics, geriatrics, and emergency care, which have reduced patient transfers and allowed residents to receive specialized care close to home, and often in their home with the return to House Calls for our Elderly citizens. Colleagues consistently describe him as both a skilled physician and a supportive mentor, with one remarking, "Dr. Satar elevates the entire team by setting the bar high and leading by example."

Community Commitment

Beyond the clinic, Dr. Satar is an active leader in our town and the surrounding rural area. Ensuring the next generation experiences the rewards of a robust rural practice. He has partnered with schools, service clubs, and health organizations to promote wellness initiatives such as youth mental health programming. Patients frequently comment that Dr. Satar is more than a physician – he is a trusted neighbour and

advocate. As one parent expressed, "When my child was struggling, Dr. Satar took the time to listen and connect us with the right supports. We'll never forget his kindness."

Dr. Satar's approach to health is inclusive. His support for alternative and ceremonial healing practices, especially with the First Nations community of Saddle Lake Cree Nation No 125, offers peace of mind, and embraces their unique cultural perspective. He champions their customs and coordinates with Two Hills Hospital to support and participate in ceremonial healing traditions.

The elderly residents in Two Hills and the surrounding area have flourished under Dr. Satar's enhanced elderly care. With regular visits to Hillside Lodge in Two Hills, Eagle Hill seniors care facility in Willingdon and Eagle View Lodge in Myrnam, our elderly residents specialized care is focused and accessible.

Personal Impact

Dr. Satar's presence is felt in every corner of our community. During challenging times, such as the COVID-19 pandemic, he supported volunteer efforts, personally checked in on vulnerable residents, and reassured families during uncertain times. He was awarded the Queen Elizabeth II's Platinum Jubilee Medal for his dedication to patients during the COVID-19 pandemic. A local community leader summed it up well: "When we didn't know where to turn, Dr. Satar was there – steady, compassionate, and committed."

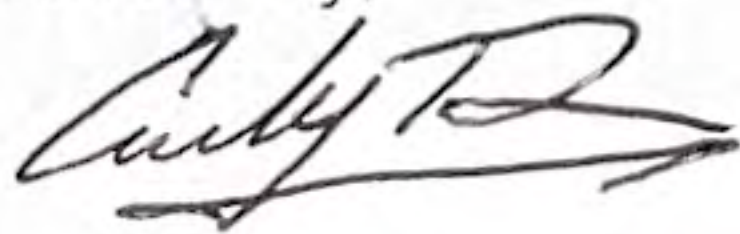
Community Endorsement

This nomination reflects the voices of many – patients, colleagues, local leaders, and community groups – who have all expressed their gratitude for Dr. Satar's service. Parents are grateful for safe deliveries, seniors appreciate being treated with dignity, and young learners have been inspired to pursue healthcare careers. Collectively, our community agrees: Dr. Satar has left an indelible mark on healthcare and community life in Two Hills.

Conclusion

Dr. Majeed Abdul Satar exemplifies the very best of rural medicine. His skill, dedication, and humanity have improved healthcare access, inspired future professionals, and strengthened our community in countless ways. On behalf of the Town of Two Hills, I proudly submit this nomination for the Rhapsody Physician Award.

Sincerely,



Cody Dyck,
Deputy Mayor,
Town of Two Hills

From: John Stickle <John@icommechanical.com>
Sent: February 5, 2026 11:26
To: Adam Kozakiewicz <cao@townoftwohills.com>
Subject: RE: Two Hills Arena- Ice plant replacement project

Hi Adam,

Just a friendly check in on this topic. I know you are busy.

The new ice plant skid is being installed into the room today. Our team will make connections and begin commissioning next week and the week after.

Due to the engineering requirements, my budget on the electrical modifications to the room went over about ~\$10k. So whatever costs you are able to help cover with these fees is greatly appreciated.

JOHN STICKLE, D.B.A, R.S.E | Vice President- Industrial Refrigeration

C: 780.239.5319
P: 780.473.4076
jstickle@icommechanical.com

12209 Fort Road NW, Edmonton, AB T5B 4H2

From: Dylan Bressey <president@abmunis.ca>
Sent: Thursday, February 05, 2026 13:54
To: Adam Kozakiewicz <cao@townoftwohills.com>
Subject: Join ABmunis' webinar to learn how Alberta's 2026 budget supports municipalities

Dear Mayors, Councillors, and CAOs,

The Government of Alberta plans to release its budget for the 2026-27 fiscal year on Thursday, February 26. To learn how Alberta's 2026 budget impacts municipalities, we invite you to attend our free webinar, where we will walk you through our findings and answer your questions.

Webinar Details

When: Friday, February 27, 2026

Time: 3:00 – 4:15 p.m.

Register beforehand at <https://www.abmunis.ca/events/abmunis-report-2026-provincial-budget>

Who should attend?

This webinar is designed for municipal elected officials, CAOs, and senior finance staff, but is open to any representative of a municipality in Alberta.

What if I'm not available at that time?

Don't worry, we will record the webinar and share the link through our [weekly newsletter](#) the week after. Plus, we will email you a copy of our report by the end of the day on February 27.

We look forward to hosting you for the webinar. In the meantime, please remember that registration is also open for our [Spring Municipal Leaders Caucus](#) on March 26-27, and numerous courses are also currently available through the [Elected Officials Education Program](#).

Thank you,

Dylan Bressey | President

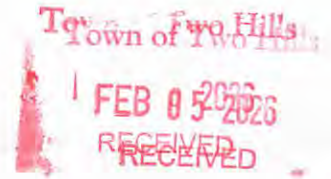
E: president@abmunis.ca
300-8616 51 Ave Edmonton, AB T6E 6E6
Toll Free: 310-MUNI | 877-421-6644 | www.abmunis.ca





February 5, 2026

Mayor Mike TARKOWSKI
Box 630
Two Hills, AB.
T0B4K0



Dear Mayor TARKOWSKI:

RE: TWO HILLS DETACHMENT – 43rd ANNUAL REGIMENTAL DINNER -APRIL 30, 2026

The Two Hills Detachment will be hosting their 43rd Annual Regimental Dinner on the above-noted date. At this time, we would like to extend an invitation to you to be our guest for the evening at the Two Hills Centennial Hall. The evening will begin with cocktails at 6:00 p.m. and is followed by our renowned Ukrainian Dinner at 7:00 p.m. S/Sgt Michael JASZCZYSZYN has consented to be our guest speaker for the evening. Please note, this is a stag event.


We are looking forward to having you attend our 43rd Annual Regimental Dinner and hope that you will be able to accept our invitation for April 30, 2026. We hope to hear from you prior to April 1, 2026, to confirm your attendance. If you have any questions, please feel free to contact our office (780) 657-2820.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kevin Nicholls'.

Kevin NICHOLLS (Cpl)
Acting Non Commissioned Officer in Charge
Two Hills RCMP

AGENDA ITEM NO.: 8 (a)

TOWN OF TWO HILLS COUNCIL MEETING AGENDA ITEM							
Meeting Date: February 10, 2026	Confidential:	Yes		No	x		
Topic: Engineering Fees for Ice Plant Room - additional to Original Quote							
Originated By: A. Kozakiewicz				Title:	CAO		
BACKGROUND:		Engineering Ice Plant Room Quote					
<p>Building Code changed part way through the Ice Plant Project - now stamped drawings are required, these costs were not included in the Original Quote.</p>							
DOCUMENTATION ATTACHED:							
<p>Email from John Stickle Engineering Quote from Englobe Corp.</p>							
DISCUSSION:							
<p>Review quote and costs to meet new requirements that were not part of the original quote due to a change in the Building Code.</p>							
COMMUNICATION PLAN/COMMUNITY INVOLVEMENT:							
RECOMMENDED ACTION(S):							
<p>_____ MOVES to accept the additional Engineering Fees to meet the new Building Permit requirements, provided in two payments. One Payment of 50% of the estimate which is \$15,435.00 now and the remaining balance when ICOM provides a copy of the paid in full Invoice to Englobe Corp.</p>							
DISTRIBUTION:		Council: X					

From: John Stickle <John@icommechanical.com>
Sent: January 14, 2026 7:26 AM
To: Adam Kozakiewicz <cao@townoftwohills.com>
Subject: Two Hills Arena- Ice plant replacement project

Good morning Adam,

Please see the attached quotation from Englobe Engineering to provide stamped drawings for renovating the machine room. Total for all engineering disciplines and architecting is \$30,870.00.

No markup has been applied to these costs from ICOM. Just looking to have these costs covered as they were excluded and not carried in the original proposal.

Please review and let me know what you think.

JOHN STICKLE, D.B.A, R.S.E | Vice President- Industrial Refrigeration

C: 780.239.5319
P: 780.473.4076
jstickle@icommechanical.com

12209 Fort Road NW, Edmonton, AB T5B 4H2



December 15, 2025

ICOM Mechanical Solutions

12209 Fort Road NW
Edmonton, AB T5B 4H2
Attention: John Stickle
P. 780.473.4076

Subject: Two Hills Arena Ice Plant Room Modification, Two Hills, AB
Englobe reference: P2512528

Thank you for the opportunity to provide you with our scope of work and proposed fee for the above noted project.

This proposal is based upon our current understanding of the project opportunity, and your request for Englobe Corp. to provide Mechanical and Electrical Engineering Design and Consulting Services for a modification to the ice plant room within the Two Hills Arena, located in Two Hills, AB. This project will be delivered using a design build delivery method.

Prior to the start of our work, we will need access to materials relating to the project including the most current architectural design drawings available in AutoCAD format, with identification of all rooms and major structural elements. This information will serve as a foundation for our work, and will help our team serve you in the most efficient manner possible.

Englobe Corp. provides clients with a full complement of Mechanical, Electrical, Geotechnical, Materials, and Civil Engineering Services for the building construction industry. Working throughout Western Canada to Ontario and the North, our team of engineers, technical, and administrative staff deliver effective, functional, innovative design solutions, across all markets. We believe the result is quality project outcomes for clients, and sustainable environments for building occupants.

1 Our Team

We are proud to present a design team with years of experience and industry knowledge. Our team is focused on contributing to the success of this project through the delivery of exceptional service and appropriate solutions. Please note that we will assign our project team based off of our capacity and their experience relevant to your project at the time which this proposal is accepted or prior agreement. As with all of our projects, we will assign a Principal for each discipline required; the assigned Principal will help to oversee coordination, while providing leadership and efficiency. While we cannot guarantee their availability, we are happy to accommodate requests for specific Englobe team members.

2 Prime Consultant / Mechanical Design / Services

The scope of Engineering Services will be in accordance with industry accepted practices, and will include the following items.

INCLUDED

Building Permit Phase

- Act as the Coordinating Professional for the project;
- Design of the mechanical systems for the renovation incorporating plumbing, heating, ventilation, fire protection, and a description of the control system based on ICOM concepts and mark-ups;
- Attendance at project coordination meetings local to Englobe's office that is providing the service;
- Design calculations and preparation of mechanical drawings suitable for building permit;
- Printing and provision of design information and progress drawings including general office internal expenses, local and long distance communication, and local courier services required for inter-consultant coordination;
- Preparation of mechanical systems and equipment specification outlining contractor responsibilities, material, and equipment requirements—the specifications will be provided within the drawings;
- Drawings and specifications, provided as electronic PDF, upon completion of design; and,
- Provide schedules of professional involvement as required by jurisdictional authorities, subject to requirements being met.

Construction Administration Phase

- In office hours, as required, during project construction, including addressing contractor inquiries, review of shop drawings;
- Site visits, with report, to review the construction, attend meetings. Number of site visits as noted in the fee schedule portion of this proposal. Note that a minimum of one [1] site visit will be required;
- Provide schedules of professional involvement as required by jurisdictional authorities, subject to requirements being met.

NOT INCLUDED

- Permit applications or fees;
- Energy modeling;
- Commissioning Services;
- Sprinkler system hydraulic calculations or drawings;
- Design outside of renovated area;
- Sprinkler test certificate or Integrated Systems Test Certificate;

3 Electrical Design / Services

The scope of Engineering Services will be in accordance with industry accepted practices, and will include the following items.

INCLUDED

Building Permit Phase

- One preliminary site visit to investigate existing building and equipment, and record existing site conditions;
- Design of the electrical systems based on ICOM concepts and mark-ups;
- Attendance at project coordination meetings local to Englobe's office that is providing the service;
- Design calculations and preparation of electrical drawings suitable for building permit;
- Printing and provision of design information and progress drawings including general office internal expenses, local and long distance communication, and local courier services required for inter-consultant coordination;
- Design and specification of lighting and lighting controls to renovated area;
- Design and specification of fire alarm system devices in the renovated area, if required;
- Design of communications infrastructure, excluding active components, to renovated area;
- Design of electrical connection to ice plant equipment;
- Preparation of electrical systems and equipment specification outlining contractor responsibilities, material, and equipment requirements—the specifications will be provided within the drawings;
- Drawings and specifications, provided as electronic PDF, upon completion of design; and,
- Provide schedules of professional involvement as required by jurisdictional authorities, subject to requirements being met.

Construction Administration Phase

- In office hours, as required, during project construction, including addressing contractor inquiries, review of shop drawings;
- One [1] combined site visit/ fire alarm verification, with report and fire alarm certificate, to review the construction;
- Provide schedules of professional involvement as required by jurisdictional authorities, subject to requirements being met.

NOT INCLUDED

- Design of upgraded power service(s) and utility coordination. This proposal is based on there being sufficient capacity, however this will require to be confirmed;
- Design outside of renovated area;
- Arc flash protection studies, coordination studies, interrupting capacity calculation, and utility company compliance reports;
- Integrated Systems Testing (IST), including development of testing plan, on site verification, and certificate.

4 Structural Design / Services

Refer to Protostatix, a division of Englobe fee letter attached.

5 Architectural Design / Services

Refer to TBD Architecture and Urban Planning fee letter attached.

6 Professional Fees

Mechanical Engineering Services

Phase	Cost
Building Permit	\$ 7,400
Construction Administration	\$ 1,200
Site Visits 1 @ \$1,100 each, disbursements extra	\$ 1,100
TOTAL	\$ 9,700

Electrical Engineering Services

Phase	Cost
Building Permit	\$ 6,200
Construction Administration	\$ 1,200
One combined site visits and fire alarm verification witnessing, disbursements extra	\$ 1,200
Fire Alarm Certificate	\$ 700
TOTAL	\$ 9,300
Preliminary Site Visit, if required, add (disbursements extra)	\$ 1,100

Structural Engineering Services

Phase	Cost
Assessment	\$ 2,000
TOTAL	\$ 2,000

Architectural Services

Phase	Cost
Building Permit	\$ 5,140
Construction Administration	\$ 4,730
TOTAL	\$ 9,870
Additional Site Visits (disbursements included)	\$ 1,875

The above-noted professional fees include all 'in-office' disbursements, e.g. copying / printing, local courier and deliveries. All other disbursements will be cost plus 10%

7 Additional Work

Unless noted in this document as specifically included, if the following services are required, they will be invoiced as an additional cost based on our fee schedule in effect at the time such work is done (currently V25.4, a copy of which is available upon request).

- Additional work due to circumstances beyond our control, or where the scope was not clearly articulated. This includes revisions to our design in the event late changes are made by the client, either during design after frozen plans have been provided, or during construction. We may, at our option, provide a written quotation for completing the extra work, or decline to provide the additional services;
- Additional work required due to construction deviations from municipality approved or "For Construction" drawings and designs;
- Code and/or utility variance submissions to deviate from standard requirements;
- Printing of contract documents for tendering and construction purposes;
- Opinions of the probable cost of construction work;
- Site visits beyond those noted as included;
- Travel expenses and disbursements not specified as included;
- Preparation of pre-tender or separate tender documents for equipment or other packages;
- Alternate design(s) and/or equipment selection requiring extensive investigation, alternate tenders or energy model iterations;
- Detailed economic studies of systems including analysis of energy purchases and operating costs;
- Update of the original design, drawings or models, to 'As-Built' status utilizing contractor supplied mark-ups or otherwise;
- Project delays have not been accounted for in the preparation of this proposal. Should the project be put on hold or stopped for a period longer than four [4] months, additional fees will be incurred upon resumption of the project;
- This proposal assumes that the work will be constructed under one contract. Staging or phased implementation of the construction would constitute additional engineering fees;
- The work does not include production of construction documents using Building Information Modeling (BIM) systems, including Revit® drawing production, unless noted otherwise;
- The work does not make an allowance for any requirements associated with LEED®

8 General Terms

- The general terms and conditions applicable to this proposal are available at <https://live-englobe.pantheonsite.io/sites/default/files/2025-03/standard-terms-and-conditions-template-v2025-03.pdf> (the “T&Cs”) and are incorporated by reference into this proposal. The T&Cs govern the relationship between the client and Englobe for the purpose of the project including, but not limited to, limitations of liability, intellectual property rights and governing law. By accepting this proposal, the client acknowledges they have read and agree to be bound by these additional terms.
- **Virtual Site Observations** - Should in-person site observations not be possible due to road conditions, travel restrictions, scheduling, or other unforeseen circumstances, Englobe Corp. (“Englobe”) may, at our sole discretion, and only if deemed by Englobe to be necessary and effective, complete site observations utilizing video and/or telephone conference means to complete our professional duties. If the option for “virtual site observation” is exercised by Englobe, this will be organized in consultation with the construction team and Prime Consultant prior to execution of our site review.
- All taxes, where applicable, are additional to the professional fee. In the event exemptions apply, Englobe must be advised of the exemption and be provided with the exemption number prior to the commencement of work.

We appreciate the opportunity to submit this scope of work and fee submission, and look forward to working with you and your team toward a successful project outcome. Please don’t hesitate to contact the undersigned should you have any questions.

Sincerely,
Englobe Corp.



Scott Koehn, P.Eng., LEED® AP
Director of Operations, Mechanical

READ AND ACCEPTED

Signature:

Date:

Name:

Title:

Company:

Phone number:

Email:

Purchase Order No.:

Business GST No.:

Note: Please verify and indicate the appropriate name and address for invoicing.

Paying customer: ICOM If accurate, please check ☐

12209 Fort Road NW, Edmonton, AB T5B 4H2

Email (for invoicing purposes): jstickle@icommechanical.com

Modification:

Legal name for invoicing:

Invoicing address:

December 12, 2025

ENGLOBE

202 – 13167 146 Street
Edmonton, Alberta T5M 2Z5

Attention: Mr. Scott Koehn

**Re: Structural Fee Proposal
For Two Hills – Ice Plant Room Slab Review, Two Hills, Alberta**

Scope of work

Protostatix, a division of Englobe Corp. (“Protostatix”) is pleased to submit the following fee proposal for structural consulting services for the above noted project.

It is our understanding that our scope of work will be to provide structural services for the review of some mechanical equipment bearing onto slab-on-grade to the existing building as per the email received by our office. Please note that any specialized imaging or testing required to confirm the composition of existing structural elements shall not be included in our scope of work and shall be performed by others, if necessary.

Structural fees proposal

Based on the above, our structural fee proposal for the above-mentioned services shall be **\$2,000.00+GST**. Please note that site visit fees will be extra to the above base fee, which will be charged at the same rate as the Englobe site visit rate.

Hourly Rates for Additional Services

Senior Structural Engineer	\$210.00 / hr
Intermediate Structural Engineer.....	\$140.00 / hr
Senior Structural Technologist	\$140.00 / hr
Intermediate Structural Technologist	\$100.00 / hr

Services not offered

The following services are not part of the Structural Services described above:

1. Retaining specialists such as geotechnical, testing vibration and wind consultants, etc.
2. Services normally performed by other consultants such as:
 - Geotechnical investigations and reports
 - Inspections of soil bearing strata
 - Detailed construction cost estimates

- Piling inspections and monitoring
- Testing and reporting on construction materials
- Testing and review of fill and backfill materials
- Surveying of property or building
- Design and construction review of concrete formwork and shoring

Disbursements

The following disbursements are not part of the Basic Fee Proposal or are provided by others:

- Reproduction of drawings and documents for tendering
- Cost of printing coordinating sets of drawings.

General Terms and Conditions

1. Payment terms are net 30 days, subject to the holdback requirements under the applicable builders' lien legislation.
2. Protostatix shall perform the services pursuant to this letter agreement to the standard of care ordinarily exercised by a professional engineer in the Province of Alberta.
3. The maximum aggregate liability of Protostatix, a division of Englobe Corp. for all events (or series of connected events) arising in the Contract Terms will not exceed the total above-noted structural fees.
4. Additional terms and conditions applicable to this letter agreement are available at <https://live-englobe.pantheonsite.io/sites/default/files/2025-01/standardtermsandconditions-v2024-12.pdf> (the "T&Cs") and are incorporated herein by reference. The T&Cs govern the relationship between the client and Protostatix for the purpose of the project including, but not limited to, limitations of liability, intellectual property rights and governing law. By accepting this proposal, the client acknowledges they have read and agree to be bound by these additional terms.

If in agreement please kindly sign and return copy of this proposal to our office via email.

Respectfully submitted,

Protostatix, a division of Englobe Corp.

ENGLOBE



C.A. (Dino) Loutas, P.Eng.

(Signature)
Date:

December 15, 2025

Englobe
202 13167 146 Street
Edmonton, AB T5L 4S8

Attention: Scott Koehn



**Re: FEE PROPOSAL
Two Hills Ice Plant
Two Hills, AB**

**Brian
Bengert***

Architect, AAA,
AIBC, MAA, SAA,
NWTAA, MRAIC,
LEED® AP BD+C
Partner

Thank you for the opportunity for TBD Architecture + Urban Planning to supply you with the following fee proposal for consultant services to support you pursuit of the Two Hills Ice Plant Project. This fee proposal outlines our understanding of this scope of work as well as our associated fees for services.

SCOPE OF WORK

- Provide architectural permit drawings for installation of skid ice plant in existing facility. Extent of architectural detailing and scope limited to;
 - Infill of current interior openings in existing rated partition between existing curling facility and proposed ice plant room
 - Supply of typical exterior details for installation of new louvres
 - Construction of interior rated partition separating existing sprinkler tree infrastructure to the new ice plant room (including egress door)
 - Supply of new hardware for existing man door
- Site visits are limited to two visits during construction to accommodate supplying schedule-C at time of building occupancy; one during construction and one at substantial completion prior to issuance of schedule.
- Englobe to act as coordinating professional
- Three-part specifications will not be supplied, all assembly descriptions will be listed on drawings.
- All existing information to be supplied by coordinating professional and design-build contractor

**Matthew
Roper***

Architect, AAA,
AIBC, MAA, SAA,
LEED® AP BD+C
Partner

SCHEDULE

Drawings for purpose of permit can be completed within 1-week of approved fee letter

PROPOSED FEE SUMMARY

Our summary of our proposed fees has been included below. Fees exclude GST

Phase1: Building Permit/Construction Documentation	\$ 5,140.00
Phase 2: Construction Administration	\$ 4,730.00
Total	\$9,870.00

Additional Site Visits: \$1,875/Trip

See attached Per Diem Rate Schedule for fees applied to Additional Services.

Additional Documentation

Billings will be progressed monthly or by the percentage of work completed in each phase or phases done for that month. Payment to be 30 days. Overdue accounts to be subject to 1-1/2% per month interest.

We attach a copy of our Professional Liability Insurance Policy under which this project will be covered. Upon review, if you require additional coverage for this Project, we can obtain a quotation for Single Project Insurance for values you wish, costs of which will be extra to the Fees quoted above. The attached copy of the Alberta Association of Architects Document Six "**General Conditions**" Agreement Between Client and Architect shall govern and form part of this fee letter.

We trust the foregoing is in order and you find it acceptable, and you will sign one copy of this letter acknowledging the terms and to provide final authorization for us to proceed from current approvals given.

Yours truly,

TBD Architecture + Urban Planning

A handwritten signature in blue ink, appearing to read 'Matthew Roper'.

Matthew Roper
Partner
Architect, AAA
Enclosures:

Authority to proceed with work as outlined above:

Authorized Signature for Englobe

Date

Printed Name

Title

CERTIFICATE OF INSURANCE

TO WHOM IT MAY CONCERN

NAMED INSURED:

TBD Architecture + Urban Planning
9916 81 Ave
Edmonton, AB T6E 1W6

BROKER:

Lloyd Sadd Insurance Brokers Ltd.
Suite 100, 10120 - 103 Avenue NW
Edmonton, AB T5J 3R6 P: (780) 483-4544

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policies below. The insurance afforded is subject to the terms, conditions and exclusions of the applicable policy.

COMPANIES AFFORDING COVERAGE:

Company Letter "A" Northbridge General Insurance Corporation
Company Letter "B" XL Specialty Insurance Company


CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE	POLICY EXPIRY DATE	LIMIT	
GENERAL LIABILITY						
A	Commercial General Liability including: - Broad Form Property Damage - Personal & Advertising Injury - Cross Liability/Severability of Interest - Contingent Employers Liability - Incidental Malpractice Liability - Blanket Contractual	P04061759-0	March 9, 2025	March 9, 2026	\$5,000,000	Per Occurrence
					\$5,000,000	General Aggregate
					\$5,000,000	Aggregate Products & Completed Operations
A	Employee Benefits Liability	P04061759-0	March 9, 2025	March 9, 2026	\$1,000,000	Per Occurrence
A	Tenants Legal Liability	P04061759-0	March 9, 2025	March 9, 2026	\$500,000	Per Occurrence
A	Non-Owned Automobile	P04061759-0	March 9, 2025	March 9, 2026	\$5,000,000	Per Occurrence
A	SEF 94 - Legal Liability for Damage to Hired Automobiles	P04061759-0	March 9, 2025	March 9, 2026	\$75,000	Per Occurrence
ERRORS & OMISSIONS LIABILITY						
B	Professional Liability - Design Professionals (A&E) E&O	DPX 9772105	March 9, 2025	March 9, 2026	\$5,000,000	Inclusive Limits/Each Claim
					\$5,000,000	Aggregate

CANCELLATION

Should the Commercial General Liability policy be cancelled before the expiration date thereof, the issuing company will endeavor to mail *nil* days written notice to the certificate holder named above, but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representative.

Lloyd Sadd Insurance Brokers Ltd.

Per:



**PER DIEM RATE
TABLE 2025 FEE
SCHEDULE**

LEVEL 1 \$ 85.00 / hr

- Works under the supervision of a senior professional

LEVEL 2 \$ 105.00 / hr

- Junior level position
- Independently carries out assignments of limited scope using standard procedure, methods and techniques; assists senior staff in carrying out more advanced procedures; completed work is reviewed for feasibility and soundness of judgment

LEVEL 3 \$ 115.00 / hr

LEVEL 4 \$ 125.00 / hr

- Fully qualified professional position
- Carries out assignments requiring general familiarity within a broad field of the respective profession; makes decision by using a combination of standard methods and techniques; actively participates in planning to ensure the achievement of objectives; works independently to interpret information and resolve difficulties

LEVEL 5 \$ 135.00 / hr

LEVEL 6 \$ 150.00 / hr

- First level supervisor of first complete level of specialization
- Provides applied professional knowledge and initiative in planning and coordinating work programs; adapts established guidelines as necessary to address unusual issues; decisions accepted as technically accurate, however may on occasion be reviewed for soundness of judgment

LEVEL 7 \$ 175.00 / hr

LEVEL 8 \$ 195.00 / hr

\$ 225.00 / hr

- Highly specialized technical professional/senior consultant, manager or supervisor of groups of professionals reporting to principal
- Provides multidiscipline knowledge to deliver innovative solutions in related field of expertise; participates in short and long range planning to ensure the achievement of objectives; makes responsible decisions on all matters, including policy recommendations, work methods, and financial controls associated with large expenditures; reviews and evaluates technical work

LEVEL 9 \$ 275.00 / hr

- Senior level management
- Recognized as an authority in a specific field with qualifications of significant value; responsible for long range planning within a specific practice; plans/approves projects requiring significant human resources or capital investment; oversees and manages senior level professionals; client liaison and design/technical resource

LEVEL 10 \$ 325.00 / hr

- Principal



**JOSEPH
TKALCIC***

Principal
Architect, AAA,
SAA, MRAIC

**Brian
Bengert***

Principal
Architect, AAA,
MRAIC, AIBC,
SAA, LEED®
AP BD+C

**Matthew
Roper**

Senior Associate
Architect, AAA,
M. ARCH.,
LEED® AP BD+C

SCHEDULE B - REIMBURSABLE EXPENSES

2025 RATES

	Sizes					
	8 ½" x 11"	11" x 17"	18" x 24"	24" x 36"	30" x 42"	36" x 48"
<u>In-House Printing Charges</u> (per print)			\$4.00	\$5.00	\$6.00	\$7.00
<u>In-House Photocopies and Laser Printing Charges</u> (per copy)						
Black & White - Bond	\$0.25	\$0.45				
Colour - Bond	\$0.80	\$1.50				


Mileage Rate for Company or Employee Owned Vehicle: \$0.72/km

Other Expenses:

The following expenses will be billed at cost plus 10% handling charge:

- Long distance telephone charges
- Delivery service
- Production supplies on per diem work
- Graphic presentation material
- Local & out-of-town travel expenses including airfare, taxi, car rental, meals & accommodation, parking
- Renderings, models
- Outsourced printing/reproduction costs
- Permits, as required
- Sub-consultants, not included in fee letter/contract
- RAIC Contract Fees

Note: Costs indicated do not include GST

<p style="text-align: center;">TOWN OF TWO HILLS COUNCIL MEETING AGENDA ITEM</p> <p style="text-align: right;"></p>					
Meeting Date: February 10, 2026		Confidential:	Yes	No	X
Topic: Alberta Community Partnership Program – Asset Management					
Originated By: Adam Kozakiewicz			Title:	CAO	
BACKGROUND:		Correct a Motion from November			
<p>Administration included incorrect verbiage in motion #2025-356 referring to General Municipal Standard, when reference should be to Asset Management and 2025-360 where details outlining Town contribution were originally missed.</p>					
DOCUMENTATION ATTACHED:					
Meeting Minutes – Correction in RED					
DISCUSSION:					
<p>Meeting Minutes have been updated and Motion #2025-356, and #2025-360 have been edited with edits showing in RED so if Council wishes, they can be accepted with the correction.</p>					
COMMUNICATION PLAN/COMMUNITY INVOLVEMENT:					
RECOMMENDED ACTION(S):					
<p>_____ Moves to Accept Correction to Motion #2025-356, and Motion #2025-360 and the Meeting Minutes from the November 25th, 2025 Council Meeting with the corrections as noted.</p>					
DISTRIBUTION:		Council: X			

TOWN OF TWO HILLS



Minutes of the Regular Meeting of Council for the Town of Two Hills held on November 25, 2025, at 6:30 PM in Council Chambers

Regular Council Meeting

PRESENT: Mayor M. Tarkowski; Deputy Mayor C. Dyck; Councillor M. Patel;
Councillor A. Hiebert; Councillor H. Wall; CAO A. Kozakiewicz; CFO S.
Lupul; EDO B. Ross; MC C. Boyd and 2 citizens in the Gallery.

CALL TO ORDER: Mayor M. Tarkowski called the Regular Town Council Meeting to order
at 6:30 PM.

ADOPTION OF AGENDA:

2025-340 MOVED by H. Wall to accept the agenda as presented.

CARRIED

ADOPTION OF MEETING MINUTES:

2025-341 MOVED by Deputy Mayor C. Dyck to accept the minutes of the
Organizational Meeting minutes held on October 28, 2025, with
adjustments.

CARRIED

2025-342 MOVED by Councillor M. Patel to accept the minutes of the Regular
Council minutes held on October 28, 2025.

CARRIED

DELEGATION: None

OPEN FORUM: None

ADMISITRATIVE REPORTS:

The Administrative Reports were provided to council in advance for their
review.

2025-343 MOVED by Deputy Mayor C. Dyck that the Public Works Report be
acknowledged and incorporated into the minutes.

CARRIED

2025-344 MOVED by Councillor M. Patel that the CFO Report be
acknowledged and incorporated into the minutes.

CARRIED

2025-345 MOVED by Councillor A. Hiebert that the EDO Report be
acknowledged and incorporated into the minutes.

CARRIED

2025-346 MOVED by Councillor A. Hiebert that the CAO Report be
acknowledged and incorporated into the minutes.

CARRIED

CORRESPONDENCE:

2025-347 MOVED by Councillor M. Patel that the Correspondence be acknowledged and incorporated into the minutes. CARRIED

OLD BUSINESS: None

BYLAWS & POLICIES:

Policy 2025-02 Respectful Behavior & Policy 2011-05 Elected Officials Remuneration were provided in advance for Council to review.

2025-348 MOVED by Deputy Mayor C. Dyck to adopt Policy 2025-02 – Respectful Interactions with Employees and Council as of November 25, 2025. CARRIED

2025-349 MOVED by Mayor M. Tarkowski to adopt the revised Policy 2011-05 Elected Officials Remuneration as presented effective November 25, 2025. DEFEATED

NEW BUSINESS:

2025-350 MOVED by Deputy Mayor C. Dyck to direct Administration to apply for the Roving Energy Manager Program and Access Grant of up to \$10,000.00. CARRIED

2025-351 MOVED by Councillor H. Wall to direct the CAO to ratify the agreement presented between the Province of Alberta and the Town of Two Hills for FCSS Services to continue in the region. CARRIED

2025-352 MOVED by Councillor A. Hiebert to continue membership with the North Saskatchewan Watershed Alliance (NSWA) for 2026 and pay the membership fee of \$867.60. CARRIED

2025-353 MOVED by Councillor M. Patel to renew the subscription for Catalis for a three-year term with a fixed cost of \$9700.00, \$10,185.00 or \$10,694.25 respectively for each year. CARRIED

2025-354 MOVED by Deputy Mayor Cody Dyck to support administration's closure of the office and public works on January 2, 2026, with staff using vacation time, while keeping essential services operational for emergencies. CARRIED

2025-355 MOVED by Councillor H. Wall That the Town provide the Two Hills Improvement Committee with \$300.00 in support of the Christmas Lights Contest, and further incorporate \$2,500.00 in the 2026 budget. CARRIED

- 2025-356 MOVED by Deputy Mayor Cody Dyck to partner with the County of Two Hills and the Village of Myrnam to apply for the 2025/26 Alberta Community Partnership-grant in support of **Asset Management** before **February 3rd**, 2026, with managing partner being the County of Two Hills and with the request to not exceed \$125,000.00 funded from **of Canada Community-Building Fund (CCBF)**.
CARRIED
- 2025-357 MOVED by Mayor M. Tarkowski to send 4 Councillors to attend the RMRF Legal Seminar on February 6, 2026, in Edmonton.
CARRIED
- 2025-358 MOVED by Councillor H. Wall to send 4 Councillors to attend the Brownlee Emerging Trends Seminar on February 12, 2026, in Edmonton.
CARRIED
- 2025-359 MOVED by Councillor M. Patel that the Town of Two Hills supports the submission of a 2025/26 Alberta Community Partnership grant application in support of the Regional Land Use Alignment Strategy Project and the Town of Two Hills is prepared to manage the grant project and related compliance requirements. There is no matching contribution required.
CARRIED
- 2025-360 MOVED by Councillor M. Patel to apply for a \$120,000.00 Northern and Regional Economic Development (NRED) Grant, where a 50% of the matching funds are required towards Highway 45 Planning and Engineering Project. **The Town contribution of \$60,000.00 will be funded out (CCBF) or Local Government Fiscal Framework Capital (LGFF)**.
CARRIED

COUNCIL REPORTS: None


NEXT MEETINGS: Regular Council Meeting December 9, 2025 6:30pm

CLOSED SESSION: None

ADJOURNMENT: Mayor M. Tarkowski to adjourn the meeting at 8:59 pm.

Deputy Mayor C. Dyck

CAO A. Kozakiewicz

TOWN OF TWO HILLS COUNCIL MEETING AGENDA ITEM						
Meeting Date:	Confidential:	Yes		No		
Topic: Fire Protection Invoices from County						
Originated By: A. Kozakiewicz			Title:	CAO		
BACKGROUND:	County of Two Hills Council Meeting Attendance					
Meet with County of Two Hills Council to review Fire Call Billing.						
DOCUMENTATION ATTACHED:						
Current Fire Protection Agreement between the Town and County Fire Protection Invoices from County (No Addresses) Current Town of Two Hills Fire Protection Bylaw						
DISCUSSION:						
Contacted the County of Two Hills to meet with their Council to discuss Fire Billing. A Meeting date and time of Thursday February 26 th at 2pm was Confirmed.						
COMMUNICATION PLAN/COMMUNITY INVOLVEMENT:						
RECOMMENDED ACTION(S):						
_____ Moved that _____ will attend the County Council Meeting at 2pm on Thursday February 26 th to further discuss the Fire Billing process and forward to the County of Two Hills the Documentation attached to include in the Meeting Agenda.						
DISTRIBUTION:		Council: X				

MUTUAL AID FIRE AGREEMENT

THIS AGREEMENT MADE THIS

DAY OF _____ 2014

BETWEEN: The Town of Two Hills, Villages of Mymam and Willingdon, in
the Province of Alberta (hereinafter called the Town and Villages).

OF THE FIRST PART
AND

The County of Two Hills No. 21 in the Province of Alberta
(hereinafter called the County).

OF THE SECOND PART

WHEREAS the Town and Villages operate a Fire Department under Voluntary Firefighters and maintain a fire hall, fire fighting trucks and equipment to provide twenty four hour per day fire protection of persons and property within their respective corporate boundaries,

AND WHEREAS the Voluntary Firefighters of the Town and Villages Fire Department respond to rural fire calls and dispatch Firefighters, truck and equipment day or night to fires outside their respective corporate boundaries, within the boundaries of the County, or to areas under Mutual Aid fire agreements held by the County of Two Hills,

AND WHEREAS the County is desirous of stationing their fire trucks and equipment in the Town and Villages to be maintained and operated by the Town and Villages Voluntary Firefighters,

AND WHEREAS the Town and Villages and the County are desirous of entering into a joint agreement on the use, operation, costs and management of the County fire trucks and equipment.

COPY

NOW THEREFORE WITNESSETH that in consideration of the premises, covenants, conditions and stipulations herein contained, the parties hereto agree as follows:


1. The County agrees to provide a minimum of one fire truck, and firefighting equipment, thus stationing the said equipment at the Fire Hall in each of the Town and Villages named herein.
2. The County will be responsible for all operating costs, repairs, insurance, license and the upkeep of firefighting accessories that pertain to the efficient operation of the firefighting units and further, the Town and Villages fire department will not cause the County unnecessary expense due to negligence and misuse of the County fire equipment.
3. The Town and Villages agree that their Voluntary Firefighters will operate the County Fire Trucks and equipment in a similar manner as fire trucks and equipment owned by the Town and Villages and will respond to rural fire calls.
4. The County agrees to make its fire apparatus and equipment available to attend fires within the boundaries of the Town and Villages in conjunction with their own fire truck and equipment.
5. The County, Town and Villages agree that in the event of fire calls being received simultaneously within the Town or Villages and the County, the priority of response to the calls, the dispatching of firefighters, trucks and equipment shall rest with the Fire Chief, Deputy Fire Chief or their designate, but under no circumstances will a fire call in the County, Town or Villages be unattended.
6. The Town and Villages agree that in the event that additional fire equipment other than the County Fire Truck and equipment is required at a fire call rural within the area (such decision rests with the Fire Chief, Deputy Fire Chief or their designate) without seriously restricting fire protection within the Town or Villages, the Town or Villages own equipment may be dispatched in response to the fire call. On calls where insurance is being billed, a fee of the current Alberta Transportation rate will be paid to all the respective fire apparatus owners.

- 6a. In the event that no calls happen within a one year time period the County will provide the payment, of \$500.00 for the municipal owned rescue/rapid response (Myrnam/Two Hills). The \$500.00 annual fee will be paid by June 30TH of each calendar year.
7. The County agrees to supply one mobile radio in each County Fire Apparatus with the County frequency.
8. The County will reimburse the Town and Villages upon receipt of a statement and the Appendix A Fire report, a rate of \$20.00 per man hour, for members of their Volunteer Fire Department who attend a fire in the County. There shall be no compensation for loss of wages in any event.
9. In any event, the Fire Chief or Deputy Fire Chief or their designate may supply as many firefighters as he/she deem necessary to respond to the fire call, subject to Standard Operating Procedures for rural fire response.
10. The Town and Villages further agree that as soon as possible after each fire the following administrative procedure be completed.
 - a) The officer in command of the incident will submit an Incident Report to the County outlining:
 - i) Date and time of call
 - ii) Location of incident
 - iii) Occupant of premises and address
 - iv) Name of person who reported incident
 - v) Nature and particulars of incident
 - vi) Total time spent attending incident
 - vii) Insurance agent if applicable
 - viii) Equipment used at incident
 - ix) Mileage to and from incident
 - x) Names of fire personnel dispatched
11. Pursuant to the Safety Codes Act, any fire that requires investigation must be reported to a Safety Codes Officer in the Fire Discipline. The Town and Villages Fire Chief or Deputy Fire Chief or their designate shall report fires requiring investigation immediately to the County Safety Codes Officer for County fire calls.

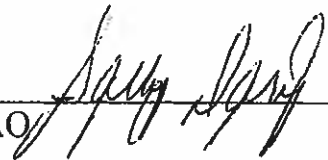
12. The County agrees to cost share training and upgrading courses up to fifty percent (50%) or the cost of training as required upon approval by the County before proceeding with the training.
13. The County agrees to provide Volunteer Fire Brigade Liability Insurance for the Town and Villages Volunteer Firefighters while responding to a fire call.
14. The Town and Villages further agree to conduct regular maintenance inspections on the County Fire Apparatus and equipment under the schedule used for the Town and Villages own fire trucks and equipment. Such inspection to be at no cost to the County.
15. In the event either parties to this agreement fails to satisfactorily carry out its obligations hereunder, the other party or parties may terminate this agreement by serving notice in writing to the offending party or parties at least 90 days in advance of the date of termination. Upon such termination, no further obligations or duties shall exist under the terms hereafter the said termination date.
16. This Agreement may be altered, amended, varied or added to at any time by mutual agreement or the parties hereto.
17. This agreement shall ensure to the benefit of the parties hereto, their successors and assigns.
18. This agreement and everything contained herein shall be binding upon the Town and Villages and its assigns and upon the assigns of the County. The Fire Department in each Town or Village will answer calls within the County according to boundaries set out in the County map.
19. The County of Two Hills Fire Chief will provide the administration, investigation and supervision of fire responses within the County and Mutual Aid jurisdictions.
20. This agreement shall be subject to the County of Two Hills Fire Bylaw No. 2-2001 and its amendments.

IN WITNESS WHEREOF the parties hereto have hereunto affixed their seals as attested by the proper officers in that behalf the day and year first written above.

County of Two Hills No. 21



Reeve

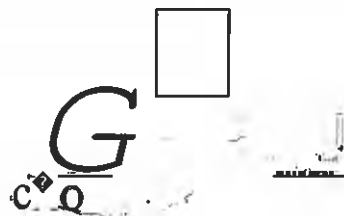


CAO

Town of Two Hills



Mayor


The seal features a large letter 'G' with a small square above it and the letters 'C' and 'O' below it.


Village of Willingdon




Mayor

CAO

Village of Myrnam



Mayor



CAO



January 16, 2026

Mayor and Council
Town of Two Hills
C/O: Michael Tarkowski
Box 630
Two Hills, Alberta, T0B 4K0

Town of Two Hills

JAN 16 2026

RECEIVED

Dear: Michael Tarkowski

Re: Outstanding Invoices

This will advise that the Council of the County of Two Hills resolved, at their meeting of January 8, 2025, that the Council of the County of Two Hills No. 21 resolved that the Town of Two Hills is required to remit payment for all outstanding invoices.

Should payment not be received, the outstanding amount may be deducted from the Town's annual payment of \$75,000 received from the County of Two Hills No. 21.

Invoice Summary:

- Number of outstanding invoices: 10
- Total outstanding amount: \$ 16,000.00

Should you have any questions or concerns, please contact the undersigned.

Sincerely,

Murray Phillips,
Reeve

Invoice Date	Customer #	Invoice #	GST Registration #
2025/11/20	6197	54103	R106989411

Invoice Total: \$ 190.00

Account Holder:
TOWN OF TWO HILLS

Tax Codes: E=Exempt; T=Taxable; I=Included

Invoice Description	Quantity	Unit Price	Tax Cd	GST	Amount
CNTY OWNED RESCUE-1 HR Incident 2025-15704	1.000	190.00	E	.00	190.00

Medical Assist

Town of Two Hills

JAN 16 2026

RECEIVED

.00 190.00

Invoice Note:

Messages:

TERMS: NET 30 DAYS - 1.5% PENALTY APPLIED ON ALL OVERDUE ACCOUNTS

***PLEASE PAY AMOUNT REFERENCED ON INVOICE TOTAL ***

Invoice Date	Customer #	Invoice #	Amount Due
2025/11/20	6197	54103	\$ 190.00

TOWN OF TWO HILLS
BOX 630
TWO HILLS, ALBERTA
T0B4K0

Amount Paid

\$



6197

Invoice Date	Customer #	Invoice #	GST Registration #
2025/11/20	6197	54098	R106989411

Invoice Total: \$ 190.00

Account Holder:
TOWN OF TWO HILLS

Tax Codes: E=Exempt; T=Taxable; I=Included

Invoice Description	Quantity	Unit Price	Tax Cd	GST	Amount
CNTY OWNED RESCUE-1 HR Dispatch Call # 2025-16727 [REDACTED]	1.000	190.00	E	.00	190.00

Medical Assist

Town of Two Hills

JAN 16 2026

RECEIVED

.00 190.00

Messages:

TERMS: NET 30 DAYS - 1.5% PENALTY APPLIED ON ALL OVERDUE ACCOUNTS

***PLEASE PAY AMOUNT REFERENCED ON INVOICE TOTAL ***

Invoice Note:

Invoice Date	Customer #	Invoice #	Amount Due
2025/11/20	6197	54098	\$ 190.00

TOWN OF TWO HILLS
BOX 630
TWO HILLS, ALBERTA
T0B4K0

Amount Paid

\$



6197

COUNTY OF
TWO HILLS

Box 490
Two Hills, AB T0B 4K0

I N V O I C E

Page #
1

Invoice Date	Customer #	Invoice #	GST Registration #
2025/11/20	6197	54094	R106989411

REPRINT

Invoice Total: \$ 190.00

Account Holder:
TOWN OF TWO HILLS

Tax Codes: E=Exempt; T=Taxable; I=Included

Invoice Description	Quantity	Unit Price	Tax Cd	GST	Amount
CNTY OWNED RESCUE-1 HR Incident 2025-14924 [REDACTED]	1.000	190.00	E	.00	190.00

JAN 16 2026
RECEIVED

.00 190.00

Invoice Note:

Messages:

TERMS: NET 30 DAYS - 1.5% PENALTY APPLIED ON ALL OVERDUE ACCOUNTS

PLEASE PAY AMOUNT REFERENCED ON INVOICE TOTAL *

COUNTY OF
TWO HILLS

Box 490
Two Hills, AB T0B 4K0

Please make cheques payable to:
County of Two Hills No. 21

Invoice Date	Customer #	Invoice #	Amount Due
2025/11/20	6197	54094	\$ 190.00

TOWN OF TWO HILLS
BOX 630
TWO HILLS, ALBERTA
T0B4K0

Amount Paid

\$



6197

Invoice Date	Customer #	Invoice #	GST Registration #
2025/11/20	6197	54093	R106989411

Invoice Total: \$ 190.00

Account Holder:
TOWN OF TWO HILLS

Tax Codes: E=Exempt; T=Taxable; I=Included

Invoice Description	Quantity	Unit Price	Tax Cd	GST	Amount
CNTY OWNED RESCUE-1HR Incident 2025-15192 [REDACTED]	1.000	190.00	E	.00	190.00

Hospital Alarms

Town of Two Hills
JAN 16 2026
RECEIVED

.00 190.00

Invoice Note:

Messages:

TERMS: NET 30 DAYS - 1.5% PENALTY APPLIED ON ALL OVERDUE ACCOUNTS

PLEASE PAY AMOUNT REFERENCED ON INVOICE TOTAL *

Invoice Date	Customer #	Invoice #	Amount Due
2025/11/20	6197	54093	\$ 190.00

TOWN OF TWO HILLS
BOX 630
TWO HILLS, ALBERTA
T0B4K0

Amount Paid
\$



6197

I N V O I C E

Page #
1

Invoice Date	Customer #	Invoice #	GST Registration #
2025/10/02	6197	54061	R106989411

Invoice Total: \$ 840.00

Account Holder:
TOWN OF TWO HILLS

Tax Codes: E=Exempt; T=Taxable; I=Included

Invoice Description	Quantity	Unit Price	Tax Cd	GST	Amount
COUNTY OWNED RESCUE 1HR	1.000	190.00	E	.00	190.00
COUNTY OWNED PUMPER 1HR	1.000	650.00	E	.00	650.00

JAN 10 2025
RECEIVED

.00 840.00

Invoice Note:

Messages:

TERMS: NET 30 DAYS - 1.5% PENALTY APPLIED ON ALL OVERDUE ACCOUNTS

***PLEASE PAY AMOUNT REFERENCED ON INVOICE TOTAL ***

Please make cheques payable to:
County of Two Hills No. 21

Invoice Date	Customer #	Invoice #	Amount Due
2025/10/02	6197	54061	\$ 840.00

TOWN OF TWO HILLS
BOX 630
TWO HILLS, ALBERTA
T0B4K0

Amount Paid

\$



6197

Invoice Date	Customer #	Invoice #	GST Registration #
2025/10/02	6197	54059	R106989411

Invoice Total: \$	325.00
-------------------	--------

Account Holder:
TOWN OF TWO HILLS

Tax Codes: E=Exempt; T=Taxable; I=Included

Invoice Description	Quantity	Unit Price	Tax Cd	GST	Amount
COUNTY OWNED PUMPER 30 MIN [REDACTED]	1.000	325.00	E	.00	325.00

lawn mower fine.

Town of Two Hills

JAN 16 2026

RECEIVED

.00 325.00

Invoice Note:

Messages:

TERMS: NET 30 DAYS - 1.5% PENALTY APPLIED ON ALL OVERDUE ACCOUNTS

***PLEASE PAY AMOUNT REFERENCED ON INVOICE TOTAL ***

Please make cheques payable to:
County of Two Hills No. 21

Invoice Date	Customer #	Invoice #	Amount Due
2025/10/02	6197	54059	\$ 325.00

TOWN OF TWO HILLS
BOX 630
TWO HILLS, ALBERTA
T0B4K0

Amount Paid
\$



6197

Invoice Date	Customer #	Invoice #	GST Registration #
2025/10/02	6197	54058	R106989411

Invoice Total: \$ 190.00

Account Holder:
TOWN OF TWO HILLS

Tax Codes: E=Exempt; T=Taxable; I=Included

Invoice Description	Quantity	Unit Price	Tax Cd	GST	Amount
TWO HILLS FD RESCUE 1HR	1.000	190.00	E	.00	190.00

Carbore Fire

Town of Two Hills

JAN 16 2026

RECEIVED

.00 190.00

Invoice Note:

Messages:

TERMS: NET 30 DAYS - 1.5% PENALTY APPLIED ON ALL OVERDUE ACCOUNTS

***PLEASE PAY AMOUNT REFERENCED ON INVOICE TOTAL ***

Invoice Date	Customer #	Invoice #	Amount Due
2025/10/02	6197	54058	\$ 190.00

TOWN OF TWO HILLS
BOX 630
TWO HILLS, ALBERTA
T0B4K0

Amount Paid
\$



6197

I N V O I C E

Invoice Date	Customer #	Invoice #	GST Registration #
2025/08/12	6197	53640	R106989411

Invoice Total: \$ 162.50

Account Holder:
TOWN OF TWO HILLS

Tax Codes: E=Exempt; T=Taxable; I=Included

Invoice Description	Quantity	Unit Price	Tax Cd	GST	Amount
COUNTY OWNED PUMPER .25HRS July 3/25 [REDACTED]	1.000	162.50	E	.00	162.50

Town of Two Hills

JAN 16 2025

RECEIVED

.00 162.50

Invoice Note:

Messages:

TERMS: NET 30 DAYS - 1.5% PENALTY APPLIED ON ALL OVERDUE ACCOUNTS

PLEASE PAY AMOUNT REFERENCED ON INVOICE TOTAL *

Please make cheques payable to:
County of Two Hills No. 21

Invoice Date	Customer #	Invoice #	Amount Due
2025/08/12	6197	53640	\$ 162.50

TOWN OF TWO HILLS
BOX 630
TWO HILLS, ALBERTA
T0B4K0

Amount Paid
\$



6197

COUNTY OF
TWO HILLS

Box 490
Two Hills, AB T0B 4K0

I N V O I C E

Page #
1

Invoice Date	Customer #	Invoice #	GST Registration #
2025/07/04	6197	53400	R106989411

Invoice Total: \$ 4,977.50

Account Holder:
TOWN OF TWO HILLS

Tax Codes: E=Exempt; T=Taxable; I=Included

Invoice Description	Quantity	Unit Price	Tax Cd	GST	Amount
PUMPER 3/4HR Jan 13/25- County owned equip [REDACTED] Ave Two Hills	1.000	487.50	E	.00	487.50
PUMPER 2HRS Jan 30/25-County owned equip Vehicle Fire- [REDACTED] Two Hills	1.000	1,300.00	E	.00	1,300.00
TANKER 2 HRS Jan 30/25-County owned equip Vehicle Fire- [REDACTED] Two Hills	1.000	1,300.00	E	.00	1,300.00
PUMPER 1/4HRS Feb 9/25-County owned equip Alarm- [REDACTED] Ave Two Hills	1.000	162.50	E	.00	162.50
RESCUE 3/4HRS Feb 12/25-County owned equip Medical Aid [REDACTED] Two Hills	1.000	142.50	E	.00	142.50
PUMPER 1HR Feb 15/25-County owned equip Vehicle Fire- [REDACTED] Two Hills	1.000	650.00	E	.00	650.00
PUMPER 1/2HR March 20/25-County owned equip Outdoor Fire- [REDACTED] Two Hills	1.000	325.00	E	.00	325.00
TANKER 1/2HR March 20/25-County owned equip Outdoor Fire- [REDACTED] Two Hills	1.000	325.00	E	.00	325.00
RESCUE 30 MIN March 27/25-County owned equip	1.000	95.00	E	.00	95.00
					Amount Due

Invoice Note:
TERMS: NET 30 DAYS - 1.5% PENALTY APPLIED ON ALL O
***PLEASE PAY AMOUNT REFERENCED ON INVOICE 1

Messages:

COUNTY OF
TWO HILLS
Box 490
Two Hills, AB T0B 4K0

Please make cheques payable to:
County of Two Hills No. 21

Invoice Date	Customer #	Invoice #	Amount Due
2025/07/04	6197	53400	\$

TOWN OF TWO HILLS
BOX 630
TWO HILLS, ALBERTA
T0B4K0

Town of Two Hills

JAN 16 2026
RECEIVED

Amount Paid

\$



Invoice Date	Customer #	Invoice #	GST Registration #
2025/07/04	6197	53389	R106989411

Invoice Total: \$ 400.00

Account Holder:
TOWN OF TWO HILLS

Tax Codes: E=Exempt; T=Taxable; I=Included

Invoice Description	Quantity	Unit Price	Tax Cd	GST	Amount
PUMPER THFD 3HRS January 10, 2025	1.000	400.00	E	.00	400.00

County owned pumper

Town of Two Hills

JAN 16 2026

RECEIVED

.00 400.00

Invoice Note:

Messages:

TERMS: NET 30 DAYS - 1.5% PENALTY APPLIED ON ALL OVERDUE ACCOUNTS

PLEASE PAY AMOUNT REFERENCED ON INVOICE TOTAL *

Invoice Date	Customer #	Invoice #	Amount Due
2025/07/04	6197	53389	\$ 400.00

TOWN OF TWO HILLS
BOX 630
TWO HILLS, ALBERTA
T0B4K0

Amount Paid

\$



6197

Invoice Date	Customer #	Invoice #	GST Registration #
2025/07/04	6197	53388	R106989411

Invoice Total: \$ 8,345.00

Account Holder:
TOWN OF TWO HILLS

Tax Codes: E=Exempt; T=Taxable; I=Included

Invoice Description	Quantity	Unit Price	Tax Cd	GST	Amount
PUMPER HHFD 2.5HRS January 23, 2025	1.000	1,625.00	E	.00	1,625.00
County owned equipment					
RAPID HHFD 2.5HRS	1.000	475.00	E	.00	475.00
RESCUE HHFD 2.5HRS	1.000	475.00	E	.00	475.00
TANKER HHFD 2.5HRS	1.000	1,625.00	E	.00	1,625.00
CNTY OWNED PUMPER THFD 3HRS	1.000	1,950.00	E	.00	1,950.00
CNTY OWNED RESCUE THFD 3HRS	1.000	570.00	E	.00	570.00
CNTY OWNED TANKER THFD 2.5HRS	1.000	1,625.00	E	.00	1,625.00

Town of Two Hills

JAN 16 2026

RECEIVED

.00 8,345.00

Messages:

TERMS: NET 30 DAYS - 1.5% PENALTY APPLIED ON ALL OVERDUE ACCOUNTS

***PLEASE PAY AMOUNT REFERENCED ON INVOICE TOTAL ***

Invoice Note:

Invoice Date	Customer #	Invoice #	Amount Due
2025/07/04	6197	53388	\$ 8,345.00

TOWN OF TWO HILLS
BOX 630
TWO HILLS, ALBERTA
T0B4K0

Amount Paid

\$



6197



**BYLAW NO. 2012-918
OF THE
TOWN OF TWO HILLS**

**A BYLAW OF THE TOWN OF TWO HILLS, IN THE PROVINCE OF ALBERTA,
FOR THE ESTABLISHMENT AND OPERATION OF FIRE PROTECTION SERVICES
IN THE TOWN OF TWO HILLS**

WHEREAS the *Municipal Government Act* R.S.A. 2000 Chapter M-26, as amended, provides that a Council of a Municipality may pass bylaws for the safety, health and welfare of people and the protection of people and property, and for services provided by or on behalf of the municipality;

AND WHEREAS the Council for the Town of Two Hills wishes to regulate the use and setting of fires within the Town;

AND WHEREAS the Council for the Town of Two Hills wishes to establish and provide for the efficient operation of Fire Protection Services;

NOW THEREFORE, the Council of The Town of Two Hills, in the Province of Alberta, duly assembled, enacts as follows:

PART I - INTERPRETATION

Division 1 – Title

1.1 This Bylaw shall be known as the “Fire Services” Bylaw

Division 2 - Definitions

In this Bylaw:

- 2.1 “Apparatus” - means any vehicle suitable for land, air, or water use which is provided with machinery, devices, equipment, materials or personnel for fire fighting, rescue, or other emergency response, as well as vehicles used to transport Fire Fighters or supplies”.
- 2.2 “CAO” (Chief Administrative Officer) means that person appointed to the position and title by Council and includes any person appointed by the CAO to act as his/her appointee.



- 2.3 “Community Peace Officer” – means a person employed by the Town and appointed as same by the Minister responsible for the Alberta **Peace Officer Act**, 2006, Chapter P-3.5, as amended from time to time, to enforce Provincial legislation and municipal bylaws.
- 2.4 “Council” - means the Town of Two Hills Council.
- 2.5 “Equipment” - means any tools, contrivances, devices and materials used by the Fire Department, to combat an Incident or other Emergency.
- 2.6 “False Alarm” – means any notification to the Fire Department or any Member thereof respecting the existence of a condition, circumstance or event containing an imminent serious danger to persons or Property, wherein such a condition, circumstance or event is in fact not in existence.
- 2.7 “Fire” - means the burning of any flammable or combustible material or any combustible material in a state of combustion.
- 2.8 “Fire Chief” - means the Member of a Fire Department who is appointed as the head of the Fire Department.
- 2.9 “Fire Chief or his designate” - means the Member of the Fire Department who is responsible for the coordination and execution of overall strategy and fire protection tactics involved in combating an Incident.
- 2.10 “Fire Department” - means any fire department established by this Bylaw, or under a Fire Protection Agreement, and includes any person duly appointed to the Fire Department by the Fire Chief from time to time.
- 2.11 “Fire Department Property” - means all property owned or controlled by, and designated for use by, the Fire Department, regardless of the source of the property.
- 2.12 “Fire Hazard” - means any condition, circumstance, or event that increases the possibility and/or probability of Fire occurrence.
- 2.13 “Fire Pit” – as defined in the Town’s Burning Bylaw.
- 2.14 “Fire Protection” – means all aspects of Fire Safety, including but not limited to, Fire Prevention, Firefighting or Suppression, Pre-Fire Planning, Public Education and information, training or other staff development, advising, and responding to a request for Fire Protection whether they are legitimate emergencies or false alarms.
- 2.15 “Fire Protection Agreement” - means an agreement entered into by the Town with another municipality or entity, with a view to ensuring the prevention and control of fires, with respect to land within the Town’s boundaries or under the Town’s control.
- 2.16 “Fire Protection Charge” – means the charges and fees payable pursuant to Section 12 of this Bylaw.



- 2.17 “Fire Protection Services” – means all aspects of Fire safety including but not limited to, fire prevention, fire suppression, firefighting, rescue, pre-fire planning, fire inspection, fire investigation, public education and information, training or other staff development, advising, and responding to a request for fire protection, including legitimate emergencies and False Alarms.
- 2.18 “Incident” - means a Fire or a situation where a Fire or an explosion is imminent or any other situation where there is a Fire, a danger or a possible danger to life or property.
- 2.19 “Member” - means any person who is a duly appointed member of the Fire Department, including a part-time member, volunteer, or Officer.
- 2.20 “Officer” - means a Member appointed by the Fire Chief or designate to a supervisory position within the Fire Department.
- 2.21 “OG” (Operational Guidelines)- means the guidelines as approved by Council resolution and as such guideline may be amended, revised or replaced from time to time that provide the basis for Fire Protection Services.
- 2.22 “Practice” - means a gathering of the Members scheduled by the Fire Chief or designated Officer, and at which training in Fire Protection Services is conducted.
- 2.23 “Property” - means any real or personal property, which, without limiting the generality of the foregoing, includes land, equipment, products, vehicles and structures.
- 2.24 “Recreational Fire” – means a Fire for recreational purposes and is confined to a non-combustible container, such as a Fire Pit or suitable burning container, as per the Town’s Burning Bylaw, which is set for the purpose of cooking, obtaining warmth or viewing for pleasure. Such Fire may only be fueled with seasoned wood, charcoal, coal, natural gas or propane.
- 2.25 “Running Fire” – means a Fire burning without being under proper or any control of any person.
- 2.26 “Structure Fire” – means a Fire confined to and within any building, structure, machine or vehicle which will or is likely to cause the destruction of or damage to such building, structure, machine or vehicle, excluding an Incinerator Fire.
- 2.27 “Town” – means the Town of Two Hills and the area within its boundaries.

PART II - FIRE DEPARTMENT

- 3.1 Council hereby establishes the Two Hills Fire Department for the purpose of:
- 3.1.1 Providing Fire Protection Services;
- 3.1.2 Preventing, combating and extinguishing Fires and Incidents;



- 3.1.3 Preserving life, Property, and environment; and protecting persons and Property from injury or destruction by Fire or Incident;
- 3.1.4 Operating Apparatus and Equipment for the purpose of extinguishing Fires or Incidents and preserving life and Property;
- 3.1.5 Fulfilling obligations under approved Mutual Aid Agreements;
- 3.1.6 Providing public education about Fire safety;
- 3.1.7 Pre-Fire and emergency planning and Practice;
- 3.1.8 Providing mutual response to medical incidents; and
- 3.1.9 Rescue operations, limited to the Members training and experience;
- 3.2 The Fire Department shall develop Operation Guidelines that are consistent with this Bylaw and the legislation and regulations of the Province of Alberta, for approval by Council.

PART III - FIRE CHIEF

Division 1 – Appointment and Duties

- 4.1 The Fire Chief shall be appointed and approved by resolution of Council upon recommendation of the Fire Department.
- 4.2 The Fire Chief shall be responsible to Council and shall report directly to the CAO on all operational and administrative matters, and may be required to report directly to the CAO on a monthly basis.
- 4.3 The Fire Chief shall report all Fires and Incidents immediately after completing response to said Fires and Incidents to the CAO, with sufficient details to enable the invoicing process to properly occur and to meet the requirements of the **Safety Codes Act**, R.S.A. 2000, Chapter S-1, as amended from time to time.
- 4.4 The Fire Chief has complete responsibility and authority over the Fire Department, subject to the direction and control of Council, to which he or she shall be responsible. In particular, the Fire Chief may direct the Fire Department and its Members to carry out all Fire Protection Service activities and such other fire-related activities as Council directs, including but not limited to:
 - 4.4.1 Pre-Fire planning;
 - 4.4.2 Preventative Patrols;
 - 4.4.3 Fire suppression activities;



- 4.4.4 Emergency medical services, excepting ambulance services;
- 4.4.5 Rescue operations, limited to the Members training and experience;
- 4.4.6 Disaster relief; and
- 4.4.7 Practice and Member training.

Division 2 –Powers of the Fire Chief

- 5.1 The Fire Chief may establish rules, regulations, policies and committees necessary for the proper organization and administration of the Fire Department including, but not limited to:
 - 5.1.1 use, care and protection of Fire Department Property;
 - 5.1.2 conduct and discipline of Officers and Members of the Fire Department;
 - 5.1.3 efficient operations of the Fire Department; and
 - 5.1.4 training of Officers and Members of the Fire Department;such rules, regulations and policies shall not be inconsistent with the legislation and regulations of the Province of Alberta.
- 5.2 The Fire Chief may obtain assistance from other Members as he or she deems necessary in order to discharge his or her duties and responsibilities under this Bylaw.
- 5.3 The Fire Chief shall develop and integrate a training and education program for Members.
- 5.4 The Fire Chief must ensure that accurate and complete training records are maintained for each Member; and that such records and personnel information will be kept in a locked and safe location.
- 5.5 The Fire Chief or his designate shall have control, direction and management of any Fire Department Apparatus, Equipment or manpower, assigned to an Incident and he or she shall continue to act until relieved by an Officer authorized to do so.
- 5.6 The Fire Chief or his designate may at his discretion establish boundaries or limits and keep persons from entering the area within the prescribed boundaries or limits unless authorized to enter by him.
- 5.7 The Fire Chief or his designate may request Peace Officers to enforce restrictions on persons entering within the boundaries or limits outlined in Section 5.6.



- 5.8 The Fire Chief or his designate is empowered to enter any Property to take all steps he deems necessary in order to directly or indirectly combat, control or deal with an Incident, including:
- 5.8.1 Passing through or over buildings or Property adjacent to an Incident and to causing Members of the Fire Department and the Apparatus and Equipment of the Fire Department to enter or pass through or over the building or Property;
 - 5.8.2 Ordering the evacuation of any building or area which is directly or indirectly involved in an Incident.
 - 5.8.3 Causing a building, structure or thing to be pulled down, demolished or otherwise removed; and
 - 5.8.4 Upon extinguishment of a Fire or resolution of an Incident, access, enter, pass through, or over buildings or property adjacent to a fire or Incident, and cause a building, structure or thing to be pulled down, demolished or otherwise removed in accordance with the **Safety Codes Act**, R.S.A. 2000, Chapter S-1, as amended, and any regulations thereto.
- 5.9 The Fire Chief or his designate is empowered to appoint any able-bodied adult person to assist in extinguishing Fires and to assist in the prevention or spread thereof.

PART IV – OFFICERS

Division 1 – Appointment and Duties

- 6.1 Officers shall be appointed at the discretion of the Fire Chief or designate.
- 6.2 An Officer shall:
- 6.2.1 Function as a Fire Chief or his designate, as required or upon request by the Fire Chief; and approved by resolution of Council.
 - 6.2.2 Assist the Fire Chief in ensuring that all Fire reports, Incident and accident reports, and any and all other reports required by this Bylaw and the legislation and regulations of the Province of Alberta are completed and submitted in a clear, concise, and timely manner;
 - 6.2.3 Assist the Fire Chief in establishing rules, requirements, policies, and procedures for the efficient and safe operation of the Fire Department;
 - 6.2.4 Assist the Fire Chief in maintaining a liaison with federal and provincial governments and Council on matters relating to the Fire Department;
 - 6.2.5 Organize and assume responsibility for Fire Protection Services resources, Apparatus, and Equipment, as required;



- 6.2.6 Provide leadership to Members and develop and implement long-range plans and programs;

PART V - MEMBERS

Division 1 – Appointment and Duties

- 7.1 An individual interested in becoming a Member of any Fire Department within the Town shall be eligible for consideration if he or she:
- 7.1.1 is a minimum of eighteen (18) years of age; and
 - 7.1.2 has met the requirements set out in the Fire Department's Standard Operational Procedures, and any provincial Occupational Health and Safety program or training; and
 - 7.1.3 has demonstrated that he or she is in a reasonable physical condition to perform the duties required of the Member by the Fire Department.
 - 7.1.3.1 The Member must be re-examined if the Member experiences changes to his medical condition which could impact ability to perform Fire Protection or negatively impact the Members health because of performing Fire Protection, subject to the CAO's approval.
- 7.2 An individual interested in applying to become a Member of a Fire Department shall supply the Fire Chief of the Fire Department with the following:
- 7.2.1 a criminal record check report performed by the Royal Canadian Mounted Police Service;
 - 7.2.2 a signed form (attached as Schedule "A") acknowledging their agreement to comply at all times with the requirements of this Bylaw;
 - 7.2.3 a photocopy of a valid Alberta driver's license;
 - 7.2.4 proof of Canadian citizenship or residency;
 - 7.2.5 a Driver's Abstract generated by the Province of Alberta within the past thirty (30) days; and
 - 7.2.6 any other information deemed necessary by the Fire Chief to establish compliance with the requirements established by the Province and the Municipality.
- 7.3 Individuals between the ages of sixteen (16) to eighteen (18) may assist in specific functions with written parental consent to do so, and as approved by the Fire Chief.



- 7.4 If a Member's driver's license is suspended for any reason, the Member shall immediately inform the Fire Chief.
- 7.5 Each member must:
- 7.5.1 Attend sixty (60%) percent of all practises unless the Member has obtained prior approval of the Fire Chief.
 - 7.5.2 Participate in progress respecting Fire Protection.
 - 7.5.3 Be willing to undergo a periodic review by the Fire Chief or his designate respecting the Member's Fire Protection skills and compliance with personal attributes.
 - 7.5.4 Endeavor to develop knowledge and skills for Fire Protection, including operation and maintenance of Apparatus and Equipment.
 - 7.5.5 Endeavor to develop knowledge of rules and regulations of the Fire Department.
 - 7.5.6 Be able to receive and record the Fire alarm and other emergency calls.

Division 2 – Powers of Members

- 8.1 All Fire Members are designated officers within the meaning of the ***Municipal Government Act*** R.S.A. 2000 Chapter M-26, as amended, for the purposes of providing Fire Protection Services to the Town.
- 8.2 Each Member shall have the authority and power to:
- 8.2.1 Obtain from every person found on public land or leaving or entering public land that person's name, address and an account of his or her activities and the route of the activities he or she proposes to carry out and the route he or she intends to follow on the public land;
 - 8.2.2 Without a warrant enter on or into any Property, for the purpose of discharging his or her duties under this Bylaw;
 - 8.2.3 Direct the operations of extinguishing or controlling the Fire or the operations to preserve life, Property and the environment;
 - 8.2.4 Perform work relating to the extinguishing or controlling the Fire or the operations to preserve life and Property and enter onto any Property for the purpose of extinguishing or controlling the Fire; and
 - 8.2.5 Prevent the interference with the efforts of persons engaged in the extinguishing of Fires or preventing the spread thereof by regulating the conduct of the public at or in the vicinity of the Fire.



PART VI – TERMINATION OF MEMBERS

- 9.1 Any Member may be terminated by Fire Chief with reason, on thirty days' notice; and in consultation with the CAO,
- 9.2 Any Member who commits a fundamental breach of their agreement may be terminated by the Fire Chief or designate, using their best discretion, immediately.

PART VII - BUDGET

- 10.1 The Fire Chief shall submit a proposed budget to the CAO on or before November 1 for the following fiscal year, or as otherwise required by the Town from time to time.
- 10.2 The budget shall indicate all revenue and expenditures, including capital and operating expenditures. The budget shall also include the formula to be used for the remuneration of Members for their services.
- 10.3 No Member shall pledge the credit of the Town.
- 10.4 All revenues and expenses shall be handled by the Town's accounting department, and in according to the budget approved by Council.
- 10.5 All funds raised by or on behalf of the Fire Department for a specific large piece of capital equipment shall be passed over to the Town's accounting department, and shall remain the property of the Town; the Fire Chief may, through a budgeting process and otherwise, make recommendations on the use of the funds.
- 10.6 All property used by the Fire Department remains the property of the Town, unless the Town has entered into an agreement with another municipality or another person otherwise.

PART VIII - REMUNERATION

- 11.1 The Town shall reimburse any Member for medical examinations according to Section 7.1.3.1.
- 11.2 The Town will reimburse any Member for expenses relating to driver's abstracts and criminal records; receipt required.

PART IX - HEALTH AND SAFETY

- 12.1 All Members shall endeavour to perform Fire Protection services in a safe manner, according to this Bylaw and to the training provided, and to know safe working procedures.
- 12.2 All Members shall endeavour to report unsafe conditions and reduce the incidence of unsafe conditions.



- 12.3 All protective clothing issued to the Member remains the property of the Town, unless the Town has an agreement with another municipality.
- 12.4 No alcohol shall be served, stored or consumed by any member at the Fire Hall, except in the case of a special event as approved by Council from time to time; provided that such serving, storage or consumption is in accordance with all provincial liquor licensing.
- 12.5 No Member shall be under the influence of alcohol at the Fire Hall, except as indicated on Section 12.4, or while responding for Fire Protection.
- 12.6 No Member shall be under the influence of illicit or illegal drugs at the Fire Hall or while responding for Fire Protection, under any circumstances.
- 12.7 Members may be required to submitting the results of a drug test in the event of an accident or incident while arriving to an Incident, while at an Incident, or leaving an Incident.

PART X – OPERATIONAL GUIDELINES

- 13.1 An inspection and maintenance schedule shall be done for equipment, apparatus, and protective clothing.
- 13.2 No Member shall use their own motor vehicle unless they obtain the approval of the Fire Chief or his designate. If a Member responds to an incident in their own motor vehicle, the Member shall operate their motor vehicle according to all relevant federal, provincial, and municipal regulations.
- 13.3 Operational guidelines shall be established for the inventory, storage and handling of hazardous substances.
- 13.4 Records for accidents or injuries (reports, response and treatment) shall be kept.
- 13.5 Use of lights and sirens shall be in accordance with the Traffic Safety Act.
- 13.6 The Fire Chief shall work with the Town's Foreman to perform and record the inspection, testing and maintenance of fire hydrants.
- 13.7 All Members shall carry a fire radio at all times when the Member is within the vicinity of the County of Two Hills.

PART XI - CONTROL OF FIRE HAZARDS

- 14.1 If the Fire Chief or Designate finds within the Town's boundaries, on privately owned land or occupied public land, conditions that, in his/her opinion, constitute a Fire Hazard, it may order the owner or the person in control of the Land on which the Fire Hazard exists to reduce or remove the Fire Hazard within a fixed time and in a manner prescribed by the Town.



- 14.2 If the Fire Chief of designate finds that the order it made pursuant to Section 14.1 has not been carried out, a designated Officer may enter onto the land with any equipment and any person he/she considers necessary and may perform the work required to eliminate or reduce the Fire Hazard.
- 14.3 The owner or occupant of the land on which work was performed pursuant to Section 14.2 shall, upon demand, pay to the Town a Fire Protection Charge and in default of payment of the Fire Protection Charge, the Town may add the Fire Protection Charge to the tax roll of the said land, which forms a special lien against the land in favour of the Town, from the date it was added to the tax roll.

PART XII - PROHIBITIONS

- 15.1 Contravene any provision of this Bylaw;
- 15.2 No person shall set, or cause to be set, any Fire within the boundaries of the Town except as otherwise provided for under the Town's Burning Bylaw.
- 15.3 Light an Outdoor Fire or Structure Fire unless:
- 15.3.1 The Fire is a Recreational Fire; or
- 15.3.2 The Fire has been set by a Member for the purpose of training Members.
- 15.4 Permit an Outdoor Fire or Structure Fire to be lit upon lands that are owned or occupied by that person, or under that person's control except when such a Fire is allowed under this Bylaw.
- 15.5 When a Fire is set under the circumstances described in Section 15.4 the owner or occupier of the land or the person having control of the land upon which the Fire is lit shall:
- 15.5.1 Extinguish the Fire immediately; or
- 15.5.2 If unable to extinguish the Fire immediately, report the Fire to the Fire Department.
- 15.6 Either directly, or indirectly, personally or through an agent, servant or employee kindle a Fire or let it become a Running Fire on any land not his or her own property or allow a Running Fire to pass from his or her own property to that of another.
- 15.7 Light a Fire without first taking sufficient precautions to ensure that the Fire can be kept under control at all times;
- 15.8 Light a Fire when the weather conditions are conducive to creating a Running Fire;
- 15.9 Fail to take reasonable steps to control a Fire for the purpose of preventing it from becoming a Running Fire or from spreading onto Property other than his or her own;



- 15.10 Deposit, discard or leave any burning matter or substance where it might ignite other materials and cause a Fire;
- 15.11 Conduct any activity that involves the use of Fire that might reasonably be expected to cause a Fire unless that person exercises reasonable care to prevent the Fire from occurring;
- 15.12 Knowingly providing false, incomplete or misleading information about a Fire;
- 15.13 Use a Fire to burn anything as indicated in the Town's Burning Bylaw.
- 15.14 Conduct any activity that involves the use of a fire, where smoke from the Fire may impede visibility of the vehicular traffic on any Highway as defined in the **Traffic Safety Act**, R.S.A. 2000 Chapter T-6, as amended from time to time; or
- 15.15 Light a Fire on lands owned or controlled by the Town except with the Town's express written consent or if a Recreational Fire, in a fireplace or campfire pit provided by the Town for that purpose.

PART XIII – FALSE ALARM

- 16.1 No person or persons shall either directly or indirectly, cause or report a False Alarm.
- 16.2 Where a False Alarm has been given by an alarm or security system, or a security company, the owner or occupant of the premises from where that False Alarm originated shall be deemed to have contravened this section.

PART XIV - FIRE BANS

- 17.1 The Fire Chief or CAO may, from time to time, prohibit all Fires within the Town including Recreational Fires when, in the discretion of the Fire Chief or CAO, the prevailing environmental conditions give rise to an increased risk of a Fire becoming a Running Fire.
- 17.2 A Fire ban imposed by the Fire Chief or CAO under Section 17.1 shall be in force either until the date established by the Fire Chief or CAO in the notice provided to the public pursuant to Section 17.3, or until such time as the Fire Chief or CAO gives notice to the public that the ban has been lifted.
- 17.3 The Fire Chief or CAO shall give notice of the Fire ban in effect by causing signs to be posted at the entrance roads to the Town facing incoming traffic. Such a sign shall indicate that the Fire ban is in place, the date if any that the ban shall be lifted, and the penalty for failing to comply with the Fire ban.
- 17.4 When a Fire Ban is in effect, **NO PERSON** shall ignite a Recreational Fire, or cause or allow a Recreational Fire to be ignited on his or her Property or Property under his or her control.



PART XV - PROPERTY IDENTIFICATION

- 18.1 The civic address of any Property, including buildings and structures, shall be prominently displayed on the front street-side of the property so as to be clearly visible from the street. Property owners must comply with this section within six (6) months of the passing of this Bylaw.
- 18.2 Town owned buildings shall have addresses posted on the inside of the public place in a high traffic area.

PART XVI - LEVEL OF SERVICE

- 19.1 Responders will recognize risks and hazards, identify specific components by name or situation, identify fire, explosion, and health hazard information, identify specific risks and hazards, secure the area and implement the planned response, according to what level of training the responders have. In areas where responders are not trained to respond to an Incident, trained assistance will be called in.
- 19.2 Where responders are trained to respond to an Incident, the responders will take defensive action to control the incident. This will include a survey of the incident, collect information, predict the behavior of the situation, estimate potential harm, plan the response and implement, followed by an evaluation of the status of the defensive action. Responder will initiate offensive action to bring the incident under control. This will require use of chemical protective clothing or other specialized PPE, controlling release or spread of product, decontamination, and use of specialized equipment specific to a particular incident.

PART XVII - APPEAL

- 20.1 A person who considers himself or herself aggrieved by a written order given pursuant to this Bylaw may appeal the direction to the Council, under terms prescribed by the ***Municipal Government Act***, R.S.A. 2000, Chapter M-26 as amended.

PART XVIII - OBSTRUCTION

- 21.1 No person shall obstruct the Fire Chief or any other person authorized to inspect Property or to perform any work necessary to remedy a condition, from performing his or her duties under this Bylaw.
- 21.1 No person shall:
- 21.1.2 Impede, obstruct or hinder a Member, or other person assisting or acting under the direction of a Member;
- 21.1.3 Damage or destroy Fire Department Property or Equipment;



- 21.1.4 At an Incident, drive a vehicle over any Apparatus or Equipment without permission from the Fire Chief or Fire Chief or his designate;
- 21.1.5 Obstruct a Member from carrying out any function or activity related in any way to Fire Protection;
- 21.1.6 Falsely represent themselves as a Member or wear or display any Fire Department badge, cap, button, insignia, or other paraphernalia which may leave the false impression that the person is a Member;
- 21.1.7 Obstruct or otherwise interfere with access roads or streets or other approaches to any fire alarm, fire hydrant, cistern or body of water designated or intended to be used for Fire Protection or any connections provided to a fire main, pipe, stand pipe, sprinkler system, cistern, or other body of water designated or intended to be used for Fire Protection;

PART XIX - FIRE PROTECTION CHARGES, PENALTIES

Division 1 – Fire Protection Charges

- 22.1 Upon the Town issuing an Order or taking steps under Sections 14 or 15, or upon the Fire Department providing Fire Protection Services to Property within or outside the Town boundaries, resulting in the Town incurring fees or charges, the Town may in its sole and absolute discretion charge any or all of the following persons, namely:
 - 22.1.1 The person causing or contributing to the Fire; or
 - 22.1.2 The owner or occupant of the Property;a Fire Protection Charge, and all individuals charged are jointly and severally responsible for payment of the Fire Protection Charge to the Town;
- 22.2 The schedule of fees for Fire Protection Charges is set out in Schedule "B" attached hereto and forming part of this Bylaw.
- 22.3 Without limiting the foregoing, a Fire Protection Charge may be imposed in the event of a False Alarm.
- 22.4 A Fire Protection Charge shall be paid within thirty (30) days of being levied.
- 22.5 Collection of unpaid Fire Protection Charges may be undertaken by civil action in a court of competent jurisdiction, and any civil action does not invalidate any lien which the Town is entitled to place on the Property in respect of which the indebtedness is incurred.
- 22.6 The owner of a parcel to which Fire Protection is provided is liable for Fire Protection Charges incurred, and the Town may add to the tax roll of a parcel of land all unpaid Fire Protection Charges and interest charges accrued one hundred and twenty (120) days after the Fire Protection Charge has been levied.



Division 2 – Penalties

23.1 Any person who:

- 23.1.1 Violates any provision of this Bylaw;
- 23.1.2 Suffers or permits any act or thing to be done in contravention of or in violation of any provision of this Bylaw;
- 23.1.3 Neglects to do or refrains from doing anything required to be done by the provisions of this Bylaw; or
- 23.1.4 Does any act or thing or omits any act or thing, thus violating any provision of this Bylaw;

is guilty of an offence under of this Bylaw, and upon a conviction, is liable to a penalty as set out in Schedule “C” attached hereto and forming a part of this Bylaw.

23.2 No person found guilty of an offence pursuant to this Bylaw shall be liable to imprisonment.

PART XX - ENFORCEMENT

24.1 Where Property does not comply with this Bylaw or a person contravenes this Bylaw, the Town may pursue its enforcement alternatives in accordance with any Act, or common law right, including but not limited to the issuance of an order to remedy the contravention by the Town, adding amounts to the tax roll, and pursuing injunctions pursuant to the ***Municipal Government Act***, R.S.A. 2000, Chapter M-26 as amended.

PART XXI - NOTICE

25.1 Any Notice provided for in this Bylaw shall be in writing.

25.2 Service of any Notice provided for in this Bylaw may be made as follows:

- 25.2.1 Personally upon the person to be served; or
- 25.2.2 By mailing the copy to the person to be served by registered mail or certified mail to the last known post office address of the person to be served and service shall be deemed to be effected at the time the copy is delivered by an official of the post office to the person to be served or to any person receiving it on his or her behalf;
- 25.2.3 Where the Property is not occupied, by mailing the notice by registered mail or certified mail to the mailing address noted on the Town's tax roll for that Property, and service shall be deemed to be effected at the time the copy is delivered by an official of the post office to the person to be served or to any person receiving it on his or her behalf; or
- 25.2.4 As directed by the Court.



PART XXII - LIABILITY

- 26.1 The CAO, Fire Chief, Officers, Members and Peace Officers are not liable for loss or damage caused by anything said or done or omitted and to be done in the performance or intended performance of their functions, duties or powers unless the circumstances constitute dishonesty, gross negligence or willful misconduct.

PART XXIII - GENERAL

- 27.1 Should any section or part of this Bylaw be found to be improperly enacted, or outside the Municipality's jurisdiction, for any reason, then such section or part will be regarded as being severed and the remaining sections will remain effective and enforceable.
- 27.2 This Bylaw will function in conjunction with the Quality Management Plan, Operational Guidelines, and the Town's Occupational Health and Safety program.
- 27.3 Where the singular and/or masculine are herein used, the plural and feminine should also be inferred where appropriate.
- 27.4 Bylaws 2000-785 and 2000-786 hereby repealed.

READ a first time this 16th day of July, 2012.
READ a second time this 16th day of July, 2012.

TOWN OF TWO HILLS

ELAINE SOROCHAN, MAYOR

ELSIE HOWANYK, C.A.O.

READ a third time and finally passed this 13th day of August, 2012.

TOWN OF TWO HILLS

ELAINE SOROCHAN, MAYOR

ELSIE HOWANYK, C.A.O.



SCHEDULE "A"

MEMBER AGREEMENT

TOWN OF TWO HILLS **MEMBER AGREEMENT**

I, _____, member of the Two Hills Fire Department, agree that I
(Print Name)

have received a copy of Bylaw 2012-918 and that I will comply at all times with the requirements of Bylaw 2012-918.

Member: _____ Date: _____
(Signature)

Witness: _____ Date: _____
(Signature of Fire Chief)



SCHEDULE "B"

FEE SCHEDULE: FIRE PROTECTION CHARGES

FIRE PROTECTION CHARGES

Town-owned Apparatus/Goods/Service attending Incident within Town of Two Hills corporate limits:

Manpower	\$21.00	Per Manpower Per Hour
All Fire Apparatus	400.00	First Hour
All Fire Apparatus	50.00	Per each subsequent half hr
Fire Fighting Foam		Billed at the Town's cost
Other disposable materials		Billed at the Town's cost
False Alarm	50.00	Per incident at the discretion of the Fire Chief or designate
Fire Inspection	75.00	Per Inspection

Town-owned Apparatus/Goods/Service attending Incident outside Town of Two Hills corporate limits:

Manpower	\$21.00	Per Manpower Per Hour
Fire Pumper	400.00	First Hour
Fire Pumper	100.00	Per each subsequent half hr
Rescue Truck	400.00	First Hour
Rescue Truck	100.00	Per each subsequent half hr
Rescue Truck - as a personnel carrier only	100.00	Per Hour
County owned equipment	\$ 50.00	Base
Fire Fighting Foam		Billed at the Town's cost
Other disposable materials		Billed at the Town's cost

Town-owned Apparatus/Goods/Service attending Motor Vehicle Accident outside Town of Two Hills corporate limits:

On Provincial Highways:

Manpower	---	Per Manpower Per Hour
All Fire Apparatus	400.00	Per Hour
Fire Fighting Foam		Billed at the Town's cost
Other disposable materials		Billed at the Town's cost

On County Highways:


Manpower	\$21.00	Per Manpower Per Hour
County owned equipment	\$ 50.00	Base
Fire Fighting Foam		Billed at the Town's cost
Other disposable materials		Billed at the Town's cost



SCHEDULE "C"
PENALTIES

SECTION	OFFENCE	MINIMUM PENALTY
	Setting Illegal Fire	\$200.00
	Burning refuse, waste, junk, garbage, structures, or debris	\$250.00
	Burning Recreational Fire when Fire Ban in place	\$200.00
	Civic addressing not prominently displayed on front side	\$100.00
	Contravening a provision of Bylaw (where no other specific fine imposed)	\$200.00
	Impeding, obstructing, hindering Member or Officer Providing false, incomplete, misleading information;	\$200.00
	Damage, destroy Fire Department Property	\$400.00
	Drive over Fire Department Property	\$200.00
	Falsely represent self as Member of Fire Department	\$300.00
	Obstruct access	\$200.00
	Lighting an Outdoor Fire or Structure Fire in contravention of the Bylaw	\$200.00
	Failing to extinguish an illegal Fire or reporting it immediately to the Fire Department	\$200.00
	Allowing Fire to become Running Fire	\$300.00
	Lighting a Fire without taking sufficient precautions to ensure it can be kept under control at all times	\$150.00
	Lighting a Fire when condition conducive to creating Running Fire	\$200.00
	Depositing, discarding, leaving, or burning matter or substance	\$200.00
	Any conduct involving Fire that might reasonably cause a Fire unless reasonable care to prevent a Fire is used	\$100.00
	Use a Fire to burn material that will produce smoke or toxic materials	\$100.00
	Impeding Vehicular and pedestrian traffic by smoke	\$100.00
	Lighting Fire on Town Land	\$150.00



<p style="text-align: center;">TOWN OF TWO HILLS COUNCIL MEETING AGENDA ITEM</p> 					
Meeting Date: February 10, 2026		Confidential:	Yes	No	X
Topic: YOLO Nomads - Renewal Invoice and Support					
Originated By: Bob Ross			Title:	Economic Development Officer	
BACKGROUND:					
YOLO Nomads is a Website that promotes Tourism in our region.					
DOCUMENTATION ATTACHED:					
<p>Letter for Renewal</p> <p>Statistics of past performance</p>					
DISCUSSION:					
Review Demographics to determine continuation of membership.					
COMMUNICATION PLAN/COMMUNITY INVOLVEMENT:					
RECOMMENDED ACTION(S):					
<p>1. _____ Move to not renew and discontinue membership with YOLO Nomads.</p> <p>Or</p> <p>2. _____ Move to approve membership with YOLO for another year for \$2000.00.</p>					
DISTRIBUTION: Council: X					



Luke Panek | Founder
Yolo Nomads
www.yolonomads.com

To: Mayor and Council
Town of Two Hills
Attention: Council and Administration

YOLO Nomads has been pleased to work with the Town of Two Hills over the past two years to support visitor promotion and awareness of the community. As the current term comes to an end, we are requesting Council approval to proceed with a third-year renewal.

Below is an overview of the work currently being delivered and the additional opportunities available as part of a renewal.

Our Approach

Our work follows a simple three-step process that has been effective for small communities across Canada.

Step 1: Create Awareness

We run targeted digital advertising to introduce Two Hills to people planning regional travel, road trips, and longer stays. These campaigns ensure the community remains visible to audiences actively looking for places to visit.

Step 2: Educate and Inspire

Once interest is established, visitors can download seasonal 7-day winter and summer guides. These guides outline daily ideas for activities, dining, attractions, and nearby experiences, helping visitors plan more complete trips and encouraging longer stays.

Step 3: Stay on Their Radar

We follow up with people who download the guides by sharing short articles that highlight seasonal experiences, events, and local stories, helping keep Two Hills top of mind over time.

Additional Opportunity: Relocation-Focused Content

If Council approves a renewal, YOLO Nomads would include an additional package at no extra cost. This package would focus on people considering a permanent move from larger urban centres and would include a dedicated relocation guide along with new articles written specifically for audiences such as health care workers, teachers, skilled trades, and retirees.

Bonus Tool: Interactive Visitor Map

As part of the program, an interactive digital map showcases restaurants, attractions, trails, and services and can be embedded on the Town's website and partner platforms.

Program Term: 12 months (Year 3)



Luke Panek | Founder
Yolo Nomads
www.yolonomads.com

Cost: \$2000 CAD

We would welcome the opportunity to continue working with the Town of Two Hills and are happy to answer any questions Council may have.

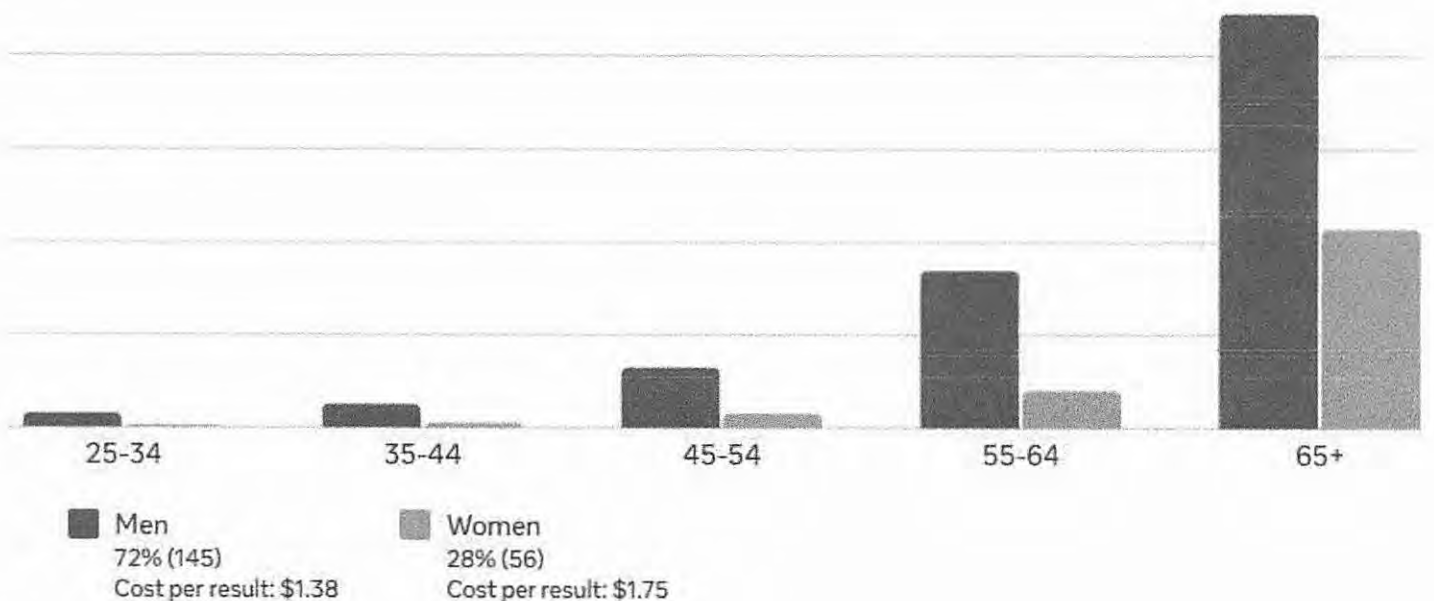
Respectfully submitted,


Luke Panek
YOLO Nomads

This ad generated 201 leads at a \$1.49 CPL, ranking among the best results across YOLO Nomads campaigns. The community-focused visuals and clear messaging resonated strongly with adults aged 35–65+, driving excellent engagement, while broad regional reach and balanced response rates indicate highly efficient targeting.

Location: Calgary and Edmonton, Alberta

All ▾ Results ▾



TOWN OF TWO HILLS COUNCIL MEETING AGENDA ITEM						
Meeting Date: February 10, 2026	Confidential:	Yes		No	X	
Topic: Special Meeting and Process for Strategic Plan Draft Review						
Originated By: A. Kozakiewicz			Title:	CAO		
BACKGROUND:						
Special Meeting called on February 17 th at 6pm to review and discuss details of the Strategic Plan.						
DOCUMENTATION ATTACHED:						
Draft Strategic Plan from Alberta Counsel						
DISCUSSION:						
Review Strategic Plan and have clear objectives, questions or changes ready to be discussed at the February 17 th Special Meeting.						
COMMUNICATION PLAN/COMMUNITY INVOLVEMENT:						
<p>Please forward your list of questions and concerns to Cindy via email no later than the end of day Monday February 16th.</p> <p>They will be gathered and complied and forwarded to you for review at the Special Meeting on Tuesday February 17th at 6:00pm.</p> <p>Should a majority of Council NOT provide items to be complied and discussed, then the Special Meeting will be cancelled.</p>						
RECOMMENDED ACTION(S):						
<p>_____ Moved to approve the special Meeting on Tuesday February 17th at 6:00pm to review and discuss the Strategic Plan Draft attached.</p>						
DISTRIBUTION:						
Council: X						

Town of Two Hills DRAFT Strategic Plan

ALBERTA COUNSEL| FOR REVIEW AND FEEDBACK
D'ARCY VANE B.A. MBA, CIM

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1. Executive Summary

Purpose of the Strategic Plan

The Town of Two Hills Strategic Plan is a refresh of the January 2025 Strategic Plan, updated to reflect evolving conditions and new information that has emerged since its original adoption. This updated Plan responds to changes in the regional economy, market conditions, provincial policy environment, and broader North American trends that affect rural communities like Two Hills.

The Strategic Plan sets out a three-to-five-year framework to help guide decisions, investments, and actions that shape the future of the community. It provides Council and Administration with a shared reference point for making coordinated, transparent, and fiscally responsible choices that support community well-being, economic resilience, and long-term sustainability.

In a small community like Two Hills, municipal resources—financial, administrative, and volunteer—are limited. This refreshed Strategic Plan helps ensure those resources are used intentionally and effectively, focusing effort where it will have the greatest impact while remaining responsive to a changing external environment.

The Strategic Plan:

- Establishes clear strategic direction that carries forward across Council terms, providing continuity while allowing for adjustment
- Provides a shared framework for prioritizing work and sequencing initiatives over time
- Strengthens alignment between policy, budgeting, and day-to-day operations, helping decisions reinforce one another
- Creates a clear and defensible foundation for grant applications, partnerships, and advocacy with other levels of government

The Strategic Plan is intended to be a living document—one that is referenced regularly, revisited as conditions evolve, and used actively to guide decisions rather than set aside once adopted.

Planning Process Overview

The refreshed Strategic Plan was developed through a facilitated planning process led by Alberta Counsel, designed to confirm priorities and adjust direction in light of changing external conditions. The process included a two-day strategic planning session with Town Council held on January 8 and 9, providing dedicated time for discussion, reflection, and alignment.

During the planning session, Council reviewed existing strategic direction, discussed current and emerging challenges, and considered how regional dynamics, market conditions, provincial policy, and broader North American trends are influencing the Town of Two Hills. Particular attention was given to economic conditions, infrastructure pressures, workforce availability, and the evolving role of partnerships in extending municipal capacity.

Throughout the process, Council emphasized realism, deliverability, and local context. The refreshed Strategic Plan focuses on actions that are achievable within the Town's current capacity, while remaining flexible enough to respond to uncertainty and change. This approach ensures the Plan remains practical, relevant, and grounded in the realities facing Two Hills today.

What Has Changed Since the January 2025 Strategic Plan

The refreshed Town of Two Hills Strategic Plan builds on the foundation established in January 2025. While the core direction and long-term vision for the community remain consistent, several important changes have occurred that warranted a review and refinement of the Plan.

This refresh ensures the Strategic Plan remains relevant, practical, and responsive to current conditions.

Changes in Governance and Leadership

Since January 2025, the Town of Two Hills has seen the election of new Council members. The addition of new voices and perspectives provided an important opportunity to:

- Reconfirm shared priorities
- Reflect on emerging community needs

- Ensure alignment between Council, Administration, and the Strategic Plan

The refreshed Plan incorporates the perspectives of the current Council while maintaining continuity with previously established direction. This approach supports stability while allowing the Plan to reflect the priorities and insights of today's elected leadership.

Evolving Regional, Market, and Policy Conditions

Since early 2025, the broader environment affecting Two Hills has continued to change. Shifts in:

- Regional economic conditions
- Housing and labour markets
- Provincial funding and policy direction
- Broader North American economic trends

have reinforced the importance of readiness, prioritization, and partnership-based approaches. The refreshed Plan reflects updated assumptions about capacity, timing, and risk.

Key Areas of Change

Greater Focus on Readiness and Capacity

The refreshed Plan places increased emphasis on aligning ambitions with available administrative, financial, and community capacity. This includes clearer prioritization and more intentional sequencing of initiatives.

Stronger Integration Across Focus Areas

Economic Development, Infrastructure, Partnerships, and Community Building are more clearly connected. Actions in one area are designed to support progress in others, reducing duplication and improving overall effectiveness.

Expanded Emphasis on Partnerships

The updated Plan places greater importance on working with Indigenous communities, regional partners, provincial agencies, industry, and community organizations as a way to extend municipal capacity and access resources.

Refined Approach to Economic Development

Business retention, tourism development, and investment readiness are more clearly

integrated into a single economic development approach focused on resilience, incremental growth, and long-term sustainability.

Clearer Governance and Accountability

The refreshed Plan provides clearer guidance on how Council and Administration work together, how decisions are informed by the Plan, and how progress is monitored and shared with the community.

What Has Not Changed

- The Town's long-term vision and commitment to community well-being
- The importance of economic resilience, infrastructure sustainability, and quality of life
- The value placed on collaboration, transparency, and responsible decision-making

Moving Forward

This refreshed Strategic Plan provides a stable yet flexible framework that allows the Town of Two Hills to respond thoughtfully to change while staying grounded in community values. It supports informed decision-making today and positions the community to adapt confidently in the years ahead.

Key Challenges and Opportunities Facing Two Hills

Understanding the environment in which Two Hills operates is critical to setting appropriate priorities. The Strategic Plan acknowledges both the challenges the community faces and the opportunities it can build upon.

Key Challenges

- Aging municipal infrastructure that requires careful reinvestment and long-term planning
- Administrative capacity pressures, as service demands continue to grow with limited staffing resources
- Limited housing availability, including a lack of affordable housing options to support workforce attraction and retention

- Gaps in healthcare access, including challenges in attracting and retaining healthcare professionals and the absence of a local dentist
- Competition from nearby regional centres, such as St. Paul and Vegreville, for residents, businesses, and services
- Provincial fiscal uncertainty, including potential funding reductions or policy changes affecting municipalities
- Workforce attraction and retention pressures, particularly in skilled trades, healthcare, and professional services

Key Opportunities

- A strategic location at the intersection of Highways 36 and 45, supporting regional connectivity
- Available serviced land and development lots for residential, commercial, and industrial growth
- Strong potential in agriculture, manufacturing, and agri-food, building on existing strengths
- Tourism and recreation assets, including a campground, golf course, dark skies, rivers, and nearby lakes
- A young population, with approximately one-third of residents under the age of 18, supporting long-term community sustainability
- Fibre optic and high-speed internet, enabling business growth, remote work, and service delivery
- Access to provincial and federal grant programs to support infrastructure, community, and economic initiatives
- Opportunities to strengthen Indigenous, regional, and faith-based partnerships that extend capacity and impact

Overview of Strategic Priorities and Desired Outcomes

To respond to these challenges and opportunities, the Strategic Plan is organized around four integrated Focus Areas:

1. **Economic Development** – Supporting local businesses, attracting investment, and strengthening economic resilience
2. **Infrastructure** – Maintaining and optimizing municipal assets to support community needs and future growth
3. **Partnerships** – Expanding municipal capacity through collaboration with Indigenous communities, regional partners, other governments, industry, and community organizations
4. **Community Building** – Strengthening connection, inclusion, recreation, and quality of life for residents of all ages

Together, these Focus Areas support the following desired outcomes:

- A more resilient and diversified local economy
- Sustainable and well-sequenced infrastructure investments
- Expanded municipal capacity through effective partnerships and collaboration
- A connected, welcoming, and engaged community where people choose to live, work, and invest

How the Plan Will Be Used by Council and Administration

The Strategic Plan is intended to guide both governance and day-to-day decision-making within the Town of Two Hills.

Council and Administration will use the Plan to:

- Guide Council priority-setting and inform policy discussions
- Shape annual operating and capital budgets, ensuring resources align with strategic priorities
- Support grant funding applications and intergovernmental advocacy by clearly articulating community needs and goals
- Provide a framework for monitoring progress, reporting outcomes, and maintaining public accountability

By using the Strategic Plan as a consistent reference point, the Town aims to make decisions that are aligned, transparent, and focused on long-term community benefit, while remaining flexible enough to respond to changing conditions.

2. Guiding Principles

Mission / Purpose Statement

To develop strategic partnerships that attract investment in businesses and industries, and attract new families by building on Two Hills' unique advantages.

Vision Statement

A prosperous community driven by growing manufacturing and agriculture sectors, supported by quality, family-focused amenities and a strong sense of place.

Strategic Planning Assumptions

Council adopted this Strategic Plan with the understanding that:

- Municipal resources are finite and must be prioritized
- Incremental progress is meaningful and achievable
- External political and fiscal conditions may change rapidly
- Partnerships are essential to delivering outcomes at scale
- Community trust depends on follow-through and transparency

Council's Role in Setting Direction and Priorities

Council is responsible for:

- Setting strategic direction and approving priorities
- Balancing ambition with fiscal responsibility
- Aligning policy, budgets, and service delivery
- Monitoring progress and adjusting course as required

Administration is responsible for implementation, reporting, and operational execution within Council-approved direction.

3. “We Believe” Statements

Council affirms the following beliefs:

- We believe the community will grow the region.
- We believe facilities are essential to retaining and attracting people, increasing assessment and growth.
- We believe we are stronger together.
- We believe we are responsible for attracting people and business to the region.
- We believe growing business and industry increases population and taxable assessment.
- We believe strong recreation facilities enhance a healthy and vibrant community.

4. Community Profile and SWOT Analysis

4.1 Community Overview

Location and Regional Context

Two Hills is located in central Alberta, approximately 137 km east of Edmonton, at the junction of Highways 36 and 45. The Town serves as a local service centre for surrounding rural and agricultural communities.

Population and Demographics

Two Hills has an approximate population of 1,400 residents, with a notably young demographic profile — approximately one-third of residents are under the age of 18.

Community Identity and Character

Two Hills describes itself as “the perfect blend of town and country” — a fully serviced small town with strong agricultural roots, cultural diversity, and a close-knit community identity.

4.2 Services and Amenities

- **Education:** Public and Mennonite school systems
- **Healthcare:** Clinic, pharmacy, seniors centre, long-term care, Sage; challenges with healthcare professional availability

- **Recreation & Culture:** Recreation facility, golf course, campground, proximity to rivers and lakes, dark sky preserve potential
- **Utilities & Municipal Services:** Fibre optic and gig-air internet, city and well water systems, police detachment, serviced land for development

4.3 SWOT Analysis

Strengths

- A workforce with tremendous potential
- Campsite
- Public and Mennonite school systems
- Fibre optic and gig air
- Healthcare: clinic, pharmacy, senior centre, long-term care, Sage
- Police detachment
- Close proximity to river, lake, and the North Saskatchewan River
- Highway 36 and 45 traffic
- Young population – approximately one-third under age 18
- Retail services including grocery, bakery, produce, restaurants, and building supply store
- Golf course
- Eventide Homes – low-income housing for 55+
- One-hour daily commute to the city
- Dark sky preserves
- Recreation facility
- Land and lots available
- City and well water availability
- Local builders

Weaknesses

- Age of infrastructure
- Lack of regional collaboration
- Lack of housing and affordable housing
- No dentist
- Age of ice plant
- Mess on highway and within Town
- Administration over-capacity and inability to keep up with demands
- Out-of-date website
- No box stores
- Lack of clothing stores (only a second-hand store available)
- Perceived “wrong side of the river” location (northern boundary)

Opportunities

- Saddle Lake
- Affordable housing, green housing, and local house builders
- Land for sale and development
- Open to external investors
- Tourism, including ag-tourism and tourism businesses
- First biker-friendly community
- Provincial and federal grants
- Dry cleaner
- Taxi, bus service, Uber
- LRT
- Local ATV/car dealer
- Manufacturing
- Additional Indigenous relationships

- Food processing
- UAV/airport
- Country living – calm and quiet community with friendly residents
- Brand name stores
- Old railway line for tourism/ATV use

Threats

- Negative connotation of bikers in the community
- Competition from St. Paul and Vegreville
- Lack of local health professionals at the hospital
- Reliance on travelling nurses and healthcare aides
- Teachers do not live in town
- Box stores drawing retail leakage

FOCUS AREA 1: Economic Development

Goal

Strengthen the local economy by retaining and growing existing businesses, developing market-ready tourism experiences, and positioning Two Hills as an investment-ready community within targeted sectors.

Context

Economic development in Two Hills must be grounded in resilience, realism, and readiness. As a rural service centre with limited population growth potential, long-term economic stability depends less on attracting large new employers and more on protecting existing businesses, enabling incremental growth, and leveraging underutilized assets.

This Focus Area intentionally integrates Business Retention and Expansion (BRE), Tourism and Hospitality Development, and Business Attraction and Investment Readiness into a single system. Intelligence gathered through direct business engagement informs workforce development, land-use planning, infrastructure investment, tourism experience development, and partnership priorities.

The emphasis is on relationship-driven engagement, evidence-based decision-making, and disciplined execution, ensuring that Council time and municipal resources are focused where they will have the greatest impact.

Strategy 1: Implement a structured Business Retention and Expansion (BRE) program

Key Actions

- Establish and maintain a prioritized employer list using transparent criteria (employment impact, tax contribution, community reliance, supply chain role, and vulnerability/succession risk) and review it annually.
- Conduct structured, scheduled visits using standardized discussion guides that cover workforce, infrastructure/service constraints, permits/regulations, succession planning, market conditions, and expansion barriers.
- Create a clear process for issue logging, ownership assignment, escalation thresholds, and follow-up timelines, ensuring every issue has a responsible party and next step.
- Develop tailored response pathways for each business: municipal actions (permits, bylaws, infrastructure coordination), partner referrals (training providers, provincial agencies), or advocacy to external decision-makers.

Strategic Enablers

- A formal BRE framework with confidentiality protocols, contact standards, and consistent data capture to build trust and comparability year-over-year.
- Dedicated administrative capacity (staff time or contracted BRE facilitator) to ensure continuity, professionalism, and follow-through.
- A secure, easy-to-use case tracking system that supports reporting, issue resolution, and institutional memory despite staff turnover.
- Council-approved guidance on confidentiality, escalation, and advocacy so businesses receive consistent responses and Council receives the right information at the right time.

Critical Success Factors

- Consistency of outreach by the same municipal representatives to build trust and reduce “start-over” fatigue for employers.

- Visible follow-through: businesses must see that raising issues leads to action, advocacy, or clear explanations of limits.
- Alignment between Council priorities and administrative execution to prevent mixed messaging and credibility loss.

OKRs

Objective: Protect and strengthen existing businesses and local employment

- KR1: Conduct structured outreach with at least 80% of identified priority employers annually.
- KR2: Document risks, opportunities, and follow-up actions for 100% of engaged businesses.
- KR3: Maintain or increase employment levels among BRE-engaged businesses year-over-year.
- KR4: Achieve a minimum 75% satisfaction rating from participating businesses.

Strategy 2: Use business intelligence to inform workforce, land, and policy decisions

Key Actions

- Deploy annual business surveys and targeted interviews to capture operating conditions, constraints, future investment plans, and workforce needs (including seasonal patterns).
- Facilitate sector-specific and cross-sector roundtables to validate themes, identify shared solutions, and build peer-to-peer collaboration among employers.
- Analyze findings to identify recurring barriers (e.g., permitting delays, infrastructure limitations, housing/workforce availability) and prioritize those the Town can influence.
- Translate insights into clear recommendations for Council and administration—linking findings to land-use changes, infrastructure sequencing, service delivery adjustments, or advocacy priorities.

Strategic Enablers

- Access to labour market, demographic, and economic datasets plus simple tools to analyze trends and present insights clearly.
- Administrative capacity (internal or external) to synthesize information into actionable decisions rather than just collecting data.
- Cross-department processes so findings are embedded into planning, capital budgeting, and policy updates (not left as standalone reports).

Critical Success Factors

- Trust and participation: businesses must believe the Town will use information responsibly and constructively.
- Clarity of linkage between intelligence and decisions to reinforce value and sustain participation.
- Practical prioritization: focusing on a small number of barriers where municipal influence is real and outcomes can be demonstrated.

OKRs

Objective: Align municipal decisions with economic realities

- KR1: Produce an annual Economic Intelligence and BRE Insights Report with prioritized barriers and opportunities.
- KR2: Inform at least three Council policy, land-use, or investment decisions annually using BRE intelligence.
- KR3: Reduce the frequency of recurring business-reported barriers year-over-year (tracked through surveys/roundtables).

Strategy 3: Develop market-ready tourism and hospitality experiences

Key Actions

- Inventory tourism assets (natural, cultural, recreational, built, and event-based) and update annually to include emerging experiences and informal assets.
- Assess market-readiness using consistent criteria: accessibility, quality, operating hours, safety, amenities, interpretation/storytelling, digital presence, and operator capacity.

- Host experience design workshops to convert assets into packaged experiences (seasonal offers, themed itineraries, events) that match target markets and visitor motivations.
- Pilot priority experiences, collect visitor/operator feedback, and refine offerings; then align them with regional tourism promotion and partner channels.

Strategic Enablers

- Regional tourism partnerships to align Two Hills offers with broader routes, campaigns, and market intelligence.
- Local champions and operators willing to lead experience delivery and maintain quality standards.
- Modest seed funding and in-kind support (e.g., permits, signage, micro-grants) to move concepts from ideas to pilots.

Critical Success Factors

- Authenticity: experiences must reflect Two Hills' real strengths and stories rather than generic tourism offerings.
- Market realism: targeting reachable regional/provincial markets with appropriate expectations and pricing.
- Operational reliability: experiences must be consistently available, safe, and well-communicated to avoid reputational damage.

OKRs

Objective: Increase visitor stays, spending, and repeat visitation

- KR1: Identify and confirm two to three signature tourism experiences aligned with target markets.
- KR2: Advance at least three experiences to market-ready or pilot stage with defined operators and delivery plans.
- KR3: Increase visitation from targeted regional markets year-over-year (tracked via proxy metrics such as event attendance, accommodation indicators, or visitor counts where available).

Strategy 4: Strengthen business attraction and investment readiness

Key Actions

- Audit industrial and commercial lands including zoning, servicing, road access, constraints, ownership readiness, and development costs to produce an accurate readiness picture.
- Create investor packages that are sector-relevant, easy to navigate, and consistently updated (land options, utilities, taxes, labour, permitting, incentives, and community profile).
- Build standardized RFI/RFP templates and an internal workflow that clarifies responsibilities, timelines, and escalation paths for investor inquiries.
- Maintain a Council-approved incentive framework with eligibility rules, fiscal guardrails, and outcome measures tied to economic impact.

Strategic Enablers

- Coordinated internal teamwork across planning, engineering, finance, and admin to deliver consistent and accurate responses.
- Council policy clarity on incentives and decision authority to support speed and credibility.
- Centralized, current data sources so staff do not rely on outdated documents during investor engagement.

Critical Success Factors

- Speed and accuracy: investors judge readiness based on response time and the reliability of information.
- Consistent messaging across Council and administration to protect credibility.
- Alignment between attraction efforts and actual infrastructure/service capacity to avoid overpromising.

OKRs

Objective: Improve Two Hills' credibility and readiness for investment

- KR1: Complete and maintain a land and infrastructure readiness inventory with readiness tiers.

- KR2: Respond to qualified investment inquiries within five business days (tracked in workflow system).
- KR3: Generate at least one qualified investment inquiry annually and document outcomes/next steps.

FOCUS AREA 2: Infrastructure

Goal

Ensure infrastructure assets are planned, maintained, and invested in to support community well-being, economic activity, and long-term financial sustainability.

Context

Infrastructure decisions in Two Hills are long-term commitments with financial, economic, and social implications that extend well beyond a single Council term. With limited fiscal capacity, the Town must prioritize asset optimization, risk management, and lifecycle affordability.

This Focus Area treats infrastructure as a strategic enabler of economic development, community well-being, and regional relevance. Investments are guided by condition, risk, service necessity, and alignment with broader strategic priorities.

Strategy 1: Optimize above-ground transportation, utility, and placemaking assets

Key Actions

- Coordinate with ATCO and other utilities to confirm safe, accessible transmission and distribution corridors, ensuring alignment with future land-use plans and minimizing conflicts with development.
- Build and apply a transparent paving and road maintenance prioritization framework that includes condition ratings, traffic/service importance, safety risk, and lifecycle cost implications.
- Plan and implement placemaking, streetscape, and wayfinding improvements that support downtown vitality, community identity, and tourism navigation (including consistent signage standards and maintenance plans).

- Integrate above-ground investments into an annual capital work plan to coordinate timing (e.g., avoid paving before utility work) and reduce rework costs.

Strategic Enablers

- Updated asset management information: condition assessments, lifecycle forecasts, and replacement/renewal planning for roads and above-ground assets.
- Formal utility coordination mechanisms (regular coordination meetings, mapping updates, written corridor agreements) to reduce uncertainty and project delays.
- Capital planning discipline and procurement readiness to deliver projects on schedule and within budget.
- Community and business engagement processes to confirm priorities and maintain public confidence in visible investments.

Critical Success Factors

- Sequencing discipline: coordinating utilities, roads, and streetscape work to avoid “digging up new pavement” and to maximize value.
- Safety and compliance: ensuring corridors, crossings, signage, and traffic management meet standards and reduce liability.
- Visible progress: delivering tangible improvements that residents can see, reinforcing confidence in municipal stewardship.

OKRs

Objective: Improve functionality, safety, and visual quality of public spaces

- KR1: Confirm and document all major utility corridors and integrate them into planning and project coordination processes.
- KR2: Reduce the deferred road maintenance backlog annually using a condition-based prioritization system.
- KR3: Complete at least three placemaking or wayfinding initiatives with defined maintenance plans.
- KR4: Reduce avoidable rework (e.g., repaving following utility cuts) through improved sequencing and coordination.

Strategy 2: Maintain and modernize below-ground infrastructure systems

Key Actions

- Complete condition and risk assessments for underground assets, identifying failure risks, regulatory gaps, and near-term vs long-term investment needs.
- Develop a prioritized renewal plan that sequences investments based on service risk, compliance, lifecycle affordability, and opportunities to leverage grants.
- Strengthen operational practices (inspection schedules, preventative maintenance, contingency planning) to reduce failures and manage risk between capital cycles.
- Evaluate the feasibility, cost, governance models, and economic benefits of underground fibre infrastructure, including partnership options with telecom providers and alignment with business needs.

Strategic Enablers

- Engineering and technical expertise (internal, regional, or contracted) to interpret condition data and design practical solutions.
- Grant readiness capacity: shovel-ready project documentation, cost estimates, and alignment with provincial/federal funding criteria.
- Asset management systems that integrate underground condition data with capital planning and long-term financial forecasts.
- Strong emergency response and continuity planning to reduce the consequences of failures when they occur.

Critical Success Factors

- Reliability first: maintaining uninterrupted service and avoiding catastrophic failures that erode trust and create unplanned costs.
- Regulatory compliance: meeting environmental and health standards consistently to reduce risk and enforcement exposure.
- Long-term affordability: prioritizing investments that reduce lifecycle costs and stabilize future budgets rather than deferring until crisis.

OKRs

Objective: Protect core municipal services and reduce infrastructure risk

- KR1: Complete condition and risk assessments for all critical underground systems and update them on a defined cycle.
- KR2: Address top-priority deficiencies within planned timelines (as approved through capital planning).
- KR3: Reduce unplanned service disruptions year-over-year and track root causes.
- KR4: Complete a fibre feasibility assessment with partnership options and a Council-ready recommendation.

Strategy 3: Optimize community and regional infrastructure assets

Key Actions

- Prepare detailed business cases for priority assets (Town Hall, Ice Plant, Seniors' Lodge system, golf course residential development, and regional airport expansion), including demand, costs, lifecycle impacts, governance options, and revenue potential where applicable.
- Engage users, operators, and partners early to test assumptions, confirm needs, and identify operational models that support long-term viability.
- Identify opportunities for regional/provincial partnerships where assets serve broader populations (e.g., airport, seniors' supports), including cost-sharing and governance.
- Advance assets to clear Council decisions—invest, repurpose, partner, phase, or divest—supported by evidence and implementation pathways.

Strategic Enablers

- Business case and financial modeling capacity, including lifecycle costing and sensitivity analysis.
- Strong partner engagement and advocacy capacity to build coalitions and secure external support.
- Clear Council decision frameworks for evaluating major investments (public value, affordability, risk, and alignment with strategic priorities).
- Project management capability to move from decision to delivery without losing momentum.

Critical Success Factors

- Financial sustainability: avoiding assets that create long-term operational deficits without clear public value or partner support.
- Regional buy-in where regional benefit exists, reducing the burden on Two Hills taxpayers alone.
- Decision discipline: making timely, evidence-based decisions to prevent “analysis paralysis” and ongoing deterioration of assets.

OKRs

Objective: Maximize return and sustainability of community and regional assets

- KR1: Complete business cases for all identified priority assets with Council-ready options and recommendations.
- KR2: Advance at least two assets per year to clear implementation decisions (invest/partner/repurpose/divest).
- KR3: Secure external funding or partnership commitments for priority projects aligned with business cases.
- KR4: Establish operational performance measures for revenue-generating or high-cost assets (where applicable).

FOCUS AREA 3: Partnerships

Goal

Expand municipal capacity and impact through intentional, outcome-driven partnerships.

Context

Two Hills cannot achieve its strategic objectives in isolation. Partnerships with Indigenous communities, neighbouring municipalities, provincial agencies, industry, and community organizations extend municipal capacity, unlock funding, and strengthen service delivery.

This Focus Area treats partnerships as strategic assets, requiring governance, clarity, and long-term commitment rather than ad hoc collaboration.

Strategy 1: Advance Indigenous, regional, and inter-municipal partnerships

Key Actions

- Establish formal engagement protocols and regular leadership/administrative meetings to ensure continuity, clear agendas, and documented follow-up actions.
- Identify shared priorities in economic development, service delivery, and infrastructure investment where joint approaches can improve outcomes or reduce costs.
- Develop and advance joint initiatives, service agreements, or funding applications with defined roles, timelines, governance, and reporting expectations.
- Create mechanisms to resolve disputes or misalignment early (e.g., agreed escalation pathways, neutral facilitation where needed).

Strategic Enablers

- Visible Council leadership and commitment to respectful, consistent engagement.
- Dedicated coordination capacity within administration to manage meetings, documentation, and follow-through.
- Partnership templates (MOUs, shared service agreements) to reduce negotiation time and improve clarity.
- Shared measurement approach to demonstrate outcomes and maintain partner confidence.

Critical Success Factors

- Trust and continuity: partnerships must survive leadership turnover and remain stable through predictable engagement.
- Role clarity: each partner must understand responsibilities, costs, and decision authority.
- Shared benefit: initiatives must provide clear value to all parties to remain durable over time.

OKRs

Objective: Strengthen collaborative governance and shared outcomes

- KR1: Hold at least two formal partnership meetings annually with documented agendas and action logs.
- KR2: Advance at least two joint initiatives or agreements (economic, service, or infrastructure-related).
- KR3: Demonstrate measurable shared benefits (cost savings, service improvements, or funding secured) from at least one partnership annually.
- KR4: Establish a standardized partnership reporting update for Council at least annually.

Strategy 2: Build strong provincial government partnerships

Key Actions

- Maintain active working relationships with relevant provincial ministries and agencies by identifying key contacts, regular touchpoints, and priority alignment opportunities.
- Align municipal priorities with provincial policy objectives and funding programs by translating projects into provincial “language” (outcomes, metrics, and policy fit).
- Coordinate advocacy supported by strong business cases, data, and regional coalition-building to increase credibility and impact.
- Track provincial engagement efforts and outcomes (meetings, submissions, approvals, feedback) to build institutional memory and improve effectiveness over time.

Strategic Enablers

- Council-supported advocacy strategy with clear priorities, messaging, and target ministries/agencies.
- Grant readiness and policy alignment capacity (project scoping, cost estimates, required studies, and outcome articulation).
- Regional partner alignment to demonstrate scale and shared benefit where appropriate.
- Internal tracking tools to ensure engagement is consistent and not person-dependent.

Critical Success Factors

- Consistency and professionalism: provincial partners must see Two Hills as prepared, clear, and reliable.
- Policy alignment: projects framed around provincial priorities are more likely to be supported.
- Strong business cases: credible evidence of need, outcomes, and deliverability is essential for approvals and funding.

OKRs

Objective: Increase provincial support for municipal priorities

- KR1: Engage at least three relevant provincial ministries/agencies annually with documented objectives and follow-up actions.
- KR2: Submit at least three provincial funding or partnership applications annually aligned with Council priorities.
- KR3: Secure provincial funding, approvals, or program support for at least one priority initiative annually.
- KR4: Maintain a provincial engagement tracker with outcomes and next steps reported to Council annually.

Strategy 3: Strengthen industry, workforce, and community organization partnerships

Key Actions

- Formalize partnerships with employers, training providers, faith-based organizations, and community groups to expand workforce capacity, services, and community programming.
- Align workforce initiatives with BRE intelligence (skills gaps, recruitment challenges, succession risks) and design practical responses (training, placements, shared recruitment).
- Create partnership agreements that clarify roles, resources, governance, data sharing, and evaluation expectations to ensure accountability.

- Coordinate service delivery and community programming to reduce duplication, improve reach, and strengthen inclusion across groups.

Strategic Enablers

- BRE intelligence and employer insights to ensure partnerships address real needs and opportunities.
- Strong networks and convening capacity to bring organizations together and maintain collaboration momentum.
- Simple partnership governance tools (templates, performance measures, meeting cadence) to reduce administrative burden.
- Communications support to promote programs, increase participation, and build community awareness.

Critical Success Factors

- Mutual accountability: partnerships must have clear deliverables and follow-through, not informal intentions only.
- Resource realism: initiatives must match available capacity and avoid overextension of volunteers and staff.
- Community trust: partnerships must be inclusive and seen as serving the whole community, not narrow interests.

OKRs

Objective: Expand service and workforce capacity through partnerships

- KR1: Formalize at least three partnership agreements with defined objectives and roles.
- KR2: Launch at least two joint initiatives annually (workforce, service delivery, or community programming).
- KR3: Demonstrate improved outcomes from at least one partnership annually (e.g., training participation, service reach, employer satisfaction).
- KR4: Conduct an annual partner feedback review to improve partnership performance.

FOCUS AREA 4: Community Building

Goal

Strengthen community connection, inclusion, pride, and quality of life for residents of all ages and backgrounds.

Context

A strong, connected community underpins economic resilience, volunteer sustainability, and population retention. In Two Hills, community building must be inclusive, intergenerational, and culturally respectful, ensuring residents feel valued, engaged, and supported at every life stage.

This Focus Area strengthens the social fabric by investing in volunteer leadership, recreation and cultural participation, inclusion and welcoming initiatives, and coordinated supports for families, youth, seniors, and newcomers.

Strategy 1: Strengthen volunteerism and civic engagement

Key Actions

- Develop leadership pathways for new volunteers, including mentorship, role clarity, and progressive responsibility to build the next generation of community leaders.
- Support succession planning for key community organizations by helping identify priority roles, developing transition plans, and documenting essential processes.
- Establish a volunteer recruitment and matching approach, using community events and communications channels to connect residents to meaningful opportunities.
- Implement recognition and appreciation initiatives that reinforce value, reduce burnout, and retain volunteers over time.

Strategic Enablers

- Volunteer coordination capacity (municipal or partner-based) to support recruitment, onboarding, and communication.
- Leadership development programming (local workshops, regional resources) to improve volunteer confidence and effectiveness.
- Recognition tools and practices (annual events, awards, communications) embedded into municipal culture.

- Partnerships with schools, clubs, and community groups to attract younger and new volunteers.

Critical Success Factors

- Sustainability: ensuring volunteer roles are manageable, well-supported, and not dependent on a small number of individuals.
- Inclusion: making volunteering accessible to youth, newcomers, working families, and seniors through flexible roles and clear onboarding.
- Recognition: consistent appreciation that reinforces commitment and reduces burnout.

OKRs

Objective: Build a sustainable and renewing volunteer base

- KR1: Engage at least 20 new volunteers annually, with a focus on next-generation participation.
- KR2: Support succession plans for at least five key organizations or roles annually.
- KR3: Improve volunteer retention year-over-year (tracked through organization feedback).
- KR4: Reduce reported burnout indicators in priority volunteer organizations annually.

Strategy 2: Support recreation, culture, sport, and interfaith initiatives

Key Actions

- Support inclusive recreational, cultural, and sporting programming that serves multiple age groups and reduces barriers to participation (cost, transportation, awareness).
- Coordinate facility access and scheduling to increase utilization and reduce conflicts, ensuring community groups can plan effectively.
- Facilitate interfaith collaboration and shared community initiatives that build cohesion and reinforce Two Hills as a welcoming community for diverse traditions.
- Encourage signature community events and cultural offerings that strengthen pride, attract visitors, and support local business activity.

Strategic Enablers

- Facility access and scheduling systems that are transparent and predictable for community users.
- Partnerships with clubs, schools, faith groups, and cultural organizations to broaden program delivery capacity.
- Small-scale funding support mechanisms (grants, sponsorship coordination) to enable events and programming.
- Communications capacity to promote programs and events consistently, increasing participation and community awareness.

Critical Success Factors

- Broad participation: programs must be designed for inclusion across age, income, and cultural groups.
- Community ownership: local leaders and organizations must be empowered to deliver and sustain initiatives.
- Consistency and quality: reliable programming builds trust and repeat participation over time.

OKRs

Objective: Increase participation and strengthen community cohesion

- KR1: Support at least five community events or recreation/culture initiatives annually.
- KR2: Increase participation levels year-over-year across multiple age groups (tracked via registrations/attendance).
- KR3: Deliver at least two interfaith or cross-community initiatives annually.
- KR4: Improve community satisfaction with recreation and cultural offerings (tracked via annual feedback).

Strategy 3: Enhance family, youth, senior, and newcomer supports

Key Actions

- Conduct regular community needs assessments to identify service gaps across life stages, including barriers to access and opportunities for partnership delivery.

- Support aging-in-place initiatives by coordinating with seniors' service providers, improving access to programs, and aligning infrastructure decisions with senior needs.
- Strengthen youth and family supports by partnering with schools and community organizations to improve programming, engagement, and safe spaces.
- Implement welcoming and newcomer integration initiatives that help residents connect to services, volunteering, and community life quickly and positively.

Strategic Enablers

- Regional service delivery partnerships (health, social services, education, seniors' supports) to extend local capacity.
- Community ambassador and welcoming structures to help integrate newcomers and reduce isolation.
- Data and feedback systems to ensure programming remains relevant and responsive.
- Transportation and accessibility considerations embedded into service planning to reduce rural barriers.

Critical Success Factors

- Accessibility: services must be reachable, understandable, and welcoming—especially for seniors, youth, and newcomers.
- Coordination: success depends on alignment between providers and avoiding duplication or gaps.
- Trust and inclusion: residents must feel supported without stigma or barriers to participation.

OKRs

Objective: Improve quality of life across life stages and strengthen belonging

- KR1: Complete a community needs assessment and update it on a defined cycle.
- KR2: Address at least three identified priority service gaps through programs, partnerships, or referrals annually.
- KR3: Implement a welcoming/newcomer initiative and track participation and satisfaction annually.

- KR4: Increase participation in youth, family, and senior programs year-over-year (tracked through partners where applicable).

Supporting Population Growth and Retention

Population stability and growth are essential to the long-term sustainability of the Town of Two Hills. A stable and growing population supports local businesses, strengthens the municipal tax base, sustains schools and services, and helps justify continued investment in infrastructure and amenities.

Rather than treating population growth as a separate initiative, the Strategic Plan approaches attraction and retention as a shared outcome across all four Focus Areas. Housing availability, access to services, community belonging, and clear communication all influence whether people choose to stay, return, or move to Two Hills.

This section outlines how the Town will apply a population growth lens across Economic Development, Infrastructure, Partnerships, and Community Building—focusing on removing barriers to living in Two Hills and reinforcing the community’s strengths.

Housing Development

Housing availability is one of the most significant factors influencing population growth, workforce attraction, and economic resilience. While housing development is influenced by market conditions beyond municipal control, the Town plays an important role in creating a supportive environment for development.

This Strategic Plan recognizes the need for a range of housing options, including market housing, rental units, affordable housing, and seniors housing, to meet the needs of families, workers, and older adults.

How the Town Will Support Housing Outcomes

- Where appropriate, the Town will seek to access and stack provincial and federal funding programs that support housing development and infrastructure readiness
- Efforts will focus on understanding housing gaps and aligning municipal actions with community and workforce needs
- The Town will continue to build and maintain relationships with developers, builders, and housing providers to better understand feasibility and market interest

- Tax incentives and policy tools may be used strategically, where appropriate, to support desired housing outcomes

These efforts complement existing infrastructure planning and economic development work, without duplicating those initiatives.

Access to Healthcare

Access to healthcare services is a key consideration for residents at all life stages and an important factor in decisions about where to live. Maintaining confidence in local healthcare availability supports population retention and aging in place.

While healthcare delivery is not a municipal responsibility, the Town has a role in supporting relationships, advocacy, and local stability.

How the Town Will Support Healthcare Access

- The Town will continue to maintain the current healthcare professional incentive program
- Ongoing relationships with the hospital and healthcare partners will be maintained to remain informed of local needs and pressures
- Where appropriate, the Town will support regional and provincial advocacy efforts that strengthen healthcare service stability

These actions align with broader partnership and community well-being priorities already identified in the Strategic Plan.

Community Integration for Newcomers

Attracting new residents is only part of population growth; successful integration and a sense of belonging are essential for long-term retention. Communities that are welcoming and inclusive are more likely to retain newcomers and benefit from community diversity.

This Strategic Plan recognizes the importance of creating opportunities for connection, participation, and shared experiences.

How the Town Will Support Integration

- The Town will continue to encourage community events and activities that support connection through culture, food, and shared experiences, including participation in initiatives such as Culture Days
- The Town will explore whether a “Welcome Wagon”–type program currently exists and whether a refreshed or alternative approach could support newcomer integration
- Continued support will be provided to the FCSS Newcomer Program, recognizing its role in helping residents settle and connect

These efforts build on existing community-building initiatives rather than creating new parallel programs.

Marketing and Attraction

Many potential residents are not aware of the amenities, services, and lifestyle offered by Two Hills. Clear, accurate, and consistent communication helps ensure the community is well-positioned when people are considering relocation.

Marketing efforts are most effective when they are targeted, realistic, and aligned with community strengths, rather than broad or unfocused.

How the Town Will Support Attraction

- Existing tax incentives and housing-related opportunities will continue to be communicated clearly
- Community amenities, recreation, services, and quality-of-life advantages will be highlighted through existing communication channels
- The Town will consider whether a targeted advertising approach could support attraction goals for specific groups, such as workers, families, or retirees

These activities complement existing economic development and community promotion efforts.

How This Lens Supports the Strategic Plan

Applying a population growth and retention lens across all four Focus Areas helps ensure that:

- Economic development efforts support workforce needs
- Infrastructure investments align with housing and service demand
- Partnerships extend capacity in housing, healthcare, and integration
- Community building initiatives strengthen belonging and quality of life

By embedding population considerations throughout the Strategic Plan, the Town of Two Hills reinforces its commitment to being a welcoming, sustainable, and resilient community—without duplicating or fragmenting effort.

Building a Strategic Plan Ecosystem

Why an Ecosystem Approach Is Needed

The Town of Two Hills Strategic Plan sets the overall direction and priorities for the community. However, many of the Plan’s goals—particularly those related to economic development, infrastructure investment, partnerships, and community well-being—require more detailed planning and coordination to move from vision to action.

To support effective implementation, the Strategic Plan is intended to be supported by a Strategic Plan Ecosystem. This ecosystem consists of a small number of supporting strategies and action plans that provide additional detail, sequencing, and guidance for specific priority areas.

Rather than attempting to include all operational detail in one document, this approach allows the Town to:

- Keep the Strategic Plan focused, accessible, and easy to understand
- Develop supporting plans only where and when they are needed
- Adjust individual strategies over time without reopening the entire Strategic Plan
- Align resources and capacity with the most pressing initiatives

Together, the Strategic Plan and its supporting documents form a connected system that guides decision-making, implementation, and accountability.

How the Strategic Plan Ecosystem Works

The Strategic Plan provides the “what” and “why”—the community’s priorities and desired outcomes.

Supporting plans provide the “how” and “when”—practical steps, timelines, partnerships, and tools.

Each supporting plan:

- Aligns clearly with one or more Focus Areas
- Is scoped to the Town’s capacity and readiness
- Can be updated independently as conditions change
- Supports Council and Administration in advancing key initiatives in a coordinated way

Not every Focus Area requires all supporting plans at once. Plans are developed as needed, based on opportunity, funding availability, and Council priorities.

Examples of Strategic Plan Ecosystem Components

The following are examples of supporting plans that may form part of the Strategic Plan Ecosystem for Two Hills. These examples illustrate how implementation can be guided without duplicating the Strategic Plan itself.

Government Relations (GR) Plan

Purpose

A Government Relations Plan helps the Town focus its engagement and advocacy with provincial and federal governments in a coordinated and strategic way.

What It Would Include

- Clear identification of Two Hills’ top advocacy priorities (e.g., infrastructure funding, healthcare stability, housing support)
- Alignment with provincial and federal policy priorities and funding programs
- Roles for Council and Administration in advocacy and relationship-building
- Timing and sequencing of engagement tied to budget cycles and grant windows

How It Supports the Strategic Plan

- Strengthens Partnerships by clarifying where and how the Town engages other governments
- Supports Infrastructure and Community priorities by improving access to funding and approvals

Economic Development Implementation Plan

Purpose

This plan would translate the Economic Development Focus Area into prioritized actions and timelines.

What It Would Include

- Business retention and expansion activities
- Tourism development sequencing
- Investment readiness actions
- Roles for partners, businesses, and regional organizations

How It Supports the Strategic Plan

- Provides clarity on near-term and longer-term economic actions
- Ensures economic development efforts are realistic and coordinated

Housing and Population Growth Action Plan

Purpose

This plan would focus on housing availability and population-related initiatives that support attraction and retention.

What It Would Include

- Housing needs and gaps
- Funding opportunities and partnerships
- Developer engagement approaches
- Links between housing, workforce needs, and services

TWO HILLS STRATEGIC PLAN DRAFT|

How It Supports the Strategic Plan

- Reinforces population growth outcomes across multiple Focus Areas
- Helps coordinate housing-related efforts without duplicating infrastructure planning

Infrastructure and Asset Management Plan

Purpose

This plan would guide the sequencing and prioritization of infrastructure investments.

What It Would Include

- Asset condition and lifecycle considerations
- Capital prioritization and phasing
- Risk management and funding strategies

How It Supports the Strategic Plan

- Ensures infrastructure decisions align with long-term community priorities
- Supports fiscal sustainability and service reliability

Community Well-Being and Inclusion Plan

Purpose

This plan would support initiatives related to recreation, culture, volunteerism, inclusion, and newcomer integration.

What It Would Include

- Community engagement and participation initiatives
- Support for volunteers and community organizations
- Newcomer and inclusion-related activities

How It Supports the Strategic Plan

- Strengthens community connection and quality of life
- Supports retention by fostering belonging and engagement

Using the Ecosystem to Guide Implementation

Together, these supporting plans:

- Help translate strategy into action
- Provide clarity without overcomplicating the Strategic Plan
- Allow the Town to respond to funding opportunities and emerging needs
- Support continuity across Council terms

The Strategic Plan Ecosystem approach ensures that Two Hills can move forward intentionally, focusing effort where it matters most while remaining flexible and responsive to change.

7. Governance

Overview

The success of the Two Hills Strategic Plan depends on how Council, Administration, and the community work together. Governance in Two Hills is grounded in respect, shared understanding, and clear communication, with everyone playing a role in moving the community forward.

This Strategic Plan provides a common reference point to help guide decisions, clarify responsibilities, and support thoughtful, consistent action over time.

Council's Strategic Leadership Role

Town Council provides leadership by setting priorities and guiding the overall direction of the community, based on the values and needs of residents. Council's role is focused on the *bigger picture*—helping ensure that decisions support the long-term health and sustainability of Two Hills.

Council may:

- Provide direction through the Strategic Plan and Focus Areas
- Consider priorities and confirm areas of focus each year
- Make policy and budget decisions informed by the Plan
- Review progress and discuss adjustments as needed
- Represent Two Hills in discussions with other governments and partners

Council's involvement is intended to support outcomes rather than manage day-to-day activities.

What This Looks Like in Practice

Council discussions are expected to focus on:

- Whether actions align with community priorities
- How resources are being used
- What progress is being made over time

This approach helps maintain clarity while allowing flexibility.

Administration's Role in Supporting Implementation

Administration plays an important role in bringing Council's priorities to life. This includes coordinating projects, managing services, and working with partners in ways that reflect the direction set by Council.

Administration may:

- Develop work plans based on Council priorities
- Manage resources, schedules, and day-to-day operations
- Coordinate with partners and service providers
- Identify potential challenges and share them with Council
- Provide updates on progress and outcomes

This shared approach allows Administration to respond to changing conditions while staying aligned with Council's direction.

What This Means for the Community

Residents can expect:

- Ongoing communication about progress
- Realistic timelines and explanations when plans change
- Continued focus on service quality and community needs

Aligning the Strategic Plan with Policies, Bylaws, and Budgets

The Strategic Plan is intended to inform other municipal decisions over time. When new policies, bylaws, or budget decisions are considered, the Plan provides helpful context and direction.

The Town will strive to:

- Reflect Strategic Plan priorities in annual budgets
- Consider how new bylaws and policies support long-term goals
- Align major capital projects with community priorities

In Practice

When decisions come forward, Council and Administration may ask:

- How does this support the Strategic Plan?
- What are the long-term implications?
- Are there opportunities to align or adjust?

This helps maintain consistency while remaining flexible.

Decision-Making Considerations

To support thoughtful and balanced decisions, Council and Administration aim to consider:

- Alignment with community priorities
- Long-term financial impacts
- Available capacity and resources
- Information and local knowledge
- Impacts on different groups within the community
- Opportunities to work with regional or other partners

These considerations help guide discussion rather than prescribe outcomes.

8. Monitoring and Accountability

Keeping Track of Progress

Monitoring progress helps ensure the Strategic Plan remains relevant and useful over time. The Town of Two Hills intends to track progress in a way that is clear, practical, and appropriate for the community's size and capacity.

The focus is on learning, adjustment, and transparency—not on rigid measurement.

How Progress Is Reviewed

Progress is reviewed using a small number of meaningful indicators connected to each Focus Area. These indicators help show:

- What is moving forward
- Where challenges are emerging
- When priorities may need to be revisited

Measures are selected to be understandable and manageable.

What This Means for Residents

Residents will be able to see:

- How the Town is progressing toward its goals
- Why some initiatives take more time than others
- How feedback and changing conditions are considered

Reporting and Updates

Ongoing (Internal)

- Administration keeps track of progress and workload
- Adjustments are made as needed

Periodic (Council)

- Council receives updates that highlight key themes, progress, and challenges

Annual (Public)

- A summary of progress is shared with the community
- Achievements and lessons learned are highlighted

Reports are intended to be clear and concise, focusing on what matters most.

Public Transparency and Engagement

The Town values openness and clear communication. Updates may be shared through:

- Council meetings
- The Town website
- Public presentations or community conversations

When changes occur, the Town aims to explain:

- What has changed
- Why the change occurred
- What the next steps may be

Reviewing and Updating the Plan

The Strategic Plan is designed to provide stability while allowing for change. Over time, Council and Administration may:

- Reflect on priorities during annual planning
- Adjust timelines or sequencing as conditions change
- Review the Plan following municipal elections

This approach supports continuity while remaining responsive to the community.

Conclusion


Two Hills has always been a community that gets things done—through hard work, strong relationships, and a clear sense of pride in place. This refreshed Strategic Plan builds on

that foundation. It acknowledges the realities we face today—capacity pressures, infrastructure needs, housing and workforce challenges, and a changing regional and provincial environment—while also recognizing the real advantages that make Two Hills a place people choose to live, work, and invest.

This Plan is both a shared direction and a practical roadmap. It brings Council, Administration, residents, businesses, and partners onto the same page, so that day-to-day decisions and long-term investments reinforce one another. It also positions Two Hills to take advantage of opportunities as they arise—whether through partnerships, grants, investment interest, or community-led initiatives—without losing focus on what matters most.

Most importantly, this Plan reflects the community’s belief that Two Hills can shape its future. By working steadily across Economic Development, Infrastructure, Partnerships, and Community Building—while keeping a clear lens on population growth and retention—Two Hills is choosing to move forward with confidence, clarity, and momentum.

The next chapter for Two Hills is not about doing everything at once. It’s about doing the right things, in the right order, together—and building a community that remains welcoming, resilient, and proud for generations to come.

<p style="text-align: center;">TOWN OF TWO HILLS COUNCIL MEETING AGENDA ITEM</p> <p style="text-align: right;"></p>					
Meeting Date: February 10, 2026		Confidential:	Yes	No	
Topic: Borrowing Bylaw – Credit Card					
Originated By: A. Kozakiewicz			Title:	CAO	
BACKGROUND:		Separate Credit Card Borrowing from LOC Borrowing Bylaw			
Currently Credit Card Borrowing is contained within the Line of Credit Borrowing Bylaw.					
DOCUMENTATION ATTACHED:					
New Bylaw # 2026-62 Borrowing Bylaw – Credit Card					
DISCUSSION:					
Resolution to remove the Credit Card off the Line of Credit Bylaw and establish its own Bylaw.					
COMMUNICATION PLAN/COMMUNITY INVOLVEMENT:					
Eliminates confusion with the current Borrowing Bylaw and establishes the Credit Card as its own entity. When the Borrowing Bylaw is adjusted it does not affect the Credit Card.					
RECOMMENDED ACTION(S):					
<p>MOVED by _____ that Bylaw No. 2026-1062 be given a first reading this 10th day of February 2026.</p> <p>MOVED by _____ that Bylaw No. 2026-1062 be given a second reading this 10th day of February 2026.</p> <p>MOVED by _____ that Bylaw No. 2026-1062 be given unanimous consent for a third and final reading this 10th day of February 2026.</p> <p>MOVED by _____ that Bylaw No. 2026-1062 be given a third and final reading this 10th day of February 2026.</p>					
DISTRIBUTION: Council: X					



**BYLAW NO. 2026-1062
of the
TOWN OF TWO HILLS**

A BYLAW OF THE TOWN OF TWO HILLS IN THE PROVINCE OF ALBERTA TO AUTHORIZE BORROWING FOR A **CREDIT CARD** FOR THE PURPOSE OF FINANCING OPERATING EXPENDITURES.

WHEREAS Sec. 251 of the Municipal Government Act (MGA) provides that a municipality may only make a borrowing bylaw if the borrowing is authorized by a borrowing bylaw;

AND WHEREAS Sec. 256 of the MGA provides that a municipality may make a borrowing BYLAW for the purpose of financing operating expenditures of the municipality provided that the amount to be borrowed, together with the unpaid principal of other borrowings made for the purpose of financing operating expenditures, must not exceed the amount the municipality estimates will be raised in taxes in the year the borrowing is made;

AND WHEREAS Sec. 256 of the MGA further provides that a borrowing bylaw does not have to be advertised if the term of the borrowing does not exceed three years;

AND WHEREAS the council of the Town of Two Hills (Municipality) deems it advisable to borrow to meet the operating expenditure of the Municipality until such a time as the current taxes levied or to be levied are collected;

AND WHEREAS the amount of any existing debt of the Municipality including this **credit card** of which not part shall be in arrears, and the total amount to be borrowed, together with the unpaid principal of other borrowings made for the purpose of financing operating expenditures, must not exceed the amount the municipality estimates to be raised in taxes or its debt limit.

NOW THEREFORE under the authority of the Municipal Government Act RSA 2000, Chapter M-26, the council of the Town of Two Hills in the Province of Alberta, duly assembled enacts as follows:

PART 1 - DEFINITIONS AND INTERPRETATION

Short Title

1. This Bylaw may be cited as the "**Borrowing Bylaw - Credit Card**"





BYLAW NO. 2026-1062 of the TOWN OF TWO HILLS

Definitions

2. In this Bylaw, words have meanings set out in the MGA, except that:
 - a. "MGA" means the Municipal Government Act, RSA 2000, Chapter M-26;
 - b. "Chief **Administrative** Officer" means the chief **administrative** officer for the Town of Two Hills;
 - c. "Chief Finance Officer" means the municipal finance officer for the Town of Two Hills;
 - d. "Mayor" means the chief elected official of the Town of Two Hills;
 - e. "Deputy Mayor" means the appointed chief elected official to act on the mayor's behalf in their absence;
 - f. "Municipality" means the municipal corporation of the Town of Two Hills;
 - g. "ATB Financial" means Alberta Treasury Branches.

Rules for Interpretation

3. Reference in this Bylaw to a statute, regulation or other Bylaw refer to the current laws at the time this Bylaw was enacted and as they are amended from time to time, including successor legislation.
4. Headings and sub-headings in the Bylaw are included for convenience only and shall not be considered in interpreting the substantive content of this Bylaw.
5. The preamble paragraphs that go before the numbered paragraphs of this Bylaw are an integral and necessary part of this Bylaw and not a mere recital.

PART 2 - BORROWING AUTHORIZATION

Credit Card

6. The Town of Two Hills may access **Credit Card services** from ATB Financial from time to time, **to allow for purchases when a credit card is required. The Credit Card balance is paid monthly from service fees and taxes collected,** provided that the principal sum owed to ATB Financial at one time shall not exceed the **Credit Limit of \$15,000.00 (Fifteen Thousand Dollars).**
7. All sums borrowed under this Bylaw shall be borrowed on the general credit and security of the Town of Two Hills.
8. The Chief **Administrative** Officer or the Chief Finance Officer and the Mayor or Deputy





**BYLAW NO. 2026-1062
of the
TOWN OF TWO HILLS**

Mayor of the Town of Two Hills are hereby authorized to:

- a) apply to ATB Financial and obtain a **Credit Card** with a credit limit not to exceed the maximum amount this Bylaw authorizes may be borrowed; and
- b) execute on behalf of the Municipality promissory notes and other negotiable instruments or other evidence of indebtedness for the **Credit Card** as ATB Financial may require as evidence of and security for all sums borrowed.

Interest Rate, Terms and Terms of Repayment

9. All sums borrowed under this Bylaw are repayable on demand at a rate of interest per annum established by ATB, not to exceed 6.45%, and such interest will be calculated daily and due and **payable each month on or around the 15th with a monthly statement provided.**
10. All sums borrowed under the Bylaw, including principal and interest, shall be due and payable **each month.**

Repayment Source

11. Revenue derived from the collection of municipal taxes levied and **service fees collected** will be used to repay the principal borrowed and any interest owing under the Bylaw.

Severability

12. Every provision of this Bylaw is independent of all other provisions, and it is the intention of the Council that if any provision of this Bylaw is declared invalid by a court of competent jurisdiction, all other provisions of the Bylaw shall remain valid and enforceable.

Effective Date

13. This Bylaw comes into effect when it has received third and final reading by unanimous consent of all members of Council present.

Bylaw No. 2026-1062 be given a first reading this 10th day of February 2026.





**BYLAW NO. 2026-1062
of the
TOWN OF TWO HILLS**

Bylaw No. 2026-1062 be given a second reading this 10th day of February 2026.

Bylaw No. 2026-1062 be given unanimous consent for a third and final reading this 10th day of February 2026.


Bylaw No. 2026-1062 be given a third and final reading this 10th day of February 2026.

TOWN OF TWO HILLS

CODY DYCK
DEPUTY MAYOR

ADAM KOZAKIEWICZ
CHIEF ADMINISTRATIVE OFFICER



TOWN OF TWO HILLS COUNCIL MEETING AGENDA ITEM						
Meeting Date: February 10, 2026	Confidential:	Yes		No	X	
Topic: Invite Minister to CFEP & MCCAC Project Unveiling						
Originated By: A. Kozakiewicz			Title:	CAO		
BACKGROUND:						
<p>Review Email Correspondence attached, MLA Hon. Jackie Armstrong-Homeniuk invited to the Town of Two Hills for the Unveiling of completed Electric Vehicle Charging Program (EVCP), Solar Energy and Ice Plant Facility procured under a variety of grants funded from Federal and Provincial sources through Municipal Climate Change Action Centre(MCCAC).</p>						
DOCUMENTATION ATTACHED:						
<p>Email from Hon. Jackie Armstrong-Homeniuk holding the date of March 3, 2026 as available for her to meet with Council and the unveiling.</p>						
DISCUSSION:						
<p>Discuss which Honorable Guests, Delegates, Community Groups and Partners should be included in the Invitation to attend the unveiling on March 3rd, 2026.</p>						
COMMUNICATION PLAN/COMMUNITY INVOLVEMENT:						
<p>Formally Invite Council to the Unveiling Celebration.</p>						
RECOMMENDED ACTION(S):						
<p>_____ Move to Invite Hon. Jackie Armstrong-Homeniuk to meet with Council on March 3, 2026 and assist with the unveiling of the Projects completed in the Town of Two Hills sourced through the Municipal Climate Change Action Centre (MCCAC) which includes the Electric Vehicle Charging Program, Solar Generation Plant and the Ice Plant.</p>						
DISTRIBUTION:						
Council: X						

Add to agenda for confirmation of the CFEP and MCCAC project unveiling with Minister invite

Adam Kozakiewicz
-CAO

office: 780-657-3395

From: Fort Saskatchewan-Vegreville <FortSaskatchewan.Vegreville@assembly.ab.ca>

Sent: February 4, 2026 8:58 AM

To: Adam Kozakiewicz <cao@townoftwohills.com>

Subject: Hon. Jackie's availability for March

Importance: High

Good morning Adam,

As per the conversation on Fri. Jan. 30th, I have checked Hon. Jackie's schedule, and she is available to come to Two Hills on Tues. Mar. 3.

I currently have a hold in her calendar for this day. Please let me know once confirmed, if this day will work, as I will need more details prior to Mar. 3rd.

Feel free to call me at
780 632 6840 or my cell (780 632 9810)


Regards,

Sharon Lencewich

Constituency Assistant - Fort Saskatchewan-Vegreville

[780.632.6840](tel:780.632.6840) / jackie-armstrong-homeniuk.com

4927 51 Ave, Vegreville AB T9C 1M1

TOWN OF TWO HILLS COUNCIL MEETING AGENDA ITEM						
Meeting Date: February 10, 2026	Confidential:	Yes		No	X	
Topic: Amend Motion #2025-356 to Correct						
Originated By: Adam Kozakiewicz			Title:	CAO		
BACKGROUND:	Motion from Nov 25 th Council Meeting to be Added					
Error occurred and motion was missed. This motion is needed to satisfy the needs of the Alberta Community Partnership Grant in support of the Regional General Municipal Service Standards.						
DOCUMENTATION ATTACHED:						
Original email not received in time for the Nov 25 th Meeting Minutes outlining the requirement for the grant.						
DISCUSSION:						
COMMUNICATION PLAN/COMMUNITY INVOLVEMENT:						
RECOMMENDED ACTION(S):						
MOVED by _____ to partner with the County of Two Hills and the Village of Myrnam to apply for the 2025/26 Alberta Community Partnership-grant in support of the Regional General Municipal Services Standards (GMSS), with the managing partner being the County of Two Hills. There is no matching contribution required.						
DISTRIBUTION:	Council: X					

From: Sally Dary

Sent: November 26, 2025 11:38 AM

To: 12345skitz@gmail.com

Cc: Adam Kozakiewicz <cao@townoftwohills.com>; Elsie Kiziak <cao@myrnam.ca>; Lola Ellingham <lellingham@thcounty.ab.ca>

Subject: GMSS


Good Morning,

It was resolved, that the County of Two Hills apply for the Alberta Community Partnership (ACP) grant for a Regional General Municipal Services Standards (GMSS) within the County of Two Hills, with support from the Town of Two Hills and Village of Myrnam.

The purpose of General Municipal Servicing Standards (GMSS) is provision of formal guidelines that municipalities use to ensure that all new development and upgrades to existing infrastructure are designed and built to a consistent, safe, and high-quality standard. This would support long term sustainability and create predictable expectations for developers, engineers and municipal staff.

GMSS documents are fairly standard across different municipalities and since the County has several hamlets, this document would serve well for urban municipalities within County boundaries.

County resolution R-130681 will be rescinded, as the Village of Myrnam is applying for the Regional Infrastructure Master Plan.

TOWN OF TWO HILLS COUNCIL MEETING AGENDA ITEM							
Meeting Date: February 10, 2026		Confidential:		Yes		No	X
Topic: Two Hills RCMP Detachment New Community Priorities Plan							
Originated By: A. Kozakiewicz				Title:	CAO		
BACKGROUND:							
DOCUMENTATION ATTACHED:							
<p>Letter from RCMP CPL. Kevin Nichols, Two Hills RCMP Detachment outlines their new Community Priorities Plan. (CPP)</p> <p>Letter from 2025 which discusses the priorities for Policing and Community Safety in a previous correspondence.</p>							
DISCUSSION:							
<p>Participation is requested from the Town of Two Hills RCMP Detachment that Community Partners, including Council meet with the RCMP to discuss what priorities the Police Service should place their focus.</p>							
COMMUNICATION PLAN/COMMUNITY INVOLVEMENT:							
RECOMMENDED ACTION(S):							
<p>_____ Moves to set up a meeting with RCMP to develop a plan to ensure the Town of Two Hills priorities for Policing and Community Safety are communicated to the RCMP within the framework of their new Community Priorities Plan (CPP) Program.</p>							
DISTRIBUTION:		Council: X					

Community Priorities Plan Leadership Invitation Letter

February 3, 2026

Dear CAO, Adam KOZAKIEWICZ,

As Alberta's provincial police service, the RCMP is continually working to modernize and strengthen the way we partner with communities to address local public safety needs. This letter is being shared to provide early awareness of an upcoming change to the community priority planning process and to support timely engagement with local leadership ahead of the next planning cycle.

Beginning in February 2026, Alberta RCMP detachments will be transitioning to a new Community Priorities Plan (CPP) for the 2026–2027 cycle. This updated approach replaces the previous Annual Performance Plan (APP) and is intended to serve as the primary framework for identifying and tracking policing priorities at the community level.

The CPP is intentionally community-led. It was developed to strengthen collaboration with municipal and Indigenous leadership and to ensure that the priorities of your police service are directly informed by the communities we serve. The CPP is designed to support meaningful dialogue, shared understanding, and clear, achievable priorities that reflect local realities.

This early communication is intended to allow community leaders sufficient time to begin considering local priorities and engaging with constituents before formal planning begins.

Community Priorities Plan Overview

Step One: Preparation and Consultation (February 2026)

Community leaders consult with their constituents in advance of meeting with the RCMP to gather ideas, concerns, and objectives related to community safety. This initial consultation is the first of two points of engagement and is an important step in ensuring that policing priorities are built with the community, not for the community.

Should community leaders wish to involve their Detachment Commander in these early community discussions, requests can be made directly to the detachment and support will be provided.

The purpose of this stage is to develop a clear understanding of community-specific concerns and objectives to inform upcoming discussions.

Step Two: Engagement Meeting (March 2026)

An engagement meeting is held between community representatives and the Detachment Commander. This meeting provides an opportunity for community representatives to share feedback gathered during consultations and to discuss community perspectives openly.

All relevant concerns, ideas, and objectives are welcome for discussion at this stage. These conversations help build a shared understanding between the community and the detachment and support alignment as priorities begin to take shape.

Following this initial engagement meeting, the Detachment Commander will take the identified community priorities and meet with their leadership team to develop an operational plan outlining how the RCMP will work to deliver on those priorities.

Step Three: Finalizing Priorities

A subsequent meeting will be held between community representatives and the Detachment Commander where possible, during which the proposed plan will be presented to the community for review. This meeting will provide an opportunity for community leaders to offer feedback, seek clarification, and confirm alignment before priorities are finalized.

Following engagement and discussion, the Community Priorities Plan is finalized. The goal of this stage is to confirm a consolidated list of up to three community policing priorities that accurately reflects and encompasses the concerns and objectives raised through earlier engagement.

Once confirmed, the plan is endorsed by the Detachment Commander and community leadership. Progress will be monitored through regular reporting, with adjustments made as required to ensure priorities remain responsive and aligned over time.

Detachments Serving Multiple Communities

For detachments that serve multiple municipalities, this CPP process will be conducted with each community group. Engagement, consultation, and feedback will be gathered independently to ensure each community's unique needs and perspectives are understood. Overall, detachment priorities will then be developed based on the totality of feedback received across all participating communities.

Next Steps - Community Consultation and Engagement

As part of the CPP process, community leaders are encouraged to begin consulting with their constituents to gather input on local safety concerns, emerging issues, and opportunities for collaboration. Community leaders may choose the consultation methods that best suit their communities, such as surveys, town halls, meetings, or other engagement activities. Detachment Commanders may be invited to attend these conversations where appropriate, or consultations may be conducted independently, with feedback shared at a later stage.

This early engagement will help inform discussions with your Detachment Commander as CPP development progresses. Your partnership is essential to ensuring policing priorities reflect the unique needs of your community. Further information and guidance will be provided by your local detachment as the CPP process moves forward.

Thank you for your continued partnership and leadership in supporting community safety.

Sincerely,

CPL K. NICHOLLS

Two Hills RCMP Detachment



2025/02/07

Leonard Ewanishan
Mayor
Two Hills, AB

Dear Mayor Ewanishan,

Please find attached the quarterly Community Policing Report covering the period from October 1st to December 31st, 2024. This report serves to provide a quarterly snapshot of human resources, financial data, and crime statistics for the Two Hills Detachment.

In the coming weeks and months, we will be engaging with the community and holding town hall meetings as we have done in the past. This will provide us with an opportunity to interact with the community we serve and hear from them directly about what policing issues or priorities they would like our detachment to focus on. I look forward to attending these meetings to connect with our community and will be providing more details as we organize the town hall meetings.

I also want to inform you of the Real Times Operations Centre (RTOC) that is supporting RCMP detachments across Alberta. In October 2022, RTOC was established to optimize our response to incidents around the province. RTOC involves senior police officers monitoring policing operations in real-time, assessing incident risk, coordinating specialized and expert resources, and managing the response. They provide members on the ground with guidance, direction, and support. It is also used to coordinate the deployment of all RCMP resources – federal, provincial, and municipal, both within Alberta and, if required, nationally. The RTOC facility uses cutting-edge technology to provide real time support during emergency situations to RCMP officers across Alberta and is another measure used to enhance public and police officer safety.

I always remain available to discuss your community-identified priorities and any other ideas you may have that will enhance our service delivery to address the priorities that are important to you. As the Chief of Police for your community, I invite you to contact me should you have any questions or concerns.

Best regards,

Sgt David Henry
Detachment Commander
Two Hills Detachment





Alberta RCMP - Provincial Policing Report

Detachment Information

Detachment Name

Two Hills

Detachment Commander

Sgt David Henry

Report Date

October 4, 2024

Fiscal Year

2024-25

Quarter

Q3 (October - December)

Community Priorities

Priority #1: Property Crime Reduction - Theft**Updates and Comments:**

We have had a rash and break and enters this quarter. We have solved a few and many are still waiting further follow up for DNA, fingerprinting etc. Members are working hard at proactive patrols.

Priority #2: Police / Community Relations - Police Visibility**Updates and Comments:**

Presentations at Two Hills School, Mennonite School, Hairy Hill School and Myrnam School. Events include Garlic Fest, Remembrance Day (4 members), Minor Hockey games, Myrnam School Christmas Concert and Christmas event at Two Hills Public School.

Priority #3: Traffic - Impaired driving**Updates and Comments:**

Both already met expectations for the year but are continuing to make efforts to get impaired drivers off the roads.





Community Consultations

Consultation #1

Date	Meeting Type
Click or tap to enter a date.	Choose an item.
Topics Discussed	
Click or tap here to enter text.	
Notes/Comments:	
Click or tap here to enter text.	





Provincial Service Composition

Staffing Category	Established Positions	Working	Soft Vacancies	Hard Vacancies
Regular Members	6	4	1	1
Detachment Support	2	1	1	0

Notes:

1. Data extracted on December 31, 2024 and is subject to change.
2. Soft Vacancies are positions that are filled but vacant due to maternity/paternity leave, medical leave, etc. and are still included in the overall FTE count.
3. Hard Vacancies reflect positions that do not have an employee attached and need to be filled.

Comments:

Police Officers: Of the six established positions, four officers are currently working. There is one officer on special leave (Medical). There is one hard vacancy at this time.

Detachment Support: Of the two established positions, one is currently working with one on special leave. The detachment will be in the process of hiring another support staff in February.





Two Hills Provincial Detachment Crime Statistics (Actual) January to December: 2020 - 2024

All categories contain "Attempted" and/or "Completed"

January 6, 2025

CATEGORY	Trend	2020	2021	2022	2023	2024	% Change 2020 - 2024	% Change 2023 - 2024	Avg File +/- per Year
Offences Related to Death		0	1	0	2	0	N/A	-100%	0.1
Robbery		2	6	2	4	1	-50%	-75%	-0.4
Sexual Assaults		3	7	5	3	6	100%	100%	0.2
Other Sexual Offences		0	5	2	1	3	N/A	200%	0.2
Assault		32	33	44	48	59	84%	23%	6.9
Kidnapping/Hostage/Abduction		2	3	3	0	1	-50%	N/A	-0.5
Extortion		2	1	2	2	1	-50%	-50%	-0.1
Criminal Harassment		7	7	22	13	10	43%	-23%	1.2
Uttering Threats		11	10	24	25	31	182%	24%	5.5
TOTAL PERSONS		59	73	104	98	112	90%	14%	13.1
Break & Enter		79	68	82	105	96	22%	-9%	7.1
Theft of Motor Vehicle		56	39	82	59	40	-29%	-32%	-1.2
Theft Over \$5,000		10	17	17	23	20	100%	-13%	2.6
Theft Under \$5,000		92	64	91	86	77	-16%	-10%	-0.8
Possn Stn Goods		30	20	24	36	25	-17%	-31%	0.6
Fraud		23	39	35	32	55	139%	72%	5.7
Arson		10	0	5	2	2	-80%	0%	-1.4
Mischief - Damage To Property		56	52	58	65	72	29%	11%	4.5
Mischief - Other		23	9	4	11	20	-13%	82%	-0.4
TOTAL PROPERTY		379	308	398	419	407	7%	-3%	16.7
Offensive Weapons		13	11	12	21	13	0%	-38%	1.0
Disturbing the peace		9	13	8	9	4	-56%	-56%	-1.4
Fail to Comply & Breaches		38	46	35	28	17	-55%	-39%	-6.0
OTHER CRIMINAL CODE		23	12	24	20	30	30%	50%	2.2
TOTAL OTHER CRIMINAL CODE		83	82	79	78	64	-23%	-18%	-4.2
TOTAL CRIMINAL CODE		521	463	581	595	583	12%	-2%	25.6



Two Hills Provincial Detachment Crime Statistics (Actual) January to December: 2020 - 2024

All categories contain "Attempted" and/or "Completed"

January 6, 2025

CATEGORY	Trend	2020	2021	2022	2023	2024	% Change 2020 - 2024	% Change 2023 - 2024	Avg File +/- per Year
Drug Enforcement - Production		0	0	0	0	0	N/A	N/A	0.0
Drug Enforcement - Possession		7	9	4	4	9	29%	125%	-0.1
Drug Enforcement - Trafficking		10	2	1	1	1	-90%	0%	-1.9
Drug Enforcement - Other		0	0	0	0	0	N/A	N/A	0.0
Total Drugs		17	11	5	5	10	-41%	100%	-2.0
Cannabis Enforcement		0	1	0	0	0	N/A	N/A	-0.1
Federal - General		3	8	1	5	4	33%	-20%	-0.1
TOTAL FEDERAL		20	20	6	10	14	-30%	40%	-2.2
Liquor Act		20	15	10	4	1	-95%	-75%	-4.9
Cannabis Act		2	1	0	0	0	-100%	N/A	-0.5
Mental Health Act		37	39	70	130	132	257%	2%	28.1
Other Provincial Stats		105	125	92	91	96	-9%	5%	-5.2
Total Provincial Stats		164	180	172	225	229	40%	2%	17.5
Municipal By-laws Traffic		0	1	0	1	0	N/A	-100%	0.0
Municipal By-laws		19	19	6	6	2	-89%	-67%	-4.7
Total Municipal		19	20	6	7	2	-89%	-71%	-4.7
Fatals		1	1	2	2	0	-100%	-100%	-0.1
Injury MVC		10	19	18	17	13	30%	-24%	0.4
Property Damage MVC (Reportable)		128	161	174	154	137	7%	-11%	1.1
Property Damage MVC (Non Reportable)		25	14	21	20	13	-48%	-35%	-1.8
TOTAL MVC		164	195	215	193	163	-1%	-16%	-0.4
Roadside Suspension - Alcohol (Prov)		0	22	15	6	11	N/A	83%	0.6
Roadside Suspension - Drugs (Prov)		0	0	0	1	0	N/A	-100%	0.1
Total Provincial Traffic		1,409	1,369	988	707	544	-61%	-23%	-239.2
Other Traffic		9	8	4	2	2	-78%	0%	-2.0
Criminal Code Traffic		66	43	50	30	36	-45%	20%	-7.3
Common Police Activities									
False Alarms		33	17	16	25	28	-15%	12%	-0.2
False/Abandoned 911 Call and 911 Act		3	11	19	15	50	1567%	233%	9.8
Suspicious Person/Vehicle/Property		229	159	127	146	163	-29%	12%	-14.5
Persons Reported Missing		15	6	7	9	6	-60%	-33%	-1.5
Search Warrants		8	2	2	4	0	-100%	-100%	-1.4
Spousal Abuse - Survey Code (Reported)		21	27	26	42	89	324%	112%	15.1
Form 10 (MHA) (Reported)		17	9	16	18	18	6%	0%	1.1



Two Hills Provincial Detachment Crime Statistics (Actual) October - December: 2020 - 2024

All categories contain "Attempted" and/or "Completed"

January 6, 2025

CATEGORY	Trend	2020	2021	2022	2023	2024	% Change 2020 - 2024	% Change 2023 - 2024	Avg File +/- per Year
Offences Related to Death		0	1	0	0	0	N/A	N/A	-0.1
Robbery		0	2	2	1	0	N/A	-100%	-0.1
Sexual Assaults		2	3	0	2	0	-100%	-100%	-0.5
Other Sexual Offences		0	4	1	0	1	N/A	N/A	-0.2
Assault		8	10	14	12	4	-50%	-67%	-0.6
Kidnapping/Hostage/Abduction		0	1	1	0	0	N/A	N/A	-0.1
Extortion		0	0	0	0	0	N/A	N/A	0.0
Criminal Harassment		0	1	8	5	2	N/A	-60%	0.8
Uttering Threats		3	2	6	7	4	33%	-43%	0.7
TOTAL PERSONS		13	24	32	27	11	-15%	-59%	-0.1
Break & Enter		16	22	23	26	28	75%	8%	2.8
Theft of Motor Vehicle		16	20	17	16	8	-50%	-50%	-2.0
Theft Over \$5,000		4	5	3	9	5	25%	-44%	0.6
Theft Under \$5,000		21	16	17	31	19	-10%	-39%	1.1
Possn Stn Goods		5	5	8	14	5	0%	-64%	0.9
Fraud		8	4	11	10	10	25%	0%	1.0
Arson		1	0	1	1	0	-100%	-100%	-0.1
Mischief - Damage To Property		13	18	14	16	11	-15%	-31%	-0.6
Mischief - Other		5	4	1	6	2	-60%	-67%	-0.4
TOTAL PROPERTY		89	94	95	129	88	-1%	-32%	3.3
Offensive Weapons		3	5	3	11	4	33%	-64%	0.8
Disturbing the peace		0	3	2	1	0	N/A	-100%	-0.2
Fail to Comply & Breaches		17	10	12	12	3	-82%	-75%	-2.6
OTHER CRIMINAL CODE		7	4	1	10	6	-14%	-40%	0.4
TOTAL OTHER CRIMINAL CODE		27	22	18	34	13	-52%	-62%	-1.6
TOTAL CRIMINAL CODE		129	140	145	190	112	-13%	-41%	1.6



Two Hills Provincial Detachment


Crime Statistics (Actual)

October - December: 2020 - 2024

All categories contain "Attempted" and/or "Completed"

January 6, 2025

CATEGORY	Trend	2020	2021	2022	2023	2024	% Change 2020 - 2024	% Change 2023 - 2024	Avg File +/- per Year
Drug Enforcement - Production		0	0	0	0	0	N/A	N/A	0.0
Drug Enforcement - Possession		2	1	2	1	2	0%	100%	0.0
Drug Enforcement - Trafficking		3	0	1	0	0	-100%	N/A	-0.6
Drug Enforcement - Other		0	0	0	0	0	N/A	N/A	0.0
Total Drugs		5	1	3	1	2	-60%	100%	-0.6
Cannabis Enforcement		0	0	0	0	0	N/A	N/A	0.0
Federal - General		2	3	0	1	2	0%	100%	-0.2
TOTAL FEDERAL		7	4	3	2	4	-43%	100%	-0.8
Liquor Act		2	5	3	0	0	-100%	N/A	-0.9
Cannabis Act		1	1	0	0	0	-100%	N/A	-0.3
Mental Health Act		14	16	19	39	34	143%	-13%	6.3
Other Provincial Stats		25	29	25	24	20	-20%	-17%	-1.5
Total Provincial Stats		42	51	47	63	54	29%	-14%	3.6
Municipal By-laws Traffic		0	0	0	1	0	N/A	-100%	0.1
Municipal By-laws		3	1	1	2	2	-33%	0%	-0.1
Total Municipal		3	1	1	3	2	-33%	-33%	0.0
Fatals		0	0	1	1	0	N/A	-100%	0.1
Injury MVC		2	5	4	1	4	100%	300%	0.0
Property Damage MVC (Reportable)		38	58	65	63	42	11%	-33%	1.3
Property Damage MVC (Non Reportable)		4	2	6	7	2	-50%	-71%	0.1
TOTAL MVC		44	65	76	72	48	9%	-33%	1.5
Roadside Suspension - Alcohol (Prov)		0	1	2	0	2	N/A	N/A	0.3
Roadside Suspension - Drugs (Prov)		0	0	0	0	0	N/A	N/A	0.0
Total Provincial Traffic		294	237	186	127	88	-70%	-31%	-52.2
Other Traffic		1	2	1	0	0	-100%	N/A	-0.4
Criminal Code Traffic		12	12	12	6	5	-58%	-17%	-2.0
Common Police Activities									
False Alarms		8	3	1	8	3	-63%	-63%	-0.5
False/Abandoned 911 Call and 911 Act		0	2	4	5	7	N/A	40%	1.7
Suspicious Person/Vehicle/Property		43	35	39	43	47	9%	9%	1.6
Persons Reported Missing		4	2	2	2	1	-75%	-50%	-0.6
Search Warrants		3	1	0	2	0	-100%	-100%	-0.5
Spousal Abuse - Survey Code (Reported)		4	5	6	15	22	450%	47%	4.6
Form 10 (MHA) (Reported)		6	6	4	5	1	-83%	-80%	-1.1

<p style="text-align: center;">TOWN OF TWO HILLS COUNCIL MEETING AGENDA ITEM</p> 					
Meeting Date: February 10 th , 2026	Confidential:	Yes		No	x
Topic: Economic Development - Terms of Reference					
Originated By: Two Hills Economic Development Committee - Bob Ross		Title:	Economic Development Officer		
BACKGROUND:	Terms of Reference adopted as the framework for the Committee				
DOCUMENTATION ATTACHED:					
Submitting Terms of Reference for the Two Hills Economic Development Committee provides details of how they focus their efforts and operates their committee. Submitted for review and Council Approval.					
DISCUSSION:					
Review Terms of Reference to confirm.					
COMMUNICATION PLAN/COMMUNITY INVOLVEMENT:					
RECOMMENDED ACTION(S):					
_____ MOVED to approve and accept the Economic Development Terms of Reference as provided.					
DISTRIBUTION: Council: X					

TWO HILLS ECONOMIC DEVELOPMENT COMMITTEE TERMS OF REFERENCE

Adopted: [Insert Date]



The Two Hills EDC is an experienced and interested group of volunteers passionate about the future of Two Hills and surrounding area.

Mission Statement

Our mission focus is on attracting, retaining and expanding businesses in the Two Hills region. Developing strategic partnerships that attract investment in our businesses and industries by leveraging, supporting and promoting our rural advantages and lifestyle.

Attract, Develop, Promote, Retain and Support

Attract – new business, investments, workers and volunteers

Develop – Relationships between government. Businesses, investors, educators and community groups as well as facilitate new opportunities for existing businesses.

Promote – Two Hills and region and all of its communities

Retain – local businesses, workers and volunteers

Support – Volunteers, community groups, family and rural lifestyle.

1. Purpose

The **Two Hills Economic Development Committee** (THEDC) is established to support and advise the Town of Two Hills in promoting sustainable economic growth, business attraction and retention, tourism development, and regional collaboration. The Committee will work collaboratively with stakeholders to foster sustainable economic growth, business attraction, development and retention, tourism and community prosperity.

2. Mandate and Objectives – Advisory Only

The THEDC shall:

- Identify and recommend initiatives that foster local and regional economic development.
- Promote entrepreneurship and innovation
- Support business retention, expansion, and attraction strategies.
- Promote tourism, investment opportunities, and community branding.

- Support initiatives that promote tourism, including regional events and cultural attractions
 - Advise on the development of economic policies, land use planning, and marketing strategies.
 - Foster collaboration with local businesses, Indigenous communities, surrounding municipalities, and relevant economic development organizations.
 - Act as a liaison between the public, private sector, and municipal governments.
 - Assist where ever possible to enhance the Town and region’s economic profile
-

3. Membership

3.1 Composition:

The Committee shall consist of up to **7 voting members**, appointed by Town Council:

- **1 representative** from the Town of Two Hills Council
- **1 representative** from the County of Two Hills at large
- **1 representative** from the Chamber of Commerce, local business association or community organization (if available)
- **4 members-at-large** representing local business owners, industry, agri and tourism sectors and/or community non- profit organization

3.2 Non-Voting Members:

- **Administrative Support Staff** from the Town (ex-officio)
- **Subject Matter Experts or Consultants**, as required (ad hoc basis)

3.3 Term:

Members shall serve a **1 year term**, renewable upon reappointment by Council. Jan – Jan 1st annually

4. Roles and Responsibilities

Committee members shall:

- Attend and actively participate in scheduled meetings
 - Contribute ideas, feedback, and expertise to support economic development goals
 - Promote and advocate for initiatives endorsed by the committee
 - Review relevant materials and come prepared to make informed decisions while respecting confidentiality
-

5. Governance and Operations

5.1 Chair and Vice-Chair:

- The Committee shall elect a **Chair** and **Vice-Chair** from among its voting members annually.
- The Chair shall preside over meetings, prepare agendas with administrative staff, and report to Council as needed.

5.2 Meetings:

- The Committee shall meet **bi-monthly** or more frequently as determined by the Chair.
- A quorum shall consist of a **simple majority (50% +1)** of voting members.
- Minutes shall be recorded and circulated to all members.

5.3 Decision-Making: The EDC operates in an Advisory only capacity, with final decisions made by Council

- Decisions shall be made by **majority vote** of those present.
 - Recommendations will be forwarded to the Town of Two Hills Council for final approval.
 - Minority positions may be noted and forwarded to council upon request
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6. Resources

- Staff support shall be provided by municipal administration to assist with meeting logistics, record-keeping, and communications.
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7. Reporting

- The Chair shall submit **an annual report** to the Town Council summarizing its activities, achievements, and recommendations.
 - Periodic updates may be presented at the request of either council or the committee.
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8. Review and Amendments

- These Terms of Reference shall be reviewed **every year** or as deemed necessary.
 - Amendments require approval by the Town Council.
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9. Code of Conduct & Confidentiality

- All members shall adhere to municipal Codes of Conduct and relevant policies.

- Members must declare conflicts of interest and refrain from discussions or decisions where a conflict exists.
 - Confidential information discussed in meetings shall not be disclosed without authorization.
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Approved By Town of Two Hills Council:

Date: _____